

Concurrent Design Administrator's Guide

Release PADS VX.2.6

Document Revision 4

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Chapter 1

Concurrent Design Overview

Mentor Graphics PCB design software flows that are based on the Integrated Common Database (iCDB) environment support multiple schematic designers and layout designers working on the same project at the same time.

Note


 This manual does not apply to the PADS LS and PADS ES Suites or any PADS Logic/Designer products running with the “viewdraw040” license. These tools can run Designer, but not in concurrent mode with the RSCM Server. This manual only applies to products running the “viewdraw” license.

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Types of Design Environments

The iCDB design environment supports design environments for concurrent design including whole flow (both front-end and back-end) or schematic capture only.

Tip

 To see how concurrent design works in a basic network configuration, see [Concurrent Design Quick Start](#).

- **Whole Flow Concurrent Design:** Schematic engineers can work on schematics while layout designers place and route previous versions of the schematics.

Each project has a central database (iCDB) that all tools in the flow access. Back-end tools receive schematic updates through forward-annotation, and front-end tools receive layout updates through back-annotation.

For more information, see [Integrated Common Database \(iCDB\)](#).

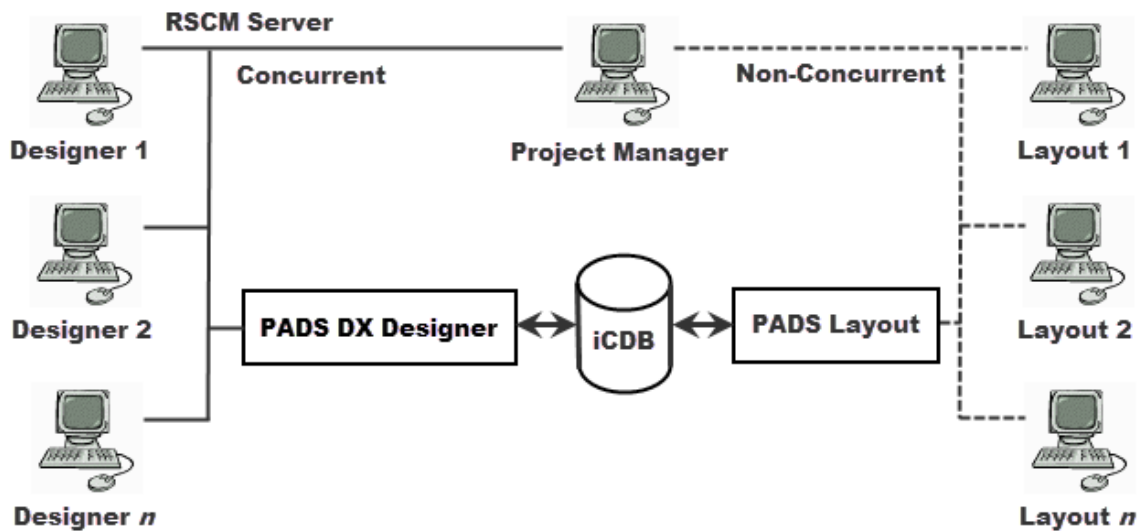
- **Schematic Capture Concurrent Design:** Multiple schematic engineers can work on the same schematic at the same time if the project has an RSCM Server defined.

Concurrent design does not extend to schematic sheets. Only one designer at a time can edit a schematic sheet.

For more information, see [Remote Server Configuration Manager \(RSCM\)](#) or [RSCM Server Administration](#).

Depending on which features you install, you can set up your design environment for the following types of concurrent design.

Figure 1-1. PADS Concurrent Design User Environment

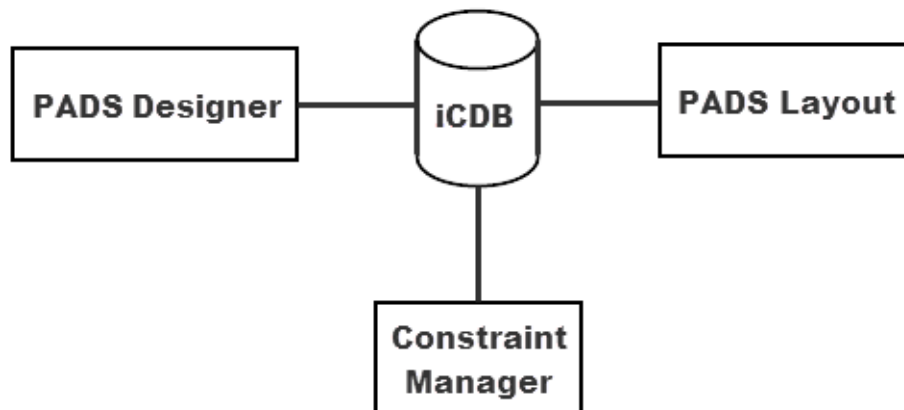


Integrated Common Database (iCDB)

