IBM Systems - iSeries

Systems Management
System values

Version 5 Release 4

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Note

Before using this information and the product it supports, read the information in "Notices," on page 201.

Sixth edition (February 2006)

This edition applies to version 5, release 4, modification 0 of IBM Operating System/400 (product number 5722-SS1) and to all subsequent releases and modifications until otherwise indicated in new editions. This version does not run on all reduced instruction set computer (RISC) models nor does it run on CISC models.

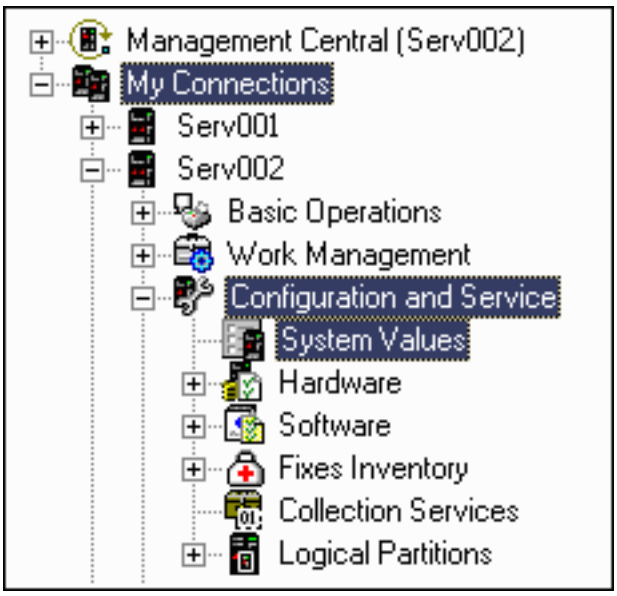
Contents

System values

System values are pieces of information that affect the system operating environment. System values are not objects on the system. Rather, system values contain control information for the operation of certain parts of the system.

You can use system values to change the system in order to define the working environment. For example, system date, library list, international characteristics, and certain security features are all set by system values.

You can manage system values using iSeries™ Navigator or the character-based interface. The image you see shows the location of the system values function in iSeries Navigator. Follow the highlighted path to access system values. After you select **System Values**, you may select one of the categories of system values.



To change system values, you need to have use (*USE) authority to the Change System Values (CHGSYSVAL) command. In addition, some system values require a special authority. If special authorities are needed, they are noted in the system value topics that follow. To learn more about system values, refer to any of the following topics:

- **What's new for V5R4**

  This is the place to go for the latest information regarding system values.
- **Printable PDF**

  Select this option for a printable PDF of the system values information.
- **System value finder**

  Use the system value finder to locate information about a specific system value or category of system values. Use this tool to see where to find particular system values within iSeries Navigator and how to effectively use them. This tool is very useful for system administrators who are familiar with the character-based interface terms (such as QAUDCTL or QPWDLVL). The finder identifies the character-based interface term and the associated terminology used in the iSeries Navigator graphical interface. In addition, specific details about each system value are provided.
- **System value categories**

  iSeries Navigator groups system values into categories, beginning with auditing and ending with system control. Select this topic to find overviews of the system values contained within each category, including links to information about individual system values. You may also print the entire system values topic.
- **System value parameters**

  View a complete list of all of the system values. In addition, you can find each system value's character-based parameter values, type, and length. Use the character-based values when writing a program that sets or retrieves a system value or if you are working with the character-based interface.

In addition, you can manage system values using iSeries Navigator tasks on the Web. This allows you to work with system values using a Web browser. Not only can you work with the system values function of iSeries Navigator, but also the time management function that allows you to work with the time zone (QTIMZON) and time adjustment (QTIMADJ) system values.

Related concepts

Time management

"Date and time system values: Time zone" on page 22
Specifies the time zone for the system. (QTIMZON)

"Date and time system values: Time adjustment" on page 23
Identifies the application to use for time maintenance. (QTIMADJ)

"Obsolete system values" on page 163
These system values are no longer used by the operating system.

Related tasks

iSeries Navigator tasks on the Web

"Compare and update system values" on page 191
Use iSeries Navigator to compare and update your system values across multiple systems in your network.

What's new for V5R4

With each release, you are able to increase the functionality of your system values by using the enhancements to the existing system values and the new system values.

New commands for Save System Information (SAVSYSINF) and Restore System Information (RSTSYSINF)

You can use the SAVSYSINF command to save system values and network attributes rather than having to save the entire system (SAVSYS) each time. You can use the RSTSYSINF command to restore system values and network attributes. You cannot use the RSTSYSINF command while the SAVSYSINF command is running, and it can only be performed within the same operating system release or when restoring a later release. There are special considerations to take into account, regarding system values and the usage of the new save and restore commands, SAVSYSINF and RSTSYSINF. See Save system information for more information about these considerations.

New and changed system values

Several system values are either new or changed for V5R4. To identify the system value changes for V5R4, see the following table:

New system values		
Allow jobs to be interrupted to run user-defined exit programs	QALWJOBITP	This system value specifies how the system responds to user initiated requests to interrupt a job to run a user-defined exit program in that job.
Produce printer output for job log	QLOGOUTPUT	This system value specifies how the job log will be produced when a job completes.
Changed system values		

New system values		
Activate action auditing	QAUDLVL and QAUDLVL2	A new special value has been added for Attention events (*ATNEVT). Attention events are conditions that require further evaluation to determine the conditions security significance.
Maximum job log size	QJOBMSGQMX	The lower limit on this system value has changed from 8MB to 2MB. The new range is now 2 to 64 MB.
History log file size	QHSTLOGSIZ	The valid range of records has changed from 1 to 65535 to 1 to 10,000,000. There is now also a new value, Daily (*DAILY), which enables you to create a new version of the history log each day.
Locale	QLOCALE	For new systems, or systems that have been completely reinstalled, the initial setting for this value will be a default locale based on the primary NLV installed. For NLV's that do not have a matching locale, the default setting in iSeries Navigator is now EN_US while the default value on the character-based interface is /QSYS.LIB/EN_US.LOCALE.
Log software problems detected by the system	QSFWERRLOG	When a software error is detected by the system, the error is evaluated to determine if it should be logged unconditionally, or if the decision to log the error should be deferred to the policy-based Service Monitor.

How to see what's new or changed

To help you see where technical changes have been made, this information uses:

- The » image to mark where new or changed information begins.
- The « image to mark where new or changed information ends.

To find other information about what's new or changed this release, see the Memo to Users.

Printable PDF

Use this to view and print a PDF of this information.

To view or download the PDF version of the system values topic, select System Values (about 2500 KB).

For optimal printing of the list of system values in the System value parameters topic, print it from a Web browser rather than the System Values PDF. To print the list of system values in the System value parameters topic, go to System value parameters and select **File** → **Print**. Ensure that the paper orientation is landscape.

You can view or download these related topics:

- Time Management

- iSeries Security Reference 

Saving PDF files

To save a PDF on your workstation for viewing or printing:

1. Right-click the PDF in your browser (right-click the link above).
2. Click **Save Target As** if you are using Internet Explorer. Click **Save Link As** if you are using Netscape Communicator.
3. Navigate to the directory in which you would like to save the PDF.
4. Click **Save**.

Downloading Adobe Acrobat Reader

You need Adobe Acrobat Reader to view or print these PDFs. You can download a copy from the Adobe Web site (www.adobe.com/products/acrobat/readstep.html)  .

System value categories

iSeries Navigator groups system values into categories to streamline system value management.

You can use iSeries Navigator to work with the following categories of system values:

"System values: Auditing overview" on page 5	Changes the auditing values.
"System values: Date and time overview" on page 18	Changes the date, time, and time zone information.
"System values: Devices overview" on page 24	Changes device auto-configuration and recovery values.
"System values: International overview" on page 30	Changes locale settings and format of numbers, currency, dates, and time.
"System values: Jobs overview" on page 49	Changes system level job limits and default job priorities.
"System values: Library lists overview" on page 65	Changes the default system and user library lists.
"System values: Messages and service overview" on page 67	Changes messages, logging, and service information.
"System values: Password overview" on page 76	Changes password expiration and composition rules.
"System values: Performance overview" on page 90	Changes priority, performance adjustments, and processing values for the system.
"System values: Power control overview" on page 108	Changes power supply values.
"System values: Printing overview" on page 110	Changes basic printing values and format of printer output.
"System values: Restart overview" on page 113	Changes initial setup values and settings that affect restart.
"System values: Save and restore overview" on page 125	Changes restore and save values.
"System values: Security overview" on page 132	Changes object, user, and system security values.
"System values: Signon overview" on page 143	Changes signon values.
"System values: Storage overview" on page 150	Changes values for system storage.
"System values: System and user defaults overview" on page 154	Displays system identification information and changes system level values.

These system value categories are different from the categories used in the character-based interface. To compare the iSeries Navigator categories with the character-based categories (grouped by the type (*TYPE) parameter), see “Character-based types versus iSeries Navigator categories” on page 165.

Related concepts

“Character-based types versus iSeries Navigator categories” on page 165
The system values are divided into categories in iSeries Navigator. These categories are different from the categories in the character-based interface.

“Obsolete system values” on page 163
These system values are no longer used by the operating system.

“Lock function of security-related system values” on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

“Effects of system value settings on restore operations” on page 169
Describes how to requiredly set the restore system values so they are compatible during a restore operation. This topic also describes how the three restore system values work together when a restore is performed.

“Secure system access levels” on page 196
To help you implement the required level of security for your company, you may wish to restrict system access by using the password system values. A company can control the level of security by setting the password system values requiredly.

“System values: Printing overview” on page 110
Use printing system values to control how the system’s printer output is formatted and the default device description.

Related information

System value finder

System values: Auditing overview

Use i5/OS™ auditing system values to control a variety of auditing and other record-keeping events.

To access the auditing category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive words to describe the system values. For a quick overview of the auditing system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

To view the auditing system values, you must have All object (*ALLOBJ) or Audit (*AUDIT) special authority. If you do not have the required authority, the Auditing category of system values is not available. In iSeries Navigator, the Auditing category is not displayed. In the character-based interface, the auditing system values display a not available (*NOTAVL) value with the exception that QAUDFRCLVL displays -1. Therefore, you need All object (*ALLOBJ) or Audit (*AUDIT) special authority to view the auditing system values and Audit (*AUDIT) authority to change the auditing system values.

Auditing system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
Activate action auditing	Sets action auditing and specifies the auditing level for specific functions.	QAUDCTL QAUDLVL QAUDLVL2

Name in iSeries Navigator	Description of system value	Name in character-based interface
Audit journal error action	Specifies the action for the system to take when audit records cannot be sent to the auditing journal because of errors that occur when the journal entry is sent.	QAUDENDACN
Maximum journal entries before writing to auxiliary storage	Sets the number of journal entries written to the auditing journal before the journal entry data moves to auxiliary storage.	QAUDFRCLVL
Default auditing for newly created objects	Sets the default object auditing value used when new objects are created into a library.	QCRTOBJAUD

Related concepts

"Auditing system values: Do not audit objects in QTEMP" on page 12
(QAUDCTL *NOQTEMP)

"Auditing system values: Activate object auditing" on page 13
(QAUDCTL *OBJAUD)

"Auditing system values: Audit journal error action" on page 14
Specifies the action for the system to take when audit records cannot be sent to the auditing journal because of errors that occur when the journal entry is sent. (QAUDENDACN)

"Auditing system values: Maximum journal entries before writing to auxiliary storage" on page 15
Sets the number of journal entries written to the auditing journal before the journal entry data moves to auxiliary storage. (QAUDFRCLVL)

"Auditing system values: Default auditing for newly created objects" on page 16
Sets the default object auditing value used when new objects are created into a library. (QCRTOBJAUD)

Related tasks

System value finder

Auditing system values: Activate action auditing

Sets action auditing and specifies the auditing level for specific functions. (QAUDCTL, QAUDLVL, QAUDLVL2)

Activate action auditing, also known as **QAUDCTL (*AUDLVL) and QAUDLVL (*AUDLVL2)**, is a member of the auditing of i5/OS system values. You can use a combination of these system values to activate object- or user-level auditing. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Auditing System Values** → **System**
Special authority	Audit (*AUDIT) [1]
Default value	Deselected - action auditing is not activated
Changes take effect	Immediately

Quick reference	
Lockable	Yes  (Click for details)
Note 1: To view this system value, you must have Audit (*AUDIT) or All object (*ALLOBJ) special authority. To change this system value, you must have Audit (*AUDIT) special authority.	

What can I do with this system value?

In the character-based interface, you can specify *AUDLVL for the QAUDCTL system value. By specifying *AUDLVL, you can use any of auditing actions in the QAUDLVL system value. In addition, you can specify *AUDLVL2 for the QAUDLVL system value. This special parameter (*AUDLVL2) allows you to specify more auditing actions. If the QAUDLVL system value does not contain the value *AUDLVL2, then the system ignores the values in the QAUDLVL2 system value.

In iSeries Navigator, you can select what actions to audit without differentiating between QAUDLVL2 and QAUDLVL. There is not a limit on how many actions you can audit.

You can specify several values for **Activate action auditing** (QAUDLVL and QAUDLVL2) or none (*NONE). Your options include:

- **Attention events (*ATNEVT)**

  Use this option to audit attention events. Attention events are conditions that require further evaluation to determine the condition's security significance. Use this option to audit attention events that occur on the system. This option is available only on systems running i5/OS V5R4 or later.
- **Authorization failure (*AUTFAIL)**

  Use this option to audit unsuccessful attempts to sign on the system and to access objects. Use authorization failures to regularly monitor users trying to perform unauthorized functions on the system. You can also use authorization failures to assist with migration to a higher security level and to test resource security for a new application.
- **Communication and networking tasks (*NETCMN)**

  Use this option to audit violations detected by the APPN firewall. This value also audits socket connections, directory search filter and endpoint filter violations.
- **Job tasks (*JOBDTA)**

  Use this option to audit actions that affect a job, such as starting, stopping, holding, releasing, canceling, or changing the job. Use job tasks to monitor who is running batch jobs.
- **Object creation (*CREATE)**

  Use this option to audit the creation or replacement of an object. Use object creation to monitor when programs are created or recompiled. Objects created into the QTEMP library are not audited.
- **Object deletion (*DELETE)**

  Use this option to audit the deletion of all external objects on the system. Objects deleted from the QTEMP library are not audited.
- **Object management (*OBJMGT)**

  Use this option to audit an object rename or move operation. Use object management to detect copying confidential information by moving the object to a different library.
- **Object restore (*SAVRST)**

  Use this option to audit the save and restore information of an object. Use object restore to detect attempts to restore unauthorized objects.
- **Office tasks (*OFCSRV)**

Use this option audits the Office Vision (R) licensed program. This option audits changes to the system distribution directory and opening of a mail log. Actions performed on specific items in the mail log are not recorded. Use office tasks to detect attempts to change how mail is routed or to monitor when another user's mail log is opened.

- **Optical tasks (*OPTICAL)**

  Use this option to audit optical functions, such as adding or removing an optical cartridge or changing the authorization list used to secure an optical volume. Other functions include copying, moving, or renaming an optical file, saving or releasing a held optical file, and so on.

- **Printing functions (*PRTDTA)**

  Use this option to audit the printing of a spooled file, printing directly from a program, or sending a spooled file to a remote printer. Use printing functions to detect printing confidential information.

- **Program adoption (*PGMADP)**

  Use this option to audit the use of adopted authority to gain access to an object. Use program adoption to test where and how a new application uses adopted authority.

- **Security tasks (*SECURITY)**

  Use this option to audit events related to security, such as changing a user profile or system value. Use security tasks to detect attempts to circumvent security by changing authority, auditing, or ownership of objects, by changing programs to adopt their owner's authority, or by resetting the security officer's password.

  By selecting this option, you are also selecting to audit the following:

  - Security configuration
  - Directory service functions
  - Security interprocess communications
  - Network authentication service actions
  - Security run time functions
  - Security socket descriptors
  - Verification functions
  - Validation list objects

- **Service tasks (*SERVICE)**

  Use this option to audit the use of system service tools, such as the Dump Object and Start Trace commands. Use service tasks to detect attempts to circumvent security by using service tools or collecting traces in which security sensitive data is retrieved.

- **Spool management (*SPLFDTA)**

  Use this option to audit actions performed on spooled files, including creating, copying, and sending. Use spool management to detect attempts to print or send confidential data.

- **System integrity violations (*PGMFAIL)**

  Use this option to audit object domain integrity violations such as blocked instruction, validation value failure, or domain violations. Use system integrity violation to assist with migration to a higher security level or to test a new application.

- **System management (*SYSMGT)**

  Use this option to audit system management activities, such as changing a reply list or the power-on and -off schedule. Use system management to detect attempts to use system management functions to circumvent security controls.

- **Network base tasks (*NETBAS)**

  Use this option to audit network base tasks. This option audits transactions on your network of systems. The following are some example network base tasks that are audited:

  - Changes to IP rules. For example, if someone creates an IP rule that blocks traffic into or out of an IP interface, that action is audited.

- Audit state changes of a VPN (Virtual Private Network) connection going up or down. If the connection is up, the VPN connection is usable and communication between the two systems is protected. If the connection is down, either the communication is not protected or no communication is allowed at all.
- Communication between sockets from one system to another
- APPN directory search filter
- APPN end point filter

This option is available only on systems running i5/OS V5R3 or later.

- **Network cluster tasks (*NETCLU)**

  Use this option to audit cluster or cluster resource group operations. An iSeries cluster is a collection or group of one or more servers or logical partitions that work together as a single server. Servers in a cluster are nodes. A cluster resource group defines actions to take during a switch over or fail over. The following are some example network cluster tasks that are audited when you select this option:
  - Adding, creating, or deleting a cluster node or cluster resource group operation
  - Ending a cluster node or cluster resource group
  - Automatic failure of a system that switches access to another system
  - Removing a cluster node or cluster resource group
  - Starting a cluster node or resource group
  - Manually switching access from one system to another in a cluster
  - Updating a cluster node or cluster resource group

  This option is available only on systems running i5/OS V5R3 or later.
- **Network failure (*NETFAIL)**

  Use this option to audit network failures. The following are some examples of network failures that are audited when you select this option:
  - Trying to connect to a TCP/IP port that does not exist
  - Trying to send information to a TCP/IP port that is not open or unavailable

  This option is available only on systems running i5/OS V5R3 or later.
- **Network socket tasks (*NETSCK)**

  Use this option to audit socket tasks. A socket is an endpoint on a system that is used for communication. In order for two systems to communicate, they need to connect to each other's sockets. The following are examples of socket tasks that are audited when you select this option:
  - Accepting an inbound TCP/IP socket connection
  - Establishing an outbound TCP/IP socket connection
  - Assigning your system an IP address through DHCP (Dynamic Host Configuration Protocol)
  - Inability to assign your system an IP address through DHCP because all of the IP addresses are being used
  - Filtering mail. For example, when mail is set up to be filtered and a message meets the criteria to be filtered, that message is audited.
  - Rejecting mail. For example, when mail is set up to be rejected from a specific system, all mail attempts from that system are audited.

  This option is available only on systems running i5/OS V5R3 or later.
- **Security configuration (*SECCFG)**

  Use this option to audit security configuration. The following are some examples:
  - Create, change, delete, and restore operations of user profiles
  - Changing programs (CHGPGM) to adopt the owner's profile
  - Changing system values, environment variables, and network attributes
  - Changing subsystem routing

- Resetting the security officer (QSECOFR) password to the shipped value from Dedicated Service Tools (DST)
- Requesting the password for the service tools security officer user ID to be defaulted
- Changing the auditing attribute of an object

This option is available only on systems running i5/OS V5R3 or later.

- **Security directory services (*SECDIRSRV)**

  Use this option to audit changes or updates when doing directory service functions. The directory service function allows users to store files and objects. The following are some actions performed using the directory service function that are audited:
  - Changing audit levels
  - Changing authorities
  - Changing passwords
  - Changing ownerships
  - Binding and unbinding successfully

  This option is available only on systems running i5/OS V5R3 or later.
- **Security interprocess communications (*SECIPC)**

  Use this option to audit changes to interprocess communications. The following are some examples:
  - Changing ownership or authority of an IPC object
  - Creating, deleting, or retrieving an IPC object
  - Attaching shared memory

  This option is available only on systems running i5/OS V5R3 or later.
- **Security network authentication services (*SECNAS)**

  Use this option to audit network authentication service actions. The following are some examples:
  - Service ticket valid
  - Service principals do not match
  - Client principals do not match
  - Ticket IP address mismatch
  - Decryption of the ticket failed
  - Decryption of the authenticator failed
  - Realm is not within client and local realms
  - Ticket is a replay attempt
  - Ticket not yet valid
  - Remote or local IP address mismatch
  - Decrypt of KRB_AP_PRIV or KRB_AP_SAFE checksum error
  - KRB_AP_PRIV or KRB_AP_SAFE - time stamp error, replay error, or sequence order error
  - GSS accept - expired credentials, checksum error, or channel bindings
  - GSS unwrap or GSS verify - expired context, decrypt/decode, checksum error, or sequence error

  This option is available only on systems running i5/OS V5R3 or later.
- **Security run time tasks (*SECRUN)**

  Use this option to audit security run time functions. This option audits any actions that are performed while a program is running. Run time changes occur more frequently than changes not during run time. The following are some examples:
  - Changing object ownership
  - Changing authorization list or object authority
  - Changing the primary group of an object

  This option is available only on systems running i5/OS V5R3 or later.

- **Security socket descriptors (*SECSCKD)**

  Use this option to audit the passing of socket or file descriptors between i5/OS jobs. The descriptor is a 4-byte integer that points to an entry in a process descriptor table. This table is a list of all socket and file descriptors that have been opened by this process. Each entry in this table represents a single socket or file that this process has opened. The following are some examples:
  - Giving a socket or file descriptor to another job
  - Receiving a socket or file descriptor from another job
  - Inability to receive a socket or file descriptor that was passed to this job. For example, the job that called the receive message command (recvmsg()) did not have enough authority or was not running the same user profile as the job that had originally called the send message command (sendmsg()) when the descriptor was passed.

  This option is available only on systems running i5/OS V5R3 or later.
- **Security verification (*SECVFY)**

  Use this option to audit verification functions. The following are some examples:
  - Changing a target user profile during a pass-through session
  - Generating a profile handle
  - Invalidating a profile token
  - Generating the maximum number of profile tokens
  - Generating a profile token
  - Removing all profile tokens for a user
  - Removing user profile tokens for a user
  - Authenticating a user profile
  - Starting or ending work on behalf of another user

  This option is available only on systems running i5/OS V5R3 or later.
- **Security validation tasks (*SECVLDL)**

  Use this option to audit validation list objects. A validation list object is used to store data. The data is encrypted for security reasons. For example, you may have a validation list that stores user names and passwords that are used to control access to a Web page. A validation list is used rather than a database file because the validation list is more secure because it only contains user names and passwords rather than user profiles. The following are some example tasks that are audited when this option is selected:
  - Adding, changing, or removing a validation list entry
  - Accessing a validation list entry
  - Successful and unsuccessful verification of a validation list entry

  This option is available only on systems running i5/OS V5R3 or later.
- **Not available (*NOTAVL)**

  This value is displayed if the user does not have authority to view the auditing value. You cannot set the system value to not available (*NOTAVL). This value is only displayed when a user accessing the system value does not have either All object (*ALLOBJ) or Audit (*AUDIT) special authority.

Note: To view this auditing system value, you must have All object (*ALLOBJ) or Audit (*AUDIT) special authority. If you do not have the required authority, the Auditing category is not displayed in iSeries Navigator. In addition, if you access this system value in the character-based interface, a not available (*NOTAVL) value is displayed.

Where can I get more information about auditing system values?

You can also learn about these individual auditing system values that are associated with system level auditing (QAUDCTL):

- Activate object auditing (*OBJAUD)
- Do not audit objects in QTEMP (*NOQTEMP)

To learn more, go to the auditing system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"Auditing system values: Activate object auditing" on page 13
(QAUDCTL *OBJAUD)

"Auditing system values: Do not audit objects in QTEMP"
(QAUDCTL *NOQTEMP)

Related information

System value finder

Auditing system values: Do not audit objects in QTEMP

(QAUDCTL *NOQTEMP)

Do not audit objects in QTEMP, also known as **QAUDCTL (*NOQTEMP)**, is a member of the auditing category of i5/OS system values. You can use this system value to exclude objects in QTEMP when you activate object- or user-level auditing. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Auditing System Values** → **System**
Special authority	Audit (*AUDIT) [1]
Default value	Deselected - do not audit objects in the QTEMP library
Changes take effect	Immediately
Lockable	Yes  (Click for details)
Note 1: To view this system value, you must have Audit (*AUDIT) or All object (*ALLOBJ) special authority. To change this system value, you must have Audit (*AUDIT) special authority.	

What can I do with this system value?

Use the associated checkbox to specify whether you want to audit objects in QTEMP (*NOQTEMP) or not. The QTEMP library is a job's temporary library, which is cleared when a job ends.

Select this value to avoid clutter in the audit journal due to a large number of operations on objects in QTEMP. When auditing is active and this option is selected, the following actions on objects in the QTEMP library are not audited:

- Creating objects
- Deleting objects
- Changing or reading objects
- Changing the authority, owner, or primary group of objects

You must specify this option with either Activate action auditing (*AUDLVL) or Activate object auditing (*OBJAUD).

Note: To view this auditing system value, you must have All object (*ALLOBJ) or Audit (*AUDIT) special authority. If you do not have the required authority, the Auditing category is not displayed in iSeries Navigator. In addition, if you access this system value in the character-based interface, a not available (*NOTAVL) value is displayed.

Where can I get more information about auditing system values?

To learn more, go to the auditing system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"Auditing system values: Activate action auditing" on page 6
Sets action auditing and specifies the auditing level for specific functions. (QAUDCTL, QAUDLVL, QAUDLVL2)

"System values: Auditing overview" on page 5
Use i5/OS auditing system values to control a variety of auditing and other record-keeping events.

"Auditing system values: Activate object auditing"
(QAUDCTL *OBJAUD)

Related information

System value finder

Auditing system values: Activate object auditing
(QAUDCTL *OBJAUD)

Activate object auditing, also known as **QAUDCTL (*OBJAUD)**, is a member of the auditing category of i5/OS system values. You can use this system value to have the system write a record to the audit journal each time an object being audited is accessed by a user. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Auditing System Values** → **System**
Special authority	Audit (*AUDIT) [1]
Default value	Deselected - do not activate object auditing
Changes take effect	Immediately
Lockable	Yes  (Click for details)
Note 1: To view this system value, you must have Audit (*AUDIT) or All object (*ALLOBJ) special authority. To change this system value, you must have Audit (*AUDIT) special authority.	

What can I do with this system value?

Use the activate object auditing system value to specify whether the system writes a record to the audit journal each time an object being audited is accessed by a user (*OBJAUD) or not.

Actions against objects that have an object audit value other than none (*NONE) will be audited. An object's audit value is set by using the Change Audit (CHGAUD) command or the Change Object Audit (CHGOBJAUD) command in the character-based interface.

Note: To view this auditing system value, you must have All object (*ALLOBJ) or Audit (*AUDIT) special authority. If you do not have the required authority, the Auditing category is not displayed in iSeries Navigator. In addition, if you access this system value in the character-based interface, a not available (*NOTAVL) value is displayed.

Where can I get more information about auditing system values?

To learn more, go to the auditing system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"Auditing system values: Activate action auditing" on page 6
Sets action auditing and specifies the auditing level for specific functions. (QAUDCTL, QAUDLVL, QAUDLVL2)

"Auditing system values: Do not audit objects in QTEMP" on page 12
(QAUDCTL *NOQTEMP)

"System values: Auditing overview" on page 5
Use i5/OS auditing system values to control a variety of auditing and other record-keeping events.

Related information

System value finder

Auditing system values: Audit journal error action

Specifies the action for the system to take when audit records cannot be sent to the auditing journal because of errors that occur when the journal entry is sent. (QAUDENDACN)

Audit journal error action, also known as **QAUDENDACN**, is a member of the auditing category of i5/OS system values. You can use this system value to specify the action to take if the system is unable to write audit entries. The system takes the specified action when audit records are not sent to the auditing journal because errors occur when the journal entry is sent. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Auditing System Values** → **Journaling**
Special authority	Audit (*AUDIT) [1]
Default value	Notify, then continue
Changes take effect	Immediately
Lockable	Yes  (Click for details)
Note 1: To view this system value, you must have Audit (*AUDIT) or All object (*ALLOBJ) special authority. To change this system value, you must have Audit (*AUDIT) special authority.	

What can I do with this system value?

Use this system value to specify the action to take whenever auditing is active and the system is not able to write entries to the audit journal.

If the security policy for your system requires that no processing occur without auditing, then you must set this value to **Shut down the system** (*PWRDWNSYS). For most systems, **Notify, then continue** (*NOTIFY) is the recommended value. This system value applies only to auditing entries sent by the operating system to the security audit journal (QAUDJRN).

Possible values are:

- **Notify, then continue (*NOTIFY)**

  A message is sent to the system operator's message queue once per hour until auditing is successfully activated.

- **Shut down the system (*PWRDWNSYS)**

  The system ends if the attempt to send the audit data to the security audit journal fails. When the system is powered on again, the system is in the restricted state. The **Default auditing for newly created objects** (QCRTOBJAUD) system value is set to **None** to turn auditing off. On the next restart, the user who signs on the system must have at least Audit (*AUDIT) and All Object (*ALLOBJ) special authority.

- **Not available (*NOTAVL)**

  This value is displayed if the user does not have authority to view the auditing value. You cannot set the system value to not available (*NOTAVL). This value is only displayed when a user accessing the system value does not have either All object (*ALLOBJ) or Audit (*AUDIT) special authority.

Note: To view this auditing system value, you must have All object (*ALLOBJ) or Audit (*AUDIT) special authority. If you do not have the required authority, the Auditing category is not displayed in iSeries Navigator. In addition, if you access this system value in the character-based interface, the not available (*NOTAVL) value is displayed.

Where can I get more information about auditing system values?

To learn more, go to the auditing system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Auditing overview" on page 5
Use i5/OS auditing system values to control a variety of auditing and other record-keeping events.

Related information

System value finder

Auditing system values: Maximum journal entries before writing to auxiliary storage

Sets the number of journal entries written to the auditing journal before the journal entry data moves to auxiliary storage. (QAUDFRCLVL)

Maximum journal entries before writing to auxiliary storage, also known as **QAUDFRCLVL**, is a member of the auditing category of i5/OS system values. You can use this system value to set the number of journal entries written to the security auditing journal before the journal entry data moves to auxiliary storage. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Auditing System Values** → **Journaling**
Special authority	Audit (*AUDIT) [1]
Default value	System determines maximum entries
Changes take effect	Immediately
Lockable	Yes  (Click for details)

Quick reference
Note 1: To view this system value, you must have Audit (*AUDIT) or All object (*ALLOBJ) special authority. To change this system value, you must have Audit (*AUDIT) special authority.

What can I do with this system value?

Specifies the number of journal entries written to the security auditing journal before the journal entry data moves to auxiliary storage. This system value also indicates the amount of auditing data that could be lost if the system ends abnormally. If auditing entries are moved to auxiliary storage frequently, system performance can decrease.

The following are possible values:

- **System determines maximum entries (*SYS)**

  The system writes the journal entries to auxiliary storage only when the system, based on internal processing, determines the journal entries should be written. Using this option provides the best auditing performance, but it could also cause the most auditing data loss if the system ends abnormally.
- **Maximum entries (1-100)**

  The number of auditing journal entries written to the security auditing journal before the auditing data is written to auxiliary storage. Possible values are 1 through 100. Small values decrease the system performance. If your system requires that no entries can be lost after the operating system ends abnormally, specify 1.
- **Not available (*NOTAVL)**

  This value is displayed if the user does not have authority to view the auditing value. You cannot set the system value to not available (*NOTAVL). This value is only displayed when a user accessing the system value does not have either All object (*ALLOBJ) or Audit (*AUDIT) special authority.

Note: To view this auditing system value, you must have All object (*ALLOBJ) or Audit (*AUDIT) special authority. If you do not have the required authority, the Auditing category is not displayed in iSeries Navigator. In addition, if you access this system value in the character-based interface, the not available (-1) value is displayed.

Where can I get more information about auditing system values?

To learn more, go to the auditing system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Auditing overview" on page 5
Use i5/OS auditing system values to control a variety of auditing and other record-keeping events.

Related information

System value finder

Auditing system values: Default auditing for newly created objects

Sets the default object auditing value used when new objects are created into a library. (QCRTOBJAUD)

Default auditing for newly created objects, also known as **QCRTOBJAUD**, is a member of the auditing category of i5/OS system values. You can use this system value to set the default auditing value that is used when new objects are created into a library. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Auditing System Values** → **New Objects**
Special authority	Audit (*AUDIT) [1]
Default value	None
Changes take effect	Immediately
Lockable	Yes  (Click for details)
Note 1: To view this system value, you must have Audit (*AUDIT) or All object (*ALLOBJ) special authority. To change this system value, you must have Audit (*AUDIT) special authority.	

What can I do with this system value?

Specifies the default object auditing value of newly created objects. The object auditing value of an object determines if an auditing entry is sent to the system auditing journal in the QSYS library when the object is used or changed. The auditing entry is sent to the auditing journal only if auditing is currently active on the system. To start auditing, select **Activate action auditing** on the System page.

The following are possible options:

- **None (*NONE)**

  No auditing entries are sent for the object when it is used or changed.
- **User settings (*USRPRF)**

  Auditing entries are sent for the object when it is used or changed by a user who is currently being audited. If the user who uses or changes this object is not being audited, no auditing entries are sent.
- **Changes to objects (*CHANGE)**

  Auditing entries are sent for the object when it is changed.
- **All access of objects (*ALL)**

  Auditing entries are sent for the object when it is used or changed.
- **Not available (*NOTAVL)**

  This value is displayed if the user does not have authority to view the auditing value. You cannot set the system value to not available (*NOTAVL). This value is only displayed when a user accessing the system value does not have either All object (*ALLOBJ) or Audit (*AUDIT) special authority.

Note: To view this auditing system value, you must have All object (*ALLOBJ) or Audit (*AUDIT) special authority. If you do not have the required authority, the Auditing category is not displayed in iSeries Navigator. In addition, if you access this system value in the character-based interface, the not available (*NOTAVL) value is displayed.

Where can I get more information about this system value?

To learn more, go to the auditing system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Auditing overview" on page 5
Use i5/OS auditing system values to control a variety of auditing and other record-keeping events.

Related information

System value finder

System values: Date and time overview

Use i5/OS date and time system values to control the system's date, time, and time zone information.

To access the date and time category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive words to describe the system values. For a quick overview of the date and time system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Date and time system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
System date	Sets the date for system.	QDATETIME, QCENTURY, QDAYOFWEEK, QDATE, QDAY, QMONTH, QYEAR
Leap year adjustment	Specifies the leap year adjustment.	QLEAPADJ
Time of day	Specifies the time of the day.	QDATETIME, QTIME, QHOUR, QMINUTE, QSECOND
Offset from UTC	Sets the offset from UTC.	QUTCOFFSET
Time zone	Specifies the time zone for the system.	QTIMZON
Time adjustment	Identifies the application to use for time maintenance.	QTIMADJ

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

Time management

"Date and time system values: System date" on page 19
Sets the date for system. (QDATE, QDAY, QMONTH, QYEAR, QDAYOFWEEK, QCENTURY, QDATETIME)

"Date and time system values: Leap year adjustment" on page 19
Specifies the leap year adjustment. (QLEAPADJ)

"Date and time system values: Time of day" on page 20
Specifies the time of the day. (QDATETIME, QTIME, QHOUR, QMINUTE, QSECOND)

"Date and time system values: Offset from coordinated universal time (UTC)" on page 21
Sets the offset from UTC. (QUTCOFFSET)

"Date and time system values: Time zone" on page 22
Specifies the time zone for the system. (QTIMZON)

"Date and time system values: Time adjustment" on page 23
Identifies the application to use for time maintenance. (QTIMADJ)

Related information

System value finder

Date and time system values: System date

Sets the date for system. (QDATE, QDAY, QMONTH, QYEAR, QDAYOFWEEK, QCENTURY, QDATETIME)

System Date, also known as **QDATE, QDAY, QMONTH, QYEAR, QDAYOFWEEK, QCENTURY, QDATETIME** is a member of the date and time category of i5/OS system values. You can use this system value to set the date on your system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Date and Time** → **Date**
Special authority	All object (*ALLOBJ)
Default value	No default value
Changes take effect	Immediately
Lockable	No
Special considerations	The system date is automatically updated when the time reaches midnight, 12:00:00 AM. QDAYOFWEEK cannot be set by the user and is not included if you are using something other than the Gregorian calendar for the **Leap year adjustment** system value.

What can I do with this system value?

You can specify the date to be used on your system. The date includes the month, day, and year. The system supports dates that range from August 24, 1928 to July 6, 2053. If your system is not using the Gregorian calendar, the day of the week may not be set correctly. If the year (QYEAR) system value changes to a different century, the system automatically updates the century (QCENTURY) system value.

In the iSeries Navigator interface, the system date (QDATE) and time of day (QTIME) system values have not changed. However, they are combined into one system value in the character-based interface, QDATETIME. If you are accessing the date or time system value using the character-based interface, use QDATETIME rather than QDATE or QTIME. In the character-based interface, QDATE and QTIME are still accessible so you can access the date and time values separately, if needed. Use the QDATE and QTIME system values to retrieve values, and use the QDATETIME system value to set the date, time, or both. This ensures that the system values do not conflict with each other.

Where can I get more information about this system value?

To learn more, go to the date and time system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Date and time overview" on page 18
Use i5/OS date and time system values to control the system's date, time, and time zone information.

"Date and time system values: Time of day" on page 20
Specifies the time of the day. (QDATETIME, QTIME, QHOUR, QMINUTE, QSECOND)

Related information

System value finder

Date and time system values: Leap year adjustment

Specifies the leap year adjustment. (QLEAPADJ)

Leap year adjustment, also known as **QLEAPADJ**, is a member of the date and time category of i5/OS system values. You can use this system value to set the leap year adjustment on your system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Date and Time** → **Date**
Special authority	None
Default value	Use Gregorian leap year adjustment
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You can specify the leap year adjustment for your system. By setting this system value requiredly, your system's date will be correct from year to year.

This system value adjusts the system calendar for the leap year in different calendar systems. If your calendar year agrees with the Gregorian calendar system, select Use Gregorian leap year adjustment (0). If your calendar year differs from the Gregorian, adjust the system calendar to account for the leap year of the calendar year you are using. To make the adjustment, divide the leap year in your calendar system by 4; then set Leap year adjustment to the value of the remainder.

