



Windows Installation Details

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1

Windows User Accounts

When installing InterSystems IRIS, you must choose the Windows user account to run the InterSystems service, *InterSystems IRIS Controller for <instance-name>*. There are two options:

- The default SYSTEM account (Windows Local System account). This is used in **Minimal** security installations.
- A defined Windows user account.

Running the InterSystems service under the default SYSTEM account is appropriate for many installations, but in some cases can cause issues relating to file permissions and network security access. If you anticipate potential problems in these areas for an InterSystems IRIS instance—for example due to your network configuration or security arrangements—specify a Windows account for the InterSystems service that has the needed privileges and access, such as a domain administrator account.

For instructions on how to change the service account after installation, see [Managing Access to the InterSystems IRIS Instance](#).

Important: If you are using Kerberos, you must configure a Windows account before installing InterSystems IRIS. InterSystems recommends you use a separate account specifically set up for this purpose as described in [Preparing the Security Environment for Kerberos](#).

Note: If running InterSystems IRIS under a defined Windows user account, be sure to grant that account the Windows “Lock Pages in Memory” (SELockMemory) privilege. See [Configuring Large Pages on Windows](#) in the “Preparing to Install InterSystems IRIS” chapter for details.

2

Installing a Web Server

Before installing InterSystems IRIS, you should install a supported web server in order to access web applications, including the Management Portal. The installation procedure will vary depending on the web server you choose. For details, you should refer to your web server's documentation.

In many cases, the InterSystems IRIS installer can automatically configure a new or upgraded instance to serve its built-in web applications using your web server. For details, see [Connect Your Web Server Automatically](#).

If you would like to manually set up your web server, you can do this after installing IRIS. For details, see [Connect Your Web Server Manually](#).

If you intend on configuring the web server manually and you are performing an unattended installation, you should include the `cspiis` component and set `CSPKIPIIISCONFIG=1`. This installs the necessary IIS CSP binary files without configuring your web server. If the `cspiis` component is included and `CSPKIPIIISCONFIG` is not set or is set to 0, the installer will attempt to configure your web server and will fail if one is not detected.

If you do not plan on configuring a web server at any point, you can omit `cspiis` from `ADDLOCAL`. This prevents the installation of the IIS CSP binary files.

Important: InterSystems recommends using the Microsoft IIS web server because it can be automatically configured during the installation process. Make sure it is installed and running before beginning the installation process. In most cases, it is not necessary to manually configure the IIS web server.

3

Command Line Reference

3.1 Command-Line Properties

The [Command-Line Properties](#) table describes the InterSystems IRIS-specific unattended install properties that you can modify via the command-line interface. These can be used when performing an [unattended installation](#) or when launching an [attended installation](#) from the command line. The property name must be uppercase, but the arguments are not case-sensitive; each property must be separated by one or more spaces, and properties can be specified in any order as *PROPERTYNAME=argument*. For example:

```
... ISCSTARTIRIS=0 ISCSTARTLAUNCHER=0 INITIALSECURITY=Normal
```

Note: In the following table, the **REINSTALL** and **REMOVE** properties are used with installed instances, as described in [Running an Unattended Upgrade or Reinstall](#) and [Running an Unattended Removal](#), respectively.

Table 3–1: Command-Line Properties

Property Name	Description
ADDLOCAL	<p>Use this property to custom install a new instance of InterSystems IRIS with a subset of features or to omit optional databases (see the Custom-Installable Features table) by specifying a comma-separated list of <i>featurenames</i> together with their group names, as described in the example following this table.</p> <p>Note: In the absence of the ADDLOCAL property, or if ADDLOCAL=ALL is specified, all features are installed.</p> <p>See also the REINSTALL property, for use with installed instances.</p>
CSPSKIPIISCONFIG	<p>Optionally use this property to install IIS CSP binary files. With a value of 1, the files are installed without any changes to the IIS web server configuration. With a value of 0, the installer updates the IIS web server configuration regardless of the existence of the /csp virtual directory.</p> <p>Note: If the <code>cspiis</code> component is included, this property defaults to 0. When this property is set to 0, the installation will fail if a web server is not detected. If you don't want the installer to automatically configure your web server, you should set this property to 1.</p>