The Integrated Common Database (iCDB) provides a single data repository for a project accessed by all applications across the PADS flow.

[Figure 1-2](#) shows the relationship among the tools that access iCDB in their respective flows. iCDB maintains connectivity, schematic/graphics objects, and constraints data throughout the flow in continuous synchronization. This reduces both the time and risk of error involved in creating and passing netlists between tools.

Figure 1-2. iCDB Database and the PADS Flow



- Schematic Capture: PADS Designer
- Layout: PADS Layout

Related Topics

[Remote Server Configuration Manager \(RSCM\)](#)

Remote Server Configuration Manager (RSCM)

When you set up an RSCM Server for a project, front-end concurrent design in PADS Designer is automatically available to you.

Figure 1-3 shows how an RSCM Server supports a concurrent design environment.

Figure 1-3. RSCM Server Configurations

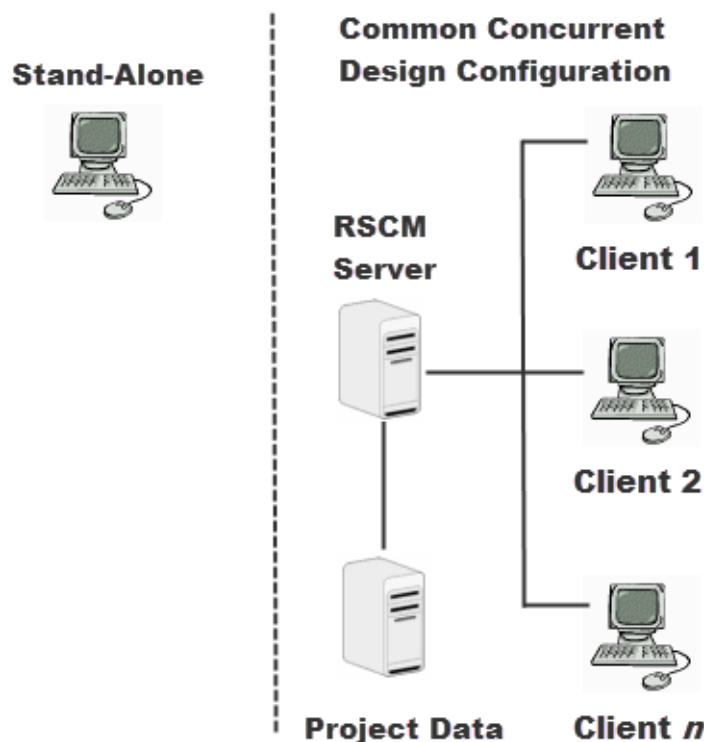



Table 1-1. RSCM Server Data

Configuration	Description
Stand-Alone	Server, client, and project data all reside on one machine.
Common Concurrent Design Configuration	<p>The RSCM Server is on a dedicated machine. Multiple clients can work on the project.</p> <p>The project data should reside on either the RSCM Server or a file server.</p>

Note

 RSCM does not work on a client machine in a Client/Server Installation environment. This environment allows clients to share Mentor Graphics Corporation programs as network resources in a shared folder on the server machine. The client machine maps a drive to the servers shared folder and runs the application remotely. For more information on this environment, see the topic, Performing a Client/Server Installation, in the *Managing Mentor Graphics Systems Software* manual.

Related Topics

[Preparing Your Environment for Concurrent Design](#)

[Network and Hardware Recommendations](#)

[RSCM Server Processes](#)

[RSCM Server Administration](#)

Concurrent Design Quick Start

You can quickly set up and use concurrent design.

Procedure

1. Install PADS Designer (and all System Tools) on two Windows machines.

Note: You must install the same version of software on both machines. See [Database Version Compatibility and Upgrading Software](#).