For example: The Gregorian calendar year of 1984 was the year 2527 in the Thai Buddhist calendar. Because 2527 was a leap year, you divide 2527 by 4; this leaves a remainder of 3. Therefore, to adjust the system calendar for the Thai Buddhist calendar, specify 3 for **Leap year adjustment.**

Where can I get more information about this system value?

To learn more, go to the date and time system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Date and time overview" on page 18
Use i5/OS date and time system values to control the system's date, time, and time zone information.

Related information

System value finder

Date and time system values: Time of day

Specifies the time of the day. (QDATETIME, QTIME, QHOUR, QMINUTE, QSECOND)

Time of day, also known as **QDATETIME**, **QTIME, QHOUR, QMINUTE,** and **QSECOND**, is a member of the date and time category of i5/OS system values. You can use this system value to set the time on your system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Date and Time** → **Time**
Special authority	All object (*ALLOBJ)
Default value	No default value
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You can specify the time that is used on your system. The time specifies the hour (QHOUR), minutes (QMINUTE), and seconds (QSECOND).

When you need to update the system time, a time adjustment is the preferred method. A time adjustment ensures that time is not skipped or repeated. You can specify up to a 2 hour time adjustment. If you need to update the system time more than 2 hours, you can use multiple time adjustments to reach the desired time value. Only make manual changes to the time of day system value if you need to change the time immediately.

If the system observes Daylight Saving Time, you cannot change the date and time to the hour that Daylight Saving Time affects. For example, if the system clock moves from 2:00 to 3:00 on April 6 for Daylight Saving Time, you cannot change the time to a value that is greater than or equal to 2:00 and less than 3:00 on April 6.

In the iSeries Navigator interface, the system date (QDATE) and time of day (QTIME) system values have not changed. However, they are combined into one system value in the character-based interface, QDATETIME. If you are accessing the date or time system value using the character-based interface, use QDATETIME rather than QDATE or QTIME. In the character-based interface, QDATE and QTIME are still accessible so you can access the date and time values separately, if needed. Use the QDATE and QTIME system values to retrieve values, and use the QDATETIME system value to set the date, time, or both. This ensures that the system values do not conflict with each other.

Where can I get more information about this system value?

To learn more, go to the date and time system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"Date and time system values: System date" on page 19
Sets the date for system. (QDATE, QDAY, QMONTH, QYEAR, QDAYOFWEEK, QCENTURY, QDATETIME)

"System values: Date and time overview" on page 18
Use i5/OS date and time system values to control the system's date, time, and time zone information.

Related tasks

Time adjustment

Related information

System value finder

Date and time system values: Offset from coordinated universal time (UTC)

Sets the offset from UTC. (QUTCOFFSET)

Offset from coordinated universal time (UTC), also known as **QUTCOFFSET**, is a member of the date and time category of i5/OS system values. You can use this system value to specify the difference in hours and minutes between UTC, and the current system time. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Date and Time** → **Time**
Special authority	None
Default value	+00:00
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You can specify the difference in hours and minutes between UTC and the current system time. A negative time indicates that the time is west of UTC and a positive time indicates that the time is east of UTC. For example, a value of -05:00 indicates that the system time is west of UTC and is equal to UTC minus 5 hours.

If you are connecting to an i5/OS V5R2 or earlier system, this system value is editable. The possible values range from -24:00 to +24:00.

If you are connecting to an i5/OS V5R3 or later system, this system value is not editable and is determined by the time zone (QTIMZON) system value. The possible values range from -12:59 to +13:59.

Where can I get more information about this system value?

To learn more, go to the date and time system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Date and time overview" on page 18
Use i5/OS date and time system values to control the system's date, time, and time zone information.

Related information

System value finder

Date and time system values: Time zone

Specifies the time zone for the system. (QTIMZON)

Time zone, also known as **QTIMZON**, is a member of the date and time category of i5/OS system values. You can use this system value to specify a time zone to be used on the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **Time Management** → **Time Zones**
Special authority	All object (*ALLOBJ)
Default value	Determined by the system. For more information, see Initial time zone setting.
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You can specify the time zone to be used on the system. You can select an IBM-supplied time zone or create your own. The time zone specifies the following time zone information:

- Offset from UTC
- Standard Time names
- Daylight Saving Time names
- Daylight Saving Time start
- Daylight Saving Time end

If you cannot work with a time zone or change the time zone system value, see the troubleshooting topic in Time management, I cannot edit my time zone, to learn about the authority needed to work with a time zone.

You can access the time zone system value from two locations in iSeries Navigator. To view the current time zone expand → **Configuration and Service** → **System Values** → **Date and Time** → **Time**. To work with the time zones, expand **Configuration and Service** → **Time Management** → **Time Zones**.

Where can I get more information about this system value?

To learn more, go to the date and time system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

In addition, go to Time management to learn how to use the Time Management function of iSeries Navigator to work with this system value. The Time Management function allows you to identify a time zone for the system to use. You can also specify to use a time maintenance application to keep the system time synchronized with an external time source.

Related concepts

"System values," on page 1
System values are pieces of information that affect the system operating environment. System values are not objects on the system. Rather, system values contain control information for the operation of certain parts of the system.

"System values: Date and time overview" on page 18
Use i5/OS date and time system values to control the system's date, time, and time zone information.

Initial time zone setting

IBM-supplied time zone

Create your own

Time management

"Manage system values" on page 191
As an administrator, you can perform many tasks to help you manage system values. Select this topic to learn how to save, configure, and lock system values.

Related tasks

I cannot edit my time zone

Related information

System value finder

Date and time system values: Time adjustment

Identifies the application to use for time maintenance. (QTIMADJ)

Time adjustment, also known as **QTIMADJ**, is a member of the date and time category of i5/OS system values. You can use this system value to identify the software to use to adjust the system clock to keep it synchronized with an external time source. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **Time Management** → **Time Adjustment**
Special authority	None
Default value	No adjustment software is specified
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Use the time adjustment (QTIMADJ) system value to identify the software to use to adjust the system clock to keep it synchronized with an external time source. The system does not enforce the software specified; it only identifies the software to use. This value should be maintained by the time adjustment software and is intended as an aid to prevent having multiple time adjustment applications conflict with each other. There are no checks performed by the system to verify this value or that this software is or is not performing time adjustments.

Time adjustment software should check this system value prior to starting. If this system value has an identifier for other time adjustment software, then the software being started should notify the user of this potential conflict and confirm that this time adjustment software should be started. When there is not an identifier associated with this system value, the software should update this system value to identify that it is now responsible for adjusting the system clock. Time adjustment software should check this system value again prior to ending. This system value should be set to the value None (*NONE) only if the current value identifies this time adjustment software that is ending.

You can work with time adjustment system value in iSeries Navigator by expanding **Configuration and Service → System Values → Date and Time → Configuration and Service**. To work with the time adjustment function, expand **Time Management → Time Adjustment**.

Where can I get more information about this system value?

To learn more, go to the date and time system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

In addition, go to Time management to learn how to use the Time Management function of iSeries Navigator to work with this system value. The Time Management function allows you to identify a time zone for the system to use. You can also specify to use a time maintenance application to keep the system time synchronized with an external time source.

Related concepts

"System values," on page 1
System values are pieces of information that affect the system operating environment. System values are not objects on the system. Rather, system values contain control information for the operation of certain parts of the system.

"System values: Date and time overview" on page 18
Use i5/OS date and time system values to control the system's date, time, and time zone information.

Time adjustment

Time management

"Manage system values" on page 191
As an administrator, you can perform many tasks to help you manage system values. Select this topic to learn how to save, configure, and lock system values.

Related information

System value finder

System values: Devices overview

Use i5/OS devices system values to control the system's device auto-configuration and recovery values.

To access the devices category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive words to describe the system values. For a quick overview of the devices system values

available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Devices system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
Local controllers and devices	Sets auto configuration for local controllers and devices.	QAUTOCFG
Device naming convention	Specifies the device naming convention.	QDEVNAMING
Remote controllers and devices	Sets automatic configuration for remote controllers and devices.	QAUTORMT
Pass-through devices and Telnet	Sets automatic configuration for pass-through devices and Telnet.	QAUTOVRT
Action to take when a device error occurs on the workstation	Sets the action to take when an error occurs.	QDEVRCYACN

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"Devices system values: Local controllers and devices"
Sets auto configuration for local controllers and devices. (QAUTOCFG)

"Devices system values: Device naming convention" on page 26
Specifies the device naming convention. (QDEVNAMING)

"Devices system values: Remote controllers and devices" on page 27
Sets automatic configuration for remote controllers and devices. (QAUTORMT)

"Devices system values: Pass-through devices and Telnet" on page 28
Sets automatic configuration for pass-through devices and Telnet. (QAUTOVRT)

"Devices system values: Action to take when a device error occurs on the workstation" on page 29
Sets the action to take when an error occurs. (QDEVRCYACN)

Related information

System value finder

Devices system values: Local controllers and devices

Sets auto configuration for local controllers and devices. (QAUTOCFG)

Local controllers and devices, also known as **QAUTOCFG**, is a member of the devices category of i5/OS system values. You can use this system value to set automatic configuration for local controllers and devices. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Devices** → **Automatic Configuration**
Special authority	None
Default value	Selected - allow local controllers and devices to be automatically configured
Changes take effect	Immediately

Quick reference	
Lockable	Yes  (Click for details)

What can I do with this system value?

You may specify whether devices and controllers added to the system are configured automatically or not. For more information about what specific controllers and devices are configured, see chapter 1 in *Local Device Configuration, SC41-5121*.

If this option is not selected (0), you must manually configure any new local controllers or devices that you add to your system.

If this option is selected (1), automatic configuration is on. The system automatically configures any new local controllers or devices that are added to your system. The system operator receives a message indicating the changes to the system's configuration.

Where can I get more information about this system value?

To learn more, go to the devices system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Devices overview" on page 24
Use i5/OS devices system values to control the system's device auto-configuration and recovery values.

Related information

System value finder

Devices system values: Device naming convention

Specifies the device naming convention. (QDEVNAMING)

Device naming convention, also known as **QDEVNAMING**, is a member of the devices category of i5/OS system values. You can use this system value to specify the device naming convention. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Devices** → **Automatic Configuration**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Use i5/OS naming
Changes take effect	The next time a device is configured. Existing configured device names are not changed.
Lockable	No

What can I do with this system value?

You may specify the naming convention that is used when the system automatically creates device descriptions. These names are used when creating device descriptions for local controllers or devices that are added to your system.

The following are possible options:

- **Use i5/OS naming (*NORMAL)**
  Use naming conventions according to i5/OS standards.
- **Use System/36 naming (*S36)**
  Use naming conventions according to System/36™ standards.
- **Use device address (*DEVADR)**
  Derive the device name from the device address.

Where can I get more information about this system value?

To learn more, go to the devices system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Devices overview" on page 24
Use i5/OS devices system values to control the system's device auto-configuration and recovery values.

Related information

System value finder

Devices system values: Remote controllers and devices

Sets automatic configuration for remote controllers and devices. (QAUTORMT)

Remote controllers and devices, also known as **QAUTORMT**, is a member of the devices category of i5/OS system values. You can use this system value to set automatic configuration for remote controllers and devices. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Devices** → **Automatic Configuration**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Selected - allow remote controllers and devices to be automatically configured
Changes take effect	Immediately
Lockable	Yes  (Click for details)

What can I do with this system value?

You may specify whether to allow remote controllers and devices that connect to the system to be configured automatically or not. If this option is not selected (0), you must manually configure any new remote controllers or devices that connect to the system. If this option is selected (1), automatic configuration is turned on.

Where can I get more information about this system value?

To learn more, go to the devices system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Devices overview" on page 24
Use i5/OS devices system values to control the system's device auto-configuration and recovery values.

Related information

System value finder

Devices system values: Pass-through devices and Telnet

Sets automatic configuration for pass-through devices and Telnet. (QAUTOVRT)

Pass-through devices and Telnet, also known as **QAUTOVRT**, is a member of the devices category of i5/OS system values. You can use this system value to set automatic configuration for pass-through devices and Telnet. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Devices** → **Automatic Configuration**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - do not allow pass-through devices to be automatically configured
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify the number of virtual devices to automatically configure.

If you do not want to automatically configure any devices, do not select this option (0). This option is equivalent to 0 in the character-based interface. Devices are not automatically deleted to bring the total number down to the specified limit for this system value. Therefore, if you change from a higher value to a lower value, the system does not delete virtual devices.

Before creating devices for Telnet sessions or for passthrough sessions for which the client does not specify the name of the request, this system value will be checked to make sure the new device does not exceed the number specified for this system value. If creation of another virtual device description exceed the limit specified by this system value, the device will not be created for Telnet or passthrough. However, a request for a device for a passthrough session will **not** check the limit for this system value before creating a device description if the client specified the name on the incoming request (Start Up Record).

The system deletes virtual devices only if they are damaged, or if the device needs to be created again to change its type.

If you select **Pass-through devices and Telnet** (1), select one of the following options to specify the maximum number of devices that are configured:

- **No maximum number of devices (*NOMAX)**

  An unlimited number of virtual devices may be configured automatically.
- **Maximum number of devices (0-32500)**

  The maximum number of devices that may be configured automatically. Possible values are 0 through 32500 devices. A value of 0 indicates that automatic configuration of virtual devices is off.
- **Run registered exit program (*REGFAC)**

  The program registered for the Virtual Device Selection (QIBM_QPA_DEVSEL) exit point is called when a virtual device needs to be selected or automatically created by the system. If the program registered for the exit point does not exist or if it returns with an error, the system will handle the situation as if this system value is deselected (do not allow virtual devices to be automatically configured).

  If this value is selected, the program will be called every time a virtual device is requested by a pass-through or Telnet session.

Where can I get more information about this system value?

To learn more, go to the devices system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Devices overview" on page 24
Use i5/OS devices system values to control the system's device auto-configuration and recovery values.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Devices system values: Action to take when a device error occurs on the workstation

Sets the action to take when an error occurs. (QDEVRCYACN)

Action to take when a device error occurs on the workstation, also known as **QDEVRCYACN**, is a member of the devices category of i5/OS system values. You can use this system value to set the action to take when an error occurs. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Devices** → **Recovery**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Disconnect job, and send message to user's application after reconnecting
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify the action to take when an input/output (I/O) error occurs for an interactive job's workstation.

The device recovery action is not performed until the next I/O operation is performed by the job. In a LAN or WAN environment, this may allow one device to disconnect and another to connect, using the same device description, before the next I/O operations for the job occurs. The job may recover from the I/O error message and continue running to the second device. To avoid this, a device recovery action of **Disconnect job, and return to previous request level after reconnecting** or **End the job and send message to QHST log** should be specified. These device recovery actions are performed immediately when an I/O error, such as a power off operation, occurs.

You may select from the following options:

- **Send error message to user's application (*MSG)**

  Sends the I/O error message to the user's application program. The application program performs error recovery.
- **Disconnect job, and send message to user's application after reconnecting (*DSCMSG)**

  Disconnects the job. When the user signs on again, an error message is sent to the application program.
- **Disconnect job, and return to previous request level after reconnecting (*DSCENDRQS)**

  Disconnects the job. When the user signs on again, a cancel request function is performed to return control of the job back to the last request level.
- **End the job and send message to QHST log (*ENDJOBNOLIST)**

  Ends the job. A message is sent to the QHST log indicating that the job ended because of the device error. To minimize the performance impact of the ending job, the job's priority is lowered by 10, the time slice is set to 100 milliseconds and the purge attribute is set to yes.

  Select **Produce a job log** (*ENDJOB), if you want the message sent to the job log and the QHST log.

Where can I get more information about this system value?

To learn more, go to the devices system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Devices overview" on page 24
Use i5/OS devices system values to control the system's device auto-configuration and recovery values.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

"Jobs system values: Time-out interval for disconnected jobs" on page 60
Specifies the time-out interval for disconnected jobs. (QDSCJOBITV)

Related information

System value finder

System values: International overview

Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

To access the international category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive words to describe the system values. For a quick overview of the international system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

International system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
Date and time	Sets the format to use when displaying the date. You may also specify the symbol used to separate the date and time values.	QDATFMT, QTIMSEP, QDATSEP
Decimal format	Specifies the format used when displaying numbers.	QDECFMT
Currency symbol	Sets the symbol to use when displaying currency values.	QCURSYM
Language	Sets the language to be used on the system.	QLANGID
Country/Region	Sets the country/region used by the system.	QCNTRYID
Default system keyboard	Sets the keyboard type used on the system.	QKBDTYPE
Coded character set ID	Specifies the coded character set ID.	QCCSID
Graphic character set/Code page	Sets graphic character set and code page for the system.	QCHRID
Character identifier control	Sets the character identifier control.	QCHRIDCTL
Sort sequence	Specifies the sort sequence used on the system.	QSRTSEQ
Coded font name	Specifies the coded font name to be used on the system.	QIGCCDEFNT
Coded font point size	Specifies the coded font point size to be used on the system.	QIGCFNTSIZ
Locale	Specifies the locale to be used on the system.	QLOCALE
Set job attributes based on locale	Sets specific job attributes based on locale.	QSETJOBATR
Double-byte capable	Specifies whether double-byte coded character (DBCS) version of the system is installed.	QIGC

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

“International system values: Date and time”
Sets the format to use when displaying the date. You may also specify the symbol used to separate the date and time values. (QDATFMT, QDATSEP, QTIMSEP)

“International system values: Decimal format” on page 33
Specifies the format used when displaying numbers. (QDECFMT)

“International system values: Currency symbol” on page 34
Sets the symbol to use when displaying currency values. (QCURSYM)

“International system values: Language” on page 35
Sets the language to be used on the system. (QLANGID)

“International system values: Country/Region” on page 37
Sets the country/region used by the system. (QCNTRYID)

“International system values: Default system keyboard” on page 38
Sets the keyboard type used on the system. (QKBDTYPE)

“International system values: Coded character set ID” on page 41
Specifies the coded character set ID. (QCCSID)

“International system values: Graphic character set/Code page” on page 42
Sets graphic character set and code page for the system. (QCHRID)

“International system values: Character identifier control” on page 43
Sets the character identifier control. (QCHRIDCTL)

“International system values: Sort sequence” on page 43
Specifies the sort sequence used on the system. (QSRTSEQ)

“International system values: Coded font name” on page 44
Specifies the coded font name to be used on the system. (QIGCCDEFNT)

“International system values: Coded font point size” on page 45
Specifies the coded font point size to be used on the system. (QIGCFNTSIZ)

“International system values: Locale” on page 46
Specifies the locale to be used on the system. (QLOCALE)

“International system values: Set job attributes based on locale” on page 47
Sets specific job attributes based on locale. (QSETJOBATR)

“International system values: Double-byte capable” on page 48
Specifies whether double-byte coded character (DBCS) version of the system is installed. (QIGC)

Related information

System value finder

International system values: Date and time

Sets the format to use when displaying the date. You may also specify the symbol used to separate the date and time values. (QDATFMT, QDATSEP, QTIMSEP)

Date and time, also known as **QDATFMT, QDATSEP,** and **QTIMSEP**, is a member of the international category of i5/OS system values. You can use these system values to set the format to use when displaying the date and to specify the symbol to use when separating the date and the time. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Formats**
Special authority	None
Default value	Varies for different countries/regions

Quick reference	
Changes take effect	Immediately for new jobs that enter the system after the change. This does not include jobs that are active at the time of the change.
Lockable	No

What can I do with this system value?

You can specify **Date and Time** functions. Your options include:

- **Date format (QDATFMT)**

  Specifies the format to use as the default format for the system. You may choose any of the following formats for the date (the examples assume you have selected a slash as the date separator):

  – **Year Month Day**

    For example: YY/MM/DD

  – **Month Day Year**

    For example: MM/DD/YY

  – **Day Month Year**

    For example: DD/MM/YY

  – **Julian**

    For example: YY/DDD

- **Date separator (QDATSEP)**

  Specifies the character used to separate the date. The separator can be one of the characters:

  – Slash (/)
  – Dash (-)
  – Period (.)
  – Comma (,)
  – Blank

- **Time separator (QTIMSEP)**

  Specifies the character that separates the parts of the time. The separator can be one of the characters:

  – Comma (,)
  – Period (.)
  – Colon (:)
  – Blank

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

International system values: Decimal format

Specifies the format used when displaying numbers. (QDECFMT)

Decimal format, also known as **QDECFMT**, is a member of the international category of i5/OS system values. You can use this system value to set the format to use when displaying numbers. You can now work with all system values in iSeries Navigator. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Formats**
Special authority	None
Default value	Varies for different countries/regions
Changes take effect	Immediately for new jobs that enter the system after the change. This does not include jobs that are active at the time of the change.
Lockable	No

What can I do with this system value?

You can specify the format used when displaying numbers. This system value is used for the following:

To determine the type of zero suppression and decimal point character used by DDS edit codes 1 through 4 and A through M.

To determine the decimal point character for decimal input fields on displays.

Possible values for the decimal format are:

- **1,000.04 .04 (blank)**

  Use a period for a decimal point, use a comma for a three-digit grouping character, and suppress zeros to the left of the decimal point.
- **1.000,04 0,04 (J)**

  Use a comma for a decimal point, and use a period for a three-digit grouping character. Zero values to the left of the comma are written with one leading zero (0,04). This value overrides any edit codes that might suppress the leading zero.
- **1.000,04 ,04 (I)**

  Use a comma for a decimal point, use a period for a three-digit grouping character, and suppress zeros to the left of the decimal point.

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

International system values: Currency symbol

Sets the symbol to use when displaying currency values. (QCURSYM)

Currency symbol, also known as **QCURSYM**, is a member of the international category of i5/OS system values. You can use this system value to specify the symbol used for currency. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Formats**
Special authority	None
Default value	Varies for different countries/regions
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You can specify the currency symbol to be used on the system. You may enter any character except a blank, dash (-), ampersand (&), asterisk (*), or zero (0).

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

International system values: Language

Sets the language to be used on the system. (QLANGID)

Language, also known as **QLANGID**, is a member of the international category of i5/OS system values. You can use this system value to set the default language to use on the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Language/Characters**
Special authority	None
Default value	Varies for different countries/regions
Changes take effect	Immediately, but they do not affect jobs that are already started.
Lockable	No

What can I do with this system value?

You may specify the language identifier to be used as the default for the system. If you specify **Use shared weight sort table associated with language** or **Use unique weight sort table associated with language** on the **Sort Sequence** page, the sort sequence table used is the unique weight sort table or shared weight sort table associated with the language system value.

The possible values depend on whether double-byte capability is installed on the system. To view whether or not your system is double-byte capable, see the Double-byte capable system value. The following are possible values:

Afrikaans (AFR)
Albanian (SQI)
Arabic (ARA)
Belgian Dutch (NLB)
Belgian French (FRB)
Belgium English (ENB)
Brazailian Portuguese (PTB)
Bulgarian (BGR)
Byelorussian (BEL)
Canadian French (FRC)
Catalan (CAT)
Croatian (HRV)
Czech (CSY)
Danish (DAN)
Dutch (NLD)
English Austrailian (ENA)
English Upper Case (ENP)
Estonian (EST)
Farsi (FAR)
Finnish (FIN)
French (FRA)
German (DEU)
Greek (ELL)
Hebrew (HEB)
Hungarian (HUN)
Icelandic (ISL)
Irish Gaelic (GAE)
Italian (ITA)
Japanese Katakana (JPN)
Korean (KOR)
Lao (LAO)
Latvian (LVA)
Lithuanian (LTU)
Macedonian (MKD)
Norwegian - Bokmal (NOR)
Norwegian - Nynorsk (NON)
Polish (PLK)
Portuguese (PTG)
Rhaeto-Romanic (RMS)
Romanian (ROM)
Russian (RUS)
Serbian (SRB)
Serbian Cyrillic (SRB)
Serbian Latin (SRL)
Simplified Chinese (CHS)
Slovakian (SKY)
Slovenian (SLO)
Spanish (ESP)
Swedish (SVE)
Swiss French (FRS)
Swiss German (DES)
Swiss Italian (ITS)

Thai (THA)
Traditional Chinese (CHT)
Turkish (TRK)
UK English (ENG)
US English (ENU)
Ukrainian (UKR)
Urdu (URD)
Vietnamese (VIE)

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

"International system values: Double-byte capable" on page 48
Specifies whether double-byte coded character (DBCS) version of the system is installed. (QIGC)

Related information

System value finder

International system values: Country/Region

Sets the country/region used by the system. (QCNTRYID)

Country/Region, also known as **QCNTRYID**, is a member of the international category of i5/OS system values. You can use this system value to set the default country/region to be used on the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Language/Characters**
Special authority	None
Default value	Varies for different countries/regions
Changes take effect	Immediately, but does not affect jobs already started
Lockable	No

What can I do with this system value?

You may specify the country/region identifier to be used as the default on the system. For a complete list of possible values, see country/region identifiers.

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related reference

Country/region identifiers

Related information

System value finder

International system values: Default system keyboard

Sets the keyboard type used on the system. (QKBDTYPE)

Default system keyboard, also known as **QKBDTYPE**, is a member of the international category of i5/OS system values. You can use this system value to set the keyboard type used on the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Language/Characters**
Special authority	None
Default value	Varies for different countries/regions
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify a different language character set for the keyboard. When the operating system was installed, this system value was set to the appropriate keyboard value based on the language specified at that time.

The following are possible values:

Albania (ALI)
Albania Euro Currency (ALM)
Arabic X (CLB)
Arabic X Euro Currency CLE)
Austria/Germany (AGB)
Austria/Germany Euro Currency (AGE)
Austria/Germany Multinational (AGI)
Austria/Germany Multinational Euro Currency (AGM)
Bulgaria (BGB)
Bulgaria Euro Currency (BGE)
Belgium Multinational (BLI)
Belgium Multinational Euro Currency (BLM)
Brazilian Portuguese (BRB)
Brazilian Portuguese Euro Currency (BRE)
Canadian French (CAB)
Canadian French Euro Currency (CAE)
Canadian French Multinational (CAI)
Canadian French Multinational Euro Currency (CAM)
Croatia, Serbia (Latin), and Slovenia (YGI)
Croatia, Serbia (Latin), and Slovenia Euro Currency (YGM)
Czech Republic (CSB)
Czech Republic Euro Currency (CSE)
Cyrillic (CYB)
Denmark (DMB)
Denmark Euro Currency (DME)

Denmark Multinational (DMI)
Denmark Multinational Euro Currency (DMM)
Estonia (ESB)
France (Azerty) (FAB)
France (Azerty) Euro Currency (FAE)
France (Azerty) Multinational (FAI)
France (Azerty) Multinational Euro Currency (FAM)
Finland/Sweden (FNB)
Finland/Sweden Euro Currency (FNE)
Finland/Sweden Multinational (FNI)
Finland/Sweden Multinational Euro Currency (FNM)
France (Qwerty) (FQB)
France (Qwerty) Multinational (FQI)
FYR (Former Yugoslav Republic of Macedonia) (MKB)
FYR (Former Yugoslav Republic of Macedonia) Euro Currency (MKE)
Greece (GKB)
Greece (GNB)
Greece Euro Currency (GNE)
Hebrew (NCB)
Hebrew Euro Currency (NCE)
Hindi (HIB) Hungary (HNB)
Hungary Euro Currency (HNE)
Iceland ICB)
Iceland Euro Currency (ICE)
Iceland Multinational (ICI)
Iceland Multinational Euro Currency (ICM)
India (Urdu) (PKB)
India (Urdu) Euro Currency (PKE)
International (INB)
International Multinational (INI)
Iran (Farsi) (IRB)
Italy (ITB)
Italy Euro Currency (ITE)
Italy Multinational (ITI)
Italy Multinational Euro Currency (ITM)
Japan (English) (JEB)
Japan English Multinational (JEI)
Japan (Kanji) and Katakana (JKB)
Japan Latin Extended (JPB)
Japan Latin Extended Euro Currency (JPE)
Japan Kanji and United States English (JUB)
Japan (Katakana)(KAB)
Korea (KOB)
Lao People's Democratic Republic (LAB)
Lao People's Democratic Republic Euro Currency (LAE)
Lithuania (LTB)
Latin 2 (ROB)
Latin 2 Euro Currency (ROE)
Latvia (LVB)
Netherlands (NEB)
Netherlands Euro Currency (NEE)
Netherlands Multinational (NEI)
Netherlands Multinational Euro Currency (NEM)
Norway (NWB)
Norway Euro Currency (NWE)
Norway Multinational (NWI)

Norway Multinational Euro Currency (NWM)
Polish (PLB)
Polish Euro Currency (PLE)
Portugal (PRB)
Portugal Euro Currency (PRE)
Portugal Multinational (PRI)
Portugal Multinational Euro Currency (PRM)
Romania (RMB)
Romania Euro Currency (RME)
Russia (RUB)
Russia Euro Currency (RUE)
Serbia (Cyrillic) (SQB)
Serbia (Cyrillic) Euro Currency (SQE)
Simplified Chinese (RCB)
Slovakia (SKB)
Slovakia Euro Currency (SKE)
Spain (SPB)
Spain Euro Currency (SPE)
Spain Multinational (SPI)
Spain Multinational Euro Currency (SPM)
Spanish Speaking (SSB)
Spanish Speaking Euro Currency (SSE)
Spanish Speaking Multinational (SSI)
Spanish Speaking Multinational Euro Currency (SSM)
Sweden (SWB)
Sweden Euro Currency (SWE)
Sweden Multinational (SWI)
Sweden Multinational Euro Currency (SWM)
Switzerland/French Multinational (SFI)
Switzerland/French Multinational Euro Currency (SFM)
Switzerland/German Multinational (SGI)
Switzerland/German Multinational Euro Currency (SGM)
Thailand (THB)
Thailand Euro Currency (THE)
Traditional Chinese (TAB)
Turkey (TKB)
Turkey (Qwerty) Euro Currency (TKE)
Turkey (F) (TRB)
Turkey (F) Euro Currency (TRE)
Ukraine (UAB)
Ukraine Euro Currency (UAE)
United Kingdom (UKB)
United Kingdom Euro Currency (UKE)
United Kingdom Multinational (UKI)
United Kingdom Multinational Euro Currency (UKM)
United States/Canada (USB)
United States/Canada Euro Currency (USE)
United States/Canada Multinational (USI)
United States/Canada Multinational Euro Currency (USM)
Vietnam (VNB)
Vietnam Euro Currency (VNE)

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

International system values: Coded character set ID

Specifies the coded character set ID. (QCCSID)

Coded character set ID, also known as **QCCSID**, is a member of the international category of i5/OS system values. You can use this system value to specify the default coded character set ID. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Language/Characters**
Special authority	None
Default value	Varies for different countries/regions
Changes take effect	Immediately, but they do not affect jobs that are already started
Lockable	No

What can I do with this system value?

Coded character set identifiers (CCSIDs) identify:

- A specific set of encoding scheme identifiers
- Character set identifiers
- Code page identifiers
- Additional coding-related information that uniquely identifies the coded graphic character representation to be used by the system.

You should specify a value based on the primary language installed on the system. Possible values range from 1 through 65535.

00001-28691: IBM-registered CCSIDs
28672-65533: Reserved
65535 or *HEX: No conversion done

On a double-byte character set (DBCS) system, this system value must be set to a mixed CCSID (a CCSID that represents both single- and double-byte character set and code page). On a non-DBCS system, this system value must be set to a single-byte character set (SBCS) CCSID. In iSeries Navigator, the International category of system values specifies whether or not DBCS is installed on the system. View the Double-byte capable field on the DBCS page. The coded character set and the code page of the graphical character set must always be compatible. If the coded character set is changed to a value that is not compatible with the code page of the graphical character set (QCHRID), the graphical character set is automatically changed.

To see a list of default values for your language, see default system values for national language versions.

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related reference

Default system values for national language versions

Related information

System value finder

International system values: Graphic character set/Code page

Sets graphic character set and code page for the system. (QCHRID)

Graphic character set/Code page, also known as **QCHRID**, is a member of the international category of i5/OS system values. You can use this system value to specify the graphic character set and code page for the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Language/Characters**
Special authority	None
Default value	Varies for different countries/regions
Changes take effect	Immediately for display files, display device descriptions, and printer files that are created, changed, or overridden after the change.
Lockable	No

What can I do with this system value?

You may specify the default graphic character set and code page. This system value specifies the character set and code page used when CHRID(*SYSVAL) is specified for the CL commands that create, change, or override display files, display device descriptions, and printer files.

This system value may be changed automatically when the **Coded character set ID** is changed. It is recommended that you change the **Coded character set ID** system value instead of this system value.

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

International system values: Character identifier control

Sets the character identifier control. (QCHRIDCTL)

Character identifier control, also known as **QCHRIDCTL**, is a member of the international category of i5/OS system values. You can use this system value to specify the type of coded character set identifier conversion that occurs for display files, printer files, and panel groups. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Language/Characters**
Special authority	None
Default value	Device description
Changes take effect	Immediately, but does not affect jobs that are already started unless a change job request is made.
Lockable	No

What can I do with this system value?

Specifies the default type of coded character set ID (CCSID) conversion that may occur within a job for display files, printer files, and panel groups. The character identifier control special value must be specified on the character identifier (CHRID) command parameter on the create, change, or override commands for display files, printer files and panel groups before this attribute will be used. This system value can be referred to for setting the character identifier control job attribute or character identifier control user profile attribute.

The following are possible options:

- **Device description (*DEVD)**

  No conversion will occur.
- **Job (*JOBCCSID)**

  Coded character set ID (CCSID) conversion takes place if the device character identifier (CHRID) and job character identifier (CCSID) are different and the job character identifier (CCSID) is not 65535.

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

International system values: Sort sequence

Specifies the sort sequence used on the system. (QSRTSEQ)

Sort sequence, also known as **QSRTSEQ**, is a member of the international category of i5/OS system values. You can use this system value to specify the sort sequence used on the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Sort Sequence**
Special authority	None
Default value	Use hexadecimal values of characters
Changes take effect	Immediately, but does not affect jobs already started.
Lockable	No

What can I do with this system value?

Specifies the default sort sequence for use on the system. Sort sequence is the order in which characters are arranged within the computer to sort, combine, or compare data. The sort sequence tables sort characters more accurately, in accordance with the cultural requirements of users. Regardless of the country or single-byte coded character set language in use, you can sort lists that match a sequence consistent with your language and alphabet.

The following are possible options:

- **Use hexadecimal values of characters (*HEX)**

  No sort sequence table is used. The hexadecimal values of the characters are used to determine the sort sequence.
- **Use shared weight sort table associated with language (*LANGIDSHR)**

  The sort sequence table used can contain the same weight for multiple characters. It is the shared weight sort table associated with the language specified on the **Language/Characters** page.
- **Use unique weight sort table associated with language (*LANGIDUNQ)**

  The sort sequence table used must contain a unique weight for each character in the code page. It is the unique weight sort table associated with the language specified on the **Language/Characters** page.
- **Use specific sort table**

  The specified name and library of the sort sequence table are used. The sort sequence table must exist in the system disk pool or in a basic user disk pool.

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

International system values: Coded font name

Specifies the coded font name to be used on the system. (QIGCCDEFNT)

Coded font name, also known as **QIGCCDEFNT**, is a member of the international category of i5/OS system values. You can use this system value to specify the coded font name to be used on the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **DBCS**
Special authority	None
Default value	Varies for different countries/regions
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Specifies the name of the DBCS coded font to be used when transforming SNA character string (SCS) data into an Advanced Function Printing™ data stream (AFPDS) spooled file with shift in/shift out (SI/SO) characters present in the data. A coded font associates multiple pairs of code pages and font character sets.

The following are possible options:

- **None (*NONE)**

  No coded font is identified to the system.
- ***coded-font-name***

  The name of the DBCS coded font. The coded font name can be no more than 8 characters long.

The IGC coded font must exist in the system disk pool (also known as auxiliary storage pool) or in a basic user disk pool.

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

International system values: Coded font point size

Specifies the coded font point size to be used on the system. (QIGCFNTSIZ)

Coded font point size, also known as **QIGCFNTSIZ**, is a member of the international category of i5/OS system values. You can use this system value to specify the coded font point size to be used on the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **DBCS**
Special authority	None
Default value	Selected by the system
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Specifies the point size for the double-byte coded font. The height of characters is measured in points, where 1 point is equal to 1/72nd of an inch. An 18-point font has characters that are 18/72 or 1/4 of an inch high. For example, a particular font could have available sizes of 8, 10, or 12.

This value is used with the **Coded font name** when transforming an SNA character string (SCS) into an Advanced Function Printing data stream (AFPDS). These values are also used when creating an AFPDS spooled file with shift in/shift out characters present in the data.

The following are possible options:

- **Selected by the system (*NONE)**

  No font point size is identified to the system.
- **000.1 - 999.9**

  The point size for the double-byte coded font.

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

International system values: Locale

Specifies the locale to be used on the system. (QLOCALE)

Locale, also known as **QLOCALE**, is a member of the international category of i5/OS system values. You can use this system value to set the locale path for the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Locale**
Special authority	None
Default value	The default changed from *NONE to a default locale based on the primary NLV installed. Therefore, the default value varies for different countries and regions. This change only affects new systems, or those systems that have been completely reinstalled.
Changes take effect	Immediately, but does not affect jobs already started
Lockable	No

What can I do with this system value?

Sets the default locale path for a job. The locale path name must be a path that specifies a locale object. A locale is an object that can determine how data is processed, printed, and displayed. Locales are made up of categories that define language, cultural data, and character sets. These combinations of language, cultural data, and character sets comprise a locale.

The following are possible options:

- **None (*NONE)**
  Specifies that there is no default locale.
- **C locale (*C)**
  Indicates the C standard locale is to be used.
- **POSIX locale (*POSIX)**
  Indicates the POSIX standard locale is to be used. The POSIX locale is equivalent to the C locale.
- **System specified locale**
  Select a locale from the list displayed in iSeries Navigator.
- **Path name**
  Specify the path name of the locale to be used.

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

International system values: Set job attributes based on locale

Sets specific job attributes based on locale. (QSETJOBATR)

Set job attributes based on locale, also known as **QSETJOBATR**, is a member of the international category of i5/OS system values. You can use this system value to specify that certain job attributes are set to the value in a locale when the job is initiated. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **Locale**
Special authority	None
Default value	Deselected - Do not set job attributes based on locale
Changes take effect	Immediately, but they do not affect jobs that are already started
Lockable	No

What can I do with this system value?