Property Name	Description
CSPSYSTEMUSERPASSWORD	<p>If the security level is <code>Normal</code> or <code>LockedDown</code> (see the INITIALSECURITY property in this table), optionally use this property to specify a password for the <code>CSPSystem</code> predefined user. If this property is omitted, the value of IRISUSERPASSWORD is used.</p> <p>Note: If the initial security level is <code>None</code>, do not use this property.</p>
INITIALSECURITY	<p>Optionally use this property to specify the level of security to be used by the instance being installed. Specify <code>None</code>, <code>Normal</code>, or <code>LockedDown</code>.</p> <p>Note: Omit this property to accept the default of <code>None</code>.</p> <p>See also the IRISUSERPASSWORD, CSPSYSTEMUSERPASSWORD, and SERVICECREDENTIALS properties in this table.</p>
INSTALLDIR	<p>Optionally use this property to specify the directory in which the instance is to be installed.</p> <p>Note: If the property is omitted, the default installation directory is <code>C:\InterSystems\IRISn</code>, where <code>n</code> is <code>{empty}</code>, <code>1</code>, <code>2</code>, ... <code>127</code>.</p>
INSTALLERMANIFEST	<p>If installing with an installation manifest, as described in Using the Manifest in the appendix “Creating and Using an Installation Manifest”, you must use this property to specify the location of the installation manifest (that is, your exported manifest class).</p>
INSTALLERMANIFESTLOGFILE	<p>If installing with an installation manifest, as described in Using the Manifest in the appendix “Creating and Using an Installation Manifest”, this property specifies where <code>%Installer</code> prints messages.</p>
INSTALLERMANIFESTLOGLEVEL	<p>If installing with an installation manifest, optionally use this property to specify the log level of the setup() method of your installation manifest class. The default log level is <code>1</code>.</p>

Property Name	Description
INSTALLERMANIFESTPARAMS	<p>If installing with an installation manifest, as described in Using the Manifest in the appendix “Creating and Using an Installation Manifest”, use this property to specify the name/value pairs (<i>name=value</i>) to be passed to the first argument of the setup() method of your installation manifest clas. This property can be used to modify the configuration parameter file (iris.cpf) and activate the changes before your manifest runs. You can specify these parameters:</p> <ul style="list-style-type: none"> • bbsiz • globals4kb, globals8kb, globals16kb, globals32kb, globals64kb • gmheap • LibPath • locksiz • MaxServerConn • Path • routines • ZFSize, ZFString <p>For example:</p> <pre>INSTALLERMANIFESTPARAMS="bbsiz=512000,globals4kb=20, globals8kb=30,globals16kb=40,globals32kb=50, globals64kb=100,routines=40,gmheap=10000, LibPath=c:\libpath\,locksiz=2179648,MaxServerConn=5, Path=c:\lib\,ZFSize=2000,ZFString=3000"</pre> <p>The following would be useful in installing and activating 100 MB of 64KB buffers before running a manifest that creates a 64kb block size database:</p> <pre>INSTALLERMANIFESTPARAMS="globals64kb=100"</pre>
IRISSERVICEDOMAIN	<p>Required if the service credentials are defined as <code>UserDefined</code>; see the SERVICECREDENTIALS property in this table. Use this property to specify the domain of the Windows InterSystems service login account specified by IRISSERVICEUSER.</p> <p>Note: If the service credentials are specified as <code>LocalSystem</code>, do not use this property.</p>
IRISSERVICEPASSWORD	<p>Required if the service credentials are defined as <code>UserDefined</code>; see the SERVICECREDENTIALS property in this table. Use this property to specify the password for the Windows InterSystems service account specified by IRISSERVICEUSER.</p> <p>Note: If the service credentials are specified as <code>LocalSystem</code>, do not use this property.</p>

Property Name	Description
IRISSERVICEUSER	<p>Required if the service credentials are defined as <code>UserDefined</code>; see the SERVICECREDENTIALS property in this table. Use this property to specify the username of the account under which to run the Windows InterSystems service.</p> <p>Note: If the service credentials are specified as <code>LocalSystem</code>, do not use this property.</p>
IRISUSERPASSWORD	<p>Required if the security level is <code>Normal</code> or <code>LockedDown</code>; see the INITIALSECURITY property in this table. Use this property to specify the password for the predefined InterSystems IRIS accounts <code>_SYSTEM</code>, <code>Admin</code>, and <code>SuperUser</code>, as well as the account with the username specified by IRISSERVICEUSER if SERVICECREDENTIALS is specified as <code>UserDefined</code>.</p> <p>Note: If the initial security level is <code>None</code>, do not use this property.</p>
ISCSTARTIRIS	<p>Optionally set this property to <code>0</code> to prevent InterSystems IRIS from starting after installation. The default is <code>1</code>, to start InterSystems IRIS.</p>
ISCSTARTLAUNCHER	<p>Optionally set this property to <code>0</code> to prevent the InterSystems IRIS launcher from being added to the system tray. The default is <code>1</code>, to add the launcher.</p>
REINSTALL	<p>Use this property to reinstall (repair) an installed instance of InterSystems IRIS or to change the custom-installed features (see the Custom-Installable Features table) for an installed instance of InterSystems IRIS:</p> <ul style="list-style-type: none"> • To reinstall whatever features are currently installed for the instance—whether that is a custom-installed subset of features or all features—specify <code>ALL</code>. • To reinstall a subset of InterSystems IRIS features that is different from the subset of features currently installed, specify a comma-separated list of <i>featurenames</i> together with their group names (as described in the example following this table). <p>See also the ADDLOCAL property (for use with new instances) and REMOVE property (for uninstalling installed instances).</p>