2. Configure the RSCM Server on the first machine as follows:

- a. Open the RSCM Configurator:

Start > All Programs > PADS <version> > System Tools > RSCM Configurator <version>

- b. Install the RSCM Server with **Management > Install**.

The check mark in the Config column turns green.

- c. Start the RSCM Server with **Management > Start**.

The indicator in the Status column turns green.

- d. Close the RSCM Configurator.

3. Create a project in PADS Designer on the first machine as follows:

- a. Invoke PADS Designer.

- b. Open the New Project dialog box with **File > New > Project**.

- c. Select **Project Templates > Netlist > pads_template**.
 - d. Enter a name for the project.
 - e. Enter a path for the project location observing the following limitations.
 - o The location must be on a shared resource that is accessible to both machines.
 - o The location must have read/write permissions open for the user accounts on both machines.
 - o The path must resolve to the same location from both machines. Options are to use the full network path, mapped drives with the same drive letter, or an environment variable that is set the same for both machines.
 - f. Click the **Enable concurrent design** check box.
 - g. Enter the network name or IP address of the first machine in the **Server Name** text box.
 - h. Click **OK**.
4. Re-open the design on the first machine and open the design on the second machine.
- Users on both machines can edit the project concurrently.

Chapter 2

Preparing Your Environment for Concurrent Design

Mentor Graphics software flows based on the iCDB database environment support a stand-alone, single-user design configuration and several distributed, multi-user design configurations.

Although the iCDB environment supports these diverse configurations, you should be aware of the issues that can impact the performance of a project in each of them. Keep these issues in mind when you are preparing your network for iCDB-based projects.

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Network and Hardware Recommendations

Consider the recommended guidelines when selecting a system to host your RSCM Server.

- Use high-performance machines with half a CPU for each project they serve and with RAM size at least double the sum of the schematic design and PCB layout design.
- Use machines with large-capacity hard drives (terabytes) and fast data access protocols in the event the operating system pages out of RAM.
- Use a machine that you will leave on continuously and have backed up with uninterruptible power supplies.
- Use machines that have stable access to your file server.

For best results, use machines that are connected to the high-speed backbone of your network.

Your network bandwidth and latency should meet the recommendations given in [Table 2-1](#), but you can use slower networks successfully depending on network traffic and depending on which tools you are using. The recommendations in the table are for the Whole Flow Concurrent Design.

The numbers in the table for WLAN and WAN networks assume the network is dedicated to the concurrent design environment and serves no other processes. But as WLAN and WAN are usually shared resources, you must account for such factors when estimating your network capacity.

See [iCDB Server Monitor](#) for information about tracking network performance issues.

Table 2-1. Concurrent Design Network Configuration Recommendations

Network Type	Property	Minimum	Recommended	Optimal
LAN	Bandwidth	100mb/sec switched	1 gb/sec switched	1 gb/sec switched
	Latency	< 20 msec	< 10 msec	< 1 msec
	Speed	1 mb/sec	4 mb/sec	> 4 mb/sec
WLAN	Bandwidth	54 mb/sec	54 mb/sec	108 mb/sec
	Latency	< 20 msec	< 10 msec	< 1 msec
	Speed	1 mb/sec	4 mb/sec	> 4 mb/sec
WAN	Bandwidth	10 mb/sec	20 mb/sec	50+ mb/sec
	Latency	< 200 msec	< 100 msec	< 20 msec
	Speed	1 mb/sec	4 mb/sec	> 4 mb/sec

RSCM Server Processes

The RSCM Server runs two processes to support concurrent design: iCDBNetLauncher and iCDBNetServer.

The first process is iCDBNetLauncher. The RSCM Server runs only one instance of this process. The process runs continuously as a service on Windows and as a daemon on Linux/UNIX. The iCDBNetLauncher process listens for clients to request access to a project. When it receives a client request to open a project, the RSCM Server launches the second process to open the project and support concurrent design.

The second process that the RSCM Server runs is iCDBNetServer. Each open project that points to the RSCM Server gets its own iCDBNetServer process. The iCDBNetServer manages the client access to the data.

The iCDBNetLauncher requires minimal network resources. It simply manages iCDBNetServer processes. The iCDBNetServer processes, however, may demand significant system resources depending on the size of your project.