You may specify that certain job attributes are or are not (*NONE) set to the value in a locale when the job is initiated. If you select this option, you may specify any of the following job attributes:

- Date format (*DATFMT)
- Date separator (*DATSEP)
- Time separator (*TIMSEP)
- Decimal format (*DECFMT)
- Coded character set ID (*CCSID)
- Sort sequence (*SRTSEQ)

These values are set only if the value in the locale conforms to a valid value for the attribute being set. The values are set when the job is initiated.

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

International system values: Double-byte capable

Specifies whether double-byte coded character (DBCS) version of the system is installed. (QIGC)

Double-byte capable, also known as **QIGC**, is a member of the international category of i5/OS system values. You can use this system value to view whether the double-byte coded character (DBCS) version of the system is installed or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **International** → **DBCS**
Special authority	None
Default value	Machine dependent.
Changes take effect	This system value is read only. You cannot make changes to it.
Lockable	No

What can I do with this system value?

Specifies whether the double-byte coded character (DBCS) version of the system is installed (1) or not (0). A DBCS is a character set in which each character is represented internally by a 2-byte code point. Languages that contain more characters than can be represented internally by 256 code points require double-byte coded character sets.

For example, languages that are based on ideographic characters, such as Japanese, Chinese, and Korean, require double-byte character sets.

For i5/OS V5R3 or later, double-byte capability is always installed. For i5/OS V5R2 or earlier, you must install one of the DBCS versions of i5/OS to support Japanese, Chinese, or Korean.

This value is not editable; it is set by the system. You can refer to this system value in an application program.

Where can I get more information about this system value?

To learn more, go to the international system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"International system values: Language" on page 35
Sets the language to be used on the system. (QLANGID)

"System values: International overview" on page 30
Use i5/OS international system values to view and change the system's locale values and how numbers, currencies, dates, and time are displayed.

Related information

System value finder

System values: Jobs overview

Use i5/OS jobs system values to view or change system level job limits and other job defaults.

To access the jobs category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the jobs system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Jobs system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
Allow jobs to be interrupted to run user-defined exit programs	Specifies how the system responds to user initiated requests to interrupt a job to run a user-defined exit program in that job.	QALWJOBITP
Allocate storage at restart	Specifies the storage used at restart for active and total jobs.	QACTJOB, QTOTJOB
Allocate additional storage as needed	Specifies the storage allocated as needed.	QADLACTJ, QADLTOTJ
Maximum jobs	Specifies the maximum number of jobs.	QMAXJOB
Initial printer output block size	Controls the initial size of an internal control block (SCB).	QJOBSPLA
Maximum printer output files	Specifies the maximum number of printer output files allowed for a job.	QMAXSPLF
Maximum job log size	Specifies the maximum job log size.	QJOBMSGQMX
When a maximum size is reached	Specifies the action to take when the maximum job log size is reached.	QJOBMSGQFL
Time-out interval for inactive jobs	Specifies the time-out interval for inactive jobs.	QINACTITV
Produce printer output for job log	Specifies how the job log will be produced when a job completes.	QLOGOUTPUT
When job reaches time-out	Specifies the action to take when an inactive job reaches time-out.	QINACTMSGQ

Name in iSeries Navigator	Description of system value	Name in character-based interface
Time-out interval for disconnected jobs	Specifies the time-out interval for disconnected jobs.	QDSCJOBITV
When a function in a multi-threaded job is not threadsafe	Specifies the action to take when a function is not threadsafe.	QMLTTHDACN
Detach printer output after jobs have ended	Specifies whether spooled files are kept with a job or detached from the job.	QSPLFACN
Maximum time for immediate end	Specifies the maximum amount of time for application cleanup during the immediate ending of a job.	QENDJOBLMT

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"Jobs system values: Allocate storage at restart" on page 52
Specifies the storage used at restart for active and total jobs. (QACTJOB, QTOTJOB)

"Jobs system values: Allocate additional storage as needed" on page 53
Specifies the storage allocated as needed. (QADLACTJ, QADLTOTJ)

"Jobs system values: Maximum jobs" on page 54
Specifies the maximum number of jobs. (QMAXJOB)

"Jobs system values: Initial printer output block size" on page 54
Controls the initial size of an internal control block (SCB). (QJOBSPLA)

"Jobs system values: Maximum printer output files" on page 55
Specifies the maximum number of printer output files allowed for a job. (QMAXSPLF)

"Jobs system values: Maximum job log size" on page 56
Specifies the maximum job log size. (QJOBMSGQMX)

"Jobs system values: When maximum size is reached" on page 57
Specifies the action to take when the maximum job log size is reached. (QJOBMSGQFL)

"Jobs system values: Time-out interval for inactive jobs" on page 57
Specifies the time-out interval for inactive jobs. (QINACTITV)

"Jobs system values: When a job reaches time-out" on page 58
Specifies the action to take when an inactive job reaches time-out. (QINACTMSGQ)

"Jobs system values: Time-out interval for disconnected jobs" on page 60
Specifies the time-out interval for disconnected jobs. (QDSCJOBITV)

"Jobs system values: When a function in a multi-threaded job is not threadsafe" on page 62
Specifies the action to take when a function is not threadsafe. (QMLTTHDACN)

"Jobs system values: Detach printer output after jobs have ended" on page 63
Specifies whether spooled files are kept with a job or detached from the job. (QSPLFACN)

"Jobs system values: Maximum time for immediate end" on page 64
Specifies the maximum amount of time for application cleanup during the immediate ending of a job. (QENDJOBLMT)

Related information

System value finder

Jobs system values: Allow jobs to be interrupted to run user-defined exit programs

Specifies how the system responds to user initiated requests to interrupt a job to run a user-defined exit program in that job. (QALWJOBITP)

Allow jobs to be interrupted to run user-defined exit programs, also known as **QALWJOBITP**, is a member of the jobs category of i5/OS system values. You can use this system value to specify how the system responds to user initiated requests to interrupt a job to run a user-defined exit program in that job. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Other**
Special authority	*ALLOBJ and *SECADM
Default value	Deselected
Changes take effect	Immediately, but does not affect jobs already started
Lockable	Yes  (Click for details)

What can I do with this system value?

This system value specifies how the operating system will respond to user initiated requests to interrupt a job. Use this capability if you want to provide an exit program the ability to interrupt a job for which the program will run. Only jobs in the active state can be interrupted.

Allow jobs to be interrupted to run user-defined exit programs

Specifies how the operating system will respond to user initiated requests to interrupt a job. Use this capability if you want to provide an exit program the ability to interrupt a job for which the program will run. Only jobs in the active state can be interrupted.

If this option is not selected (0), the operating system will not allow jobs to be interrupted to run user-defined exit programs.

If this option is selected, the operating system will allow jobs to be interrupted to run user-defined exit programs. For jobs that are currently active, use the Change Job Interrupt Status (QWCCJITP) API to identify if the job can be interrupted to run user-defined exit programs.

When this option is selected, you can select the following option:

All new active jobs will be interruptible

If you want all jobs becoming active to be interruptible, select this option (2). Otherwise, jobs that become active are marked by default as not interruptible (1).

If you do not want all jobs becoming active to be interruptible, do not select this option(1).

Where can I get more information about this system value?

To learn more, go to the **System values: Jobs overview** topic. You can also refer to the Call Job Interrupt Program (QWCJBITP) API and the Change Job Interrupt Status (QWCCJITP) API for more information. If

you are looking for a specific system value or category of system values, try using the system value finder.

Jobs system values: Allocate storage at restart

Specifies the storage used at restart for active and total jobs. (QACTJOB, QTOTJOB)

Allocate storage at restart, also known as **QACTJOB,** and **QTOTJOB**, is a member of the jobs category of system values. You can use this system value to set the amount of storage used at restart for active and total jobs. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Allocation**
Special authority	None
Default value	For active jobs -- 20; For total jobs -- 30
Changes take effect	At the next restart of the system
Lockable	No

What can I do with this system value?

These two system values specify the number of active and total jobs to allocate storage for at restart.

Active Jobs (QACTJOB)

Specifies the initial number of active jobs for which auxiliary storage is allocated when you restart the system. An active job is a job that has started running but not ended. This storage is in addition to the storage allocated using the total jobs system value. Possible values are 1 through 32767.

You may determine a new value to assign to active jobs. This value should be the estimated number of jobs that are active on a typical heavy-use day. You can see the number of active jobs on the system in iSeries Navigator by selecting **Work Management** and then selecting Active Jobs. The total number of active jobs is shown in the status bar at the bottom of the iSeries Navigator window. To ensure that this number is accurate, make sure the include criteria specifies all jobs except system jobs. For more information about specifying the include criteria, see the include section in the find a job topic. Select to include everything except System in the Type field. System jobs do not need to be considered when assigning a value to the active jobs at restart system value.

Total Jobs (QTOTJOB)

Represents the minimum number of jobs for which storage is allocated when you restart the system. The number of jobs is the number supported by the system at any one time, which includes the jobs on job queues, active jobs (including system jobs), and jobs having output on output queues.Possible values are 1 through 32767.

If this value is set so that the amount of storage required exceeds the amount currently allocated, additional storage is allocated. If this value is set so that the amount of storage required is less than the amount currently available, no action is taken.

To find the number of total jobs in the system, right-click your system in iSeries Navigator and select **System Status**. This number should usually be kept within reason as it is a factor in the time to perform a restart and some internal searches. This may require periodic removal of jobs that have only job logs. The CL Programming book has a discussion of job logs and how to remove them for jobs that complete normally. As long as a job has one or more spooled output files attached to the job, knowledge of the job remains in the system and counts toward the display system status value.

You may also use the Detach printer output after jobs have ended (QSPLFACN) system value to control the reuse of job structures. This will give you more control of the number of jobs being processed.

You should set this value high enough so it will not normally be exceeded by the total number of jobs.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the system value finder.

Related concepts

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

"Jobs system values: Detach printer output after jobs have ended" on page 63
Specifies whether spooled files are kept with a job or detached from the job. (QSPLFACN)

Related tasks

Find a job

Related information

CL Programming

System value finder

Jobs system values: Allocate additional storage as needed

Specifies the storage allocated as needed. (QADLACTJ, QADLTOTJ)

Allocate additional storage as needed for total jobs and active jobs, also known as **QADLACTJ** and **QADLTOTJ**, is a member of the jobs category of i5/OS system values. You can use this system value to set the amount of additional storage allocated as necessary. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Allocation**
Special authority	None
Default value	For active jobs -- 10; For total jobs -- 10
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

These two system values specify the additional number of active jobs and total jobs for which auxiliary storage is to be allocated when the initial number of active jobs and total jobs at restart is reached.

Active Jobs (QADLACTJ)

Specifies the additional number of active jobs for which auxiliary storage is to be allocated when the initial number of active jobs at restart is reached. An active job is a job that has started running but has not ended. This auxiliary storage is allocated whenever the number of active jobs exceeds the storage which has already been allocated. Possible values are 1 through 32767.

The value of 100 is recommended for this system value. Setting this number close to 1 can cause frequent interruptions when many additional jobs are needed. The number should not be set too high because the time required to add additional storage should be minimized.

Total Jobs (QADLTOTJ)

Specifies the additional number of jobs for which auxiliary storage is to be allocated when the initial number of jobs at restart is reached. This auxiliary storage is allocated whenever the number of jobs exceeds that for which storage has already been allocated. Possible values are 1 through 32767.

The value of 100 is recommended for this system value. Setting this number close to 1 will cause excessive interruptions when many additional jobs are needed. The number should not be set too high because the time required to add additional storage should be minimized.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

Related information

System value finder

Jobs system values: Maximum jobs

Specifies the maximum number of jobs. (QMAXJOB)

Maximum jobs, also known as **QMAXJOB**, is a member of the jobs category of i5/OS system values. You can use this system value to specify the maximum number of jobs that are allowed on the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Allocation**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	163520
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Specifies the maximum number of jobs that are allowed on the system. When the number of jobs reaches this maximum, you can no longer submit or start more jobs on the system. Use this system value to limit the storage used for job tables. Possible values are 32000 through 485000.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

Related information

System value finder

Jobs system values: Initial printer output block size

Controls the initial size of an internal control block (SCB). (QJOBSPLA)

Initial printer output block size, also known as **QJOBSPLA**, is a member of the jobs category of i5/OS system values. You can use this system value to specify the initial size for the spooling control block for a job. (There is one spooling control block for each job in the system.) To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Printer Output**
Special authority	None
Default value	3516
Changes take effect	At the next restart of the iSeries server.
Lockable	No

What can I do with this system value?

You may specify the initial size of the spooling control block for a job. (There is one spooling control block for each job in the system.) The spooling control block records information about inline spooled files and output spooled files. This value primarily affects auxiliary storage requirements and has little affect on performance. The auxiliary storage is retained for every job known to the system. Possible values are 3516 through 32767.

The allocated area is made up of standard control information plus a separate set of control information for each inline spooled file. The default is 3516 bytes, which allows for about 8 inline spooled files per job. If your typical job uses more than the 8 inline files and you are not concerned with an additional 4 KB allocation per job, a good choice would be 8192 bytes. This allows for approximately 59 inline spooled files per job.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

Related information

System value finder

Jobs system values: Maximum printer output files

Specifies the maximum number of printer output files allowed for a job. (QMAXSPLF)

Maximum printer output files, also known as **QMAXSPLF**, is a member of the jobs category of i5/OS system values. You can use this system value to specify the maximum number of printer output files that can be created per job. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Printer Output**
Special authority	None
Default value	9999
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

The maximum number of printer output (spooled) files that can be created per job. Printer output files will not be deleted when this value is changed to a lower number. Therefore, a job can have more than this maximum number of printer output files if the printer output files existed before the system value was set to a lower number. Specify a value of 9999 through 999999.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

Related information

System value finder

Jobs system values: Maximum job log size

Specifies the maximum job log size. (QJOBMSGQMX)

Maximum job log size, also known as **QJOBMSGQMX**, is a member of the jobs category of i5/OS system values. You can use this system value to specify the maximum size of a job log (also known as a job message queue). To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Job Log**
Special authority	None
Default value	16
Changes take effect	Immediately, but the change does not affect jobs that are already started.
Lockable	No

What can I do with this system value?

Specifies the maximum size of a job log in megabytes (MB). When this maximum size is reached for any job log, that job log is considered full and the action specified is taken, for when the maximum size is reached. Possible values are 2 through 64 MB.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

"Jobs system values: When maximum size is reached" on page 57
Specifies the action to take when the maximum job log size is reached. (QJOBMSGQFL)

Related information

System value finder

Jobs system values: When maximum size is reached

Specifies the action to take when the maximum job log size is reached. (QJOBMSGQFL)

When maximum size is reached, also known as **QJOBMSGQFL**, is a member of the jobs category of i5/OS system values. You can use this system value to specify how the system should handle the job log (also known as the job message queue) when it is considered full. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Job Log**
Special authority	None
Default value	Do not wrap job log. End the job.
Changes take effect	Immediately, but the change does not affect jobs that are already started.
Lockable	No

What can I do with this system value?

Specifies how the system should handle the job message queue when it is considered full. The specified value in the Maximum job log size field indicates when a job message queue is considered full.

The following are possible options:

- **Do not wrap job log. End the job. (*NOWRAP)**

  Do not wrap the job log. The job ends when the **Maximum job log size** is reached.
- **Wrap job log. (*WRAP)**

  Wrap the job log. You may also print the messages that are being overlaid because of wrapping by selecting **Print overlaid messages (*PRTWRAP)**.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"Jobs system values: Maximum job log size" on page 56
Specifies the maximum job log size. (QJOBMSGQMX)

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

"Jobs system values: When maximum size is reached"
Specifies the action to take when the maximum job log size is reached. (QJOBMSGQFL)

Related information

System value finder

Jobs system values: Time-out interval for inactive jobs

Specifies the time-out interval for inactive jobs. (QINACTITV)

Time-out interval for inactive jobs, also known as **QINACTITV**, is a member of the jobs category of i5/OS system values. You can use this system value to specify the time interval that the system waits before taking the action that you specify for When job reaches time-out. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Interactive Jobs**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Do not time-out
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Use the Time-out interval for inactive jobs and when a job reaches time-out options to specify how many minutes to give a job the chance to perform an activity before it is marked as inactive and the action to take when the time limit for an inactive job expires.

The time-out interval allows you to specify the inactive job time-out interval in minutes. When this time limit expires, the system takes action on inactive interactive jobs. This system value determines when to take action on an inactive job. Excluded are local jobs that are currently signed-on to a remote system. For example, a workstation is directly attached to System A, and System A has this system value set on. If you use pass-through or Telnet to sign on to System B, the time-out value set on System A does not affect this workstation.

The following are possible options:

- **Do not time-out (*NONE)**

  The system does not check for inactive interactive jobs.
- **5-300 minutes (5-300)**

  The number of minutes a job can be inactive before action is taken.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

"Jobs system values: When a job reaches time-out"
Specifies the action to take when an inactive job reaches time-out. (QINACTMSGQ)

"Jobs system values: Time-out interval for disconnected jobs" on page 60
Specifies the time-out interval for disconnected jobs. (QDSCJOBITV)

Related information

System value finder

Jobs system values: When a job reaches time-out

Specifies the action to take when an inactive job reaches time-out. (QINACTMSGQ)

When a job reaches time-out, also known as **QINACTMSGQ**, is a member of the jobs category of i5/OS system values. You can use this system value to specify the action for the system to take when a job reaches the specified time-out interval. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Interactive Jobs**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	End job
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify the action the system takes when an interactive job has been inactive for a specified interval of time. The interactive job can be ended, disconnected, or a message can be sent to the message queue you specify.

The following are possible options:

- **End job (*ENDJOB)**

  The interactive job is ended, along with any secondary job and any group jobs associated with it. If there are many inactive jobs in a subsystem that are to be ended at once, the interactive response time of that subsystem may be slowed. To minimize this effect, the system changes several job attributes for each job to be ended. The job priority is lowered by 10, the time slice is set to 100 milliseconds, and the purge attribute is set to yes.
- **Disconnect job (*DSCJOB)**

  The interactive job is disconnected, as is any secondary or group jobs associated with it. If the action is specified, and if the job cannot be disconnected, **End job** will be used.
- **Send a message**

  The message CPI 1126 is sent to the specified message queue. If the specified message queue does not exist or is damaged, the messages are sent to the system operator message queue.

  All messages in the message queue specified by this system value are cleared during a restart. If you assign a user's message queue to this system value, the user loses all messages in the user's message queue during each restart of the system.

  The message queue must exist in the system disk pool (also known as auxiliary storage pool) or in a basic user disk pool.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"Jobs system values: Time-out interval for inactive jobs" on page 57
Specifies the time-out interval for inactive jobs. (QINACTITV)

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

"Jobs system values: Time-out interval for disconnected jobs"
Specifies the time-out interval for disconnected jobs. (QDSCJOBITV)

Related information

System value finder

Jobs system values: Time-out interval for disconnected jobs

Specifies the time-out interval for disconnected jobs. (QDSCJOBITV)

Time-out interval for disconnected jobs, also known as **QDSCJOBITV**, is a member of the jobs category of i5/OS system values. You can use this system value to specify how long a job can be disconnected before the job is ended. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Interactive Jobs**
Special authority	None
Default value	240
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify the length of time in minutes that an interactive job can be disconnected before it is ended. An interactive job can become disconnected in any of the following ways:

- When the Disconnect Job (DSCJOB) command has been issued for the job.
- When the job has been inactive for the interval that is specified for Time-out interval for inactive jobs, and **Disconnect job** is specified for When job reaches time-out.
- When an I/O error occurs at the interactive job's workstation, and one of the **Disconnect job** options is specified for Action to take when a device error occurs on the workstation.

No matter how the job became disconnected, it is ended after the number of minutes specified for **Time-out interval for disconnected jobs**. The following are possible values:

- **None (*NONE)**

  There is no disconnect interval.
- **5-1440 mintues (5-1440)**

  Specifies the number of minutes before the job is ended.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

"Jobs system values: Time-out interval for inactive jobs" on page 57
Specifies the time-out interval for inactive jobs. (QINACTITV)

"Jobs system values: When a job reaches time-out" on page 58
Specifies the action to take when an inactive job reaches time-out. (QINACTMSGQ)

"Devices system values: Action to take when a device error occurs on the workstation" on page 29
Sets the action to take when an error occurs. (QDEVRCYACN)

Related information

System value finder

Job system values: Produce printer output for job log

Specifies how the job log will be produced when a job completes. (QLOGOUTPUT)

Produce printer output for job log, also known as **QLOGOUTPUT**, is a member of the jobs category of system values. Use this value to specify whether the operating system will create printer output that contains the job log information for a job when it completes. The job log's printer output can contain commands run within the job and their related messages.

This system value setting does not affect printer output for job logs produced when the message queue is full and the job requiredty specifies to print overlaid messages. After a message queue is full, the operating system ignores this system value setting and printer output is automatically created by the job. Messages in the job message queue are written to a spooled file, from which the job log can be printed, unless the Control Job Log Output(QMHCTLJL) API was used in the job to specify that the messages in the job log are to be written to a database file. Changes to this system value take effect immediately for jobs entering the system after the change is made. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Job Log**
Special authority	*JOBCTL
Default value	Selected and produced by job
Changes take effect	Immediately, but does not affect jobs already started
Lockable	No

What can I do with this system value?

If this option is selected, printer output for a job log is automatically created. You can use the printer output for auditing purposes and to troubleshoot problems if they occur. In addition, you must specify what creates the printer output of the job log, the job itself (*JOBEND) or the job log server (*JOBLOGSVR).

If this option is not selected (*PND), printer output for a job log is not automatically created. This reduces the amount of processor and storage resources consumed by unnecessary job logs. The pending job log can still be displayed or printer output can be produced at any time after the job has ended by using the Display Job Log (DSPJOBLOG) or Change Job (CHGJOB) commands.

Select one of the following in the **Produced by** field:

- **Job**

  Indicates that the job will produce the printer output of the job log. If the job cannot produce its own printer output, the job log server will produce it. For example, if the system is powered down before a job creates the printer output, the job log server will create it.
- **Job Log Server**

  Indicates that the job log server will produce the printer output. This is the recommended setting.

Note: You need to delete job logs and printer output that are no longer needed. By default, pending job logs are removed along with printer output periodically by Operational Assistant. The Remove Pending Job Log (QWTRMVJL) API can also be used to remove pending job logs.

Where can I get more information about this system value?

To learn more, go to the **System values: Jobs overview** topic. If you are looking for a specific system value or category of system values, try using the system value finder.

Jobs system values: When a function in a multi-threaded job is not threadsafe

Specifies the action to take when a function is not threadsafe. (QMLTTHDACN)

When a function in a multi-threaded job is not threadsafe, also known as **QMLTTHDACN**, is a member of the jobs category of i5/OS system values. You can use this system value to specify the action to take when a function is not threadsafe. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Threads**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Perform the function that is not threadsafe and send message to job log
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Specifies the action to take when a function that may not be threadsafe is called in a job that is running with multiple threads. Examples of functions that support this system value are CL commands and exit points that run user exit programs that are registered through the exit program registration facility.

The following are possible options:

- **Do not perform the function (3)**

  If a function is not threadsafe, the function will not be performed. This value should be used on systems that are running multi-threaded jobs in production mode or on any system for which data integrity is important.
- **Perform the function that is not threadsafe (1)**

  If a function is not threadsafe, the function will be performed. You should not use this value on systems that are running multi-threaded jobs in production mode or on any system for which data integrity is important. By selecting this option, you can also specify whether a message is sent to the job log by selecting the following option:
  - **Send message to job log (2)**

    Select this option to perform the function that is not threadsafe and send an informational message to the job log.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

Related information

System value finder

Jobs system values: Detach printer output after jobs have ended

Specifies whether spooled files are kept with a job or detached from the job. (QSPLFACN)

Detach printer output after jobs have ended, also known as **QSPLFACN**, is a member of the jobs category of i5/OS system values. You can use this system value to specify whether printer output is kept with a job or detached from the job. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Printer Output**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - keep printer output.
Changes take effect	Immediately, except for jobs already started.
Lockable	No

What can I do with this system value?

Use the associated checkbox to specify whether printer output (spooled files) is kept with a job or detached from the job.

Keeping printer output with jobs (*KEEP) allows you to display printer output when you select **Printer Output** on jobs that have ended. The ended jobs will still count toward the limit of jobs defined by the Maximum jobs system value. The job status becomes **Completed...** (OUTQ) when the job ends.

Detaching printer output from a job (*DETACH) means that the job is removed from the system when the job ends. This reduces the use of system resources by allowing job structures to be recycled when the job ends. Because the job is removed from the system, the job interfaces can no longer be used to work with the printer output for the job. However, this option does not delete the printer output. To view the printer output for a job that is removed from the system, open iSeries Navigator and select **Basic Operations**. Then, select **Printer Output**. The queue will list the output.

If you choose to keep printer output with jobs and you have printer output in independent disk pools (also known as auxiliary storage pools), you need to be aware of the following restriction: printer output in independent disk pools is separate from the job. For example, the independent disk pool may be varied off and moved to a different system. While the job still exists and the disk pool is still varied on and is still on the same system as the job, you can work with the job and display printer output. But printer output in independent disk pools is not, by itself, reason enough for the job to continue to exist. When the only printer output associated with a job is on independent disk pools, the printer output is detached from the job and the job is removed from the system.

For example, when a job completes, it contains three printer output files: File1, File2, and File3. At the user's request, File1 and File2 are either printed or deleted; however, File3 still exists. Since File3 is on an independent disk pool, the job is detached from the printer output File3. The printer output for that job is still available but the job is removed from the system.

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"Jobs system values: Allocate storage at restart" on page 52
Specifies the storage used at restart for active and total jobs. (QACTJOB, QTOTJOB)

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

Related information

System value finder

Jobs system values: Maximum time for immediate end

Specifies the maximum amount of time for application cleanup during the immediate ending of a job. (QENDJOBLMT)

Maximum time for immediate end, also known as **QENDJOBLMT**, is a member of the jobs category of i5/OS system values. You can use this system value to specify the amount of time for application cleanup during the immediate ending of a job. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Jobs** → **Cleanup**
Special authority	None
Default value	120
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Specifies the maximum amount of time (in seconds) for application cleanup during the immediate ending of a job. This is both a maximum cleanup time and a minimum amount of time needed to conclude that the signal handling procedure (SIGTERM) has encountered a problem. The signal handling procedure is set up by the application in the job and indicates how to process the incoming signals. Only jobs running applications that use signal handling procedures use this system value.

When a job being ended has a signal handling procedure for the asynchronous signal SIGTERM, the SIGTERM signal is generated for that job. When the signal handling procedure for the SIGTERM signal is given control, the procedure can take the appropriate actions to avoid undesirable results such as application data that has been partially updated. If the SIGTERM signal handler has not completed in the specified amount of time, the system ends the job.

If a job is ended in an immediate manner, the maximum time for the signal handler is specified by this system value. This system value's time limit is used when ending one job, when ending all the jobs in a subsystem, or when ending all jobs in all subsystems. After two minutes from the initial end request, the system operator can use the End Job (ENDJOB) command with OPTION(*IMMED) to override the QENDJOBLMT value and end individual jobs immediately. Only use this command if a job is unable to perform its cleanup due to lock or wait conditions.

In order to allow enough time for both application cleanup and system end-of-job processing, you may need to adjust the Maximum time for immediate shutdown (QPWRDWNLMT) system value in the Restart category of system values. If you set this system value, **Maximum time for immediate end**, to a value greater than **Maximum time for immediate shut down**, a warning message will be displayed.

When a power down occurs, all jobs must end within the time frame specified by the **Maximum time for immediate shut down** system value in order for the power down to complete in a controlled manner.

Possible values are from 30 to 3600 seconds (1 hour).

Where can I get more information about this system value?

To learn more, go to the jobs system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Jobs overview" on page 49
Use i5/OS jobs system values to view or change system level job limits and other job defaults.

"Restart system values: Maximum time for immediate shutdown" on page 119
Specifies the time limit before an immediate shutdown occurs. (QPWRDWNLMT)

Related information

System value finder

System values: Library lists overview

Use i5/OS library lists system values to view or change system level job limits and other job defaults.

To access the library lists category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the library lists system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Library lists system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
System library list	Specifies the initial value for the system portion of a job's library list.	QSYSLIBL
User library list	Specifies the initial value for the user portion of a job's library list.	QUSRLIBL

System values categories
Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"Library lists system values: System library list"
Specifies the initial value for the system portion of a job's library list. (QSYSLIBL)

"Library lists system values: User library list" on page 66
Specifies the initial value for the user portion of a job's library list. (QUSRLIBL)

Related information

System value finder

Library lists system values: System library list

Specifies the initial value for the system portion of a job's library list. (QSYSLIBL)

System library list, also known as **QSYSLIBL**, is a member of the library lists category of i5/OS system values. You can use this system value to specify the initial value for the system portion of a job's library

list. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Library Lists** → **System**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	QSYS, QSYS2, QHLPSYS, QUSRSYS
Changes take effect	At the start of the next job
Lockable	No

What can I do with this system value?

You may use this system value to view or change the system part of the library list. The list can contain as many as 15 names. When searching for an object in the library list, the system libraries are searched before any user libraries are searched. A library specified as part of the library list cannot be deleted or renamed when the system is fully operational.

The QSYS library cannot be removed. The libraries must exist in the system disk pool or in a basic user disk pool.

Where can I get more information about this system value?

To learn more, go to the library lists system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Library lists overview" on page 65
Use i5/OS library lists system values to view or change system level job limits and other job defaults.

Related information

System value finder

Library lists system values: User library list

Specifies the initial value for the user portion of a job's library list. (QUSRLIBL)

User library list, also known as **QUSRLIBL**, is a member of the library lists category of i5/OS system values. You can use this system value to specify the initial value for the user portion of a job's library list. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Library Lists** → **User**
Special authority	None
Default value	QGPL, QTEMP
Changes take effect	At the start of the next job
Lockable	No

What can I do with this system value?

You may use this system value to view or change the user part of the library list. The user library list contains the information you are working on. The list can contain as many as 25 names. When searching

for an object in the library list, the user libraries are searched after the system libraries, product library, and current library entries. A library specified as part of the library list cannot be deleted or renamed when the system is fully operational.

The libraries must exist in the system disk pool or in a basic user disk pool.

Where can I get more information about this system value?

To learn more, go to the library lists system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Library lists overview" on page 65
Use i5/OS library lists system values to view or change system level job limits and other job defaults.

Related information

System value finder

System values: Messages and service overview

Use i5/OS messages and service system values to change and view the system's message, logging, and service information.

To access the messages and service category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive words to describe the system Values. For a quick overview of the messages and service system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Messages and service system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
History log file size	Specifies the maximum records in history log.	QHSTLOGSIZ
Display status messages	Specifies if status messages are displayed on line 24 of the character-based interface.	QSTSMSG
Message queue	Specifies the message queue for lines, controllers and devices.	QCFGMSGQ
Journal accounting information	Specifies whether to journal job usage, printer output and printer usage or not.	QACGLVL
Problem log filter	Specifies whether to filter the problem log or not.	QPRBFTR
Minimum retention	Sets the minimum period for holding problem log entries.	QPRBHLDITV
Log software problems detected by system	Specifies whether or not to log software problems that are detected by the system.	QSFWERRLOG

Name in iSeries Navigator	Description of system value	Name in character-based interface
Service log for unmonitored escape messages	Specifies whether to create a service log for unmonitored escape messages or not.	QSRVDMP
Allow remote service of system	Specifies remote service for the system.	QRMTSRVATR

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"Messages and service system values: History log file size"
Specifies the maximum records in history log. (QHSTLOGSIZ)

"Messages and service system values: Display status messages" on page 69
Specifies if status messages are displayed on line 24 of the character-based interface. (QSTSMSG)

"Messages and service system values: Message queue for lines, controllers and devices" on page 70
Specifies the message queue for lines, controllers and devices. (QCFGMSGQ)

"Messages and service system values: Journal accounting information" on page 71
Specifies whether to journal job usage, printer output and printer usage or not. (QACGLVL)

"Messages and service system values: Problem log filter" on page 72
Specifies whether to filter the problem log or not. (QPRBFTR)

"Messages and service system values: Minimum retention" on page 72
Sets the minimum period for holding problem log entries. (QPRBHLDITV)

"Messages and service system values: Log software problems detected by the system" on page 73
Specifies whether or not to log software problems that are detected by the system. (QSFWERRLOG)

"Messages and service system values: Service log for unmonitored escape messages" on page 74
Specifies whether to create a service log for unmonitored escape messages or not. (QSRVDMP)

"Messages and service system values: Allow remote service of system" on page 75
Specifies remote service for the system. (QRMTSRVATR)

Related information

System value finder

Messages and service system values: History log file size

Specifies the maximum records in history log. (QHSTLOGSIZ)

History log file size, also known as **QHSTLOGSIZ**, is a member of the messages and service category of i5/OS system values. You can use this system value to specify the maximum number of records in the history log. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Messages and Service** → **General**
Special authority	None
Default value	5000
Changes take effect	The next time a history log is created
Lockable	No

What can I do with this system value?

Specifies the maximum number of records for each version of the history log. When a version is full (the maximum has been reached), a new version is created. You can save the full (old) version and then delete it.

- **Create daily (*DAILY)**

  Select this option if you want a new version of the history log created each day. If a history log reaches the maximum of 10,000,000 records, an additional history log is created for that day. Therefore, you can have more than one history log for each day.

- **Maximum records (1-10,000,000)**

  Select this option if you want a new history log created only when the maximum number of history records is reached. If you select this option, you must specify a maximum number of records. Possible values are 1 through 10,000,000.

Where can I get more information about this system value?

To learn more, go to the messages and service system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Messages and service overview" on page 67
Use i5/OS messages and service system values to change and view the system's message, logging, and service information.

Related information

System value finder

Messages and service system values: Display status messages

Specifies if status messages are displayed on line 24 of the character-based interface. (QSTSMSG)

Display status messages, also known as **QSTSMSG**, is a member of the messages and service category of i5/OS system values. You can use this system value to specify whether to display status messages or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Messages and Service** → **General**
Special authority	None
Default value	Selected - status messages are displayed
Changes take effect	Immediately, but does not affect jobs that are already started
Lockable	No

What can I do with this system value?

You may specify whether to show status messages on line 24 of the charater-based interface (5250 Emulator Session) (*NORMAL) or not (*NONE).

Where can I get more information about this system value?

To learn more, go to the messages and service system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Messages and service overview" on page 67
Use i5/OS messages and service system values to change and view the system's message, logging, and service information.

Related information

System value finder

Messages and service system values: Message queue for lines, controllers and devices

Specifies the message queue for lines, controllers and devices. (QCFGMSGQ)

Message queue for lines, controllers and devices, also known as **QCFGMSGQ**, is a member of the messages and service category of i5/OS system values. You can use this system value to specify the message queue that the system uses when sending messages for lines, controllers, and devices. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Messages and Service** → **General**
Special authority	System configuration (*IOSYSCFG)
Default value	Message queue - QSYSOPR; Library - QSYS
Changes take effect	When you vary on the line, controller, or device description. Therefore, if you change this system value after a line, controller, or device description has been varied on, you must vary off, then vary on the configuration object to use the new value.
Lockable	No

What can I do with this system value?

Specifies the message queue that the system uses when sending messages for lines, controllers, and devices.

This system value allows you to specify the default message queue the system will use when sending messages for lines, controllers, and devices.

The message queue specified for this system value should be created with the following attributes for best overall system behavior:

Force (FORCE) - *NO
Allow Alerts (ALWALR) - *NO
Size (SIZE) - (8,32,*NOMAX)
Wrap (MSGQFULL) - *WRAP

A message queue, QSYS/QCFGMSGQ, is provided by the system with the above characteristics.

The following line description types support this system value: Token Ring, Ethernet, DDI, X.25, Frame Relay.

The following controller description types support this system value: APPC, SNA Host, Async, Local Workstation, Remote Workstation, Virtual Workstation.

The following device description types support this system value: APPC, Printer, and Cryptographic.

The shipped value is QSYS/QSYSOPR, which results in the communications messages being sent to the system operator message queue.

The message queue must exist in the system disk pool (also known as auxiliary storage pool) or in a basic user disk pool.

Where can I get more information about this system value?

To learn more, go to the messages and service system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Messages and service overview" on page 67
Use i5/OS messages and service system values to change and view the system's message, logging, and service information.

Related information

System value finder

Messages and service system values: Journal accounting information

Specifies whether to journal job usage, printer output and printer usage or not. (QACGLVL)

Journal accounting information, also known as **QACGLVL**, is a member of the messages and service category of i5/OS system values. You can use this system value to specify whether to journal job usage, printer output, and printer usage or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Messages and Service** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - no accounting information sent to a journal
Changes take effect	At the start of the next job
Lockable	No

What can I do with this system value?

Specifies the type of usage information that you want the system to write to a journal. If neither option is selected (*NONE), no accounting information is written to a journal. You can select to write job usage information to a journal (*JOB) or to write printer output and printer usage information to a journal (*PRINT). If either option is selected, the system accounting journal (QACGJRN) must exist in the QSYS library; if it does not exist, the change is rejected.

Where can I get more information about this system value?

To learn more, go to the messages and service system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Messages and service overview" on page 67
Use i5/OS messages and service system values to change and view the system's message, logging, and service information.

Related information

System value finder

Messages and service system values: Problem log filter

Specifies whether to filter the problem log or not. (QPRBFTR)

Problem log filter, also known as **QPRBFTR**, is a member of the messages and service category of i5/OS system values. You can use this system value to specify whether to filter the problem log or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Messages and Service** → **Problems**
Special authority	None
Default value	Do not filter
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify the name of the problem log filter that you want to use. If you specify a filter name, you must include the library name where the filter resides. You can type the name of a problem log filter or you can select **Do not filter** (*NONE) in which case, no problem log filter is in use.

The filter must exist in the system disk pool (also known as an auxiliary storage pool) or in a basic user disk pool.

Where can I get more information about this system value?

To learn more, go to the messages and service system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Messages and service overview" on page 67
Use i5/OS messages and service system values to change and view the system's message, logging, and service information.

Related information

System value finder

Messages and service system values: Minimum retention

Sets the minimum period for holding problem log entries. (QPRBHLDITV)

Minimum retention, also known as **QPRBHLDITV**, is a member of the messages and service category of i5/OS system values. You can use this system value to set the minimum number of days a problem is kept in the problem log. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Messages and Service** → **Problems**
Special authority	None
Default value	30 days
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify the minimum number of days a problem log entry is kept in the problem log. The time interval starts as soon as the problem is put into the log. The range for this system value is 0 through 999 days. After this time interval, the problem log entry can be deleted by running the Delete Problem (DLTPRB) command.

Where can I get more information about this system value?