Property Name	Description
REMOVE	<p>Use this property to uninstall (remove) an instance of InterSystems IRIS or a subset of custom-installed features (see the Custom-Installable Features table) installed for an installed instance of InterSystems IRIS:</p> <ul style="list-style-type: none"> To remove an instance of InterSystems IRIS, specify <code>ALL</code>. To remove a subset of InterSystems IRIS features, specify a comma-separated list of <i>featurename</i> together with their group names (as described in the example following this table). <p>See also the ADDLOCAL (for new instances) and REMOVE properties in this table properties in this table.</p>
SERVICECREDENTIALS	<p>If the security level is <code>Normal</code> or <code>LockedDown</code> (see the INITIALSECURITY property in this table), optionally use this property to specify the credentials under which the Windows InterSystems service runs: <code>LocalSystem</code> for the default local system account or <code>UserDefined</code> (an existing Windows user account). If you do not specify the property, the default of <code>LocalSystem</code> is used.</p> <p>Note: If the initial security level is <code>None</code>, do not use this property.</p> <p>See Managing Access to the InterSystems IRIS Instance for important information about the InterSystems service account.</p> <p>If you specify <code>UserDefined</code> for this property, you must also specify the IRISSERVICEDOMAIN, IRISSERVICEPASSWORD, and IRISSERVICEUSER properties.</p>
SKIPUPGRADECHECK	<p>When upgrading an instance, set this property to <code>1</code> to bypass system pre-upgrade checking. The default is <code>0</code>.</p> <p>Note: Generally, you should leave pre-upgrade checking enabled.</p>
SUPERSERVERPORT	<p>Optionally use this property to specify the Superserver port to be used by the instance being installed.</p> <p>Note: By default, this port is set to <code>1972</code> (if available). Otherwise, the port is set to <code>51773</code> or the first available subsequent number.</p>
UNICODE	<p>Optionally use this property to specify whether 8-bit or 16-bit Unicode characters are to be supported by the instance being installed. For 8-bit characters, specify <code>0</code>; for 16-bit characters, specify <code>1</code>.</p> <p>If you omit this property, is 8-bit specified by default for all languages except Chinese, Korean and Japanese; 16-bit is specified by default for Chinese, Korean, and Japanese systems.</p>

3.2 Custom-Installable Features

The [Custom-Installable Features](#) table lists component group/component names and the associated *featurename* for each. You can specify “ALL” (to specify all available features) or a comma-separated list (with no spaces) of feature names (to specify individual features).

To specify components in ADDLOCAL, REINSTALL, and REMOVE properties, specify the *featurename* of a component group, followed by the *featurename* of each specific component from that group that you want installed. For example, to install only the USER database include the following in the command line:

```
ADDLOCAL=server,server_user
```

When specifying a component group, you must also specify at least one associated component; if no components are listed with a component group, the component group is ignored and no components are installed. For example, if you specify:

```
ADDLOCAL=documentation,documentation_pdf,server,development,callin
```

the **server** component group is ignored and no server components are installed. (This requirement does not apply to the **studio** and **cube** groups, as they have no components.)

Table 3–2: Custom-Installable Features

Component Group (featurename)	Components (featurename)
Development (development)	Callin (callin) Callin, Threaded (callin_threaded) Threaded Server Libraries (server_threaded) Other Samples (other_samples) Other Development Libraries (development_other)
Documentation (documentation)	PDF Documentation (documentation_pdf) Online Documentation (documentation_online)
InterSystems IntegratedML (integratedml)	
Launcher (cube)	
Server (server)	User database (server_user) SQL Gateway (sqlgateway) Apache Formatting Objects Processor (fop) Server monitoring tools (server_monitoring) Agent Service (agent_service)
Studio (studio)	

Component Group (featurename)	Components (featurename)
Database Drivers (sqltools)	ODBC (odbc) JDBC (jdbc)
Web Gateway (cspgateway)	IIS (cspiis)

4

Managing Auto-start

The Windows InterSystems service includes the instance name. After installing, by default the instance starts automatically when you start your server; this means the InterSystems IRIS instance is automatically configured to autostart (start when the system starts).

You can configure the instance not to autostart by changing the **Start InterSystems IRIS on System Boot** setting on the **Memory and Startup** page of the Management Portal (from the home page, select **System Administration > Configuration > System Configuration > Memory and Startup**).

5

The Write-cache Buffer

Certain InterSystems IRIS features utilize **Windows write-cache buffer flushing**, which is enabled by default. To verify this option is correctly enabled and InterSystems IRIS receives the full benefit of these features:

1. Open the **Device Manager** from the **Control Panel**.
2. Select the storage device from the **Disk Drives** section.
3. Click on the **Policies** tab.
4. Ensure that **Turn off Windows write-cache buffer flushing on this device** is *not* selected.