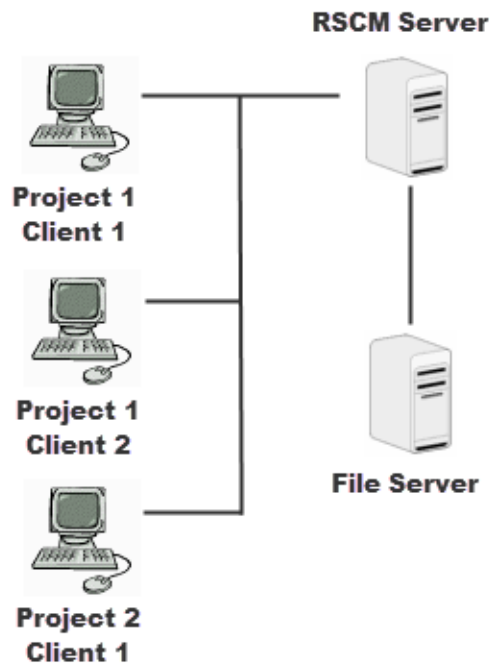
An RSCM Server can run up to 100 iCDBNetServers in the default configuration, but this number is actually limited by the available system resources. If your system lacks capacity, you

should plan for your RSCM Server to support fewer iCDBNetServers. See [Network and Hardware Recommendations](#).

See the topic [RSCM Server Port Usage](#) for more information on how the RSCM Server processes interact with clients on ports.

Example

The following example shows how the RSCM Server processes work in a typical concurrent design environment.



RSCM Server Processes:

- iCDBNetLauncher runs continuously as a service or daemon.
- A separate iCDBNetServer process runs for each open project that points to the RSCM Server.

File Server Contents:

- Project 1 Data
- Project 2 Data

Related Topics

[RSCM Server Port Usage](#)

RSCM Server Port Usage

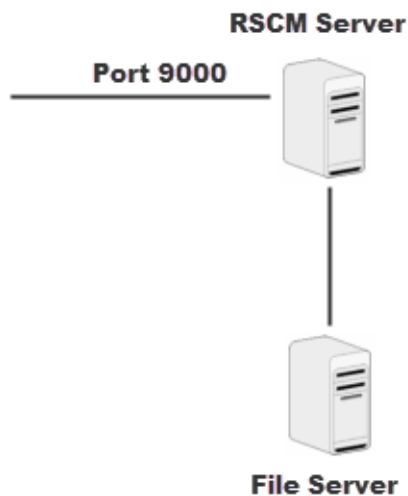
The RSCM Server and its processes use TCP/UDP ports in concurrent design.

- iCDBNetLauncher listens for client requests to open a project on Port 9000 by default.
- iCDBNetServer processes connect clients with a project on Ports 10000-10100 by default.
- You can configure which ports the RSCM Server processes use. See [Launcher.cfg Configuration File](#) and [Server.cfg Configuration File](#).
- The default range of 10000-10100 gives 101 open ports. If you know you will use fewer ports than that, reduce the number of ports in the range to limit the number of open ports.
- To view port information for a project's iCDBNetServer process, see [Viewing iCDB Server Information](#).

Example

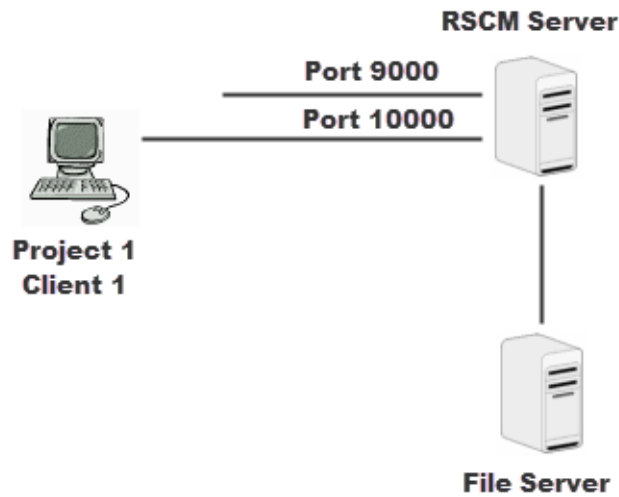
The following example describes the processes that run on the RSCM Server and the ports in use at each point.