To learn more, go to the messages and service system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Messages and service overview" on page 67
Use i5/OS messages and service system values to change and view the system's message, logging, and service information.

Related information

System value finder

Messages and service system values: Log software problems detected by the system

Specifies whether or not to log software problems that are detected by the system. (QSFWERRLOG)

Log software problems detected by the system, also known as **QSFWERRLOG**, is a member of the messages and service category of i5/OS system values. You can use this system value to specify whether to log software problems that are detected by the system or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Messages and Service** → **Problems**
Special authority	None
Default value	Selected - software problems detected by the system are logged
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify whether software errors should be logged (*LOG) or not logged (*NOLOG) by the system.

- **Log software problems detected by the system (*LOG)**

  This setting specifies whether software errors should be logged by the system. The problem log is the storage place for information about errors that occur in the software of your system. If you select to log software problems detected by the system (*LOG), the error is evaluated to determine if it should be logged unconditionally, or if the decision to log the error should be deferred to the policy based Service Monitor.

  If the error is to be logged unconditionally, a PARable message is sent to QSYSOPR and an entry is created in the problem log. If the reporting component provides error data, a spooled file is created to contain the data. The spooled file name is stored in the error log and problem log entries.

If the error is to be conditionally logged, the decision to log the error will be made by the policy based Service Monitor. If the decision is to log the problem, an entry is created in the problem log. The problem data will be stored in a problem data library and the problem record entry will be updated with the name of the library.

If you select not to log software problems detected by the system (*NOLOG), no logging will occur if a software error is detected.

Where can I get more information about this system value?

To learn more, go to the **System values: messages and service overview** topic. If you are looking for a specific system value or category of system values, try using the system value finder.

Related concepts

"System values: Messages and service overview" on page 67
Use i5/OS messages and service system values to change and view the system's message, logging, and service information.

Related information

System value finder

Messages and service system values: Service log for unmonitored escape messages

Specifies whether to create a service log for unmonitored escape messages or not. (QSRVDMP)

Service log for unmonitored escape messages, also known as **QSRVDMP**, is a member of the messages and service category of i5/OS system values. You can use this system value to specify whether to create a service log (also known as service dump) for unmonitored escape messages or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Messages and Service** → **Problems**
Special authority	None
Default value	Selected - **Include user jobs**
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify whether service logs for unmonitored escape messages are created or not (*NONE). If you want these service logs created, you can specify to include user jobs (*DMPUSRJOB), system jobs (*DMPSYSJOB) or both (*DMPALLJOB).

If you produce and keep service logs for unusual failures, including unmonitored escape messages, IBM® can better help you when trying to diagnose the problem in the event of an unusual failure. Examples of system jobs include:

- System arbiter
- Subsystem monitors
- Logical unit (LU) services
- Spool readers and writers
- Start-control-program-function (SCPF) job

Where can I get more information about this system value?

To learn more, go to the messages and service system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Messages and service overview" on page 67
Use i5/OS messages and service system values to change and view the system's message, logging, and service information.

Related information

System value finder

Messages and service system values: Allow remote service of system

Specifies remote service for the system. (QRMTSRVATR)

Allow remote service of system, also known as **QRMTSRVATR**, is a member of the messages and service category of i5/OS system values. You can use this system value to specify remote problem analysis for the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Messages and Service** → **Remote**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - remote service of the system is not allowed
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify whether to allow (1) or not allow (0) the system to be analyzed remotely.

Where can I get more information about this system value?

To learn more, go to the messages and service system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Messages and service overview" on page 67
Use i5/OS messages and service system values to change and view the system's message, logging, and service information.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

System values: Password overview

Use i5/OS password system values to control the password values and password restrictions.

To access the password category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the password system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Name in iSeries Navigator	Description of system value	Name in character-based interface
Password system values:		
Password level	Sets the password level for the system.	QPWDLVL
Minimum password length	Sets the minimum length for a password.	QPWDMINLEN
Maximum password length	Sets the maximum length for a password.	QPWDMAXLEN
Require at least one digit	Sets the passwords used on the system to use at least one digit.	QPWDRQDDGT
Restrict consecutive digits	Sets the passwords on the system to restrict consecutive digits.	QPWDLMTAJC
Restricted characters	Specifies the characters to be restricted.	QPWDLMTCHR
Restrict repeating characters	Specifies whether to restrict repeating characters or not.	QPWDLMTREP
Require a new character in each position	Sets the passwords on the system to require a new character in each position.	QPWDPOSDIF
Password reuse cycle	Specifies when a password can be used again.	QPWDRQDDIF
Password expiration	Specifies when a password expires.	QPWDEXPITV
Not in iSeries Navigator	Specifies whether a user-written program will do additional validation on passwords or not.	QPWDVLDPGM

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"Secure system access levels" on page 196

To help you implement the required level of security for your company, you may wish to restrict system access by using the password system values. A company can control the level of security by setting the password system values requiredly.

"Password system values: Password Level"
Sets the password level for the system. (QPWDLVL)

"Password system values: Minimum password length" on page 81
Sets the minimum length for a password. (QPWDMINLEN)

"Password system values: Maximum password length" on page 81
Sets the maximum length for a password. (QPWDMAXLEN)

"Password system values: Require at least one digit" on page 82
Sets the passwords used on the system to use at least one digit. (QPWDRQDDGT)

"Password system values: Restrict consecutive digits" on page 83
Sets the passwords on the system to restrict consecutive digits. (QPWDLMTAJC)

"Password system values: Restricted characters" on page 84
Specifies the characters to be restricted. (QPWDLMTCHR)

"Password system values: Restrict repeating characters" on page 85
Specifies whether to restrict repeating characters or not. (QPWDLMTREP)

"Password system values: Require a new character in each position" on page 86
Sets the passwords on the system to require a new character in each position. (QPWDPOSDIF)

"Password system values: Password reuse cycle" on page 87
Specifies when a password can be used again. (QPWDRQDDIF)

"Password system values: Password expiration" on page 88
Specifies when a password expires. (QPWDEXPITV)

Related tasks

"Verify passwords when changing password levels" on page 80
Prior to changing your **Password Level** (QPWDLVL) value, you should verify your user profiles contain passwords for the level you are going to. There are two character-based methods for analyzing the profiles on your system.

Related information

System value finder

Password system values: Password Level

Sets the password level for the system. (QPWDLVL)

Password Level, also known as **QPWDLVL**, is a member of the password category of i5/OS system values. You can use this system value to set the password level for the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Password** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Short passwords using a limited character set (0)
Changes take effect	At the next restart of the system
Lockable	Yes Lock function of security-related system values  (Click for details)

Quick reference	
Special considerations	The password level system value cannot be changed from 3 to a value of 0 or 1. The password level system value must be changed from 3 to 2 and then to 0 or 1. The reason for this restriction is that all passwords used at password level 0 or 1 are removed from the system when you change to the password level 3. While the system is at password level 2, you need to make sure that you change your user profiles and give them a password that works at password level 0 or 1 (10 characters or less for the password) prior to changing from 2 to 0 or 1. Otherwise, users will not be able to sign on to your system. For more information about how to check user profiles to make sure their passwords are valid for the password level you want to change to, see Verify passwords when changing password levels.

What can I do with this system value?

You can specify the password level used on the system.

The password level of the system can be set to allow for user profile passwords from 1 through 10 characters or to allow for user profile passwords from 1 through 128 characters.

The password level can be set to allow a passphrase as the password value. The term passphrase is sometimes used in the computer industry to describe a password value that can be very long and has few, if any, restrictions on the characters used in the password value. Blanks can be used between letters in a passphrase, which allows you to have a password value that is a sentence or sentence fragment. The only restrictions on a passphrase are that it cannot start with an asterisk (*) and trailing blanks are removed.

Changing the password level on the system from 1-10 character passwords to 1-128 character passwords requires careful consideration. If your system communicates with other systems in a network, then all systems must be able to handle the longer passwords.

Before you change this system value, you should read ″Planning Password Level Changes″ in the iSeries Security Reference.

Possible options are:

- **Short passwords using a limited character set. (0)**

  Supports user profile passwords with a length of 1-10 characters. The allowable characters are A-Z, 0-9, and the following special characters: dollar sign ($), at sign (@), number sign (#), and underscore (_).

  This value should be used if your server communicates with other servers in a network and those systems are running with a password level of 0 or an operating system release earlier than V5R1M0.

  This value should be used if your server communicates with any other server that limits the length of passwords from 1-10 characters.

  This value must be used if your server communicates with the iSeries Support for Windows® Network Neighborhood (iSeries NetServer™) product and your server communicates with other servers using passwords from 1-10 characters.

  When the password level of the system is set to this value, the operating system will create the encrypted password for use at password level 2 and 3. The password characters used at level 0 are the same characters that will be available at levels 2 and 3.

- **Short passwords using a limited character set. Disable iSeries NetServer on Windows (R) 95/98/ME clients. (1)**

  This value is equivalent to the support for password level 0 with the following exception. iSeries NetServer passwords for Windows 95/98/ME clients will be removed from the system. If you use the client support for the iSeries NetServer product, you cannot use password level 1.

  The NetServer product for Windows 95/98/ME will not connect to a system where the password level is set to 1 or 3. NetServer passwords are removed from the system at these password levels because of security concerns with the weak encryption used for NetServer passwords.
- **Long passwords using an unlimited character set. (2)**

  This value supports user profile passwords from 1-128 characters. Uppercase and lowercase characters are allowed. Passwords can consist of any characters. The passwords are case sensitive.

  This level is viewed as a compatibility level. When you sign on a system, the password that you use will be used to authenticate signon and other password tests. This level allows for a move back to password level 0 or 1 as long as a password meets the length and syntax requirements of password level 0 or 1.

  This level can be used if your system communicates with the iSeries Support for Windows Network Neighborhood (iSeries NetServer) product as long as your password is 1-14 characters in length.

  You cannot use level 2 if your system communicates with:

  – Other systems in a network that are running with either a password level of 0 or 1 or an operating system release earlier than V5R1M0.
  – Any other system that limits the length of passwords from 1-10 characters.
  – PCs that are using Client Access V5R1 or earlier.
- **Long passwords using an unlimited character set. Disable iSeries NetServer on Windows 95/98/ME clients. (3)** This level supports user profile passwords from 1-128 characters. Upper and lower case characters are allowed. Passwords can consist of any characters and the passwords are case sensitive.

  Before you change the password level to 3, you should read ″Planning Password Level Changes″ in the iSeries Security Reference book.

  Moving from password level 3 back to 0 or 1 is not allowed without first changing to password level 2. Password level 2 allows for creation of passwords that can be used at password level 0 or 1 as long as the password meets the length and syntax rules for password level 0 or 1.

  You cannot use this level 3 if your system communicates with:

  – Other systems in a network that are running with either a password level of 0 or 1 or an operating system release earlier than V5R1M0.
  – Any other system that limits the length of passwords from 1-10 characters.
  – The iSeries Support for Windows Network Neighborhood (iSeries NetServer) product.
  – PCs that are using Client Access V5R1 or earlier.

  The NetServer product for Windows 95/98/ME will not connect to a system where the password level is set to 1 or 3. NetServer passwords are removed from the system at these password levels because of security concerns with the weak encryption used for NetServer passwords. The passwords are easy to uncode.

Where can I get more information about this system value?

To learn more, go to the password system values overview topic. You can go to the “Verify passwords when changing password levels” on page 80 topic for information about verifying password levels when changing passwords. Or, if you are looking for a specific system value or category of system values, try using the system value finder.

Related concepts

“System values: Password overview” on page 76
Use i5/OS password system values to control the password values and password restrictions.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

iSeries Security Reference

System value finder

Verify passwords when changing password levels:

Prior to changing your **Password Level** (QPWDLVL) value, you should verify your user profiles contain passwords for the level you are going to. There are two character-based methods for analyzing the profiles on your system.

- The first method is to use the PRTUSRPRF (Print User Profile) command. When this command is used with the *PWDLVL value for the TYPE parameter, a report is built that contains a list of all the profiles on the system and indicates if the profile has a password for QPWDLVL 0, 1, 2, or 3. Complete the following steps to analyze your system:
  1. Type PRTUSRPRF TYPE(*PWDLVL).
  2. Type WRKSPLF (Work with spooled file).
  3. Type 5 (Display) next to the filename of the report. The filename will always be QPSECUSR.
  4. View the report to determine which profiles have passwords for the **Password level** you want to change to.
- The second method is to use the output from the DSPUSRPRF (Display User Profile) command. The DSPUSRPRF command can be used to direct user profile information for every profile on the system to an outfile. The populated outfile can be used in an application or in an interactive SQL SELECT statement to determine which profiles have passwords for the QPWDLVL you want to change to. Complete the following steps to analyze your system:
  1. When you want to get the information for all the profiles on the system, you must direct the output from the DSPUSRPRF command to an outfile. When the value for the TYPE parameter is *BASIC, the outfile must be the same format as the IBM model outfile QSYS/QADSPUPB. There are two fields in the target outifile that contain the desired information. The field names are UPENPW (Y indicates the user has a password for QPWDLVL 0 and 1) and UPENPH (Y indicates the user has a password for password level 2 and 3).

     If the outfile specified on the DSPUSRPRF command does not exist when the command is issued, the command will create the file. If the file exists when the DSPUSRPRF command is issued, it must be the same format as QSYS/QADSPUPB the model outfile. It is a good idea to create the target outfile before you issue the DSPUSRPRF command. The following step is recommended, but not always required:

     CRTDUPOBJ OBJ(QADSPUPB) FROMLIB(QSYS) OBJTYPE(*FILE) TOLIB(1111) NEWOBJ(nnnn)
     Where 1111 is the name of an existing library where you want the target outfile to go and nnnn is the name of the target outfile.
  2. If you have a large number of profiles of your system, the outfile might not hold all of the data. To ensure the outfile can handle all the data, issue the following CHGPF (Change Physical File) command against the file you just created:

     CHGPF FILE(1111/nnnn) SIZE(*NOMAX)
  3. Use the DSPUSRPRF command to collect the data for all the profiles on your system:

     DSPUSRPRF USRPRF(*ALL) TYPE(*BASIC) OUTPUT(*OUTFILE) OUTFILE(1111/nnnn)
  4. If you want to use an interactive SQL SELECT statement to examine which the profiles for valid passwords, use the following commands:
     a. Type STRSQL.
     b. Type SELECT UPUPRF, UPENPW, UPENPH FROM 1111/nnnn.

OR

You can write an application that extracts the UPENPW and UPENPH field data from your target outfile.

Related concepts

"System values: Password overview" on page 76
Use i5/OS password system values to control the password values and password restrictions.

Password system values: Minimum password length

Sets the minimum length for a password. (QPWDMINLEN)

Minimum password length, also known as **QPWDMINLEN**, is a member of the password category of i5/OS system values. You can use this system value to set the minimum length for a password. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Password** → **Validation**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	6
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify the minimum number of characters for a password. The possible values vary depending on the password level for your system. If the password level is 0 or 1, the possible values for minimum length are 1 through 10. If the password level is 2 or 3, the possible values for minimum length are 1 through 128. The minimum password length cannot be larger than the maximum password length.

Where can I get more information about this system value?

To learn more, go to the password system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Password overview" on page 76
Use i5/OS password system values to control the password values and password restrictions.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Password system values: Maximum password length

Sets the maximum length for a password. (QPWDMAXLEN)

Maximum password length, also known as **QPWDMAXLEN**, is a member of the password category of i5/OS system values. You can use this system value to set the maximum length for a password. To learn

more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Password** → **Validation**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	8
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify the maximum number of characters for a password. The possible values vary depending on the password level for your system. If the password level is 0 or 1, the possible values for maximum length are 1 through 10. If the password level is 2 or 3, the possible values for maximum length are 1 through 128. The maximum password length cannot be smaller than the minimum password length.

Where can I get more information about this system value?

To learn more, go to the password system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Password overview" on page 76
Use i5/OS password system values to control the password values and password restrictions.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Password system values: Require at least one digit

Sets the passwords used on the system to use at least one digit. (QPWDRQDDGT)

Require at least one digit, also known as **QPWDRQDDGT**, is a member of the password category of i5/OS system values. You can use this system value to set the passwords used on the system to use at least one numeric character. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Password** → **Validation**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - do not require a digit
Changes take effect	Immediately

Quick reference	
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify whether a numeric character is required in a new password (1) or not (0). This option provides additional security by preventing users from using all alphabetic characters.

Where can I get more information about this system value?

To learn more, go to the password system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Password overview" on page 76
Use i5/OS password system values to control the password values and password restrictions.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Password system values: Restrict consecutive digits

Sets the passwords on the system to restrict consecutive digits. (QPWDLMTAJC)

Restrict consecutive digits, also known as **QPWDLMTAJC**, is a member of the password category of i5/OS system values. You can use this system value to set the passwords on the system to restrict consecutive digits. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Password** → **Validation**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - consecutive digits are allowed
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify whether adjacent numeric characters are (0) or are not (1) allowed in a password. This option provides additional security by preventing users from using birthdays, telephone numbers, or a sequence of numbers as passwords.

Where can I get more information about this system value?

To learn more, go to the password system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Password overview" on page 76
Use i5/OS password system values to control the password values and password restrictions.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Password system values: Restricted characters

Specifies the characters to be restricted. (QPWDLMTCHR)

Restricted characters, also known as **QPWDLMTCHR**, is a member of the password category of i5/OS system values. You can use this system value to specify the characters to be restricted. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Password** → **Validation**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	No restricted characters
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify certain characters that are not allowed in a password or you may specify that any characters are allowed in a password (*NONE). You may restrict characters A through Z, 0 through 9, and the following special characters: number sign (#), dollar sign ($), at sign (@), and underscore (_).

You can use this option to provide additional security by preventing users from using specific characters, such as vowels, in a password. Restricting vowels prevents users from forming actual words for their passwords. You can specify up to 10 restricted characters.

This system value is not enforced when the password level is 2 or 3. This system value can be changed at password level 2 or 3, but will not be enforced until the password level is changed to a value of 0 or 1.

The suggested setting is A, E, I, O, and U. You may also want to restrict special characters (#, $, and @) for compatibility with other systems.

Where can I get more information about this system value?

To learn more, go to the password system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Password overview" on page 76
Use i5/OS password system values to control the password values and password restrictions.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Password system values: Restrict repeating characters

Specifies whether to restrict repeating characters or not. (QPWDLMTREP)

Restrict repeating characters, also known as **QPWDLMTREP**, is a member of the password category of i5/OS system values. You can use this system value to specify whether to restrict repeating characters or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Password** → **Validation**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Characters may be used more than once
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify whether repeating characters are allowed in a password or not. This option provides additional security by preventing users from specifying passwords that are easy to guess, such as the same character repeated several times.

When the password level is 2 or 3, the test for repeated characters is case sensitive. This means that a lowercase character is not the same as an uppercase character.

Possible values are:

- **Characters may be used more than once (0)**
  The same characters can be used more than once in a password.
- **Characters may not be used more than once (1)**
  The same character cannot be used more than once in a password.
- **Characters may not be used consecutively (2)**
  The same character can be used more than once, but it cannot be used consecutively in a password.

Where can I get more information about this system value?

To learn more, go to the password system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Password overview" on page 76
Use i5/OS password system values to control the password values and password restrictions.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Password system values: Require a new character in each position

Sets the passwords on the system to require a new character in each position. (QPWDPOSDIF)

Require a new character in each position, also known as **QPWDPOSDIF**, is a member of the password category of i5/OS system values. You can use this system value to set the passwords on the system to require a new character in each position. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Password** → **Validation**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - a new character in each position is not required
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify if users can (0) or cannot (1) use the same character at the same position in a new password. If you specify the user cannot, it prevents the user from specifying a character in a new password that corresponds to the same character in the same position in the previous password. For example, new password DJS2 could not be used if the previous password was DJS1 (the D, J, and S are in the same positions).

When the password level is 2 or 3, the test for new characters is case sensitive. This means that a lowercase character is not the same as an uppercase character.

Where can I get more information about this system value?

To learn more, go to the password system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Password overview" on page 76
Use i5/OS password system values to control the password values and password restrictions.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Password system values: Password reuse cycle

Specifies when a password can be used again. (QPWDRQDDIF)

Password reuse cycle, also known as **QPWDRQDDIF**, is a member of the password category of i5/OS system values. You can use this system value to specify when a password can be used again. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Password** → **Validation**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	After 1 password
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify how many of the previous passwords are checked for a duplicate password. This option provides additional security by preventing users from specifying passwords they have used previously. This option also prevents a user whose password has expired from changing it and then immediately changing it back to the old password.

The following are possible values:

- After 1 password (0)
- After 4 password (8)
- After 6 password (7)
- After 8 password (6)
- After 10 password (5)
- After 12 password (4)
- After 18 password (3)
- After 24 password (2)
- After 32 password (1)

The suggested setting is after 10 passwords (5). Select a value of 10 or more to prevent the use of repeated passwords. It is recommended to use a combination of the Password expiration value and the Password reuse cycle value to prevent a password from being reused for at least 6 months. For example, select **30 days** for **Password Expiration** (days after last change) and **After 10 passwords** for **Password re-use cycle**. This means a typical user, who changes passwords when warned by the system, will not repeat a password for approximately 9 months.

Where can I get more information about this system value?

To learn more, go to the password system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Password overview" on page 76
Use i5/OS password system values to control the password values and password restrictions.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Password system values: Password expiration

Specifies when a password expires. (QPWDEXPITV)

Password expiration, also known as **QPWDEXPITV**, is a member of the password category of i5/OS system values. You can use this system value to specify when a password expires. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Password** → **Expiration**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Never expire
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify whether user passwords expire or not. You can control the number of days allowed before a password must be changed. If a user attempts to sign on after the password has expired, the system gives the user an opportunity to change the password and then the user is allowed to sign on.

The suggested setting is from 30 to 90 days.

The following are possible options:

- **Never expire (*NOMAX)**

  Users are not required to change their passwords.
- **Days after last change (1-366)**

  Specifies the number of days before users are required to change their passwords. Select a value from 1 through 366.

Where can I get more information about this system value?

To learn more, go to the password system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Password overview" on page 76
Use i5/OS password system values to control the password values and password restrictions.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Password system values: Password validation program

Specifies whether a user-written program will do additional validation on passwords or not. (QPWDVLDPGM)

Password validation program is a system value that is not in iSeries Navigator. This system value provides the ability for a user-written program to do additional validation on passwords.

Quick reference	
Location	Character-based interface
Special Authority	All object (*ALLOBJ) and security administrator (*SECADM)
Changes take effect	The next time a password is changed
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

This system value provides the ability for a user-written program to do additional validation on passwords. The current and new passwords are passed to the validation program without encryption. The validation program could store passwords in a database file and compromise security on the system. The recommended setting for this system value is *NONE.

You may specify the following options:

- ***NONE**

  No validation program is used.
- ***REGFAC**

  The validation program name is retrieved from the registration facility.
- ***program-specification***

  The name of the validation program. This option is only valid if the system is operating at QPWDLVL 0 or 1. The possible library values are:
  - ***LIBL**

    The library list is used to locate the validation program.
  - ***CURLIB**

    The current library for the job is used to locate the validation program. If no library is specified as the current library for the job, QGPL is used.
  - ***library-name***

    Specify the name of the library where the validation program is located.

The program must exist in the system disk pool (also known as auxiliary storage pool) or in a basic user disk pool.

Where can I get more information about system values?

To learn more about specific system values or a category of system values, try using the i5/OS system value finder.

Related concepts

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

System values: Performance overview

Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

To access the performance category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the performance system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Performance system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
Dynamically adjust job priorities of interactive jobs	Sets the job priorities of interactive jobs	QDYNPTYADJ
Dynamically adjust job priorities within priority bands	Sets job priorities within priority bands to be dynamically adjusted.	QDYNPTYSCD
Automatically adjust memory pools and activity levels	Specifies when to automatically adjust memory pools and activity levels.	QPFRADJ
Maximum eligible threads	Specifies the maximum number of eligible threads.	QMAXACTLVL
Machine memory pool size	Specifies the size of the machine memory pool.	QMCHPOOL
Base memory pool minimum size	Specifies the minimum base memory pool.	QBASPOOL
Base memory pool maximum eligible threads	Specifies maximum number of eligible threads.	QBASACTLVL
Move interactive jobs to base pool at end of time slice	Specifies whether to move interactive jobs to base pool at the end of the time slice or not.	QTSEPOOL
Communications configuration recovery	Specifies whether or not recovery attempts are made and how many attempts to take.	QCMNRCYLMT

Name in iSeries Navigator	Description of system value	Name in character-based interface
Communications arbiter jobs, at restart	Specifies the number of communications arbiter system jobs that are available to process work for controllers and devices.	QCMNARB
Available display station pass-through server jobs	Specifies the number of target display station pass-through server jobs that are available to process i5/OS display station pass-through, iSeries Access workstation function (WSF), and other 5250 emulation programs on programmable workstations.	QPASTHRSVR
Parallel processing for queries and indexes	Specifies whether to use parallel processing and what to use it for.	QQRYDEGREE
Database query time limit	Sets the time limit for a database query.	QQRYTIMLMT
Lock libraries in a user job's library search list	Prevents other jobs from deleting or renaming the libraries in the search list.	QLIBLCKLVL
Allow background database statistics collection	Specifies what requests are allowed to be processed by system job, QDBFSTCCOL.	QDBFSTCCOL
Thread affinity	Specifies whether or not secondary threads will have affinity to the same group of processors and memory as the initial thread.	QTHDRSCAFN
Automatically adjust thread resources	Specifies whether or not the system should dynamically make adjustments to the affinity of threads currently running on the system.	QTHDRSCADJ

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"Performance system values: Dynamically adjust job priorities of interactive jobs" on page 92
Sets the job priorities of interactive jobs (QDYNPTYADJ)

"Performance system values: Dynamically adjust job priorities within priority bands" on page 93
Sets job priorities within priority bands to be dynamically adjusted. (QDYNPTYSCD)

"Performance system values: Automatically adjust memory pools and activity levels" on page 94
Specifies when to automatically adjust memory pools and activity levels. (QPFRADJ)

"Performance system values: Maximum eligible threads" on page 94
Specifies the maximum number of eligible threads. (QMAXACTLVL)

"Performance system values: Machine memory pool size" on page 95
Specifies the size of the machine memory pool. (QMCHPOOL)

"Performance system values: Base memory pool minimum size" on page 96
Specifies the minimum base memory pool. (QBASPOOL)

Related information

System value finder

Performance system values: Dynamically adjust job priorities of interactive jobs

Sets the job priorities of interactive jobs (QDYNPTYADJ)

Dynamically adjust job priorities of interactive jobs, also known as **QDYNPTYADJ**, is a member of the performance category of i5/OS system values. You can use this system value to set the job priorities of interactive jobs. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Selected - dynamically adjust job priorities of interactive jobs is turned on
Changes take effect	At the next restart of the system
Lockable	No

What can I do with this system value?

You may specify whether the priority of interactive jobs is dynamically adjusted to maintain high performance of batch job processing on your servers (1) or not (0). This adjustment capability is effective only on systems that have different interactive and non-interactive throughput capabilities and have turned on the system value to dynamically adjust priorities within priority bands.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Dynamically adjust job priorities within priority bands

Sets job priorities within priority bands to be dynamically adjusted. (QDYNPTYSCD)

Dynamically adjust job priorities within priority bands, also known as **QDYNPTYSCD**, is a member of the performance category of i5/OS system values. You can use this system value to set the job priorities within priority bands to be dynamically adjusted. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Selected - dynamically adjust job priorities within priority bands is turned on
Changes take effect	At the next restart of the system
Lockable	No

What can I do with this system value?

This system value allows you to turn on (1) and turn off (0) the dynamic priority scheduler. The task scheduler uses this system value to determine the scheduling of jobs for the processor. When enabled, the dynamic priority scheduler will adjust job priorities within priority bands, depending on each job's use of system resources. This typically allows greater throughput on the system, but may slightly alter the priority relationship between jobs within a band. For example, priorities 10-16 are in Band 1, 17-22 are in Band 2, 23-35 are in Band 3, 36-46 are in Band 4, 47-51 are in Band 5 and 52-89 are in Band 6.

Regardless of the value assigned to this system value, any jobs that are given a priority of 0 through 9 are put in a high-priority band 0. This band is always checked first by the task dispatcher before any other dynamic priority bands are checked. If a job in this band becomes processor bound (by looping), the job can lock the system.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Automatically adjust memory pools and activity levels

Specifies when to automatically adjust memory pools and activity levels. (QPFRADJ)

Automatically adjust memory pools and activity levels, also known as **QPFRADJ**, is a member of the performance category of i5/OS system values. You can use this system value to specify when to automatically adjust memory pools and activity levels. Activity level refers to the maximum number of threads that can compete for memory and processor resources (maximum eligible threads at the same time). To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Memory Pools**
Special authority	None
Default value	At system restart and periodically after restart selected
Changes take effect	Immediately (However, if **At system restart** is selected, you need to restart the system.)
Lockable	No
Special considerations:	If **At System Restart** is selected, no adjustments are made until you restart the iSeries server.

What can I do with this system value?

You may specify when to automatically adjust memory pools and activity levels. If you select to have the system adjust memory pool sizes and activity levels, you can specify that these adjustments occur at system restart (1), periodically after restart (2), or both (3). If you do not select system restart or periodically after restart, no automatic adjustment is done (0).

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Maximum eligible threads

Specifies the maximum number of eligible threads. (QMAXACTLVL)

Maximum eligible threads, also known as **QMAXACTLVL**, is a member of the performance category of i5/OS system values. You can use this system value to specify the maximum number or eligible threads.

To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Memory Pools**
Special authority	None
Default value	No maximum
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify the number of threads that can compete at the same time for memory and processor resources. For all active subsystems, the sum of all threads running in all memory pools cannot exceed the value you specify. If a thread cannot be processed because the activity level has been reached, the thread waits until another thread reaches a time slice or a long wait. Possible values are 1 through 32767 or no maximum (*NOMAX).

The suggested setting is **No maximum** (*NOMAX).

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Machine memory pool size

Specifies the size of the machine memory pool. (QMCHPOOL)

Machine memory pool size, also known as **QMCHPOOL**, is a member of the performance category of i5/OS system values. You can use this system value to specify the size of the machine memory pool. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Memory Pools**
Special authority	None
Default value	20
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Specifies the size of the machine memory pool in megabytes (MB). A memory pool is a logical division of memory (storage) that is reserved for processing a job or group of jobs. The machine memory pool contains highly shared machine and operating system programs. Be careful when changing the size for this memory pool because system performance may be impaired if the memory pool is too small.

The machine-enforced minimum value varies depending on the memory size of the machine. The system automatically increases the actual size of the machine memory pool to the machine-enforced minimum value if you specify a smaller value.

If the system has increased the actual size of the machine memory pool, you can determine the actual machine-enforced minimum value for the machine disk pool (pool 1) in iSeries Navigator by doing the following:

1. Expand your iSeries server.
2. Expand **Work Management**.
3. Expand **Memory Pools**.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Base memory pool minimum size

Specifies the minimum base memory pool. (QBASPOOL)

Base memory pool minimum size, also known as **QBASPOOL**, is a member of the performance category of i5/OS system values. You can use this system value to specify the minimum size for the base memory pool. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Memory Pools**
Special authority	None
Default value	5% of the main storage with a minimum value of 2000 KB
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify the minimum size of the base memory pool in megabytes (MB). A memory pool is a logical division of memory (storage) that is reserved for processing a job or group of jobs. The base memory pool contains all memory not allocated by other pools. This pool is specified in the subsystem description as *BASE.

In some circumstances, a machine function may be using storage allocated to the base pool. If this is so, and if the change to the system value would reduce the allocation to less than 256 KB (kilobytes) plus the amount needed by the machine, the system value is changed immediately. However, the actual base pool size will not be reduced below 256 KB plus the amount needed by the machine until the storage in use is released by the machine.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Base memory pool maximum eligible threads

Specifies maximum number of eligible threads. (QBASACTLVL)

Base memory pool maximum eligible threads, also known as **QBASACTLVL**, is a member of the performance category of i5/OS system values. You can use this system value to specify the maximum number of eligible threads for the base memory pool. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Memory Pools**
Special authority	None
Default value	6
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify the maximum number of eligible threads for the base memory pool. A memory pool is a logical division of memory (storage) that is reserved for processing a job or group of jobs.

The maximum number of eligible threads specifies the maximum number of system and user threads that can compete at the same time for storage in the base storage pool. This pool is listed as **Base** in the lists of active pools and shared pools.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Move interactive jobs to base pool at end of time slice

Specifies whether to move interactive jobs to base pool at the end of the time slice or not. (QTSEPOOL)

Move interactive jobs to base pool at end of time slice, also known as **QTSEPOOL**, is a member of the performance category of i5/OS system values. You can use this system value to specify whether or not to move interactive jobs to the base pool at the end of the time slice. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Memory Pools**
Special authority	None
Default value	Deselected - do not move interactive jobs to base pool at end of time slice
Changes take effect	When the next job is started. Active jobs are not changed.
Lockable	No

What can I do with this system value?

You may specify whether interactive jobs should (*BASE) or should not (*NONE) be moved to another memory pool when they reach the end of the time slice. The job is moved back to the pool it was originally running in when a long wait occurs. This may help minimize the effect on interactive response time of other interactive jobs when one interactive job is performing a long-running function.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Communications configuration recovery

Specifies whether or not recovery attempts are made and how many attempts to take. (QCMNRCYLMT)

Communications configuration recovery, also known as **QCMNRCYLMT**, is a member of the performance category of i5/OS system values. You can use this system value to specify whether recovery attempts are made and how many attempts to make. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Communications**
Special authority	None
Default value	Do not attempt to recover

Quick reference	
Changes take effect	The next time a communications configuration recovery object is varied on. A change to this system value does not affect a communications configuration object that is already varied on.
Lockable	No

What can I do with this system value?

You may specify whether to attempt to recover from a communications failure or not. If you select to attempt to recover, you must specify the **Number of recovery attempts before sending message** and the **Time interval** in which the recovery attempts must occur.

If the number of recovery attempts is exceeded within the specified time interval, an inquiry message will be sent. The inquiry messages go to the configured message queue, which may be the system operator message queue or some other message queue. Possible values are 0 through 99.

If recovery attempts are made, but do not exceed the number of recovery attempts within the specified time interval, the count of recovery attempts is restarted when the time interval restarts.

If your server is attached to a ROLM computerized branch exchange, the recovery attempts value should never be 0. Recovery attempts are necessary for the server to establish a connection using the ROLM CBX's inbound modem pool.

You can specify the time period in which the recovery attempts can be done. If recovery attempts have not been exceeded within the time interval, the count of recovery attempts is also reset when the time interval is restarted. The message is sent to the configured message queue, which may be the system operator queue or a message queue specified on the configuration object. Possible values are 0 through 120 minutes.

When using **Communications configuration recovery**, consider the following:

- If the number of attempts is greater than 0 and the time interval is equal to 0, an infinite number of recovery attempts is made; this is not recommended because of the system resources that may be used and because performance may be affected.
- If the connection between the iSeries and a personal computer using APPC fails on a local area network (LAN) and the server attempts to recover the connection, unnecessary work is placed on the system.

  Note: If automatic communications error recovery is not used, manual recovery is necessary, which requires operator intervention. A good compromise is to set the automatic recovery limits to just one retry.

  – Use a count limit of 0 and a time interval of more than 0 to turn off second-level error recovery. Turning off second-level recovery may cause the devices and controllers to go into recovery pending (RCYPND) state. A message indicating that an operator intervention is required is sent to QSYSOPR, or the configured message queue. Use manual recovery either to respond to the message in QSYSOPR or the configured message queue, or to vary the objects off and back on.

    Note: First-level error recovery is still done. On a LAN, the Inactivity Timer is used to determine if the remote system is still available. Once the inactivity time expires, first-level error recovery is driven by the LANFRMRTY parameter and the LANRSPTMR parameter.

  – Write applications that can determine if a failure has occurred, and then handle the errors.
    - Monitor the error messages in QSYSOPR, or the configured message queue, when they occur and handle the condition.

- Monitor the status of the configuration objects by using the Retrieve Configuration Status (QDCRCFGS) and List Configuration Descriptions (QDCLCFGD) application program interfaces (APIs).

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Communications arbiter jobs, at restart

Specifies the number of communications arbiter system jobs that are available to process work for controllers and devices. (QCMNARB)

Communications arbiter jobs, at restart, also known as **QCMNARB**, is a member of the performance category of i5/OS system values. You can use this system value to specify the number of communications arbiter system jobs that are available to process work for controllers and devices. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Communications**
Special authority	Job control (*JOBCTL)
Default value	System calculated
Changes take effect	At the next restart of the system
Lockable	No

What can I do with this system value?

Specifies the number of communications arbiter system jobs that are available to process work for controllers and devices. Work for controllers and devices includes input/output requests that are sent to devices and events related to making devices available for use.

The following are possible options:

- **0 (0)**

  No communications arbiter jobs. The system arbiter (QSYSARB) and QLUS system jobs perform the work that the communications arbiter jobs normally do. This setting should only be used if IBM service recommends it.
- **1-99 (1-99)**

  Indicates the number of communication arbiter system jobs that are started.
- **System calculated (*CALC)**

  The system computes the number of communication arbiter system jobs. This is the recommended setting.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Available display station pass-through server jobs

Specifies the number of target display station pass-through server jobs that are available to process i5/OS display station pass-through, iSeries Access workstation function (WSF), and other 5250 emulation programs on programmable workstations. (QPASTHRSVR)

Available display station pass-through server jobs, also known as **QPASTHRSVR**, is a member of the performance category of i5/OS system values. You can use this system value to specify the number of target display station pass-through server jobs that are available to process i5/OS display station pass-through, Client Access workstation function (WSF), and other 5250 emulation programs on programmable workstations. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Communications**
Special authority	Job control (*JOBCTL)
Default value	System calculated
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Specifies the number of target display station pass-through server jobs that are available to process i5/OS display station pass-through and other 5250 emulation programs on programmable workstations that connect to the iSeries using APPC/APPN.

The server jobs are not needed for Telnet and Virtual Terminal (VTM) APIs. Therefore, if you only use Telnet and VTM, you may want to decrease the value specified for the number of target display station pass-through server jobs.