- iCDBNetLauncher runs continuously on the RSCM Server listening for client requests to open a project on Port 9000. The File Server contains Project 1 data and Project 2 data.

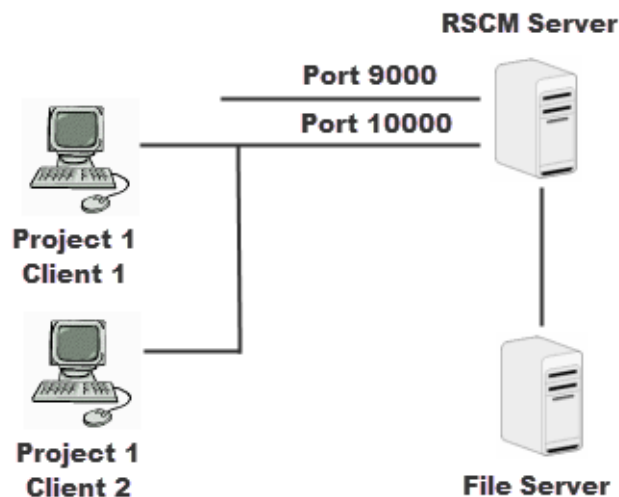


- Client 1 requests to open Project 1. iCDBNetLauncher starts an iCDBNetServer process that connects Client 1 to Project 1 through Port 10000. iCDBNetLauncher continues to

listen for other client requests on Port 9000. The File Server contains Project 1 data and Project 2 data.

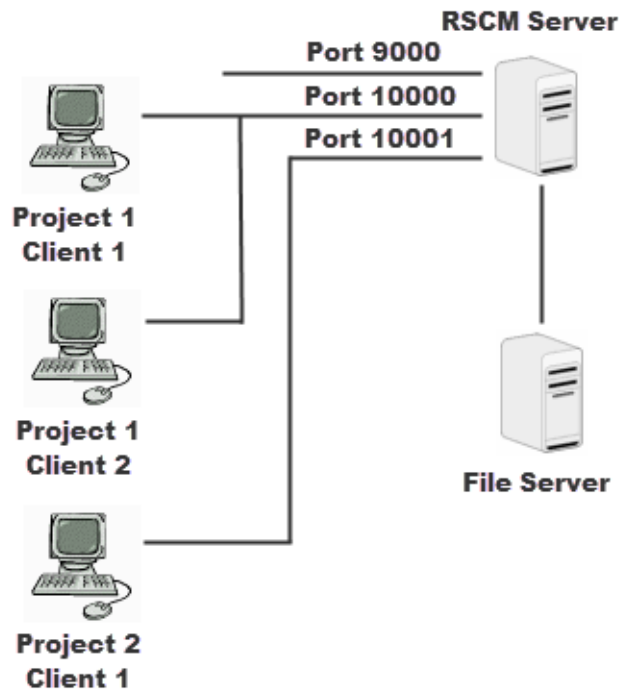


- Client 2 requests to open Project 1. Project 1 is already open on Port 10000, so Client 2 gets access to Project 1 through the iCDBNetServer process that is already running for Project 1. iCDBNetLauncher continues to listen for other client requests on Port 9000. The File Server contains Project 1 data and Project 2 data.



- A third client requests to open Project 2. iCDBNetLauncher starts another iCDBNetServer process that connects the third client to Project 2 through Port 10001.

iCDBNetLauncher continues to listen for other client requests on Port 9000. The File Server contains Project 1 data and Project 2 data.



Related Topics

[RSCM Server Processes](#)

Stand-Alone, Single-User Configuration

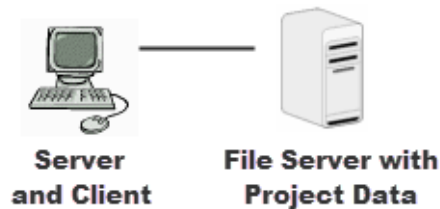
The stand-alone, single-user configuration is the simplest configuration with the highest performance. The server, client, and project data are all on one machine. Because no other clients are expected to access the data, you can keep the project data on the local machine without considering permissions and network performance issues.

The iCDBNetServer process starts automatically on the local machine when the local user opens the project. The iCDBNetLauncher is unnecessary, and you do not need to specify an RSCM server name in your project.

Project Data on a File Server in Stand-Alone Configuration

Potential performance issues in this single-user configuration are the stability and speed of the network and file server. The benefit of company-wide backup and storage processes usually outweigh the potential problems.

Figure 2-1. Stand-Alone with Project Data on a File Server



Other Clients Access the Project Non-Concurrently in Stand-Alone Configuration

In the single-user configuration, multiple users can access a project, but not concurrently. The project can only be opened by one client at a time. If a client tries to open a project that is already open, it receives an “Unable to open iCDB connection” error. The output window presents a message that the project is open in single-user mode, and it shows the name of the machine that has the project open. Once the client that has the project open closes out of the project, it is free for the next client to open.

Related Topics

[Distributed, Multi-User Configurations](#)

Distributed, Multi-User Configurations

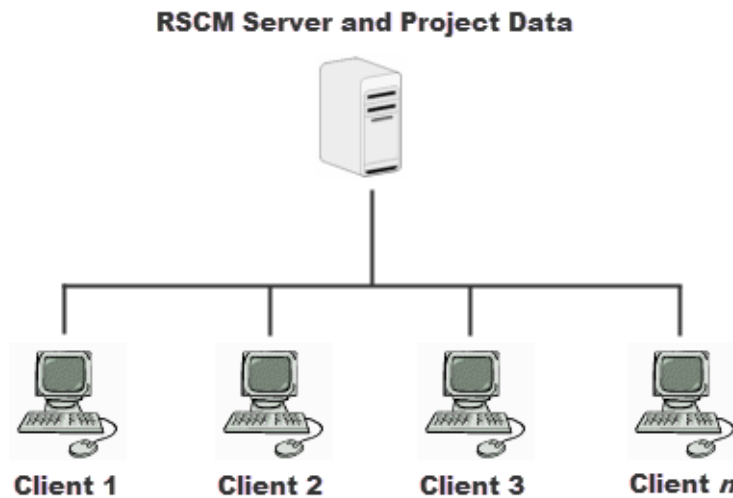
The recommended configuration for concurrent design is to use a dedicated system to host the RSCM Server and the project data. In general, this provides high performance, and it tends to be the most stable and reliable configuration for concurrent design.

However, you can use concurrent design successfully even if you do not have access to the recommended network and hardware resources. See [Network and Hardware Recommendations](#).

Depending on several factors such as your network setup, the types of machines you have available to host the RSCM Server services, how you are able to store and back up your data, and how many users need to be able to access the project, you might find that another configuration performs better or is more suitable to your project and your resources.

For more information on setting up this configuration, see [RSCM Server Administration](#).

Figure 2-2. Recommended Concurrent Design Configuration

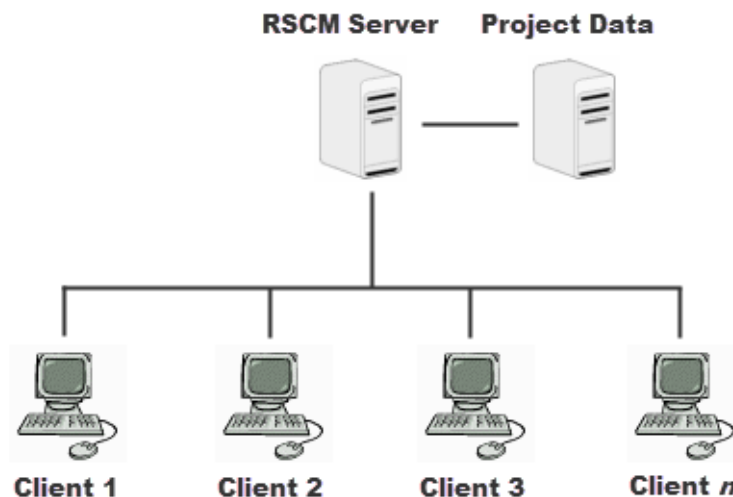


Dedicated RSCM Server with Project Data on a File Server

If the network connection between the RSCM Server and project data is slower than the network connection between the RSCM Server and the clients, the performance of the entire process will be affected. Every time a client accesses the database through the RSCM Server, it does so across the network between the RSCM Server and project data. Make sure this network connection has adequate bandwidth for the number of clients that will access the project.