The following are possible options:

- **System calculated (*CALC)**

  The operating system calculates the number of target display station pass-through server jobs. This is the recommended setting.
- **0-100 jobs (0-100)**

  Specifies the number of target display station pass-through server jobs that are available to process i5/OS display station pass-through, Client Access work station function (WSF), and other 5250 emulation programs on programmable workstations that connect to the iSeries using APPC/APPN.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Parallel processing for queries and indexes

Specifies whether to use parallel processing and what to use it for. (QQRYDEGREE)

Parallel processing for queries and indexes, also known as **QQRYDEGREE**, is a member of the performance category of i5/OS system values. You can use this system value to specify whether to use parallel processing and what to use it for. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Database**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Do not allow parallel processing
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Specifies whether to allow parallel processing and whether the type of parallel processing is input/output (I/O) parallel processing or symmetric multiprocessing (SMP). For I/O parallel processing, the database manager can use multiple tasks for input/output auxiliary storage processing for each query. Processing for the central processing unit (CPU) is still done serially. For symmetric multiprocessing, the CPU and I/O processing are assigned to tasks that run the query in parallel. Actual CPU parallelism requires a system with multiple processors. SMP parallelism is used only if the system feature DB2® Symmetric Multiprocessing for i5/OS is installed.

Example: To determine what parts you need to buy for your company, you run a query of inventory from a database. By running the query, you determine which parts are sold out so you can replace them with new parts. The query takes a long time to complete because the processors cannot run at the same time. To increase the system performance, you should allow parallel processing. This allows different processors to run at the same time to perform the query much faster.

The following are possible options:

- **Do not allow parallel processing (*NONE)**

  No parallel processing is allowed for database query processing.
- **Use multiple processes for input/output (*IO)**

  The database query optimizer can use any number of tasks for I/O parallel processing for queries. SMP parallel processing is not allowed.
- **Use multiple processes for input/output, queries, and indexes (*OPTIMIZE)**

The query optimizer can use any number of tasks for either I/O or SMP parallel processing for queries. If you select to use multiple processes for input/output, queries, and indexes, you can also select to **Use all active memory in memory pool (*MAX)**. Using all active memory allows the query optimizer to choose an access plan that might consume more of the system resources, but would provide faster run time for a given query.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Database query time limit

Sets the time limit for a database query. (QQRYTIMLMT)

Database query time limit, also known as **QQRYTIMLMT**, is a member of the performance category of i5/OS system values. You can use this system value to set the time limit for a database query. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Database**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	No maximum
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Specifies the query processing time limit that is compared to the estimated number of elapsed seconds that a query must run. The time limit determines if the database query can start.

The following are possible options:

- **No maximum (*NOMAX)**

  There is no maximum number of estimated elapsed seconds.
- **0-2147352578 (0-2147352578)**

  Specifies the number of seconds that are compared to the estimated number of elapsed seconds that are required to run a query. If the number of estimated elapsed seconds is greater than this value, the query is not started. 2147352578 seconds is approximately 68 years.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Lock libraries in a user job's library search list

Prevents other jobs from deleting or renaming the libraries in the search list. (QLIBLCKLVL)

Lock libraries in a user job's library search list, also known as **QLIBLCKLVL**, is a member of the performance category of i5/OS system values. You can use this system value to prevent other jobs from deleting or renaming the libraries in the search list. System jobs, subsystem monitor jobs, and secondary threads do not lock libraries in their library search list. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Library Lists**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Selected - lock libraries in a user job's library search list is allowed
Changes take effect	When the next job is started. Active jobs are not changed.
Lockable	No

What can I do with this system value?

You can lock libraries in a user job's library search list (1) to prevent other jobs from deleting or renaming the libraries in the search list. System jobs, subsystem monitor jobs, and secondary threads do not lock libraries in their library search list. Otherwise, the libraries in a user job's library search list are not locked (0).

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Allow background database statistics collection

Specifies what requests are allowed to be processed by system job. (QDBFSTCCOL)

Allow background database statistics collection, also known as **QDBFSTCCOL**, is a member of the performance category of i5/OS system values. You can use this system value to specify the types of requests for database file statistics collection that are allowed to be processed by system job, QDBFSTCCOL. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Database**
Special authority	None
Default value	Allow user-created and system-generated database statistics
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Specifies the types of requests for database file statistics collection that are allowed to be processed by system job, QDBFSTCCOL. Statistical collections which are requested by either a user or automatically by the database manager to be processed in the foreground are not affected by this system value.

The creator of a database file statistics collection request can specify either immediate or background processing. When immediate is specified, the statistics collection will be performed within the requester's process and control is not returned until the statistics collection is complete. The processing of immediate statistics collection requests are not affected by the setting of this system value. However, when background is specified, the request is queued to system job, QDBFSTCCOL, and control is returned immediately to the requesting process.

System job, QDBFSTCCOL, can select to process requests from either user-created requests, system-generated requests, or both based on the value of this system value. Requests which are not selected will remain queued until either the system job is ready to process the request or the system value is changed to allow requests of that type to be processed.

When this system value is changed to a more restricted value, the processing of statistic collection requests in progress in the statistics system job, that are not allowed at the new value, is ended. Their processing is restarted when this system value is changed back to a value that allows their processing.

You may select one of the following types of requests, both (*ALL) types, or neither (*NONE):

User-created requests (*USER)
: Indicates that user requested database file statistics collections are allowed to be processed by the database statistics system job.

System-generated requests (*SYSTEM)
: Indicates that system-generated database file statistics collections are allowed to be processed by the database statistics system job.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

Related information

System value finder

Performance system values: Automatically adjust thread resources

Specifies whether or not the system should dynamically make adjustments to the affinity of threads currently running on the system. (QTHDRSCADJ)

Automatically adjust thread resources, also known as **QTHDRSCADJ**, is a member of the performance category of i5/OS system values. You can use this system value to specify whether the system dynamically makes adjustments to the affinity of threads currently running on the system or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Affinity**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Selected - Automatically adjust
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Specifies whether the system should dynamically make adjustments to the affinity of threads currently running on the system (1) or not (0). If some resources are being used more than others, the system may reassign some of the threads running on the more heavily used resources to have affinity to the less used resources.

If you have specified to group secondary threads using the thread affinity (QTHDRSCAFN) system value, the threads within one process will all be moved as a group. If jobs have been logically grouped with the routing entry or prestart job entry, the entire group will be moved together. If this option is selected, the system will attempt to distribute work evenly across all the system's resources.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

"Performance system values: Thread affinity"
Specifies whether or not secondary threads will have affinity to the same group of processors and memory as the initial thread. (QTHDRSCAFN)

Related information

System value finder

Performance system values: Thread affinity

Specifies whether or not secondary threads will have affinity to the same group of processors and memory as the initial thread. (QTHDRSCAFN)

Thread affinity, also known as **QTHDRSCAFN**, is a member of the performance category of i5/OS system values. You can use this system value to specify whether secondary threads are grouped with the initial thread (thread level) or not. It also specifies the degree to which the system tries to maintain the affinity between threads and the subset of resources they are assigned to (level of affinity). To learn more,

keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Performance** → **Affinity**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM).
Default value	Thread affinity: **Secondary threads do not use same processors and memory as initial thread.** Level of affinity: **Threads use any resource.**
Changes take effect	Immediately, but not for jobs already started.
Lockable	No

What can I do with this system value?

Specifies whether secondary threads will have affinity to the same group of processors and memory as the initial thread or not. It also specifies the degree to which the system tries to maintain the affinity between threads and the subset of system resources they are assigned to.

A change to this system value takes effect immediately for all jobs that become active after the change, but only if they retrieve their affinity values from the system value. Jobs and threads that are currently active will continue to run with the affinity values they were started with. New jobs and threads that get their affinity values from jobs that are currently active, (for example, batch immediate jobs or secondary threads that inherit attributes from the initial thread), will continue to use the values stored in the initiating job or thread, rather than the current system value.

In addition, use the automatically adjust thread resources (QTHDRSCADJ) system value to distribute the use of system resources.

Thread affinity

Specifies whether or not secondary threads are grouped with the initial thread. Select one of the following:

Secondary threads use same processors and memory as initiating thread (*GROUP)
Indicates that secondary threads have a preference for the same group of processors and memory as the initial thread. Multi-threaded workloads that share data between the threads within a job may perform better when using this option.

Secondary threads do not use same processors and memory as initiating thread (*NOGROUP)
Indicates that secondary threads do not have a preference for the same group of processors and memory as the initial thread. Workloads that use the full processing power of a system may perform better when using this option.

Level of affinity

Specifies the degree to which the threads try to use the subset of system resources that they have a preference for. Select one of the following:

Threads only use resources they have affinity to (*HIGH)
Threads will only use the subset of system resources they have affinity to, and will wait until they become available.

Threads use any resource (*NORMAL)
Threads will use any processor or memory in the system if the resources they have affinity to are not readily available.

Where can I get more information about this system value?

To learn more, go to the performance system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Performance overview" on page 90
Use i5/OS performance system values to view and change priority, performance adjustments, and processing values for the system.

"Performance system values: Automatically adjust thread resources" on page 106
Specifies whether or not the system should dynamically make adjustments to the affinity of threads currently running on the system. (QTHDRSCADJ)

Related information

System value finder

System values: Power control overview

Use power control system values to control the system's power supply values.

To access the power control category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the power control system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Power control system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
When power failure occurs	Specifies the action to take when a power failure occurs.	QUPSDLYTIM
Message queue and library	Specifies the message queue and library.	QUPSMSGQ

System values categories
Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"Power control system values: When power failure occurs"
Specifies the action to take when a power failure occurs. (QUPSDLYTIM)

"Power control system values: Message queue and library" on page 109
Specifies the message queue and library. (QUPSMSGQ)

Related information

System value finder

Power control system values: When power failure occurs

Specifies the action to take when a power failure occurs. (QUPSDLYTIM)

When power failure occurs, also known as **QUPSDLYTIM**, is a member of the power control category of i5/OS system values. You can use this system value to specify the action to take when a power failure occurs. To learn more, keep reading.

Quick reference

Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Power Control** → **General**
Special authority	None
Default value	Power down system, system calculates delay time
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You can select the action to take when using an uninterruptible power supply during power failure.

On some partitioned systems, this system value can only be changed from the primary partition. For more information, see Logical partitions.

The following are possible options:

- **Automatically power down the entire system (0)**
  The system automatically powers down when system utility power fails.
- **Power down system after time interval (1-99999)**
  Specifies the delay time in seconds before the utility power fails.
- **Power down system, retain power on main tower (*BASIC)**
  Powers down only the processor, I/O processor cards, and load source storage. The appropriate wait time, in seconds, is calculated. (This should be used only if you have the battery power unit or an uninterruptible power supply without every rack being connected.)
- **Power down system, system calculates delay time (*CALC)**
  The appropriate wait time (in seconds) is calculated. This value should be used only if you have a 9402 or 9404 system with a battery power unit.
- **Do not automatically power down system (*NOMAX)**
  The system does not start any action on its own.

Where can I get more information about power control system values?

To learn more, go to the power control system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Power control overview" on page 108
Use power control system values to control the system's power supply values.

Logical partitions

Related information

System value finder

Power control system values: Message queue and library

Specifies the message queue and library. (QUPSMSGQ)

Message queue and library, also known as **QUPSMSGQ**, is a member of the power control category of i5/OS system values. You can use this system value to specify the message queue that is to receive uninterruptible power supply messages and the library where the specified message queue is found. To learn more, keep reading.

Quick reference

Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Power Control** → **General**
Special authority	None
Default value	Message queue - QSYSOPR; Library - QSYS
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify the name of a message queue that is to receive uninterruptible power supply messages.

If the message queue is not the system operator message queue, then all uninterruptible power supply messages are also sent to the system operator message queue. This system value is meaningful only if your system has the battery power unit feature and has an uninterruptible power supply attached.

When a change in power activates the uninterruptible power supply, this message queue receives the uninterruptible power supply activated message (CPF1816). If the action to take when power failure occurs is set to not automatically power down the system, the following conditions must be met or the system immediately begins to power down.

- The message queue specified in this system value must exist.
- If the message queue is a workstation message queue (or system operator), it must be in break or notify mode.
- If the message queue is not a workstation message queue, it must be allocated by a job.

For all other uninterruptible power supply messages, the message queue does not have to be allocated, or in break or notify mode. If this system value does not specify the name of a valid message queue, a message is sent to the system operator indicating the notification failure, and the system continues processing.

The specified message queue is cleared during a restart. If you assign this value a user's message queue, the user loses all messages in the specified message queue during each restart.

The message queue must exist in the system disk pool (also known as auxiliary storage pool) or in a basic user disk pool.

Where can I get more information about this system value?

To learn more, go to the power control system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Power control overview" on page 108
Use power control system values to control the system's power supply values.

Related information

System value finder

System values: Printing overview

Use printing system values to control how the system's printer output is formatted and the default device description.

To access the printing category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the printing system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Printing system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
Default printer	Sets the default printer for the system.	QPRTDEV
Format when using Print key	Specifies whether border or header information is included when using the Print key.	QPRTKEYFMT
Printed page footer	Specifies the page footer for the system.	QPRTTXT

System values categories
Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"System value categories" on page 4
iSeries Navigator groups system values into categories to streamline system value management.

"Printing system values: Default printer"
Sets the default printer for the system. (QPRTDEV)

"Printing system values: Format when using Print key" on page 112
Specifies whether border or header information is included when using the Print key. (QPRTKEYFMT)

"Printing system values: Printed page footer" on page 112
Specifies the page footer for the system. (QPRTTXT)

Printing system values: Default printer

Sets the default printer for the system. (QPRTDEV)

Default printer, also known as **QPRTDEV**, is a member of the printing category of i5/OS system values. You can use this system value to specify the default printer for the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Printing** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	PRT01
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify the default printer for the system.

Where can I get more information about this system value?

To learn more, go to the printing system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Printing overview" on page 110
Use printing system values to control how the system's printer output is formatted and the default device description.

Related information

System value finder

Printing system values: Format when using Print key

Specifies whether border or header information is included when using the Print key. (QPRTKEYFMT)

Format when using Print key, also known as **QPRTKEYFMT**, is a member of the printing category of i5/OS system values. You can use this system value to select whether to include border and header information when the Print key is pressed or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Printing** → **General**
Special authority	None
Default value	Include header information
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may select whether to include a border (*PRTBDR), a header (*PRTHDR) or both (*PRTALL) when the Print key is pressed. You may also select not to include (*NONE) a border and header when the Print key is pressed.

For example, if you select to display border and header information when you press the Print key, a header containing the device name and the user name is written above the screen print for identification purposes. Also, a border composed of asterisks is written around the screen print. Line numbers are also added in both of the side margins in the screen print.

Where can I get more information about this system value?

To learn more, go to the printing system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Printing overview" on page 110
Use printing system values to control how the system's printer output is formatted and the default device description.

Related information

System value finder

Printing system values: Printed page footer

Specifies the page footer for the system. (QPRTTXT)

Printed page footer, also known as **QPRTTXT**, is a member of the printing category of i5/OS system values. You can use this system value to specify whether to print text at the bottom of listings and separator pages. The text you specify can be up to 30 characters in length. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Printing** → **General**
Special authority	None
Default value	Deselected - no text is printed at the bottom of listings and separator pages
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify whether to print text at the bottom of listings and separator pages or not (*BLANK). The text you specify for this system value can be up to 30 characters in length.

Where can I get more information about this system value?

To learn more, go to the printing system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Printing overview" on page 110
Use printing system values to control how the system's printer output is formatted and the default device description.

Related information

System value finder

System values: Restart overview

Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

These system values include values that apply to IPL (initial program load). To access the restart category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the restart system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Restart system values:

Name in iSeries Navigator	**Description of system value**	**Name in character-based interface**
Type of restart	Specifies the type of restart for your system.	QIPLTYPE
Allow auto-restart after power failure	Specifies whether to allow auto-restart when a power failure occurs or not.	QPWRRSTIPL
Allow remote power-on and restart	Specifies whether to allow remote power-on and restart or not.	QRMTIPL

Name in iSeries Navigator	Description of system value	Name in character-based interface
Allow scheduled restart	Sets the date and time for a scheduled restart.	QIPLDATTIM
Maximum time for immediate shutdown	Specifies the time limit before an immediate shutdown occurs.	QPWRDWNLMT
Start-up program to set up system	Specifies the program used to set up the system.	QSTRUPPGM
Controlling subsystem/library	Specifies the controlling subsystem and the library.	QCTLSBSD
If console problem occurs	Specifies the action to take when a console problem occurs.	QSCPFCONS
Wait for database recovery before completing restart	Specifies whether to wait for database recovery before completing the restart or not.	QDBRCVYWT
Previous system ending status	States the previous ending status.	QABNORMSW
Previous restart type	Specifies how the previous restart occurred.	QIPLSTS
Printers started	Specifies whether printers were started at the time of the previous restart or not.	QSTRPRTWTR

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"Restart system values: Type of restart" on page 115
Specifies the type of restart for your system. (QIPLTYPE)

"Restart system values: Automatically restart after power failure" on page 115
Specifies whether to allow auto-restart when a power failure occurs or not. (QPWRRSTIPL)

"Restart system values: Allow remote power-on and restart" on page 117
Specifies whether to allow remote power-on and restart or not. (QRMTIPL)

"Restart system values: Allow scheduled restart" on page 118
Sets the date and time for a scheduled restart. (QIPLDATTIM)

"Restart system values: Maximum time for immediate shutdown" on page 119
Specifies the time limit before an immediate shutdown occurs. (QPWRDWNLMT)

"Restart system values: Start-up program to set up system" on page 119
Specifies the program used to set up the system. (QSTRUPPGM)

"Restart system values: Controlling subsystem/library" on page 120
Specifies the controlling subsystem and the library. (QCTLSBSD)

"Restart system values: If console problem occurs" on page 121
Specifies the action to take when a console problem occurs. (QSCPFCONS)

"Restart system values: Wait for database recovery before completing restart" on page 122
Specifies whether to wait for database recovery before completing the restart or not. (QDBRCVYWT)

"Restart system values: Previous system ending status" on page 123
States the previous ending status. (QABNORMSW)

"Restart system values: Previous restart type" on page 123
Specifies how the previous restart occurred. (QIPLSTS)

"Restart system values: Previous restart - printers started" on page 124
Specifies whether printers were started at the time of the previous restart or not. (QSTRPRTWTR)

Related information

System value finder

Restart system values: Type of restart

Specifies the type of restart for your system. (QIPLTYPE)

Type of restart, also known as **QIPLTYPE**, is a member of the restart category of i5/OS system values. You can use this system value to specify the type of restart for your system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Unattended.
Changes take effect	At the next restart of the system
Lockable	No

What can I do with this system value?

Use this system value to specify how to handle the next restart. The following are possible options:

- **Unattended (0)**

  No displays requiring user interaction are shown during the restart. The normal signon display is shown when the restart is complete. If the system is in manual mode, **Unattended** changes to **Attended** with dedicated service tools.
- **Attended (1)**

  All dedicated service tools functions are available along with the full set of restart displays.
- **Attended, console in debug mode (2)**

  Restarts the system and leaves the controller QCTL and device QCONSOLE varied on. Select this only for problem analysis, as it prevents other devices on the workstation controller from being used.

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Related information

System value finder

Restart system values: Automatically restart after power failure

Specifies whether to allow auto-restart when a power failure occurs or not. (QPWRRSTIPL)

Automatically restart after power failure, also known as **QPWRRSTIPL**, is a member of the restart category of i5/OS system values. You can use this system value to specify whether to automatically restart the iSeries server when a power failure occurs or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - do not allow auto-restart after power failure
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify if the system should (1) or should not (0) automatically restart when utility power returns after a power failure.

On partitioned AS/400® 7xx and iSeries 8xx servers, this option can only be selected on the primary partition. To select this option on the primary partition, use iSeries Navigator. Whether a secondary partition is restarted at the same time as the primary partition depends on the Restart option selected for the secondary partition.

On partitioned eServer™ i5 servers, this system value must be changed from the service processor's Advanced System Management (ASM) interface. Attempts to change this value through the standard system value interfaces will fail with an error message referencing a service processor failure. The partitions will only restart when the system is restarted if the partition's automatic power restart is armed. Automatic power restart is armed for partitions that are powered on. Automatic power restart may or may not be armed for partitions that are powered off.

Note: Automatic power restart is armed for i5/OS partitions that power off due to utility failure.

On eServer i5 servers that are not partitioned, this value can also be set using iSeries Navigator.

For more information about partitions, see Logical partitions. In addition, see Model number to learn more about server models.

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Logical partitions

"System and user defaults system values: Model number" on page 155
Displays the model number of your system. (QMODEL)

Related information

System value finder

Restart system values: Allow remote power-on and restart

Specifies whether to allow remote power-on and restart or not. (QRMTIPL)

Allow remote power-on and restart, also known as **QRMTIPL**, is a member of the restart category of i5/OS system values. You can use this system value to specify whether to allow remote power-on and restart or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - do not allow remote power-on and restart
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify if remote power-on and restart can (1) or cannot (0) be started over a telephone line. This means that any telephone call causes the system to restart.

On partitioned AS/400 7xx and iSeries 8xx servers, this option can only be selected on the primary partition. To select this option on the primary partition, use iSeries Navigator. Whether a secondary partition is restarted at the same time as the primary partition or not depends on the Restart option selected for the secondary partition.

On partitioned eServer i5 servers, this system value must be changed from the service processor's Advanced System Management (ASM) interface. Attempts to change this value through the standard system value interfaces will fail with an error message referencing a service processor failure. A restart of the partitions when the system restarts depends on the Restart option selected for the partition in its Hardware Management Console for eServer profile.

On eServer i5 servers that are not partitioned, this value can also be set using iSeries Navigator.

For more information about partitions, see Logical partitions. Partitions allow you to distribute resources within a single physical system to make it function as if it were two or more independent systems.

In addition, see Model number to learn more about server models.

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Logical partitions

"System and user defaults system values: Model number" on page 155
Displays the model number of your system. (QMODEL)

Related information

System value finder

Restart system values: Allow scheduled restart

Sets the date and time for a scheduled restart. (QIPLDATTIM)

Allow scheduled restart, also known as **QIPLDATTIM**, is a member of the restart category of i5/OS system values. You can use this system value to set the date and time for a scheduled restart. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - do not allow scheduled restart
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify a date and time when an automatic restart should occur.

You can set this system value independently in each partition. Partitions allow you to distribute resources within a single physical system to make it function as if it were two or more independent systems. If the primary partition is powered down at the time an automatic restart should occur in a secondary partition, the restart will not occur. When the primary partition does restart, the secondary partition is restarted if its restart date and time is past due.

The secondary partition will not restart if it was configured with a restart action of hold.

This system value has two parts, date and time.

- **Date**

  Specifies the date a restart will automatically occur on the system. The date cannot be more than 11 months after the current date.
- **Time**

  Specifies the time on the specified date that a restart will automatically occur on the system. The time must be at least 5 minutes after the current time.

If the date and time have already occurred when the system is powered down or the system is running when the date and time occur, no restart is performed. After the scheduled restart occurs once, no further restarts are scheduled.

If the system observes Daylight Saving Time, you cannot change the date and time to the hour that Daylight Saving Time affects. For example, if the system clock moves from 2:00 to 3:00 on April 6 for Daylight Saving Time, you cannot change the time to a value that is greater than or equal to 2:00 and less than 3:00 on April 6th.

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Related information

System value finder

Restart system values: Maximum time for immediate shutdown

Specifies the time limit before an immediate shutdown occurs. (QPWRDWNLMT)

Maximum time for immediate shutdown, also known as **QPWRDWNLMT**, is a member of the restart category of i5/OS system values. You can use this system value to specify the time limit before an immediate shutdown occurs. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **General**
Special authority	None
Default value	900 seconds
Changes take effect	Immediately

What can I do with this system value?

Specifies the maximum amount of time (in seconds) to wait for the system to power down normally after a user has requested an immediate power-down or a user has requested a controlled power-down and the time specified on the delay parameter has expired. This time limit value is ignored when a user requests a power-down after a power failure has occurred on a system with an uninterruptible power supply.

If the value is set to 0 (or a very small value), a time-out condition occurs, and the system does not finish the power-down operation even though the system processing has ended.

In addition, this value should be set to a value greater than the Maximum time for immediate end (QENDJOBLMT) system value. To change the **Maximum time for immediate end** system value, select **Configuration and Service** → **System Values** → **Jobs**. Then, select **Cleanup**.

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"Jobs system values: Maximum time for immediate end" on page 64
Specifies the maximum amount of time for application cleanup during the immediate ending of a job. (QENDJOBLMT)

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Related information

System value finder

Restart system values: Start-up program to set up system

Specifies the program used to set up the system. (QSTRUPPGM)

Start-up program to set up system, also known as **QSTRUPPGM**, is a member of the restart category of i5/OS system values. You can use this system value to specify the program used to set up the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **Setup**
Special authority	None
Default value	Library - QSYS; Start-up program - QSTRUP
Changes take effect	Next time the controlling subsystem is started
Lockable	No

What can I do with this system value?

You may specify the name of the program called from an autostart job when the controlling subsystem is started. This program performs setup functions, such as starting subsystems and printers. If you do not specify the name of a program, the autostart job ends normally without calling a program.

The default startup program does the following:

- Starts the QSPL subsystem for spooled work.
- Releases the QS36MRT and QS36EVOKE job queues if they were held (these are used by the System/36 environment).
- Starts Operational Assistant cleanup, if allowed.
- Starts all printers unless a user specified otherwise in the Restart requiredties.
- Starts the QSERVER and QUSRWRK subsystems. If the controlling subsystem is QCTL, the default startup program starts the QINTER, QBATCH, and QCMN subsystems.

The program must exist in the system disk pool (also known as auxiliary storage pool) or in a basic user disk pool. The start-up program is not called when the system is started in the restricted state.

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Related information

System value finder

Restart system values: Controlling subsystem/library

Specifies the controlling subsystem and the library. (QCTLSBSD)

Controlling subsystem/library, also known as **QCTLSBSD**, is a member of the restart category of i5/OS system values. You can use this system value to specify the controlling subsystem and the library. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **Setup**

Quick reference	
Special authority	None
Default value	Controlling subsystem - QBASE; Library - QSYS
Changes take effect	At the next restart of the system
Lockable	No

What can I do with this system value?

You may specify the first subsystem to start after you restart the system. One subsystem must be active while the system is running. This is the controlling subsystem. Other subsystems can be started and stopped.

If this subsystem description cannot be used (for example, it is damaged), the backup subsystem description QSYSSBSD in the library QSYS can be used. A subsystem description specified as the controlling subsystem cannot be deleted or renamed once the system is fully operational.

The subsystem description must exist in the system disk pool (also known as auxiliary storage pool) or in a basic user disk.

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Related information

System value finder

Restart system values: If console problem occurs

Specifies the action to take when a console problem occurs. (QSCPFCONS)

If console problem occurs, also known as **QSCPFCONS**, is a member of the restart category of i5/OS system values. You can use this system value to specify the action to take when a console problem occurs. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **Recovery**
Special authority	None
Default value	Continue restart unattended
Changes take effect	At the next restart of the system
Lockable	No

What can I do with this system value?

You may specify the action for your system to take when a console problem occurs during an attended restart.

The following are possible options:

- **Continue restart unattended (1)**

  Continues the restart in an unattended mode rather than an attended mode. By selecting this option, the restart will continue even if a console problem occurs.

- **End restart (0)**

  Ends the restart when the console is no longer operational during an attended restart.

  You should select **End restart** if there are no workstations other than the console on the system or if the controlling subsystem supports only the console and does not start other subsystems that support other workstations.

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Related information

System value finder

Restart system values: Wait for database recovery before completing restart

Specifies whether to wait for database recovery before completing the restart or not. (QDBRCVYWT)

Wait for database recovery before completing restart, also known as **QDBRCVYWT**, is a member of the restart category of i5/OS system values. You can use this system value to specify whether to wait for database recovery before completing the restart or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **Recovery**
Special authority	None
Default value	Deselected - do not wait for database recovery before completing restart
Changes take effect	At the next restart of the system
Lockable	No

What can I do with this system value?

Specifies whether to wait for database recovery before completing the restart (1) or not (0). This system value indicates when recovery of database files is performed during an unattended restart. The database recovery after an abnormal end of a system can take a while to complete. If you do not want to wait for it to complete before the system becomes available, do not select this option. This is equivalent to 0 in the character-based interface.

Recovery of database files may include rebuilding the access path at the end of the restart operation. If this option was selected when the database files were created, database recovery may take a while.

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Related information

System value finder

Restart system values: Previous system ending status

States the previous ending status. (QABNORMSW)

Previous system ending status, also known as **QABNORMSW**, is a member of the restart category of i5/OS system values. You can use this system value to view how the previous ending status was handled. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **Previous**
Default value	No default value
Changes take effect	This system value is read-only. You cannot change this system value.
Lockable	No

What can I do with this system value?

You can view whether the previous end of the system was normal (0) or abnormal (1).

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Related information

System value finder

Restart system values: Previous restart type

Specifies how the previous restart occurred. (QIPLSTS)

Previous restart type, also known as **QIPLSTS**, is a member of the restart category of i5/OS system values. You can use this system value to view how the previous restart occurred. To learn more, keep reading.

Quick reference	
Location:	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **Previous**
Default value	No default value
Changes take effect:	This system value is read-only. You cannot change this system value.
Lockable	No

What can I do with this system value?

You may view which of the following types of restarts occurred at the time of the last previous restart:

- **Operator panel restart (0)**

  The restart occurred when requested from the operator panel or from Dedicated Service Tools (DST) for a secondary partition.
- **Automatic restart after power restored (1)**

  The restart occurred automatically when power was restored after a power failure. You can specify this type of restart in the Restart options on the General page.
- **Restart (2)**

  The restart occurred when a user requested to power-down the system and restart it.
- **Time-of-day restart (3)**

  The restart occurred automatically on the date and time specified for Scheduled restart on the General page.
- **Remote restart (4)**

  A remote restart occurred. You can specify this type of restart in the Restart options on the General page.

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Related information

System value finder

Restart system values: Previous restart - printers started

Specifies whether printers were started at the time of the previous restart or not. (QSTRPRTWTR)

Previous restart - printers started, also known as **QSTRPRTWTR**, is a member of the restart category of i5/OS system values. You can use this system value to view whether printers were started at the time of the previous restart. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Restart** → **Previous**
Default value	No default value
Changes take effect	This system value is read-only. You cannot change this system value.
Lockable	No

What can I do with this system value?

You may view whether printers were started at the time of the previous restart. This system value will state either yes (1) or no (2) depending on whether the printers were started or not.

Where can I get more information about this system value?

To learn more, go to the restart system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Restart overview" on page 113
Use restart system values to change and view when to restart the system and what will happen when the system is restarted.

Related information

System value finder

System values: Save and restore overview

Use save and restore system values to control specific restore requiredties.

To access the save and restore category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the save and restore system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Save and restore system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
Convert objects during restore	Specifies which objects are converted before being restored.	QFRCCVNRST
Allow restore of security sensitive objects	Specifies the objects to be restored and if they can be restored while installing software fixes.	QALWOBJRST
Verify object signatures during restore	Specifies whether objects without signatures and/or with signatures that are not valid are restored.	QVFYOBJRST
Save access paths	Specifies whether to save access paths or not.	QSAVACCPTH

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"Save and restore system values: Convert objects during restore" on page 126
Specifies which objects are converted before being restored. (QFRCCVNRST)

"Save and restore system values: Allow restore of security sensitive objects" on page 128
Specifies the objects to be restored and if they can be restored while installing software fixes. (QALWOBJRST)

"Save and restore system values: Verify object signatures during restore" on page 129
Specifies whether objects without signatures and/or with signatures that are not valid are restored. (QVFYOBJRST)

"Save and restore system values: Save access paths" on page 131
Specifies whether to save access paths or not. (QSAVACCPTH)

Related information

System value finder

Save and restore system values: Convert objects during restore

Specifies which objects are converted before being restored. (QFRCCVNRST)

Convert objects during restore, also known as **QFRCCVNRST**, is a member of the save and restore category of i5/OS system values. You can use this system value to force program conversion during restore. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Save and Restore** → **Conversion**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Level 1
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify the level of conversion you want to perform. For each level, you can see a list of objects that will be converted before being restored. The following object types may be converted during a restore, depending on whether the objects meet one of the requirements for conversion for the level you select:

- Program (*PGM)
- Service program (*SRVPGM)
- SQL package (*SQLPKG)
- Module (*MODULE)

The setting on this system value can also prevent some objects from being restored. If an object meets a requirement to be converted but fails conversion, it will not restore. However, all objects that have a valid signature from a system-trusted source will be restored without conversion.

The setting for this system value is used when you specify system value (*SYSVAL) for the force object conversion (FRCOBJCVN) parameter on the restore commands (RST, RSTLIB, RSTOBJ, RSTLICPGM). By specifying *SYSVAL, you can turn on and turn off conversion for the entire system by changing the system value. By specifying FRCOBJCVN (*YES *ALL), you will override any value of the **Convert objects during restore** system value.

If an object meets at least one condition specified by this system value, it will be converted.

For example, if you specify **Level 3** the objects to convert will include:

- Objects with validation errors
- Objects that require conversion for use
- Objects that may have been tampered with

The following are possible values:

- **Level 0 (0)**
  Restore all objects without conversion.
- **Level 1 (1)**
  Objects with validation errors are converted.
- **Level 2 (2)**
  Objects that must be converted to be used on the current version of the operating system and objects with validation errors are converted.
- **Level 3 (3)**
  Objects that are suspected of having been tampered with, must be converted to be used on the current version of the operating system, or have validation errors are converted.
- **Level 4 (4)**
  Objects that contain validation errors, require conversion for use, or are suspected of having been tampered with will be converted. Objects that contain sufficient creation data and do not have a valid digital signature will also be converted.
- **Level 5 (5)**
  Objects that contain validation errors, require conversion for use, are suspected of having been tampered with, or contain sufficient creation data will be converted.
- **Level 6 (6)**
  Objects that contain validation errors, require conversion for use, are suspected of having been tampered with, or do not have a valid digital signature will be converted.
- **Level 7 (7)**
  All objects are converted.

For all levels, if an object meets a requirement to be converted but fails conversion, it will not restore. Objects that do not need to be converted will restore without conversion. When an object is converted, the digital signature of the object will be removed. Also, any object that is converted will be changed to user state, its validation errors will be corrected, and it will no longer be suspected of having been tampered with.

The restore system values work together when restoring objects. For more information about how these system values work together, see Effects of system value settings on restore operations.

Where can I get more information about this system value?

To learn more, go to the save and restore system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Save and restore overview" on page 125
Use save and restore system values to control specific restore requiredties.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

"Effects of system value settings on restore operations" on page 169
Describes how to requiredly set the restore system values so they are compatible during a restore operation. This topic also describes how the three restore system values work together when a restore is performed.

Related tasks

"Configure system values for a restore operation" on page 194
After you plan how you want a restore operation to function, use iSeries Navigator to set the system values to reflect how to handle the restore operation. At this point, your system is ready for a restore command.

Related information

System value finder

Save and restore system values: Allow restore of security sensitive objects

Specifies the objects to be restored and if they can be restored while installing software fixes. (QALWOBJRST)

Allow restore of security sensitive objects, also known as **QALWOBJRST**, is a member of the save and restore category of i5/OS system values. You can use this system value to specify the objects to be restored and whether they can be restored while installing software fixes. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Save and Restore** → **Objects**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	All objects selected
Changes take effect	At the start of the next restore operation
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify whether or not objects with security-sensitive attributes can be restored.

The system checks this system value before restoring any object with security-sensitive attributes. These checks occur during the installation of program temporary fixes (PTFs) and restore of licensed programs. However, the system does not check this value during the installation of the operating system. This system value gives your system additional integrity protection. You can prevent anyone from restoring a system state object or an object that adopts authority.

The following are types of objects that may be restored, if selected:

- **System state programs (*ALWSYSSTT)**

  Allows programs, service programs, and modules with the system-state or inherit-state attribute to be restored.
- **Programs that adopt their owner (*ALWPGMADP)**

  Allows programs, service programs, and modules that adopt their owner's authority to be restored.
- **Programs that have the S_ISUID (set-user-id) attribute enabled (*ALWSETUID)**

  Allows restore of files that have the S_ISUID (set-user-ID) attribute enabled.
- **Programs that have the S_ISGID (set-group-id) attribute enabled (*ALWSETGID)**

  Allows restore of files that have the S_ISGID (set-group-ID) attribute enabled.
- **Programs with validation errors (*ALWVLDERR)**

  Allows programs, service programs, and modules that have validation errors or that have been tampered with to be restored.

- **Allow restore of security-sensitive objects while installing software fixes (*ALWPTF)**
  Allow system-state or inherit-state programs, service programs, modules, objects that adopt authority, objects that have the S_ISUID (set-user-ID) attribute enabled, and objects that have the S_ISGID (set-group-ID) attribute enabled to be restored to the system during a PTF install.

The restore system values work together when restoring objects. For more information about how these system values work together, see Effects of system value settings on restore operations.

You may also specify **Allow restore of security-sensitive objects while installing software fixes**. This option is also represented as the *ALWPTF option for QALWOBJRST. This value must be selected before installing software fixes (PTFs).

Where can I get more information about this system value?

To learn more, go to the save and restore system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Save and restore overview" on page 125
Use save and restore system values to control specific restore requiredties.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

"Effects of system value settings on restore operations" on page 169
Describes how to requiredly set the restore system values so they are compatible during a restore operation. This topic also describes how the three restore system values work together when a restore is performed.

Related tasks

"Configure system values for a restore operation" on page 194
After you plan how you want a restore operation to function, use iSeries Navigator to set the system values to reflect how to handle the restore operation. At this point, your system is ready for a restore command.

Related information

System value finder

Save and restore system values: Verify object signatures during restore

Specifies whether objects without signatures and/or with signatures that are not valid are restored. (QVFYOBJRST)

Verify object signatures during restore, also known as **QVFYOBJRST**, is a member of the save and restore category of i5/OS system values. You can use this system value to specify whether to restore objects without signatures or with signatures that are not valid. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Save and Restore** → **Signatures**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Verify object signatures on restore; allow restore of objects without signatures
Changes take effect	Immediately

Quick reference	
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

Specifies the policy to be used for object signature verification during a restore operation. This value applies to the following types of objects: programs (*PGM), commands (*CMD), service programs (*SRVPGM), SQL packages (*SQLPKG), and modules (*MODULE). It also applies to stream file (*STMF) objects that contain Java™ programs.

If Digital Certificate Manager is not installed on the system, all objects are treated as unsigned when determining the effects of this system value on those objects during a restore operation.

The following are possible options:

- **Do not verify object signatures on restore. (1)**

  Do not verify signatures on restore. Restore all objects regardless of their signature.

  This value should not be used unless you have a large number of signed objects to restore which will fail their signature verification for some acceptable reason. In general, it is dangerous to restore objects with signatures that are not valid on your system.
- **Verify object signatures on restore; allow restore of objects without signatures and with signatures that are not valid. (2)**

  Verify signatures on restore. Restore unsigned commands and user-state objects. Restore signed commands and user-state objects, even if signatures are not valid.

  This value should be used only if there are specific objects with signatures that are not valid which you want to restore. In general, it is dangerous to restore objects with signatures that are not valid on your system.
- **Verify object signatures on restore; allow restore of objects without signatures. (3)**

  Verify signatures on restore. Restore unsigned commands and user-state objects. Restore signed commands and user-state objects only if signatures are valid.

  This value may be used for normal operations, when you expect some of the objects you load to be unsigned, but you want to ensure that all signed objects have signatures that are valid. This is the default value.
- **Verify object signatures on restore; allow restore of objects with signatures that are not valid. (4)**

  Does not restore unsigned user-state objects. Restores signed user-state objects, even if signatures are not valid.

  This value should be used only if there are specific objects with signatures that are not valid which you want to restore, but you do not want the possibility of unsigned objects being restored. In general, it is dangerous to restore objects with signatures that are not valid on your system.
- **Verify object signatures on restore; do not allow restore of objects without signatures or with signatures that are not valid. (5)**

  Does not restore unsigned user-state objects. Restores signed user-state objects only if signatures are valid.

  This value is the most restrictive value and should be used when the only objects you want to allow to be restored are those which have been signed by trusted sources.

Objects that have the system-state attribute and objects that have the inherit-state attribute are required to have valid signatures from a system-trusted source. The only value that will allow a system-state or inherit-state object to restore without a valid signature is **Do not verify signatures on restore**. Allowing

such a command or program represents an integrity risk to your system. If you must change this system value to **Do not verify signatures on restore** to allow such an object to restore on your system, be sure to change this system value back to its previous value after the object has been restored.

Some command (*CMD) objects have a signature that does not cover all parts of the object. Some parts of the command are not signed while other parts are only signed when they contain a non-default value. This type of signature allows some changes to be made to the command without invalidating its signature. Examples of changes that will not invalidate these types of signatures include:

- Changing command defaults
- Adding a validity checking program to a command that does not have one
- Changing the 'where allowed to run' parameter
- Changing the 'allow limited users' parameter

If you want, you can add your own signature to these commands that includes these areas of the command object.

For more information, see Object signing and signature verification.

The restore system values work together when restoring objects. For more information about how these system values work together, see Effects of system value settings on restore operations.

Where can I get more information about this system value?

To learn more, go to the save and restore system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Save and restore overview" on page 125
Use save and restore system values to control specific restore requiredties.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Object signing and signature verification

"Effects of system value settings on restore operations" on page 169
Describes how to requiredly set the restore system values so they are compatible during a restore operation. This topic also describes how the three restore system values work together when a restore is performed.

Related tasks

"Configure system values for a restore operation" on page 194
After you plan how you want a restore operation to function, use iSeries Navigator to set the system values to reflect how to handle the restore operation. At this point, your system is ready for a restore command.

Related information

System value finder

Save and restore system values: Save access paths

Specifies whether to save access paths or not. (QSAVACCPTH)

Save access paths, also known as **QSAVACCPTH**, is a member of the save and restore category of i5/OS system values. You can use this system value to specify whether to save access paths or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Save and Restore** → **Access Paths**
Special authority	None.
Default value	Selected - save access paths.
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

Indicates whether the logical file access paths are saved during a save operation (1) or not (0). An access path is the order in which records in one or more database files are organized for processing by a program.

When a save command (SAVLIB, SAVOBJ, SAVCHGOBJ, SAVRSTLIB, SAVRSTOBJ, or SAVRSTCHG) is performed, the save access paths parameter value is determined by this system value when ACCPTH(*SYSVAL) is specified. When ACCPTH(*YES) or ACCPTH(*NO) is specified, this system value is ignored. If access paths are to be saved, the process that saves access paths increases the time for the save operation and the amount of media that you use. However, by having the access paths saved, you significantly reduce the amount of time it takes to recover a system because the access paths do not need to be rebuilt.

The access paths are saved only in the case of the following:

- All members on which the access paths are built are included in the save operation.
- The access paths are not invalid or damaged at the time of the save.

The system checks to ensure the integrity of the access paths. Any discrepancies found by the system will result in the access paths being rebuilt.

Where can I get more information about this system value?

To learn more, go to the save and restore system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Save and restore overview" on page 125
Use save and restore system values to control specific restore requiredties.

Related tasks

"Plan system values for a restore operation" on page 193
Before running a restore operation, you must plan what type of restore you want to perform. Then, configure your system values to the required settings to meet your needs. Then, when a restore operation is performed, you will have the correct settings specified on your system.

"Configure system values for a restore operation" on page 194
After you plan how you want a restore operation to function, use iSeries Navigator to set the system values to reflect how to handle the restore operation. At this point, your system is ready for a restore command.

Related information

System value finder

System values: Security overview

Use i5/OS security system values to control object, user, and system security values.

To access the security category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the security system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Security system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
Security level	Sets the level of security for your system.	QSECURITY
Allow server security information to be retained	Sets server security information to be retained.	QRETSVRSEC
Users who can cause programs to use adopted authority from calling programs	Specifies which users can work with programs with adopted authorities.	QUSEADPAUT
Default authority for newly created objects in QSYS.LIB file system	Specifies the default authority for objects that do not specify the authority.	QCRTAUT
Allow use of shared or mapped memory with write capability	Specifies whether users are allowed to use shared memory or mapped memory stream files or not.	QSHRMEMCTL
Allow these objects in . . .	Specifies where to allow user domain objects that bypass authority checking and cannot be audited.	QALWUSRDMN
Use registered exit programs to scan the root (/), QOpenSys, and user-defined file systems	Specifies whether to scan file systems or not.	QSCANFS
Scan control	Specifies scan control options.	QSCANFSCTL

Related concepts

"Security system values: Security level" on page 134
Sets the level of security for your system. (QSECURITY)

"Security system values: Allow server security information to be retained" on page 135
Sets server security information to be retained. (QRETSVRSEC)

"Security system values: Users who can cause programs to use adopted authority from calling programs" on page 136
Specifies which users can work with programs with adopted authorities. (QUSEADPAUT)

"Security system values: Default authority for newly created objects in QSYS.LIB file system" on page 137
Specifies the default authority for objects that do not specify the authority. (QCRTAUT)

"Security system values: Allow use of shared or mapped memory with write capability" on page 138
Specifies whether users are allowed to use shared memory or mapped memory stream files or not. (QSHRMEMCTL)

"Security system values: Allow these objects in . . ." on page 139
Specifies where to allow user domain objects that bypass authority checking and cannot be audited. (QALWUSRDMN)

"Security system values: Use registered exit programs to scan the root (/), QOpenSys, and user-defined file systems" on page 140
Specifies whether to scan file systems or not. (QSCANFS)

"Security system values: Scan control" on page 141
Specifies scan control options. (QSCANFSCTL)

"Security system values: Server authentication interval" on page 164
(QSVRAUTITV)

Related information

System value finder

Security Reference

Security system values: Security level

Sets the level of security for your system. (QSECURITY)

Security level, also known as **QSECURITY**, is a member of the security category of i5/OS system values. You can use this system value to set the level of security for your system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Security** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Protect from undocumented system interfaces (40)
Changes take effect	At the next restart of the system
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You can specify the level of security for your system. The following are possible options:

- **No passwords are needed and users have authority to all resources (10)**

  The system does not require a password to sign on.
  The user has access to all system resources.
  Security level 10 is not available unless your system is already running at this level.
  If you change from security level 10 to 20, 30, 40 or 50, you will not be able to change back to level 10.

- **Passwords are required and users have authority to all resources (20)**

  The system will require a user name and password to sign on.
  The user has access to all system resources.
  Only a security officer or someone with security administrator (*SECADM) authority can create user profiles.

- **Passwords are required and users' access is based on their authority (30)**

All requirements of security level 20 are met.
The user must have the specific authority required to access all system resources.
Only user profiles created with security officer (*SECOFR) security class are given all object (*ALLOBJ) authority automatically.

- **Protect from undocumented system interfaces (40)**

  All requirements of security level 30 are met.
  Programs fail if they try to access objects through interfaces that are not supported.
  If a job specifies a user profile, users must have the use authority attribute to the profile in addition to the use authority attribute to the job they want to use.

- **Enhance protection of system interfaces (50)**

  All requirements of security level 40 are met.
  Programs fail if they try to pass unsupported parameter values to supported interfaces or if they try to access objects through interfaces that are not supported.

Where can I get more information about this system value?

To learn more, go to the security system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Security overview" on page 132
Use i5/OS security system values to control object, user, and system security values.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Security system values: Allow server security information to be retained

Sets server security information to be retained. (QRETSVRSEC)

Allow server security information to be retained, also known as **QRETSVRSEC**, is a member of the security category of i5/OS system values. You can use this system value to set server security information to be retained. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Security** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - server security information is not retained
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may determine whether the security data needed by a server to authenticate a user on a target system through client-server interfaces be retained on the host system (1) or not (0).

Where can I get more information about this system value?

To learn more, go to the security system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Security overview" on page 132
Use i5/OS security system values to control object, user, and system security values.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Security system values: Users who can cause programs to use adopted authority from calling programs

Specifies which users can work with programs with adopted authorities. (QUSEADPAUT)

Users who can cause programs to use adopted authority from calling programs, also known as **QUSEADPAUT**, is a member of the security category of i5/OS system values. You can use this system value to specify which users can work with programs with adopted authorities. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Security** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	All users
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may define which users can create, change and update programs that use the authority of the program which called them. The specified users can work with programs that have the use adopted authority attribute set to yes (USEADPAUT(*YES)).

A user is able to create a program (Program A) that uses the authority of another program (Program B) when Program A is called by Program B.

Possible options are:

All users (*NONE)

All users can create, change, or update programs and service programs to use the authority of the program which called them if the user has the necessary authority to the program or service program.

Authorization list

An authorization list is used to secure objects with similar security needs. Authority can be granted to the list rather than to the individual objects.

The user's authority is checked against the specified authorization list. This authority cannot come from adopted authority. If the user has at least the USE authority attribute in the specified authorization list, the user can create, change, or update programs or service programs that use the authority of the program which called them.

If the specified authorization list does not exist, the operation being attempted will not complete. A message is sent indicating this. If more than one operation is requested on the command or API, and the authorization list does not exist, the operation is not performed. If the command being attempted when the authorization list cannot be found is Create Pascal Program (CRTPASPGM) or Create Basic Program (CRTBASPGM), the result is a function check. This is a type of error. It is not a security check.

Where can I get more information about this system value?

To learn more, go to the security system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Security overview" on page 132
Use i5/OS security system values to control object, user, and system security values.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Security system values: Default authority for newly created objects in QSYS.LIB file system

Specifies the default authority for objects that do not specify the authority. (QCRTAUT)

Default authority for newly created objects in QSYS.LIB file system, also known as **QCRTAUT**, is a member of the security category of i5/OS system values. You can use this system value to specify the default authority for objects that do not specify the authority. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Security** → **Public Authority**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Change
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify the public authority for newly created objects. When a user creates a new object and does not specify the authority level for the object, the authority level specified for this system value is used.

The following are possible options:

- **Change (*CHANGE)**

  Allows the public to change newly created objects.
- **Use (*USE)**

  The public may view, but not change, newly created objects
- **All (*ALL)**

  Allows all users of the system, except those given an authority less than **All**, to completely control the newly created objects. These users will be able to read, change, delete, and manage the security of these objects.
- **Exclude (*EXCLUDE)**

  The public is not allowed to use the newly created objects.

Where can I get more information about this system value?

To learn more, go to the security system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Security overview" on page 132
Use i5/OS security system values to control object, user, and system security values.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Security system values: Allow use of shared or mapped memory with write capability

Specifies whether users are allowed to use shared memory or mapped memory stream files or not. (QSHRMEMCTL)

Allow use of shared or mapped memory with write capability, also known as **QSHRMEMCTL**, is a member of the security category of i5/OS system values. You can use this system value to specify whether shared or mapped memory with write capability can be used or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Security** → **Shared Memory**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Selected - shared or mapped memory with write capability is allowed

Quick reference	
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify whether users are allowed (1) or are not allowed (0) to use shared memory or mapped memory stream files. You may select whether or not to allow access to shared memory, or use mapped memory stream files. By allowing this option, users can use shared-memory APIs (for example, shmat() - Shared Memory Attach API), and can use mapped memory objects that have stream files (for example, mmap() - Memory Map a File API). Allowing access to shared memory and mapped memory stream files is recommended for environments where pointers may be shared among programs, which may be running in different jobs. However, this setting is not recommended for environments with higher security requirements.

Where can I get more information about this system value?

To learn more, go to the security system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Security overview" on page 132
Use i5/OS security system values to control object, user, and system security values.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Security system values: Allow these objects in . . .

Specifies where to allow user domain objects that bypass authority checking and cannot be audited. (QALWUSRDMN)

Allow these objects in . . ., also known as **QALWUSRDMN**, is a member of the security category of i5/OS system values. You can use this system value to specify where to allow user domain objects that bypass authority checking and cannot be audited. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Security** → **User Domain Objects**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	All libraries and directories
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may select where to allow user domain objects that cannot be audited. If your system has a high security requirement, you should allow only user domain objects of type *USRSPC, *USRIDX and *USRQ in QTEMP. These objects are the user domain object types that are not auditable. At security level 50, the QTEMP library cannot be used to pass data between jobs. The following are possible options:

All libraries and directories (*ALL)
Allows objects that are not auditable in all libraries and directories. The server has multiple file systems. Libraries are part of the QSYS file system, and directories are part of a POSIX file system. Directories are referred to as being part of the ″root″ or ″QOpenSys″ file system.

QTEMP library and in the following
Allows you to specify where to allow objects that are not auditable, in addition to the QTEMP library. You may select one of the following:

All directories (*DIR)
Allows objects that are not auditable in all directories, in addition to the QTEMP library.

Selected libraries
Allows you to specify libraries in which to allow objects that are not auditable. This system value indicates specific libraries that may contain user domain versions of user objects. You may list up to 50 libraries. If you specify a list of library names, applications that currently work with user domain user objects may fail if they use objects in libraries not specified in the list.

library-name
Specifies the name of the library that you want to add. You can type a library name or use the **Browse** button to locate a library.

Selected libraries
Specifies the libraries that may contain objects that are not audited.

Note: To reduce a possible security exposure, create the library in the system disk pool, in a basic user disk pool or in all the independent disk pools before adding it to this system value. Also, give the library a public authority of *EXCLUDE.

Where can I get more information about this system value?

To learn more, go to the security system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

“System values: Security overview” on page 132
Use i5/OS security system values to control object, user, and system security values.

“Lock function of security-related system values” on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Security system values: Use registered exit programs to scan the root (/), QOpenSys, and user-defined file systems

Specifies whether to scan file systems or not. (QSCANFS)

Use registered exit programs to scan the root (/), QOpenSys, and user-defined file systems, also known as **QSCANFS**, is a member of the security category of i5/OS system values. You can use this system value to specify whether objects in the root (/), QOpenSys, and user-defined file systems should be scanned by exit programs registered with any of the integrated file system scan-related exit points or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Security** → **Scan**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Selected - Use registered exit programs to scan file systems
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

Use this system value to specify whether objects in the root (/), QOpenSys, and user-defined file systems should be scanned by exit programs registered with any of the integrated file system scan-related exit points (*ROOTOPNUD) or not (*NONE). For more information, see Integrated file system concepts. Only stream file objects that are in Type 2 directories are scanned. For more information about Type 2 directories, see *TYPE2 directories.

If this system value is specified to scan objects, the scan control options specified in the (QSCANFSCTL) system value are used. For more information, see scan control.

Where can I get more information about this system value?

To learn more, go to the security system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Security overview" on page 132
Use i5/OS security system values to control object, user, and system security values.

Integrated file system concepts

*TYPE2 directories

"Security system values: Scan control"
Specifies scan control options. (QSCANFSCTL)

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Security system values: Scan control

Specifies scan control options. (QSCANFSCTL)

Scan control, also known as **QSCANFSCTL**, is a member of the security category of i5/OS system values. You can use this system value to specify whether the default scan control options are used or to specify specific scan control options. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Security** → **Scan**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Use default scan control options
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

Use this system value to specify scanning options for the Use registered exit programs to scan the root (/), QOpenSys, and user-defined file systems (QSCANFS) system value. These options control the integrated file system scanning on the system when exit programs are registered with any of the integrated file system scan-related exit points.

- **Use default scan control options (*NONE specified)**

  Indicates that the system uses the following scanning options when calling the registered exit programs:

  – Perform write access upgrades
  – Fail close request if scan fails during close
  – Scan on next access after object has been restored

- **Use specified scan control options**

  Allows you to select which scanning options the system should use when calling the registered exit programs. Select from the following:

  – **Scan accesses through file servers only (*FSVRONLY specified)**

    By selecting this option, only accesses from a file server to the iSeries server are scanned. Accesses through the Network File System (NFS) are scanned as well as other file server methods. However, native or direct connections to the iSeries server are not scanned. If this option is not selected, all accesses will be scanned no matter if you connect directly to the iSeries or through a file server.

  – **Fail request if exit program fails (*ERRFAIL specified)**

    By selecting this option, you are specifying to fail the request or operation which triggered the call to the exit program, if there are errors when the exit program is called. Possible errors may be that the program is not found or the program is not coded requiredly to handle the exit program request. If this happens, the requested operation receives an indication that the object failed a scan. If this option is not selected, the system will skip the failing exit program and treat the object as if it was not scanned by this exit program.

  – **Perform write access upgrades (*NOWRTUPG not specified)**

    By selecting this option (*NOWRTUPG not specified), you are specifying to allow the iSeries system to upgrade the access for the scan descriptor passed to the exit program to include write access, if possible. Use this option if you want the exit program to be able to fix or modify objects even though they were originally opened with read-only access. If this option is not selected, the system will not upgrade the access to include write access.

  – **Use 'only when objects have changed' attribute to control scan (*USEOCOATR specified)**

By selecting this option, the system will use the specification of the 'object change only' attribute to only scan the object if it has been modified (not also because scan software has indicated an update). If this is not specified, this 'object change only' attribute will not be used, and the object will be scanned after it is modified and when scan software indicates an update.

- **Fail close request if scan fails during close (*NOFAILCLO not specified)**

  When this option is selected (*NOFAILCLO not specified), the system will fail the close request if an object failed a scan during close processing. This option only applies to close requests.

  If this option is **not** selected (*NOFAILCLO specified), the system will not fail the close request if an object failed a scan even if the **Fail request if exit program fails** option is selected.

  For example, if the **Fail request if exit program fails** option is selected and this option is not selected, the system will not send a failure indication even though an object failed a scan during close processing. But, the object will be marked as failing a scan.

- **Scan on next access after object has been restored (*NOPOSTRST not specified)**

  By selecting this option (*NOPOSTRST not specified), objects will be scanned at least once after being restored no matter what its object scan attribute is. If the object scan attribute is that 'the object will not be scanned,' the object will be scanned once after being restored. If the object scan attribute is that 'the object will only be scanned if it has been modified since the last time it was scanned,' the object will be scanned after being restored because the restore will be treated as a modification to the object.

  If this option is not selected (*NOPOSTRST specified), objects will not be scanned just because they are restored. Scanning depends on the object's scanning attribute.

  In general, it is good practice to scan restored objects at least once. However, you may not select this option if you know that the objects being restored were scanned before they were saved or they came from a trusted source.

For more information, see Integrated file system concepts. Only stream file objects that are in Type 2 directories are scanned. For more information on Type 2 directories, see *TYPE2 directories.

Where can I get more information about this system value?

To learn more, go to the security system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"Security system values: Use registered exit programs to scan the root (/), QOpenSys, and user-defined file systems" on page 140
Specifies whether to scan file systems or not. (QSCANFS)

"System values: Security overview" on page 132
Use i5/OS security system values to control object, user, and system security values.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Integrated file system concepts

*TYPE2 directories

Related information

System value finder

System values: Signon overview

Use signon system values to control the signon values and other initial values for all users.

To access the signon category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the signon system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Signon system values:

Name in iSeries Navigator	Description of system value	Name in command interface
Incorrect signon attempts	Sets how many incorrect signon attempts a user is allowed.	QMAXSIGN
When maximum is reached	Specifies the action to take when the maximum number of signon attempts is reached.	QMAXSGNACN
Display signon information	Specifies if signon information is displayed when signing on to a system.	QDSPSGNINF
Restrict privileged users to specific device sessions	Specifies whether users with all object (*ALLOBJ) and service (*SERVICE) special authority need explicit authority to specific workstations or not.	QLMTSECOFR
Limit each user to one device session	Sets the limit for device sessions.	QLMTDEVSSN
Remote signon	Specifies information regarding remote signons.	QRMTSIGN

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"Signon system values: Incorrect signon attempts" on page 145
Sets how many incorrect signon attempts a user is allowed. (QMAXSIGN)

"Signon system values: When maximum is reached" on page 146
Specifies the action to take when the maximum number of signon attempts is reached. (QMAXSGNACN)

"Signon system values: Display signon information" on page 147
Specifies if signon information is displayed when signing on to a system. (QDSPSGNINF)

"Signon system values: Limit each user to one device session" on page 147
Sets the limit for device sessions. (QLMTDEVSSN)

"Signon system values: Restrict privileged users to specific device sessions" on page 148
Specifies whether users with all object (*ALLOBJ) and service (*SERVICE) special authority need explicit authority to specific workstations or not. (QLMTSECOFR)

"Signon system values: Remote signon" on page 149
Specifies information regarding remote signons. (QRMTSIGN)

Related information

System value finder

Signon system values: Incorrect signon attempts

Sets how many incorrect signon attempts a user is allowed. (QMAXSIGN)

Incorrect signon attempts, also known as **QMAXSIGN**, is a member of the signon category of i5/OS system values. You can use this system value to specify how many incorrect signon attempts a user is allowed (0-25). To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Signon** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	3
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

Specifies how many incorrect signon attempts a user is allowed. A message is sent to the system message queue if it exists; otherwise, it is sent to the system operator. A signon attempt is incorrect whenever any of the following occurs:

- A user ID is not valid.
- A password is not valid.
- The user profile does not have authority to the device from which the user ID was entered.

A signon attempt is not counted as an incorrect attempt whenever any of the following occurs:

- Passwords are required and the user profile specifies no password is needed. The user receives a message saying that no password is associated with the user profile.
- The program or menu names are not valid
- The user profile does not exist and the system is configured at security level 10.
- The current library specified is not found.

Possible values for this system value are:

- **No maximum (*NOMAX)**

  No maximum number of signon attempts.
- **Maximum number (1-25)**

  Maximum number of signon attempts allowed.

Where can I get more information about this system value?

To learn more, go to the signon system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Signon overview" on page 143
Use signon system values to control the signon values and other initial values for all users.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Signon system values: When maximum is reached

Specifies the action to take when the maximum number of signon attempts is reached. (QMAXSGNACN)

When maximum is reached, also known as **QMAXSGNACN**, is a member of the signon category of i5/OS system values. You can use this system value to specify the action to take when the maximum number of signon attempts is reached. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Signon** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Disable user and device
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

If you specify a maximum number of signon attempts allowed, you can also specify how the system reacts when the maximum number of consecutive incorrect signon attempts is reached.

The following are possible options:

- **Disable device (1)**

  Vary off device if limit is reached. If the controlling subsystem is in the restricted state (so that only one device in it can be used) and the device is varied off, the system is ended and control panel lights on the control panel turn on to indicate that you must restart the system.
- **Disable user (2)**

  Disable user profile if limit is reached. If a profile is disabled, it must be enabled again before a user can sign on.
- **Disable user and device (3)**

  Vary off device and disable user profile if limit is reached.

Where can I get more information about this system value?

To learn more, go to the signon system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Signon overview" on page 143
Use signon system values to control the signon values and other initial values for all users.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Signon system values: Display signon information

Specifies if signon information is displayed when signing on to a system. (QDSPSGNINF)

Display signon information, also known as **QDSPSGNINF**, is a member of the signon category of i5/OS system values. You can use this system value to specify if signon information is displayed when signing on to a system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Signon** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - do not display signon information
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify whether the user sees an informational display at signon (1) or not (0). If selected, the signon information contains the date and time last signed on and the number of invalid signon attempts since the last signon.

Where can I get more information about this system value?

To learn more, go to the signon system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Signon overview" on page 143
Use signon system values to control the signon values and other initial values for all users.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Signon system values: Limit each user to one device session

Sets the limit for device sessions. (QLMTDEVSSN)

Limit each user to one device session, also known as **QLMTDEVSSN**, is a member of the signon category of i5/OS system values. You can use this system value to set the limit for device sessions. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Signon** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - users are not limited to one device session
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

Specifies whether a user can sign on to more than one workstation (0) or not (1). This does not prevent the user from using group jobs or making a system request at the workstation.

Where can I get more information about this system value?

To learn more, go to the signon system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Signon overview" on page 143
Use signon system values to control the signon values and other initial values for all users.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Signon system values: Restrict privileged users to specific device sessions

Specifies whether users with all object (*ALLOBJ) and service (*SERVICE) special authority need explicit authority to specific workstations or not. (QLMTSECOFR)

Restrict privileged users to specific device sessions, also known as **QLMTSECOFR**, is a member of the signon category of i5/OS system values. You can use this system value to specify whether privileged users are restricted to specific devices or not. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Signon** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Deselected - users are not restricted to specific device sessions
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

You may specify whether users with all object (*ALLOBJ) and service (*SERVICE) special authority need explicit authority to specific workstations (1) or not (0).

Where can I get more information about this system value?

To learn more, go to the signon system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Signon overview" on page 143
Use signon system values to control the signon values and other initial values for all users.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

Signon system values: Remote signon

Specifies information regarding remote signons. (QRMTSIGN)

Remote signon, also known as **QRMTSIGN**, is a member of the signon category of i5/OS system values. You can use this system value to specify remote signon information. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Signon** → **Remote**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Always display signon
Changes take effect	Immediately
Lockable	Yes Lock function of security-related system values  (Click for details)

What can I do with this system value?

Specifies remote signon options. Possible options are:

- **Always display signon (*FRCSIGNON)**

  All remote signon sessions are required to go through normal signon processing.
- **Allow signon to be bypassed (*SAMEPRF)**

  The system allows the user to bypass the signon.
  - **Verification (*VERIFY)**

    If you select to bypass signon, you may also specify to verify source and target user IDs or to verify user IDs on just the target system. The signon is still bypassed but the user ID is verified before allowed access to the system.
    - **Source and target user IDs must match**

      For 5250 display station pass-through or workstation functions, when the source and target user profile names are the same, you can bypass the remote signon panel.

- **Verify user ID on target system**

  After verifying that the user has access to the system, the system allows the user to bypass the signon panel.

- **Reject remote signons (*REJECT)**

  Allows no remote signon for 5250 display station pass-through or workstation function. When this option is selected, the user can still sign on to the system by using Telnet. These sessions will go through normal signon processing. If you want to reject all Telnet requests to the system, end the Telnet server.

- **Invoke user-written exit program**

  You can specify a program and library to decide which remote sessions are allowed and which user profiles can be automatically signed on from which locations. The program must exist in the system disk pool (also known as auxiliary storage pool) or in a basic user disk pool.

Where can I get more information about this system value?

To learn more, go to the signon system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Signon overview" on page 143
Use signon system values to control the signon values and other initial values for all users.

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Related information

System value finder

System values: Storage overview

Use storage system values to change the system's storage behavior values.

To access the storage category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are familiar with the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the storage system values available in iSeries Navigator (and their counterparts in the character-based interface), refer to the following table. Follow the links to learn more about each system value.

Storage system values:

Name in iSeries Navigator	Description of system value	Name in character-based interface
Maximum system disk pool usage	Specifies the maximum amount of storage space that can be used.	QSTGLOWLMT
When maximum usage is reached	Specifies the action to take when the storage pool has reached its maximum.	QSTGLOWACN
Automatically clean up unused printer output storage	Sets automatic clean up for unused printer output storage and specifies the retention period.	QRCLSPLSTG

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"Storage system values: Automatically clean up unused printer output storage"
Sets automatic clean up for unused printer output storage and specifies the retention period. (QRCLSPLSTG)

"Storage system values: Maximum system disk pool usage" on page 152
Specifies the maximum amount of storage space that can be used. (QSTGLOWLMT)

"Storage system values: When maximum usage is reached" on page 152
Specifies the action to take when the storage pool has reached its maximum. (QSTGLOWACN)

Related information

System value finder

Storage system values: Automatically clean up unused printer output storage

Sets automatic clean up for unused printer output storage and specifies the retention period. (QRCLSPLSTG)

Automatically clean up unused printer output storage, also known as **QRCLSPLSTG**, is a member of the storage category of i5/OS system values. You can use this system value to set automatic cleanup for unused printer output storage and specifies the retention period. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Storage** → **General**
Special authority	None
Default value	Selected - automatically clean up unused printer output storage with a retention period of 8 days
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

This value allows automatic removal of empty spool database members. If this option is not selected (*NOMAX), spooled database members are automatically removed. Select this option if you want a maximum retention level. Then, specify the retention period in days.

The following are possible retention periods:

- **0 (*NONE)**

  All empty members are deleted. The value results in additional system overhead when creating spooled files. Serious degradation of system performance can result.

- **1-366 (1-366)**

  Specifies the number of days that empty spool database members are kept for new spooled file use. If the members are still empty after the specified number of days, they are deleted by the system.

Where can I get more information about this system value?

To learn more, go to the storage system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Storage overview" on page 150
Use storage system values to change the system's storage behavior values.

Related information

System value finder

Storage system values: Maximum system disk pool usage

Specifies the maximum amount of storage space that can be used. (QSTGLOWLMT)

Maximum system disk pool usage, also known as **QSTGLOWLMT**, is a member of the storage category of i5/OS system values. You can use this system value to specify the maximum percentage of used storage allowed in the system disk pool (also known as ASP1). To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Storage** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	95%
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

You may specify the maximum percentage of used storage allowed in the system disk pool (also known as ASP1).

In iSeries Navigator, you specify the **maximum** percentage of used storage allowed. If you are using the character-based interface, you specify the percentage of storage to remain available (the lower limit). For example, if you specify 95% in iSeries Navigator for **Maximum system disk pool usage**, the value shown in the character-based interface for the QSTGLOWLMT system value is 5.00.

When the available storage in the system disk pool has reached the limit specified in this system value, the action specified for When maximum usage is reached is taken.

Where can I get more information about this system value?

To learn more, go to the storage system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Storage overview" on page 150
Use storage system values to change the system's storage behavior values.

"Storage system values: When maximum usage is reached"
Specifies the action to take when the storage pool has reached its maximum. (QSTGLOWACN)

Related information

System value finder

Storage system values: When maximum usage is reached

Specifies the action to take when the storage pool has reached its maximum. (QSTGLOWACN)

When maximum usage is reached, also known as **QSTGLOWACN**, is a member of the storage category of i5/OS system values. You can use this system value to specify the the action to take when the system disk pool has reached its maximum utilization. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **Storage** → **General**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Send message to system operator and message queue
Changes take effect	Immediately. However, if the available storage is already at the maximum, the change will have no effect until the storage has dropped below the maximum and then reached the maximum again.
Lockable	No

What can I do with this system value?

You may specify the action to take when the available storage in the system disk pool (also known as auxiliary storage pool) has reached the maximum specified for Maximum system disk pool usage.

You may specify any of the following actions:

- **Send message to system operator and system message queue (*MSG)**

  Message CPI099C is sent to the system message and system operator queues. This message is also sent for the other actions.
- **Send message to service users (*CRITMSG)**

  Message CPI099B is sent to the users specified in the service attributes to receive critical messages. Only users who are signed on at a workstation are notified.
- **Run registered exit programs (*REGFAC)**

  A job is submitted to call exit programs registered for the auxiliary storage lower limit action (QIBM_QWC_QSTGLOWACN) exit point.

  No action is taken if the system is in the restricted state.

  If you select this action and available storage reaches the maximum limit, you cannot start a subsystem while the system is in the restricted state.
- **End system to restricted state (*ENDSYS)**

  The system is ended to the restricted state.

  No action is taken if the system is already in the restricted state.

  If you select this action and available storage reaches the maximum limit, you cannot start a subsystem while the system is in the restricted state.
- **Immediately power down and restart system (*PWRDWNSYS)**

  The system is powered down immediately and restarted.

  No action is taken if the system is in the restricted state.

  If you select this action and available storage reaches the maximum limit, you cannot start a subsystem while the system is in the restricted state.

If the available storage has reached the maximum limit during a restart and the action is not **Send message to system operator and system message queue**, the system will come up in the restricted state.

When the following conditions exist:

- The available storage is below the limit
- The action is **Run registered exit programs**, **End system to restricted state**, or **Immediately power down and restart system**
- The system is in the restricted state

you cannot start a subsystem until:

- The available storage is reduced.
- The action is changed to one of the first two options shown above.

No action is taken if the following occurs:

- Available storage drops below the limit.
- The system is in the restricted state.
- The action is one of the last three options shown above.

The action is repeated every 30 minutes if the available storage is still at the maximum level.

Where can I get more information about this system value?

To learn more, go to the storage system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"Storage system values: Maximum system disk pool usage" on page 152
Specifies the maximum amount of storage space that can be used. (QSTGLOWLMT)

"System values: Storage overview" on page 150
Use storage system values to change the system's storage behavior values.

Related information

System value finder

System values: System and user defaults overview

Use system and user defaults system values to control system level values.

To access the system and user defaults category of system values, select **Configuration and Services** in iSeries Navigator. Then, select **System Values**.

If you are used to using the i5/OS character-based interface, you will notice that iSeries Navigator uses descriptive names for the system values. For a quick overview of the system and user defaults system values available in iSeries Navigator (and their counterparts in the character-based interface), take a look at the following table. Follow the links to learn more about each system value.

System and user defaults system values:

Name in iSeries Navigator	Description of system value	Name in command interface
Model number	Displays the model number of your system.	QMODEL
Serial number	Displays the serial number for your system.	QSRLNBR
Processor feature code	Displays the processor feature code for your system.	QPRCFEAT
Console name	Displays the console name for your system.	QCONSOLE
Assistance level	Sets the assistance level for you system.	QASTLVL

Name in iSeries Navigator	Description of system value	Name in command interface
Attention program	Specifies the attention program to be used on your system.	QATNPGM
Default user environment	Sets the default user environment.	QSPCENV
Use type-ahead feature	Sets the type-ahead function. You may also select to use the Attention key buffering option.	QKBDBUF
Processor multi-tasking	Specifies whether processor multi-tasking is on, off, or determined by the system.	QPRCMLTTSK

To learn more about these and other system values you can view and change in iSeries Navigator, see the following:

System values categories
Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"System and user defaults system values: Model number"
Displays the model number of your system. (QMODEL)

"System and user defaults system values: Serial number" on page 156
Displays the serial number for your system. (QSRLNBR)

"System and user defaults system values: Processor feature code" on page 157
Displays the processor feature code for your system. (QPRCFEAT)

"System and user defaults system values: Console name" on page 157
Displays the console name for your system. (QCONSOLE)

"System and user defaults system values: Assistance level" on page 158
Sets the assistance level for you system. (QASTLVL)

"System and user defaults system values: Attention program" on page 159
Specifies the attention program to be used on your system. (QATNPGM)

"System and user defaults system values: Default user environment" on page 160
Sets the default user environment. (QSPCENV)

"System and user defaults system values: Use type-ahead feature" on page 160
Sets the type-ahead function. You may also select to use the Attention key buffering option. (QKBDBUF)

"System and user defaults system values: Processor multi-tasking" on page 161
Specifies whether processor multi-tasking is on, off, or determined by the system. (QPRCMLTTSK)

Related information

System value finder

System and user defaults system values: Model number

Displays the model number of your system. (QMODEL)

Model number, also known as **QMODEL**, is a member of the system and user defaults category of i5/OS system values. You can use this system value to view the model number of your system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **System and User Defaults** → **System**
Default value	Machine dependent
Changes take effect	This system value is read-only. You cannot change this system value.
Lockable	No

What can I do with this system value?

You may view this system value. You cannot edit this system value. This value is the same for each partition on a system and identifies the type of server that i5/OS is installed on. The model number uses the following format, where *xx* represents the specific model number:

5 ***xx*****:** Specifies eServer i5 servers.
7 ***xx*****:** Specifies AS/400 servers.
8 ***xx*****:** Specifies iSeries servers.

Where can I get more information about this system value?

To learn more, go to the system and user defaults system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"Restart system values: Automatically restart after power failure" on page 115
Specifies whether to allow auto-restart when a power failure occurs or not. (QPWRRSTIPL)

"Restart system values: Allow remote power-on and restart" on page 117
Specifies whether to allow remote power-on and restart or not. (QRMTIPL)

"System values: System and user defaults overview" on page 154
Use system and user defaults system values to control system level values.

Related information

System value finder

System and user defaults system values: Serial number

Displays the serial number for your system. (QSRLNBR)

Serial number, also known as **QSRLNBR**, is a member of the system and user defaults category of i5/OS system values. You can use this system value to view the serial number of your system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **System and user defaults** → **System**
Default value	Machine dependent
Changes take effect	This system value is read-only. You cannot change this system value.
Lockable	No

What can I do with this system value?

You can view this system value. The serial number is used as a means of identification. This number will depend on what version, release and model of the i5/OS system you installed. The system serial number is the same for each partition on a system. An example of a serial number is 1001003. You cannot edit this value.

Where can I get more information about this system value?

To learn more, go to the system and user defaults system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: System and user defaults overview" on page 154
Use system and user defaults system values to control system level values.

Related information

System value finder

System and user defaults system values: Processor feature code

Displays the processor feature code for your system. (QPRCFEAT)

Processor feature code, also known as **QPRCFEAT**, is a member of the system and user defaults category of i5/OS system values. You can use this system value to view the processor feature code for your system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **System and User Defaults** → **System**
Default value	Machine dependent
Changes take effect	This system value is read-only. You cannot change this system value.
Lockable	No

What can I do with this system value?

You may view this system value. This value specifies the processor feature code level of the system. This number identifies the processor which is the part of the computer system that operates on data. The processor feature system value is the same for each partition on a system. You cannot edit this value.

Where can I get more information about this system value?

To learn more, go to the system and user defaults system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: System and user defaults overview" on page 154
Use system and user defaults system values to control system level values.

Related information

System value finder

System and user defaults system values: Console name

Displays the console name for your system. (QCONSOLE)

Console name, also known as **QCONSOLE**, is a member of the system and user defaults category of i5/OS system values. You can use this system value to view the console name for your system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **System and User Defaults** → **System**
Default value	QCONSOLE
Changes take effect	This system value is read-only. You cannot change this system value.
Lockable	No

What can I do with this system value?

You may view this system value. This value specifies the name of the display device that is the console. The system changes this value when the console is varied on. You cannot edit this value.

Where can I get more information about this system value?

To learn more, go to the system and user defaults system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: System and user defaults overview" on page 154
Use system and user defaults system values to control system level values.

Related information

System value finder

System and user defaults system values: Assistance level

Sets the assistance level for you system. (QASTLVL)

Assistance level, also known as **QASTLVL**, is a member of the system and user defaults category of i5/OS system values. You can use this system value to view the assistance level for your system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **System and User Defaults** → **User**
Special authority	None
Default value	Basic
Changes take effect	The next time a user signs on to the system
Lockable	No

What can I do with this system value?

You may specify the level of assistance available to users of the system. Use this value to tailor the level of displays available for users of the system. Displays intended for less experienced users provide a higher level of assistance than displays intended for expert users.

Possible values are:

- **Basic (*BASIC)**
  Operational assistant level of system displays is available.
- **Intermediate (*INTERMED)**
  Intermediate level of system displays is available.
- **Advanced (*ADVANCED)**
  Advanced level of system displays is available.

Where can I get more information about this system value?

To learn more, go to the system and user defaults system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: System and user defaults overview" on page 154
Use system and user defaults system values to control system level values.

Related information

System value finder

System and user defaults system values: Attention program

Specifies the attention program to be used on your system. (QATNPGM)

Attention program, also known as **QATNPGM**, is a member of the system and user defaults category of i5/OS system values. You can use this system value to specify the attention program to be used on the system. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **System and User Defaults** → **User**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Use operational assistant
Changes take effect	The next time a user signs on to the system
Lockable	No

What can I do with this system value?

You may specify the program to call when you press the Attention key. To learn more, keep reading.

Possible values are:To learn more, keep reading.

- **Use operational assistant (*ASSIST)**
  The operational assistant main menu appears when you press the Attention key.
- **None (*NONE)**
  No attention program is called when you press the Attention key.
- ***program-name***
  Specify the program to be called when you press the Attention key.
  - **Library**
    Specify the library of the program to be called when you press the Attention key. If you specify **Use library list**, the iSeries server will automatically set the value of the library to the value where the program name is found. The next time you open the system and user defaults system values the library name will be displayed, not **Use library list**.

The program must exist in the system disk pool (also known as auxiliary storage pool) or in a basic user disk pool.

Where can I get more information about this system value?

To learn more, go to the system and user defaults system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: System and user defaults overview" on page 154
Use system and user defaults system values to control system level values.

Related information

System value finder

System and user defaults system values: Default user environment

Sets the default user environment. (QSPCENV)

Default user environment, also known as **QSPCENV**, is a member of the system and user defaults category of i5/OS system values. You can use this system value to set the default user environment. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **System and user defaults** → **User**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	i5/OS
Changes take effect	The next time a user signs on to the system
Lockable	No

What can I do with this system value?

You may specify the system environment used as the default for all users. The following are possible options:

- **i5/OS (*NONE)**

  Specifies the iSeries system environment when you signon.
- **System/36 (*S36)**

  Specifies the System/36 environment when you signon.

Where can I get more information about this system value?

To learn more, go to the system and user defaults system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: System and user defaults overview" on page 154
Use system and user defaults system values to control system level values.

Related information

System value finder

System and user defaults system values: Use type-ahead feature

Sets the type-ahead function. You may also select to use the Attention key buffering option. (QKBDBUF)

Use type-ahead feature, also known as **QKBDBUF**, is a member of the system and user defaults category of i5/OS system values. You can use this system value to set the type-ahead function. You may also select to use the Attention key buffering option. To learn more, keep reading.

Quick reference	
Location	In iSeries Navigator, select your system, → **Configuration and Service** → **System Values** → **System and user defaults** → **User**
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	Selected - use type-ahead feature
Changes take effect	The next time a user signs on to the system
Lockable	No

What can I do with this system value?

You may specify whether the type-ahead feature (*TYPEHEAD) and the Attention key buffering option should be used. The type-ahead feature allows the system to remember a series of key strokes.

For example, if you regularly press option 2 then have to wait for the next screen before specifying option 4. The type-ahead feature will allow you to type 2 and then 4 immediately without waiting for the next screen. When the next screen opens, the system will remember that 4 was specified.

If the type-ahead option is selected, you may also select to **Use Attention key buffering option** (*YES or *NO).

Use Attention key buffering option
Specifies whether the Attention key buffering option is turned on or not. If this option is turned on, the system will remember that the Attention key was pressed.

Where can I get more information about this system value?

To learn more, go to the system and user defaults system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: System and user defaults overview" on page 154
Use system and user defaults system values to control system level values.

Related information

System value finder

System and user defaults system values: Processor multi-tasking

Specifies whether processor multi-tasking is on, off, or determined by the system. (QPRCMLTTSK)

Processor multi-tasking, also known as **QPRCMLTTSK**, is a member of the system and user defaults category of i5/OS system values. You can work with this system value from the character-based interface; it is not in iSeries Navigator. You can use this system value to specify whether multi-tasking is on, off, or system controlled. To learn more, keep reading.

Quick reference	
Location	Character-based interface
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)

Quick reference	
Default value	System controlled (2)
Changes take effect	At the next restart of the server
Lockable	No

What can I do with this system value?

Use this system value to control processor multi-tasking. To learn more about how a processor does this, see multi-threading.

This system value has three possible values, off (0), on (1), and system controlled (2), and controls whether the hardware executes only one or more than one task at a time on a processor. The off (0) state means that each processor supports the execution of only one task at any moment in time. The states on (1) and system controlled (2) allow processors to concurrently execute multiple tasks, with the difference being that the system controlled state gives permission to the operating system to occasionally limit a processor to executing at most one task. The state system controlled is the default value. The value that you specify should be based on performance and is workload dependent. By allowing multiple tasks per processor, the performance capacity of the system tends to increase. Therefore, the system executes more work. On the other hand, by limiting processors to execute single tasks, the system tends to allow individual tasks to execute faster.

Changes to the system value do not take effect until the next IPL. If you request a change to the state of on (1) or system controlled (2), the change takes effect only if the processor hardware supports the concept of simultaneous multi-threading (SMT) or hardware multi-threading (HMT). If unsupported, the system value change does not take effect.

On partitioned AS/400 7xx and iSeries 8xx servers, all partitions inherit the current value from the primary partition. Thus, only changes to the system value of the primary partition may become effective. In order for changes to take effect, an IPL of the primary partition is required. The default value is on (1) if supported by the system hardware. Otherwise the default value is off (0).

On eServer i5 servers, the current value is partition independent. Thus, changes to the system value of a partition may become effective for only that partition. In order for changes to take effect, an IPL of only that partition is required. The default value is system controlled (2).

The shipped value is system controlled (2); however, the value may change after the first IPL by the system automatically because the shipped value is not supported by the hardware on all systems. The shipped value may change after the first IPL. The following table describes various system environments and what the value will change to after the first IPL:

Primary/secondary partition attribute	Multi-tasking supported on the hardware	Server model	Value after first IPL	Supported values
Primary or non-partitioned	Yes	AS/400 7xx or iSeries 8xx	1 (on)	On (1) or off (0)
Primary or non-partitioned	No	AS/400 7xx or iSeries 8xx	0 (off)	Off (0)
Secondary	Yes	AS/400 7xx or iSeries 8xx	Inherits current value from primary partition	On (1) or off (0)
Secondary	No	AS/400 7xx or iSeries 8xx	Inherits current value from primary partition	Off (0)

Primary/secondary partition attribute	Multi-tasking supported on the hardware	Server model	Value after first IPL	Supported values
Not applicable *	Yes	eServer i5	2 (system controlled)	On (1), off (0) or system controlled (2)
Not applicable *	No	eServer i5	2 (system controlled)	Off (0) or system controlled (2)

* This type of server does not distinguish between primary or secondary partitions. Rather it is a partitioned server managed by the Hardware Management Console for eServer.

Note: If you do not know whether or not your system's hardware supports multi-tasking, the easiest way to find out is to change this system value to on (1). Then, IPL the server. If the change takes effect, multi-tasking is supported. If the value does not change after the IPL, multi-tasking is not supported by the hardware.

Where can I get more information about this system value?

To learn more, go to the system and user defaults system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

In addition, see multi-threading to learn more about processor multi-tasking.

Related concepts

"System values: System and user defaults overview" on page 154
Use system and user defaults system values to control system level values.

Multi-threading

Related information

System value finder

Obsolete system values

These system values are no longer used by the operating system.

The system value names are still allowed on the character-based system value interfaces because some programs may continue to reference these system values. However, the values they are set to are not used by the operating system. The system values are only provided as a reference.

The following is a list of system values that are no longer used by the operating system:

Name in iSeries Navigator	Description of system value	Name in character-based interface	Release removed
Not Available [1]	Spooling control block additional storage	QADLSPLA	V5R1
Not Available [1]	Automatic system disabled reporting.	QAUTOSPRPT	V5R1
Not Available [1]	Book and book shelf search path.	QBOOKPATH	V5R1
Not Available [1]	Job message queue initial size.	QJOBMSGQSZ	V5R1
Not Available [1]	Job message queue maximum initial size.	QJOBMSGQTL	V5R1

Name in iSeries Navigator	Description of system value	Name in character-based interface	Release removed
Server authentication interval	Server authentication interval.	QSVRAUTITV	V5R2

Note:

[1] The system value was never in iSeries Navigator; therefore, it does not have an iSeries Navigator name.

Related concepts

"System values," on page 1
System values are pieces of information that affect the system operating environment. System values are not objects on the system. Rather, system values contain control information for the operation of certain parts of the system.

"System value categories" on page 4
iSeries Navigator groups system values into categories to streamline system value management.

Related reference

"System value parameters" on page 172
System values can be set or viewed using iSeries Navigator. However, if you want to code a program to set or retrieve a system value, you need to use the character-based system value name and its associated special parameters.

Related information

System value finder

Security system values: Server authentication interval

(QSVRAUTITV)

Server authentication interval, also known as **QSVRAUTITV**, is a system value that is no longer used by the operating system. This system value specifies how long a user with adopted authority can access the adopted program. To learn more, keep reading.

Quick reference	
Location	Character-based interface
Special authority	All object (*ALLOBJ) and security administrator (*SECADM)
Default value	2880 minutes (48 hours)
Changes take effect	Immediately
Lockable	No

What can I do with this system value?

This system value specifies the amount of time a user with adopted authority may access an adopted program. The interval refers to how long the authentication is valid after using the server authentication entry to authenticate. You may specify a value from 1 to 108000. The authentication expires at the end of the interval specified. You cannot access an object after the authentication expires. A value of 108000 specifies 7 1/2 days.

Regardless of how you set this value, it will not affect the operating system. The operating system no longer uses this system value.

Where can I get more information about this system value?

To learn more, go to the security system values overview topic. If you are looking for a specific system value or category of system values, try using the i5/OS system value finder.

Related concepts

"System values: Security overview" on page 132
Use i5/OS security system values to control object, user, and system security values.

Related information

System value finder

Character-based types versus iSeries Navigator categories

The system values are divided into categories in iSeries Navigator. These categories are different from the categories in the character-based interface.

In the character-based interface, each system value is grouped by the type parameter. However, the type parameters do not correspond directly to the categories used in iSeries Navigator.

To view a list of the iSeries Navigator categories and the system values associated with each category, see System value categories.

In the character-based interface the system values are grouped into categories by type. The following is a list of the groups used in the character-based interface:

*ALC - Allocation system values.
*DATTIM - Date and time system values.
*EDT - Editing system values.
*LIBL - Library list system values.
*MSG - Message and logging system values.
*SEC - Security system values.
*STG - Storage system values.
*SYSCTL - System control system values.

For example, the Auditing level (QAUDLVL) system value is in the Auditing category in iSeries Navigator. However, in the character-based interface the system value's type parameter specifies *SEC (security), so it is grouped with the security-related system values.

Related concepts

"System value categories" on page 4
iSeries Navigator groups system values into categories to streamline system value management.

Related reference

"System value parameters" on page 172
System values can be set or viewed using iSeries Navigator. However, if you want to code a program to set or retrieve a system value, you need to use the character-based system value name and its associated special parameters.

Related information

System value finder

System value concepts

You can learn about specific system value concepts before setting your system values. Select this topic to find descriptions of how to lock and unlock system values and how system values affect a restore operation.

These concepts are helpful informative and give you a basic foundation for understanding system values. Before working with system value settings, you should become familiar with the following concepts.

Lock function of security-related system values

Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Most security system values can be altered only by a user with Security administrator (*SECADM) and All object (*ALLOBJ) special authorities. To prevent even these users from changing these system values during normal operation, system service tools (SST) and dedicated service tools (DST) provide an option to lock these security values.

The default value is **Yes**; therefore, users can change security-related system values.

The following table identifies the system values that are affected by this option (Both the iSeries Navigator name and the character-based name are specified.):

Lockable system values	
Auditing system values	
Activate action auditing	QAUDLVL QAUDLVL2
Activate object auditing	QAUDCTL
Audit journal error action	QAUDENACN
Default auditing for newly created objects	QCRTOBJAUD
Maximum number of journal entries in auxiliary storage	QAUDFRCLVL
Device system values	
Local controllers and devices	QAUTOCFG
Pass-through devices and Telnet	QAUTOVRT
Action to take when a device error occurs	QDEVRCYACN
Remote controllers and devices	QAUTORMT
Jobs system values	
Allow jobs to be interrupted	QALWJOBITP
Time-out interval	QDSCJOBITV
When job reaches time-out	QINACTMSGQ
Password system values	
Password expiration	QPWDEXPITV
Restrict consecutive digits	QPWDLMTAJC
Restricted characters	QPWDLMTCHR
Restrict repeating characters	QPWDLMTREP
Password level	QPWDLVL
Maximum password length	QPWDMAXLEN
Minimum password length	QPWDMINLEN
Require a new character in each position	QPWDPOSDIF
Require at least one digit	QPWDRQDDGT
Password reuse cycle	QPWDRQDDIF
Password validation program	QPWDVLDPGM
Messages and service system values	
Allow remote service of system	QRMTSRVATR

Lockable system values	
Save and restore system values	
Verify object signatures on restore	QVFYOBJRST
Convert objects during restore	QFRCCVNRST
Allow restore of security sensitive objects	QALWOBJRST
Security system values	
Security level	QSECURITY
Allow server security information to be retained	QRETSVRSEC
Users who can work with programs with adopted authority	QUSEADPAUT
Default authority for newly created objects in QSYS.LIB file system	QCRTAUT
Allow use of shared or mapped memory with write capability	QSHRMEMCTL
Allow these objects in . . .	QALWUSRDMN
Use registered exit programs to scan the root (/), QOpenSys, and user-defined file systems	QSCANFS
Scan control	QSCANFSCTL
Signon system values	
Remote signon	QRMTSIGN
Display signon information	QDSPSGNINF
Restrict privileged users to specific device session	QLMTSECOFR
Limit each user to one device session	QLMTDEVSSN
Incorrect signon attempts	QMAXSIGN
When maximum is reached	QMAXSGNACN

If you specify **No** for **Allow security-related system values changes**, users cannot change security-related system values. If you need to change a security-related system value, the Allow security-related system values changes parameter must be changed to **Yes** in SST.

If you specify **Yes** for **Allow security-related system values changes**, users with the required authorities can change security-related system values. Even though the security-related system values are unlocked, you still need Security administrator (*SECADM) and All object (*ALLOBJ) special authorities to change them. If you do not want to allow users to change a security-related system value, the Allow security-related system values changes parameter must be changed to **No** in SST.

Where can I find more information?

Lock and unlock security-related system values
Find information about how to lock and unlock security-related system values by using the Start System Service Tools (STRSST) command. If you are in recovery mode, you need to lock and unlock security-related system values using Dedicated Service Tools (STRDST).

i5/OS system value finder
Use this tool to find system values in iSeries Navigator. The i5/OS system value finder can be particularly helpful if you are trying to make the switch from the system value terms that were used in the character-based interface to the terms that are now used in iSeries Navigator.

System values categories
Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"System value categories" on page 4
iSeries Navigator groups system values into categories to streamline system value management.

"Devices system values: Pass-through devices and Telnet" on page 28
Sets automatic configuration for pass-through devices and Telnet. (QAUTOVRT)

"Security system values: Allow use of shared or mapped memory with write capability" on page 138
Specifies whether users are allowed to use shared memory or mapped memory stream files or not. (QSHRMEMCTL)

"Security system values: Allow these objects in . . ." on page 139
Specifies where to allow user domain objects that bypass authority checking and cannot be audited. (QALWUSRDMN)

"Security system values: Use registered exit programs to scan the root (/), QOpenSys, and user-defined file systems" on page 140
Specifies whether to scan file systems or not. (QSCANFS)

"Security system values: Scan control" on page 141
Specifies scan control options. (QSCANFSCTL)

"Signon system values: Incorrect signon attempts" on page 145
Sets how many incorrect signon attempts a user is allowed. (QMAXSIGN)

"Signon system values: When maximum is reached" on page 146
Specifies the action to take when the maximum number of signon attempts is reached. (QMAXSGNACN)

"Signon system values: Display signon information" on page 147
Specifies if signon information is displayed when signing on to a system. (QDSPSGNINF)

"Signon system values: Limit each user to one device session" on page 147
Sets the limit for device sessions. (QLMTDEVSSN)

"Signon system values: Restrict privileged users to specific device sessions" on page 148
Specifies whether users with all object (*ALLOBJ) and service (*SERVICE) special authority need explicit authority to specific workstations or not. (QLMTSECOFR)

"Signon system values: Remote signon" on page 149
Specifies information regarding remote signons. (QRMTSIGN)

Related tasks

"Lock and unlock security-related system values" on page 192
To prevent users from changing security-related system values during normal operation, system service tools (SST) and dedicated service tools (DST) provide an option to lock these security values.

Related information

System value finder

Effects of system value settings on restore operations

Describes how to requiredly set the restore system values so they are compatible during a restore operation. This topic also describes how the three restore system values work together when a restore is performed.

When preparing for a restore operation, it is important to know and understand how the following system values work together to restore objects.

- Verify object signatures during restore (QVFYOBJRST)
- Convert objects during restore (QFRCCVNRST)
- Allow restore of security-sensitive objects (QALWOBJRST)

When an attempt is made to restore an object onto the system, these three system values work together as filters to determine if the object is allowed to be restored, or if it is converted during the restore. The first filter is the Verify object on restore (QVFYOBJRST) system value. It is used to control the restore of some objects that can be digitally signed. The second filter is the Convert objects during restore (QFRCCVNRST) system value. This system value allows you to specify whether or not to convert programs, service programs, SQL packages, and module objects during the restore. It can also prevent some objects from being restored. Only objects that can get past the first two filters are processed by the

third filter. The third filter is the Allow restore of security-sensitive objects (QALWOBJRST) system value. It specifies whether or not objects with security-sensitive attributes can be restored.

When a restore operation is performed, you must set the **Force object conversion** (FRCOBJCVN) parameter and the **Convert objects during restore** system value to compatible settings. Otherwise, you will receive an error message and the restore will fail. The following table identifies which settings are compatible and which ones will fail.

FRCOBJCVN parameter	QFRCCVNRST system value	Outcome of restore command
*SYSVAL	0,1,2,3,4,5,6, or 7	The **Convert objects during restore** (QFRCCVNRST) system value is used.
*NO	0	No objects are converted and everything is restored without conversion.
*NO	1	Only objects with validation errors are converted and everything else is restored without conversion.
*NO	2-7	Not compatible. An error message is sent to the system administrator and nothing is restored and nothing is converted.
*YES *RQD	0, 1 or 2	Only objects with validation errors or objects that require conversion to be used on the current release are converted.
*YES *RQD	3-7	Not compatible. An error message is sent to the system administrator and nothing is restored and nothing is converted.
*YES *ALL	0, 1, 2, 3, 4, 5, 6 or 7	FRCOBJCVN (*YES *ALL) overrides any QFRCCVNRST value and all objects are converted and restored if they are successfully converted.

In order for an object to be restored successfully, it must pass the three system values that work together during a restore operation: **Verify object signatures during restore** (QVFYOBJRST), **Force conversion on restore** (QFRCCVNRST) and **Allow restore of security-sensitive objects** (QALWOBJRST). However, if the **Force object conversion** (FRCOBJCVN) parameter and **Force conversion on restore** (QFRCCVNRST) system value are not compatible, no conversion will occur and nothing is restored.

Force object conversion (FRCOBJCVN)

The following are possible values for the **Force object conversion** (FRCOBJCVN) parameter:

- ***SYSVAL**

  The objects are converted based on the value of the **Force conversion on restore** (QFRCCVNRST) system value. This is the default value.
- ***YES *ALL**

  All objects are converted regardless of their current format. However, if the objects do not have the data required for machine translation, the objects are not restored. Conversion increases the time of the restore operation, but avoids the need to convert the objects when they are first used. This setting overrides the **Force object conversion** system value.
- ***YES *RQD**

The objects are converted only if they require conversion to be used by the current operating system. If the objects require conversion but do not have the data required for machine translation, the objects are not restored. Conversion increases the time of the restore operation, but avoids the need to convert the objects when they are first used.

- ***NO**

  No objects are converted during the restore operation.

Convert objects during restore (QFRCCVNRST)

The following are possible values for the **Convert objects during restore** (QFRCCVNRST) system value:

- **Level 0 (0)**

  Restore all objects without conversion.

- **Level 1 (1)**

  Objects with validation errors are converted.

- **Level 2 (2)**

  Objects that must be converted to be used on the current version of the operating system and objects with validation errors are converted.

- **Level 3 (3)**

  Objects that are suspected of having been tampered with, must be converted to be used on the current version of the operating system, or have validation errors are converted.

- **Level 4 (4)**

  Objects that contain validation errors, require conversion for use, or are suspected of having been tampered with will be converted. Objects that contain sufficient creation data and do not have a valid digital signature will also be converted.

- **Level 5 (5)**

  Objects that contain validation errors, require conversion for use, are suspected of having been tampered with, or contain sufficient creation data will be converted.

- **Level 6 (6)**

  Objects that contain validation errors, require conversion for use, are suspected of having been tampered with, or do not have a valid digital signature will be converted.

- **Level 7 (7)**

  All objects are converted.

For all levels, if an object meets a requirement to be converted but fails conversion, it will not restore. Objects that do not need to be converted will restore without conversion. When an object is converted, the digital signature of the object will be removed. Also, any object that is converted will be changed to user state, its validation errors will be corrected, and it will no longer be suspected of having been tampered with.

Where can I find more information?

Restore operations

Find information about planning, configuring, and running a restore operation with the required system value settings. These tasks will take you through the steps to prepare the system values for a restore operation. In addition, you will find a reference for more information because when performing a restore operation there are other precautions to be aware of.

i5/OS system value finder

Use this tool to find system values in iSeries Navigator. The i5/OS system value finder can be particularly helpful if you are trying to make the switch from the system value terms that were used in the character-based interface to the terms that are now used in iSeries Navigator.

System values categories

Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"System value categories" on page 4
iSeries Navigator groups system values into categories to streamline system value management.

"Save and restore system values: Convert objects during restore" on page 126
Specifies which objects are converted before being restored. (QFRCCVNRST)

"Save and restore system values: Allow restore of security sensitive objects" on page 128
Specifies the objects to be restored and if they can be restored while installing software fixes. (QALWOBJRST)

"Save and restore system values: Verify object signatures during restore" on page 129
Specifies whether objects without signatures and/or with signatures that are not valid are restored. (QVFYOBJRST)

"Prepare system values for a restore operation" on page 193
System values play a vital role in restore operations. It is essential that you plan and configure the system values that affect a restore operation.

"Run a restore command" on page 195
After you plan how you want a restore handled and configure your system values to handle the restore requiredly, you are ready to run the restore command.

Related tasks

"Plan system values for a restore operation" on page 193
Before running a restore operation, you must plan what type of restore you want to perform. Then, configure your system values to the required settings to meet your needs. Then, when a restore operation is performed, you will have the correct settings specified on your system.

Related information

System value finder

System value parameters

System values can be set or viewed using iSeries Navigator. However, if you want to code a program to set or retrieve a system value, you need to use the character-based system value name and its associated special parameters.

The character-based system value name corresponds to a system value field in iSeries Navigator and the character-based special parameter corresponds to a possible value in iSeries Navigator.

View the following table for a complete list of system values (using the character-based names) and their associated special parameters. The table provides a summary of information that you may need to work with the system value in the character-based interface. The types and lengths specified in this table apply to the CL commands. This differs from the Retrieve System Values (QWCRSVAL) API that uses binary types rather than decimal. For example, the Retrieve System Value (RTVSYSVAL) command expects decimal while the Retrieve System Values (QWCRSVAL) API returns binary. For more information about each system value and its special parameters, view each system value topic.

If you are familiar with the iSeries Navigator name (also referred to as a field on the iSeries Navigator interface) and cannot find the character-based system value name in the following table, use the system value finder to display a category of system values. Each category identifies the iSeries Navigator system value names and the character-based names.

Note: For optimal printing of the list of system values in this topic, you need to print it from a Web browser. To print this topic from a Web browser, select **File** → **Print**. Ensure that the paper orientation is landscape.

The following table identifies all of the system values using their character-based names and the character-based special parameters (possible values) for each system value:

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QABNORMSW	Previous system ending status	Restart	CHAR	1	0	0 - Normal. 1 - Abnormal.
QACGLVL	Journal accounting information	Auditing	CHAR	80	*NONE	*NONE - No journaling. *JOB - Journal job resource use. *PRINT - Journal printer output.
QACTJOB [1]	Allocate storage at restart for active jobs	Jobs	DECIMAL	(5 0)	20	1-32767
QADLACTJ [1]	Allocate additional storage as needed for active jobs	Jobs	DECIMAL	(5 0)	10	1-32767
QADLSPLA [2]	Additional storage to add to the spooling control block	Jobs	DECIMAL	(5 0)	Not Available	Specifies the additional storage to add to the spooling control block.
QADLTOTJ [1]	Allocate additional storage as needed for total jobs	Jobs	DECIMAL	(5 0)	10	1-32767
QALWJOBITP	Allow jobs to be interrupted to run user-defined exit programs	Jobs	CHAR	1	0	0, 1, and 2 0 - The system will not allow jobs to be interrupted to run user-defined exit programs. All new jobs becoming active will default to be uninterruptible. 1 - The system will allow jobs to be interrupted to run user-defined exit programs. All new jobs becoming active will default to be uninterruptible. 2 - The system will allow jobs to be interrupted to run user-defined exit programs. All new jobs becoming active will default to be interruptible.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QALWOBJRST	Allow restore of security sensitive objects	Save and restore	CHAR	150	*ALL	*ALL - All objects are restored. *NONE - Does not allow objects with security-sensitive attributes to be restored. *ALWSYSSTT - System-state and inherit-state attribute objects are restored. *ALWPGMADP - Programs and service programs with the adopt attribute are restored. *ALWPTF - Allow system-state or inherit-state programs, service programs, modules, objects that adopt authority, objects that have the S_ISUID (set-user-ID) attribute enabled, and objects that have the S_ISGID (set-group-ID) attribute enabled to be restored to the system during a PTF install. *ALWSETUID - Allow restore of files that have the S_ISUID (set-user-ID) attribute enabled. *ALWSETGID - Allow restore of files that have the S_ISGID (set-group-ID) attribute enabled. *ALWVLDERR - Allow objects with validation errors or suspected of having been tampered with to be restored.
QALWUSRDMN	Allow user domain objects in libraries	Security	CHAR	500	*ALL	*ALL - All libraries and integrated file system directories on the system can contain user domain objects. *DIR - Any SOM® object in a directory in the integrated file system can contain user domain objects. *DIR does not apply to the QSYS and QDLS file systems. *DIR is mutually exclusive with *ALL. *library-name* - A list of library names that can contain user domain objects.
QASTLVL	Assistance level	Security	CHAR	10	*BASIC	*BASIC - Operational Assistant level. *INTERMED - Intermediate level. *ADVANCED - Advanced level.
QATNPGM	Attention program	System and user defaults	CHAR	20	*ASSIST	*ASSIST - Operational Assistant main menu. *NONE - No attention program. *program-name* - The specified program is used.
QAUDCTL [1]	Activate action auditing	Auditing	CHAR	50	*NONE	*NONE - No auditing. *OBJAUD- Objects are audited. *AUDLVL - Actions are audited. *NOQTEMP - QTEMP objects are not audited. *NOTAVL - The user is not allowed to view the auditing system value.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QAUDENDACN	Audit journal error action	Auditing	CHAR	10	*NOTIFY	*NOTIFY - Notification sent to security auditing journal. *PWRDWNSYS - System ends with a system reference code (SRC). *NOTAVL - The user is not allowed to view the auditing system value.
QAUDFRCLVL	Maximum journal entries before writing to auxiliary storage	Auditing	DECIMAL	(5 0)	*SYS	*SYS - System writes the journal entries to disk pool. Equivalent to the decimal value 0. -1 - The user is not allowed to view the auditing system value. 1-100 - Number of security auditing journal entries.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QAUDLVL [1]	Activate action auditing - available actions	Auditing	CHAR	160	Deselected	*AUDLVL2 - Both QAUDLVL and QAUDLVL2 system values will be used to determine the security actions to be audited. *ATNEVT - Attention events *AUTFAIL - Authorization failures. *CREATE - Object creations. *DELETE - Deletions of external objects on the system are audited. *JOBDTA - Actions that affect a job. *NETBAS - Network base functions. *NETCLU - Cluster resource group. *NETCMN - Networking and communications functions. *NETFAIL - Network failures. *NETSCK - Sockets tasks. *NONE - No actions are audited. *OBJMGT - Generic object tasks. *OFCSRV - OfficeVision® licensed program. *OPTICAL - Optical functions are audited. *PGMADP - Adopting authority from a program owner. *PGMFAIL - Integrity violations (for example, blocked instruction, validation value failure, and domain violation). *PRTDTA - Printing functions. *SAVRST - Save and restore information. *SECCFG - Security configuration. *SECDIRSRV - Directory service functions. *SECIPC - Interprocess communications. *SECNAS - Network authentication service actions. *SECRUN - Security run time functions. *SECSCKD - Socket descriptors. *SECURITY - Security-related functions. *SECVFY - Use of verification functions. *SECVLDL - Validation list objects. *SERVICE - Use of the system service tools. *SPLFDTA - Spool file. *SYSMGT - System management functions. *NOTAVL - The user is not allowed to view the auditing system value.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QAUDLVL2[1]	Auditing level extension	Auditing	CHAR	990	*NONE	*AUTFAIL - Authorization failures. *ATNEVT - Attention events *CREATE - Object creations. *DELETE - Deletions of external objects on the system are audited. *JOBDTA - Actions that affect a job. *NETBAS - Network base functions. *NETCLU - Cluster resource group. *NETCMN - Networking and communications functions. *NETFAIL - Network failures. *NETSCK - Sockets tasks. *NONE - No actions are audited. *OBJMGT - Generic object tasks. *OFCSRV - OfficeVision licensed program. *OPTICAL - Optical functions are audited. *PGMADP - Adopting authority from a program owner. *PGMFAIL - Integrity violations (for example, blocked instruction, validation value failure, and domain violation). *PRTDTA - Printing functions. *SAVRST - Save and restore information. *SECCFG - Security configuration. *SECDIRSRV - Directory service functions. *SECIPC - Interprocess communications. *SECNAS - Network authentication service actions. *SECRUN - Security run time functions. *SECSCKD - Socket descriptors. *SECURITY - Security-related functions. *SECVFY - Use of verification functions. *SECVLDL - Validation list objects. *SERVICE - Use of the system service tools. *SPLFDTA - Spool file. *SYSMGT - System management functions. *NOTAVL - The user is not allowed to view the auditing system value.
QAUTOCFG	Local controllers and devices	Devices	CHAR	1	1	0 - Automatic configuration is off. 1 - Automatic configuration is on.
QAUTORMT	Remote controllers and devices	Devices	CHAR	1	1	0 - Automatic configuration is off. 1 - Automatic configuration is on.
QAUTOSPRPT [2]	Automatic system disabled reporting	System and user defaults	CHAR	1	0	0 - Reporting is off. 1 - Reporting is on.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QAUTOVRT	Pass-through devices and Telnet	Devices	DECIMAL	(5 0)	0	0 - Automatic configuration of virtual devices is off. 1-32500 - Number of virtual devices to have automatically configure. *NOMAX - No maximum number of virtual devices. Equivalent to the decimal value 32767. *REGFAC - The program registered for the Virtual Device Selection (QIBM_QPA_DEVSEL) exit point. Equivalent to the decimal value -1.
QBASACTLVL	Base memory pool maximum eligible threads	Performance	DECIMAL	(5 0)	6	1-32767 threads.
QBASPOOL	Base memory pool minimum size	Performance	DECIMAL	(10 0)	2000 KB	256-2147483647 MB.
QBOOKPATH [2]	Book path	System and user defaults	CHAR	315	'/QDLS/ QBKBOOKS/ BOOKS'	*directory-name*
QCCSID	Coded character set ID	International	DECIMAL	(5 0)	65535	1-65535
QCENTURY [1]	Century	Date and time	CHAR	1	None.	0 - Years 1928-1999. 1 - Years 2000-2053.
QCFGMSGQ	Message queue for lines, controllers and devices	Messages and service	CHAR	20	QSYSOPR QSYS	Message queue name and library name.
QCHRID	Graphic character set/Code page	International	CHAR	20	Varies for different countries/ regions.	1-32767 for the character set identifier and 1-32767 for the code page identifier.
QCHRIDCTL	Character identifier control	International	CHAR	10	*DEVD	*DEVD - The *DEVD special value performs the same function as on the CHRID command parameter. *JOBCCSID - The *JOBCCSID special value performs the same function as on the CHRID command parameter.
QCMNARB	Communications arbiter jobs, at restart	Performance	CHAR	10	*CALC	*CALC - Operating system calculates the number of communication arbiter jobs. 0-99 - Number of communication arbiter jobs.
QCMNRCYLMT	Communications configuration recovery	Performance	CHAR	20	0 0	The first 10 characters contain the count limit right-justified. The last 10 characters contain the time interval right-justified.
QCNTRYID	Country/Region	International	CHAR	2	Varies for different countries/ regions.	Country/Region ID.
QCONSOLE	Console name	System and user defaults	CHAR	10	QCONSOLE	QCONSOLE or specified name.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QCRTAUT	Default authority for newly created objects in QSYS.LIB file system	System and user defaults	CHAR	10	*CHANGE	*CHANGE - Allows you to change the contents of an object. *ALL - Allows you to read, change, delete, and manage the security of an object. *USE - Allows you to create an object, to display the contents of an object, or to refer to the contents of an attached object when a command being requested must access attached objects and their contents. *EXCLUDE - Allows no access to an object.
QCRTOBJAUD	Default auditing for newly created objects	Auditing	CHAR	10	*NONE	*NONE - No auditing. *USRPRF - Auditing depends on the user profile. *CHANGE - Audits changes. *ALL - Audits when used or changed. *NOTAVL - The user is not allowed to view the auditing system value.
QCTLSBSD	Controlling subsystem/library	Restart	CHAR	20	QBASE QSYS	The first 10 characters contain the subsystem description name right-justified. The last 10 characters contain the library name right-justified.
QCURSYM	Currency symbol	International	CHAR	1	Varies for different countries/ regions.	Any character except blank, hyphen (-), ampersand (&), asterisk (*), or zero (0).
QDATE[1]	Date	Date and time	CHAR	7	No shipped value.	Depends on the date format being used.
QDATETIME[1]	Date and time	Date and time	CHAR	20	No shipped value.	Specifies QDATE and QTIME.
QDATFMT [1]	Date format	Date and time	CHAR	3	Varies for different countries/ regions.	This system value can be YMD, MDY, DMY, or JUL (Julian format), where Y equals year, M equals month, and D equals day.
QDATSEP [1]	Date separator	Date and time	CHAR	1	Varies for different countries/ regions.	Slash (/), dash (-), period (.), comma (,), or blank
QDAY [1]	Day	Date and time	CHAR	3	No shipped value.	1-366
QDAYOFWEEK [1]	Day of the week	Date and time	CHAR	4	No shipped value.	*SUN - Sunday *MON - Monday *TUE - Tuesday *WED - Wednesday *THU - Thursday *FRI - Friday *SAT - Saturday
QDBFSTCCOL	Allow background database statistics collection	Performance	CHAR	10	*ALL	*ALL - User and system requests. *USER - User requests. *SYSTEM - System requests. *NONE - No requests.
QDBRCVYWT	Wait for database recovery before completing restart	Restart	CHAR	1	0	0 - Does not wait for database recovery. 1 - Waits for database recovery.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QDECFMT[1]	Decimal format	Date and time	CHAR	1	Varies for different countries/ regions.	blank - Uses a period for a decimal point, a comma for a 3-digit grouping character, and zero-suppress to the left of the decimal point. J - Uses a comma for a decimal point and a period for a 3-digit grouping character. The zero-suppression character is in the second position (rather than the first) to the left of the decimal notation. Balances with zero values to the left of the comma are written with one leading zero (0,04). The J entry also overrides any edit codes that might suppress the leading zero. I - Uses a comma for a decimal point, a period for a 3-digit grouping character, and zero-suppress to the left of the decimal point.
QDEVNAMING	Device naming convention	Devices	CHAR	10	*NORMAL	*NORMAL - Naming conventions should follow iSeries standards. *S36 - Naming conventions should follow System/36 standards. *DEVADR - Device names are derived from the device address.
QDEVRCYACN	Action to take when a device error occurs on the workstation	Devices	CHAR	20	*DSCMSG	*MSG - Signals the I/O error message to the user's application program. *DSCENDRQS - Disconnects the job. When signing on again, a cancel request function is performed to return control of the job back to the last request level. *DSCMSG - Disconnects the job. When signing on again, an error message is sent to the user's application. *ENDJOB - Ends the job. A job log is produced for the job. *ENDJOBNOLIST - Ends the job. A job log is not produced for the job.
QDSCJOBITV	Time-out interval for disconnected jobs	Jobs	CHAR	10	240	5-1440 - The range of the disconnect interval. *NONE - There is no disconnect interval.
QDSPSGNINF	Display signon information	Signon	CHAR	1	0	0 - No. 1 - Yes.
QDYNPTYADJ	Dynamically adjust job priorities of interactive jobs	Performance	CHAR	1	1	0 - Off. 1 - On.
QDYNPTYSCD	Dynamically adjust job priorities within priority bands	Performance	CHAR	1	1	0 - Off. 1 - On.
QENDJOBLMT	Maximum time for immediate end	Jobs	DECIMAL	(5 0)	120	30-3600 seconds.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QFRCCVNRST	Convert objects during restore	Save and restore	CHAR	1	7	0 - Do not convert anything. 1 - Objects with validation errors will be converted. 2 - Objects requiring conversion to be used on the current version of the operating system and objects with validation errors will be converted. 3 - Objects suspected of having been tampered with, objects containing validation errors, and objects requiring conversion to be used by the current version of the operating system will be converted. 4 - Objects that contain sufficient creation data to be converted and do not have valid digital signatures will be converted. 5 - Objects that contain sufficient creation data will be converted. 6 - All objects that do not have valid digital signatures will be converted. 7 - All objects will be converted.
QHOUR [1]	Hour	Date and time	CHAR	2	No shipped value.	00-23
QHSTLOGSIZ	History log file size	Messages and service	DECIMAL	(8, 0)	5000	1-10,000,000 records. *DAILY - Specifies that a new version of the history log will be created each time the date in the history log messages changes, or when the current log version reaches the maximum size of 10,000,000 records.
QIGC	Double-byte capable	International	CHAR	1	1	0 - A DBCS version is not installed. 1 - A DBCS version is installed.
QIGCCDEFNT	Coded font name	International	CHAR	20	Varies for different countries/ regions.	First 10 characters contain the coded font name and the last 10 characters contain the library name. *NONE - No coded font is identified to the system.
QIGCFNTSIZ	Coded font point size	International	DECIMAL	(4 1)	*NONE	*NONE - There is no defined double-byte coded font point size. Equivalent to the decimal value 0. 1-9999 - The double-byte coded font point size in tenths. For example, a value of 9999 in binary would be 999.9.
QINACTITV	Time-out interval for inactive jobs	Jobs	CHAR	10	*NONE	*NONE - The system does not check for inactive interactive jobs. 5-300 - The number of minutes a job can be inactive before action is taken.
QINACTMSGQ	When a job reaches time-out	Jobs	CHAR	20	*NONE	*DSCJOB - Interactive job is disconnected. *ENDJOB - Interactive job is ended.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QIPLDATTIM	Allow scheduled restart	Restart	CHAR	20	*NONE	*NONE - No automatic IPL. CYYMMDDHHMMSS - where C is the century, YY is the year, MM is the month, DD is the day, HH is the hour, MM is the minute, and SS is the second. A 0 for the century flag indicates years 19xx, and a 1 indicates years 20xx.
QIPLSTS	Previous restart type	Restart	CHAR	1	0	0 - Operator panel IPL. 1 - Automatic IPL after power restored. 2 - Restart IPL. 3 - Time-of-day IPL. 4 - Remote IPL.
QIPLTYPE	Type of restart	Restart	CHAR	1	0	0 - Unattended. 1 - Attended with dedicated service tools. 2 - Attended with console in debug mode.
QJOBMSGQFL	When maximum size is reached	Jobs	CHAR	10	*NOWRAP	*NOWRAP - Do not wrap. *WRAP - Wrap to the beginning and start filling again. *PRTWRAP - Wrap the message queue and print the messages that are being overlaid because of the wrapping.
QJOBMSGQMX	Maximum job log size	Jobs	DECIMAL	(5 0)	16	2-64 MB.
QJOBMSGQSZ [2]	Job message queue initial size	Jobs	DECIMAL	(5 0)	Not Available	1-16384
QJOBMSGQTL [2]	Job message queue maximum initial size	Jobs	DECIMAL	(5 0)	Not Available	1-16384
QJOBSPLA	Initial printer output block size	Jobs	DECIMAL	(5 0)	3516	3516 - 32767 bytes.
QKBDBUF	Default system keyboard	System and user defaults	CHAR	10	*TYPEAHEAD	*TYPEAHEAD - Type-ahead is on and Attention key buffering is off. *NO - Type-ahead and Attention key are off. *YES - Type-ahead and Attention key are on.
QKBDTYPE	Default system keyboard	System and user defaults	CHAR	3	Varies for different countries/ regions.	Specifies the language character set for the keyboard.
QLANGID	Language	International	CHAR	3	Varies for different countries/ regions.	Specifies the language identifier.
QLEAPADJ	Leap year adjustment	Date and time	DECIMAL	(5 0)	Varies for different countries/ regions.	0 - Gregorian. 1-3 - Adjustment in years.
QLIBLCKLVL	Lock libraries in a user job's library search list	Performance	CHAR	1	1	0 - Not locked. 1 - Locked.
QLMTDEVSSN	Limit each user to one device session	Signon	CHAR	1	0	0 - No limit. 1 - Limit to one device.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QLMTSECOFR	Restrict privileged users to specific device sessions	Signon	CHAR	1	1	0 - A user with *ALLOBJ or *SERVICE special authority can signon any device. 1 - A user with *ALLOBJ or *SERVICE special authority can signon only at a device to which they have explicit authority.
QLOCALE	Locale	International	CHAR	1024	Varies for different countries and regions.	*NONE - No locale object is specified. *C - A predefined locale object is to be used. *POSIX - A predefined locale object is to be used. Path name - Specified locale path name
QLOGOUTPUT	Produce printer output for job log	Jobs	CHAR	10	*JOBEND	*JOBEND - The job log will be produced by the job itself. If the job cannot produce its own job log, the job log will be produced by a job log server. *JOBLOGSVR - The job log will be produced by a job log server. *PEND - The job log will not be produced. The job log remains pending until removed.
QMAXACTLVL	Maximum eligible threads	Performance	DECIMAL	(5 0)	*NOMAX	*NOMAX - No maximum. Equivalent to the decimal value 32767. 2-32767
QMAXJOB	Maximum jobs	Jobs	DECIMAL	(10 0)	163520	32000 - 485000 jobs.
QMAXSGNACN	When maximum is reached	Signon	CHAR	1	3	1 - Varies off the device. 2 - Disables the user profile. 3 - Varies off the device and disables the user profile.
QMAXSIGN	Incorrect signon attempts	Signon	CHAR	6	3	1-25 - Maximum number of signon attempts allowed. *NOMAX - No maximum number of signon attempts.
QMAXSPLF	Maximum printer output files	Jobs	DECIMAL	(10 0)	9999	9999 - 999999 files.
QMCHPOOL	Machine memory pool size	Performance	DECIMAL	(10 0)	20	Pool size in megabytes (MB).
QMINUTE [1]	Minute	Date and time	CHAR	2	No shipped value.	0-59
QMLTTHDACN	When a function in a multi-threaded job is not threadsafe	Jobs	CHAR	1	2	1 - Perform the function that is not threadsafe without sending a message. 2 - Perform the function that is not threadsafe and send an informational message. 3 - Do not perform the function that is not threadsafe.
QMODEL	Model number	System and user defaults	CHAR	4	No shipped value.	4 character value that specifies the model number.
QMONTH [1]	Month	Date and time	CHAR	2	No shipped value.	1-12
QPASTHRSVR	Available display station pass-through server jobs	Performance	CHAR	10	*CALC	*CALC - Operating system calculates the number of server jobs. 0-100 - Number of server jobs.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QPFRADJ	Automatically adjust memory pools and activity levels	Performance	CHAR	1	2	0 - No performance adjustment. 1 - Performance adjustment at IPL. 2 - Performance adjustment at IPL and dynamically. 3 - Dynamic performance adjustment.
QPRBFTR	Problem log filter	Messages and service	CHAR	20	*NONE	Character list of up to two 10-character values in which the first value is the problem filter name and the second is the library name. *NONE - No problem filter is in use.
QPRBHLDITV	Minimum retention	Messages and service	DECIMAL	(5 0)	30	0-999 days.
QPRCFEAT	Processor feature code	System and user defaults	CHAR	4	No shipped value.	4 character value in user-written programs.
QPRCMLTTSK	Processor multitasking	System and user defaults	CHAR	2	2	0 - Multitasking is off. 1 - Multitasking is on. 2 - System controlled.
QPRTDEV	Default printer	Printing	CHAR	10	PRT01	Specifies the default printer.
QPRTKEYFMT	Format when using Print key	Printing	CHAR	10	*PRTHDR	*NONE - Border and header information is not included. *PRTBDR - Border information is included. *PRTHDR - Header information is included. *PRTALL - Border and header information is included.
QPRTTXT	Printed page footer	Printing	CHAR	30	*BLANK	0-30 characters of text for page footer. *NONE - No page footer text.
QPWDEXPITV	Password expiration	Password	CHAR	6	*NOMAX	*NOMAX - A password can be used an unlimited number of days. 1-366 - The number of days before a password cannot be used.
QPWDLMTAJC	Restrict consecutive digits	Password	CHAR	1	0	0 - Adjacent digits are allowed. 1 - Adjacent digits are not allowed.
QPWDLMTCHR	Restricted characters	Password	CHAR	10	*NONE	Specified characters are restricted. *NONE - No characters are restricted.
QPWDLMTREP	Restrict repeating characters	Password	CHAR	1	0	0 - Characters can be used more than once. 1 - Characters cannot be used more than once. 2 - Characters can be used more than once but cannot be repeated consecutively.
QPWDLVL	Password level	Password	DECIMAL	(5 0)	0	0 - Passwords with 1-10 characters are supported. 1 - Passwords with 1-10 characters are supported and NetServer passwords are removed. 2 - Passwords with 1-128 characters are supported. 3 - Passwords with 1-128 characters are supported and NetServer passwords are removed.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QPWDMAXLEN	Maximum password length	Password	DECIMAL	(5 0)	8	1-10 if QPWDLVL is 0 or 1 1-128 if QPWDLVL is 2 or 3
QPWDMINLEN	Minimum password length	Password	DECIMAL	(5 0)	6	1-10 if QPWDLVL is 0 or 1 1-128 if QPWDLVL is 2 or 3
QPWDPOSDIF	Require a new character in each position	Password	CHAR	1	0	0 - The same characters can be used in a position corresponding to the same position in the previous password. 1 - The same characters cannot be used in a position corresponding to the same position in the previous password.
QPWDRQDDGT	Require at least one digit	Password	CHAR	1	0	0 - A numeric digit is not required. 1 - A numeric digit is required.
QPWDRQDDIF	Password reuse cycle	Password	CHAR	1	0	0 - Can be the same. 1 - Different than previous 32 passwords. 2 - Different than previous 24 passwords. 3 - Different than previous 18 passwords. 4 - Different than previous 12 passwords. 5 - Different than previous 10 passwords. 6 - Different than previous 8 passwords. 7 - Different than previous 6 passwords. 8 - Different than previous 4 passwords.
QPWDVLDPGM	Password validation program	Password	CHAR	20	*NONE	*NONE - No validation program is used. *REGFAC - The validation program name is retrieved from the registration facility. *program-specification* - The name of the validation program. This option is only valid if the system is operating at QPWDLVL 0 or 1.
QPWRDWNLMT	Maximum time for immediate shutdown	Restart	DECIMAL	(5 0)	900 seconds.	1-32767 seconds.
QPWRRSTIPL	Allow auto-restart after power failure	Restart	CHAR	1	0	0 - Automatic IPL is not allowed. 1 - Automatic IPL is allowed.
QQRYDEGREE	Parallel processing for queries and indexes	Performance	CHAR	10	*NONE	*NONE - No parallel processing is allowed. *IO - Any number of tasks may be used when the database query optimizer chooses to use I/O parallel processing for queries. *OPTIMIZE - The query optimizer can choose to use any number of tasks for either I/O or SMP parallel processing to process the query. *MAX - The query optimizer can choose to use either I/O or SMP parallel processing to process the query.
QQRYTIMLMT	Database query time limit	Performance	CHAR	10	*NOMAX	*NOMAX - No maximum number. 0-2147352578 - Number of seconds.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QRCLSPLSTG	Automatically clean up unused printer output storage	Storage	CHAR	10	*NOMAX	*NOMAX - No maximum retention interval. *NONE - No retention interval. 1-366 - Number of days empty spool database members are kept for new spooled file use.
QRETSVRSEC	Allow server security information to be retained	Security	CHAR	1	0	0 - Do not retain the security-related information. 1 - Retain the security-related information.
QRMTIPL	Allow remote power-on and restart	Restart	CHAR	1	0	0 - Remote power on and IPL are not allowed. 1 - Remote power on and IPL are allowed.
QRMTSIGN	Allow remote power-on and restart	Restart	CHAR	20	*FRCSIGNON	*FRCSIGNON - All remote signon sessions are required to go through normal signon processing. *SAMEPRF - When the source and target user profile names are the same, the signon may be bypassed for remote signon attempts. *VERIFY - After verifying that the user has access to the system, the system allows the user to bypass the signon. *REJECT - No remote signon is allowed.
QRMTSRVATR	Allow remote service of system	Messages and service	CHAR	1	0	0 - Remote service attribute is off. 1 - Remote service attribute is on.
QSAVACCPTH	Save access paths	Save and restore	CHAR	1	0	0 - Do not save access paths. 1 - Save access paths.
QSCANFS	Use registered exit programs to scan the root(/), QOpenSys, and user-defined file systems	Security	CHAR	200	*ROOTOPNUD	*NONE - No file system objects are scanned. *ROOTOPNUD - Root (/), QOpenSys and user-defined file system objects are scanned.
QSCANFSCTL	Scan control options	Security	CHAR	200	*NONE	*NONE - Default controls are used. *ERRFAIL - Fail operation if exit program errors are encountered. *FSVRONLY - Only scan accesses through file servers. *NOFAILCLO - Close requests are not failed if there is a scan failure. *NOPOSTRST - Objects are scanned when changed, not just because they are restored. *NOWRTUPG - System does not attempt to upgrade the access to include write. *USEOCOATR - Scanning depends on the object change only attribute.
QSCPFCONS	If console problem occurs	Restart	CHAR	1	1	0 - End system. 1 - Continue the IPL unattended.
QSECOND [1]	Second	Date and time	CHAR	2	No shipped value.	00-59

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QSECURITY	Security level	Security	CHAR	2	40	10 - The system does not require a password to signon. 20 - The system requires a password to signon. 30 - The system requires a password to signon, and users must have authority to access objects and system resources. 40 - The system requires a password to signon, and users must have authority to access objects and system resources. 50 - The system requires a password to signon, and users must have authority to access objects and system resources. Security and integrity of the QTEMP library and user domain (*USRxxx) objects are enforced.
QSETJOBATR	Set job attributes based on locale	International	CHAR	160	*NONE	*NONE - No attributes are set. *CCSID - Coded character set identifier *DATFMT - Date format *DATSEP - Date separator *DECFMT - Decimal format *SRTSEQ - Sort sequence *TIMSEP - Time separator
QSFWERRLOG	Log software problems detected by the system	Messages and service	CHAR	10	*LOG	*LOG - Software errors are logged. *NOLOG - No logging occurs.
QSHRMEMCTL	Allow use of shared or mapped memory with write capability	Security	CHAR	1	1	0 - Not allowed. 1 - Allowed.
QSPCENV	Default user environment	System and user defaults	CHAR	10	*NONE	*NONE - iSeries environment is used. *S36 - System/36 environment is used.
QSPLFACN	Detach printer output after jobs have ended	Jobs	CHAR	10	*KEEP	*KEEP - Do not detach. *DETACH - Detach.
QSRLNBR	Serial number	System and user defaults	CHAR	8	No shipped value.	8 character serial number.
QSRTSEQ	Sort sequence	International	CHAR	20	*HEX	*HEX - No sort sequence table. *LANGIDSHR - Table can contain the same weight for multiple characters. *LANGIDUNQ - Table must contain a unique weight for each character. sort sequence table name - Name and library of the table.
QSRVDMP	Service log for unmonitored escape messages	Messages and service	CHAR	10	*DMPUSRJOB	*DMPALLJOB - Service logs will be created for all jobs. *DMPSYSJOB - Service logs will be created for only system jobs, not user jobs. *DMPUSRJOB - Service logs are created for only user jobs, not system jobs. System jobs include the system arbiter, subsystem monitors, LU services process, spool readers and writers, and the start-control-program-function (SCPF) job. *NONE - Do not request logs for any jobs.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QSTGLOWACN	When maximum usage is reached	Storage	CHAR	10	*MSG	*MSG - Message CPI099C is sent to the QSYSMSG and the QSYSOPR message queues. *CRITMSG - Message CPI099B is sent to the user who is specified by the Critical messages to user service attribute. Service attributes can be changed by using the Change Service Attributes (CHGSRVA) command. *REGFAC - A job is submitted to run any exit programs that are registered for the QIBM_QWC_QSTGLOWACN exit point. *ENDSYS - The system is ended and left in the restricted state. *PWRDWNSYS - The system is powered down immediately and restarted.
QSTGLOWLMT[3]	Percentage of storage to remain available	Storage	DECIMAL	(7 4)	5	0-100 percent.
QSTRPRTWTR	Previous restart - printers started	Restart	CHAR	1	1	0 - Printer writers not started. 1 - Printer writers started.
QSTRUPPGM	Start-up program to set up system	Restart	CHAR	20	*QSTRUP QSYS	*NONE - No program called. *program-name* - The first 10 characters contain the program name, and the last 10 characters contain the library name.
QSTSMSG	Display status messages	Messages and service	CHAR	10	*NORMAL	*NORMAL - Status messages are displayed. *NONE - Status messages are not displayed.
QSVRAUTITV[2]	Server authentication interval	System and user defaults	DECIMAL	(6 0)	2880	0-108000 minutes.
QSYSLIBL	System library list	Library lists	CHAR	150	QSYS, QSYS2, QHLPSYS, QUSRSYS	Up to 10 characters for each library name.
QTHDRSCADJ	Automatically adjust thread resources	Performance	CHAR	1	1	0 - No automatic adjustment. 1 - Thread resources are automatically adjusted.
QTHDRSCAFN	Thread affinity	Performance	CHAR	20	*NOGROUP *NORMAL	*NOGROUP - No grouping of threads. *GROUP - Secondary threads are grouped. *NORMAL - Threads can use any resources. *HIGH - Threads only use resources it has affinity to.
QTIMADJ	Time adjustment	Date and time	CHAR	30	*NONE	*NONE - No software identified. *identifier-name*.
QTIME	System time	Date and time	CHAR	9	No shipped value.	Specifies the hour, minutes, and seconds.
QTIMSEP[1]	Time separator	Date and time	CHAR	1	Varies for different countries/ regions.	1 - Colon (:) 2 - Period (.) 3 - Comma (,) 4 - Blank
QTIMZON	Time zone	Date and time	CHAR	10	Varies for different countries/ regions.	*time-zone-identifier* - 10 character identifier name.
QTOTJOB [1]	Total jobs	Jobs	DECIMAL	(5 0)	30	1-32767

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QTSEPOOL	Move interactive jobs to base pool at end of time slice	Performance	CHAR	10	*NONE	*NONE - Jobs are not moved to the base storage pool when time-slice end is reached. *BASE - Jobs are moved to the base pool when time-slice end is reached.
QUPSDLYTIM	When power failure occurs	Power control	CHAR	20	*CALC	*BASIC - Powers only the PRC, IOP cards, and Load Source direct-access storage device. The appropriate wait time, in seconds, is calculated. *CALC - Calculates the appropriate wait time. In a secondary partition, the calculated wait time, rather than *CALC, is returned. *NOMAX - Starts no action. 0 - Automatically powers down the system. 1-99999 - Powers down the system after the specified number of seconds.
QUPSMSGQ	Message queue and library	Power control	CHAR	20	QSYSOPR QSYS	Message queue name and library name.
QUSEADPAUT	Users who can cause programs to use adopted authority from calling programs	Security	CHAR	10	*NONE	*NONE - All users can create, change, and update programs and service programs that use adopted authority. *authorization list name* - Authorization list that a user must have at least *USE authority to in order to create, change, and update programs and service programs that use adopted authority.
QUSRLIBL	User library list	Library lists	CHAR	250	QGPL QTEMP	Up to 10 characters for each library name.
QUTCOFFSET	Offset from UTC	Date and time	CHAR	5	+0000	Depends on the version and release of the system.

System value	iSeries Navigator name	Category	Type	Length	Shipped value	Possible values
QVFYOBJRST	Verify object signatures during restore	Save and restore	CHAR	1	3	1 - Do not verify signatures on restore. Restore all objects regardless of their signature. 2 - Verify signatures on restore. Restore unsigned commands and user-state objects. Restore signed commands and user-state objects, even if the signatures are not valid. Restore inherit-state and system-state objects only if they have valid signatures. 3 - Verify signatures on restore. Restore unsigned commands and user-state objects. Restore signed commands and user-state objects only if the signatures are valid. Restore inherit-state and system-state objects only if they have valid signatures. 4 - Verify signatures on restore. Do not restore unsigned commands and user-state objects. Restore signed commands and user-state objects, even if the signatures are not valid. Restore inherit-state and system-state objects only if they have valid signatures. 5 - Verify signatures on restore. Do not restore unsigned commands and user-state objects. Restore signed user-state objects only if the signatures are valid. Restore inherit-state and system-state objects only if they have valid signatures.
QYEAR[1]	Year	Date and time	CHAR	2	No shipped value.	0-99

Notes:

1 In iSeries Navigator, this system value is grouped with other character-based system values. Therefore, the topic specific to this system value discusses all of the system values associated with it in iSeries Navigator. For example, QTIME is called **Time of day** in iSeries Navigator and it uses QTIME, QDATETIME, QHOUR, QMINUTE, and QSECOND.

2 The operating system no longer uses this system value. For a complete list of system values no longer used by the operating system, see Obsolete system values.

3 In iSeries Navigator, this is the **Maximum system disk pool usage** (0-100 percent) system value. In the character-based interface, this system value specifies the disk pool **lower** limit versus the **maximum** allowed.

For more information, see the Retrieve System Values API.

Related concepts

"Character-based types versus iSeries Navigator categories" on page 165
The system values are divided into categories in iSeries Navigator. These categories are different from the categories in the character-based interface.

"Obsolete system values" on page 163
These system values are no longer used by the operating system.

Related reference

Retrieve System Values API

Related information

System value finder

Manage system values

As an administrator, you can perform many tasks to help you manage system values. Select this topic to learn how to save, configure, and lock system values.

To experience the full benefit of system value capabilities, you may perform one of many tasks.

In addition, you can manage system values using iSeries Navigator tasks on the Web. This allows you to work with system values using a Web browser. Not only can you work with the system values function of iSeries Navigator, but also the time management function that allows you to work with the time zone (QTIMZON) and time adjustment (QTIMADJ) system values.

Related concepts

Time management

"Date and time system values: Time zone" on page 22
Specifies the time zone for the system. (QTIMZON)

"Date and time system values: Time adjustment" on page 23
Identifies the application to use for time maintenance. (QTIMADJ)

Related tasks

iSeries Navigator tasks on the Web

Related reference

Retrieve System Values (QWCRSVAL) API

Compare and update system values

Use iSeries Navigator to compare and update your system values across multiple systems in your network.

As an administrator, you can manage system values across multiple systems. You can compare the system values on a model system to one or more target systems and then update the target system values to match the values of the model system. If you prefer, you can generate a list that shows the differences in values between the model system and the target system rather than actually changing the values on the target system.

Be sure you have current system value inventories on your target systems. It is possible to have your model system be a target system if you have collected inventory for the model system. You can also export any system values inventory to a PC file. These PC files provide a history of the inventory and allow you to work with the data in a spreadsheet program or other application.

To compare and update your system values, follow these steps:

1. In iSeries Navigator, expand **Management Central** → **Endpoint Systems**, **System Groups**, or **My Connections**.
2. Right-click an endpoint system or a system group that you want to be your target system, select **System Values**, and then select **Compare and Update**.
3. Complete the fields on the **Compare and Update** menu.
   - Select the name of the model system against which you want to compare the target system or systems.
   - Select the categories and values that you want to include in the compare. For each system value that you want to update on the target system, select that item from the **Update** column.
   - Verify the target system or systems that are selected.
4. Click **OK** to perform the task immediately or click **Schedule** to run the task at a later time.

Related concepts

"System values," on page 1
System values are pieces of information that affect the system operating environment. System values are not objects on the system. Rather, system values contain control information for the operation of certain parts of the system.

"Work with system values inventory" on page 198
You can collect an inventory of the system values on any endpoint system that is running i5/OS V5R1 or later.

Complete the security wizard

If you are unsure about how to requiredly set security-related system values or want to examine your current security policy, complete the Security wizard.

This wizard can automatically configure your system to the correct system value settings for your company. You are provided with many options of how to carry out your configuration. The following are some options that the wizard allows you to do:

- Automatically configure your system's system values based on the information you provide
- Save your report so you can configure your system at a later date
- Print a report that includes the recommended system value settings for your system with the implications of such settings

To access the Security wizard, complete the following steps:

1. In iSeries Navigator, select your system.
2. Right-click **Security**.
3. Select **Configure**.
4. Then, complete the Security wizard.

Lock and unlock security-related system values

To prevent users from changing security-related system values during normal operation, system service tools (SST) and dedicated service tools (DST) provide an option to lock these security values.

You must use DST if you are in recovery mode because SST is not available during this mode. Otherwise, use SST to lock or unlock the security-related system values.

To lock or unlock security-related system values with the Start System Service Tools (STRSST) command, follow these steps:

1. Open a character-based interface.
2. On the command line, type `STRSST`.
3. Type your service tools user name and password.
4. Select option 7 (Work with system security).
5. Type **1** to unlock security-related system values or **2** to lock security-related system values in the **Allow security-related system values changes** parameter.

Note: You must have a service tool profile and password to lock or unlock the security-related system values.

To lock or unlock security-related system values using dedicated service tools (DST) during an attended IPL of a system recovery, follow these steps:

1. From the **IPL** or **Install the System** display, select option 3 to Use Dedicated Service Tools.

   Note: This step assumes that you are in recovery mode and are performing an attended IPL.
2. Sign on to DST using your service tools user name and password.

3. Select option 13 (Work with system security).
4. Type **1** to unlock security-related system values or **2** to lock security-related system values in the **Allow security-related system values changes** parameter.

To view a list of system values are controlled by this lock function, see Lock function of security-related system values.

Related concepts

"Lock function of security-related system values" on page 166
Find information about how to lock and unlock system values. Only some system values can be locked. This will provide you with a description of the lock function, what system values can be locked, and how to lock and unlock them.

Prepare system values for a restore operation

System values play a vital role in restore operations. It is essential that you plan and configure the system values that affect a restore operation.

There are necessary precautions to consider for a successful restore. See the following topics for more information:

- Plan system values for a restore operation

  Provides a list of questions to help you plan how to configure your system value settings. This is useful if you are unsure of which system values work together when a restore operation is performed.
- Configure system values for a restore operation

  Describes how to configure the system values that affect how a restore operation is handled.
- Run a restore command

  Provides a link to the Backup and Recovery book that will help run a restore command. You will need to refer to this book after you have set the system values that are affected by a restore command. This book provides other steps that need to be taken when restoring an object. System values are just one part of the restore process.

Related concepts

"Effects of system value settings on restore operations" on page 169
Describes how to requiredly set the restore system values so they are compatible during a restore operation. This topic also describes how the three restore system values work together when a restore is performed.

"Run a restore command" on page 195
After you plan how you want a restore handled and configure your system values to handle the restore requiredly, you are ready to run the restore command.

Related tasks

"Plan system values for a restore operation"
Before running a restore operation, you must plan what type of restore you want to perform. Then, configure your system values to the required settings to meet your needs. Then, when a restore operation is performed, you will have the correct settings specified on your system.

"Configure system values for a restore operation" on page 194
After you plan how you want a restore operation to function, use iSeries Navigator to set the system values to reflect how to handle the restore operation. At this point, your system is ready for a restore command.

Plan system values for a restore operation

Before running a restore operation, you must plan what type of restore you want to perform. Then, configure your system values to the required settings to meet your needs. Then, when a restore operation is performed, you will have the correct settings specified on your system.

To plan how you want objects restored on the system, answer the following questions based on your company's needs:

1. How cautious do you want to be about what is restored?
   - Setting **Convert objects during restore** to **Level 0** (0) is the least restrictive state and **Level 7** (7) is the most restrictive.
2. What objects do you want to allow to be restored?
3. Do you want to allow the Force object conversion (FRCOBJCVN) parameter to override the **Convert objects during restore** system value?

   Convert objects during restore may be overridden. To see a list of compatible values for the **Convert objects during restore** system value and the Force object conversion parameter on the restore command, see the Effects of system value settings on restore operations topic.
4. What checking do you want performed for object signatures?
5. Do you want to save access paths?
6. Do you want to scan objects on the next access after the restore is complete? This additional scan impacts the performance of the iSeries system and may not be necessary. You need to consider what objects you are restoring and what kind of performance impact the scan will cause. Before determining whether or not to scan objects consider the following:
   - Scanning may not be necessary if you are restoring your own objects which were saved with the option to scan objects and not save objects that failed the scan.
   - Scanning may not be necessary if you are restoring objects that are coming from a trusted source.

Now that you have planned how you want the system values to handle a restore operation, you are ready to configure the system values for a restore operation.

Related concepts

"Prepare system values for a restore operation" on page 193
System values play a vital role in restore operations. It is essential that you plan and configure the system values that affect a restore operation.

"Effects of system value settings on restore operations" on page 169
Describes how to requiredly set the restore system values so they are compatible during a restore operation. This topic also describes how the three restore system values work together when a restore is performed.

"Save and restore system values: Save access paths" on page 131
Specifies whether to save access paths or not. (QSAVACCPTH)

Related tasks

"Configure system values for a restore operation"
After you plan how you want a restore operation to function, use iSeries Navigator to set the system values to reflect how to handle the restore operation. At this point, your system is ready for a restore command.

Configure system values for a restore operation

After you plan how you want a restore operation to function, use iSeries Navigator to set the system values to reflect how to handle the restore operation. At this point, your system is ready for a restore command.

To set the required system values in iSeries Navigator, complete the following steps:

1. In iSeries Navigator, expand your system → **Configuration and Service** → **System Values**.
2. Select **Save and Restore**.
3. On the **Conversion** page, set the Convert objects during restore system value to the way you want to handle object conversion.
4. On the **Signatures** page, set the Verify object signatures on restore system value to the way you want to handle signatures of objects.

5. On the **Objects** page, select the objects you want to allow to be restored in the Allow restore of security sensitive objects system value.
6. On the **Access paths** page, select whether access paths are saved in the Save access paths system value.
7. Click **OK** to close the Save and Restore system values.
8. If you want to scan objects on the next access after the object is restored, complete the following:
   a. Select **Security** to open the Security system values.
   b. On the **Scan** page, select **Use registered exit programs to scan the root (/), QOpenSys, and user-defined file systems**. For more information about registering exit programs, see Scan option.
   c. Select **Use specified scan control options**.
   d. Select the **Scan on next access after object has been restored** option.
   e. Click **OK** to close the Security system values.

After you configure your system values settings, you are ready to run a restore operation that uses these system value settings. However, there are more precautions to take to restore single objects or an entire system. See how to run a restore command, for more information.

Related concepts

"Prepare system values for a restore operation" on page 193
System values play a vital role in restore operations. It is essential that you plan and configure the system values that affect a restore operation.

"Save and restore system values: Convert objects during restore" on page 126
Specifies which objects are converted before being restored. (QFRCCVNRST)

"Save and restore system values: Verify object signatures during restore" on page 129
Specifies whether objects without signatures and/or with signatures that are not valid are restored. (QVFYOBJRST)

"Save and restore system values: Allow restore of security sensitive objects" on page 128
Specifies the objects to be restored and if they can be restored while installing software fixes. (QALWOBJRST)

"Save and restore system values: Save access paths" on page 131
Specifies whether to save access paths or not. (QSAVACCPTH)

Scan option

"Run a restore command"
After you plan how you want a restore handled and configure your system values to handle the restore requiredly, you are ready to run the restore command.

Related tasks

"Plan system values for a restore operation" on page 193
Before running a restore operation, you must plan what type of restore you want to perform. Then, configure your system values to the required settings to meet your needs. Then, when a restore operation is performed, you will have the correct settings specified on your system.

Run a restore command

After you plan how you want a restore handled and configure your system values to handle the restore requiredly, you are ready to run the restore command.

Before performing a restore operation, verify that the **Force conversion on restore** system value to a setting that is compatible with the **Force object conversion** parameter on the restore command. For more information about the compatibility of these two settings, see the **Effects of system value settings on restore operations** topic.

See the iSeries Backup and Recovery book to requiredly run the restore operation.

Related concepts

"Prepare system values for a restore operation" on page 193
System values play a vital role in restore operations. It is essential that you plan and configure the system values that affect a restore operation.

"Effects of system value settings on restore operations" on page 169
Describes how to requiredly set the restore system values so they are compatible during a restore operation. This topic also describes how the three restore system values work together when a restore is performed.

Related tasks

"Configure system values for a restore operation" on page 194
After you plan how you want a restore operation to function, use iSeries Navigator to set the system values to reflect how to handle the restore operation. At this point, your system is ready for a restore command.

Related information

iSeries Backup and Recovery

Save system values

Each time you change a system value, you need to save the system values.

Saving the system values is critical to your system if any of the following situations occur:

- You have a disaster and have to restore your entire system.
- A system value or all system values become damaged.

In any situation, if you save your current system values settings, you will not lose your system value information.

System values are stored in the system library, QSYS. You save the QSYS library when you do the following:

- Use the Go Save command menu and select option 21 (Entire system) to save the entire system.
- Use the Go Save command menu and select option 22 (System data only) to save only system data.
- If using Backup Recovery and Media Services for i5/OS plug-in, use *SYSTEM (backs up the entire system) or *SYSGRP (backs up all system data) backup policies.

If you need to recover your entire system, you will automatically restore your system values when you restore your operating system. You can also save your system information, using the SAVSYSINF command. For more information, see Save system information, located in the iSeries Backup and Recovery information.

Related information

iSeries Backup and Recovery

Secure system access levels

To help you implement the required level of security for your company, you may wish to restrict system access by using the password system values. A company can control the level of security by setting the password system values requiredly.

For example, if your company has recently added an iSeries that runs highly confidential financial applications, you should probably reassess your company's system security policy. In general, your company follows a moderately strict security policy. So, rather than completely rewriting the policy, you decide to restrict signon access to the new Finance system by tightening the password rules.

To secure entry into the Finance system, you must do the following:

- Set a policy that states that passwords must not be trivial and must not be shared.

- Set system values to help you enforce the new policy. (See Table 1.)

In addition, you may also want to provide users with this information:
- A list of the criteria for passwords.
- Examples of passwords that are and are not valid. (See Table 2.)
- Suggestions for how to think of a good password.

The following table lists the recommended password system value settings to implement your new password requirements (These values can be changed depending on how strict you want to control signon access.):

Table 1. System value settings

Name in iSeries Navigator	Recommended value	Name in character-based interface
Password expiration	60 days	QPWDEXPITV
Restrict consecutive digits	Yes	QPWDLMTAJC
Password level	3 (See note 1.)	QPWDLVL
Maximum password length	8 characters	QPWDMAXLEN
Minimum password length	6 characters	QPWDMINLEN
Require a new character in each position	Yes	QPWDPOSDIF
Require at least one digit	Yes	QPWDRQDDGT
Password reuse cycle	10 passwords	QPWDRQDDIF
Password validation program	None (See note 2.)	QPWDVLDPGM
Restrict repeating characters	Characters may not be used consecutively	QPWDLMTREP
Restricted characters	A,E,I,O,U,@,#, and $	QPWDLMTCHR

Notes:

1. You may not be able to use password level 3 (Long passwords using an unlimited character set. Disable iSeries NetServer on Windows 95/98/ME clients.) if you need to connect to or from an iSeries server at V5R1 or earlier or a server that does not support long passwords.
2. To change this system value, you must use the character-based interface. It is not in iSeries Navigator. Open a character-based interface and type
   ```
   CHGSYSVAL VALUE(QPWDVLDPGM) VALUE('*NONE')
   ```

The following table provides examples of good and bad passwords:

Table 2. Example passwords

Password	Details
JohnDoe	Bad. Do not use a name. Also, no digits are used.
112000	Bad. Do not use a date that can be identified with you.

Table 2. Example passwords (continued)

Password	Details
aaaxyz	Bad. Uses more than 2 consecutive characters and uses a character that is not allowed (a). Also, no digit is used.
cm2s0j	Good. Meets all the criteria for a good password.
c0mptr	Good. Meets all the criteria for a good password.
Mfc1RB	Good. Meets all the criteria for a good password. The stategy for this password uses the first letter of each word in a sentence, 'My favorite color is Royal Blue.' It also replaces the vowel with a number and uses a combination of upper and lower case characters.

By completing these steps, you have tightened signon access to the finance system by changing the password system values. You can alter the values for each of the password system values to meet the security level for your company. This example has provided one way that the password system values can work together to produce a moderately strict environment.

To learn more about these and other system values you can view and change in iSeries Navigator, see the following:

Password overview
Describes all password system values. In addition, you will find links to specific password articles that describe the different settings for each system value.

i5/OS system value finder
Use this tool to find system values in iSeries Navigator. The i5/OS system value finder can be particularly helpful if you are trying to make the switch from the system value terms that were used in the character-based interface to the terms that are now used in iSeries Navigator.

System values categories
Find an introduction to all the categories of system values found in iSeries Navigator.

Related concepts

"System value categories" on page 4
iSeries Navigator groups system values into categories to streamline system value management.

"System values: Password overview" on page 76
Use i5/OS password system values to control the password values and password restrictions.

Related information

System value finder

Work with system values inventory

You can collect an inventory of the system values on any endpoint system that is running i5/OS V5R1 or later.

Once you have collected these inventories, use iSeries Navigator to compare the system values on a model system to those on selected target systems. You can even choose to update the system values on the target systems to match those on the model system.

You will want to make sure that your system values inventories are current before doing a compare and update of system values on your systems. The **Compare and Update** window shows the date and time that the system values inventory was last collected on the target systems. You need a current inventory because the inventory data for the endpoints is used to do the compare and update. To collect inventory on a system or group, just right-click the endpoint system or system group, select **Inventory**, and then select **Collect**.

You can also export your system values inventory to a PC file. These PC files provide a history of the inventory and allow you to work with the data in a spreadsheet program or other application. To export a system values inventory, right-click the endpoint system or system group, select **System Values**, and then select **Export**. You can also click the **Export** button from the Compare and Update window.

Related tasks

"Compare and update system values" on page 191
Use iSeries Navigator to compare and update your system values across multiple systems in your network.

Appendix. Notices

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