An example where this configuration is useful is if your file server runs an Operating System not supported by an RSCM Server, such as a Network Appliance Filer or a Storage Area Network solution. In such a scenario, you would run an RSCM Server on a machine with a supported operating system and access the file system from that RSCM Server.

Figure 2-3. Dedicated Server with Project Data on a File Server



Note

 This project data file server could be a NetApps®, SAN, NAS, Windows, UNIX, or similar system.

RSCM Server Hosted on a Client Machine

In this configuration, the entire design process again is dependent on the state of Client x, whether the project data exists on a file server or on the Client x machine.

Consider this configuration if Client x is the machine of the only developer making edits and the other clients are accessing the project as read-only, perhaps as reviewers. In this case, the performance is high for the developer (with the data on the Client x machine) and the performance across the network for the other clients is non-critical.

Note that in the above case Client x must use the RSCM Server; otherwise the other clients cannot access the project concurrently, not even in read-only mode. In this example, the edit/view-only permissions are controlled by the permissions of the project folder.

Note


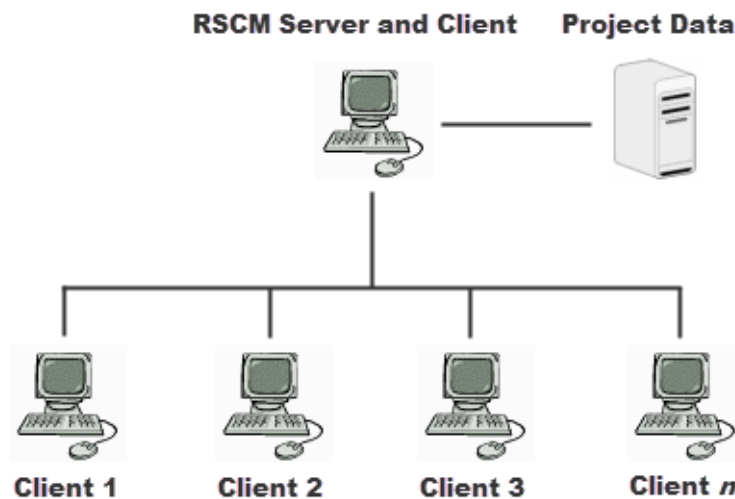
 The user on the Client x machine must be careful not to shut down the machine when other clients might be connected. Be sure to read [Maintaining Data Integrity](#) if you use this scenario.

Figure 2-4. Server Hosted on a Client Machine



Maintaining Data Integrity

The software in the iCDB environment performs automatic data integrity checks. However, it is important to understand that some user actions can result in data corruption.

Adhering to the following rules reduces the possibility of database corruption:

- Never kill the iCDBNetLauncher process through the task manager. Instead, use:
 - The controls in the **Control Panel > Administrative Tools > Services** window on Windows.
- Never kill the iCDBNetServer process through the task manager. Instead, use the Server Manager. For more information, see Chapter 4, [iCDB Server Manager](#).
- Avoid disconnecting the machine(s) that host any of the RSCM Server processes or the machine that hosts the project database while they are serving active projects.
- Avoid shutting down either the RSCM Server machine or the machine that host the project data. Also avoid allowing either machine to switch into an unusable state (such as sleeping or hibernating).
- Review the RSCM Server's log files in the [iCDB Server Monitor](#) to track network performance issues. You should review any warning messages that indicate extremely slow performance, and take steps to determine the cause and correct the problem.

Database Version Compatibility and Upgrading Software

All project databases can be opened by current and later versions of software, but not by previous versions.

For example, if you create a project in version PADS VX.2.3, only versions PADS VX.2.3 and higher can open the project's database; furthermore, if a higher version opens the database (PADS VX.2.4 for instance) the project database is updated to that version and PADS VX.2.3 can no longer open the project.

When you open an existing project in a newer version of software, you are given a warning that you are opening a project that was created in a previous version and you are asked if you want to continue. If you proceed, the project can no longer be opened in any previous versions of software.

To open a project created in a pre-PADS 9.x version, you must migrate both the database and central library. For information on migrating the database, see the [PADS Schematic for PADS VX Migration Guide](#).

WDIR Directory When Upgrading

When you upgrade, use a separate WDIR directory for each version you install because files from previous version can conflict with the new version. See [Managing Configuration Files in Centralized WDIR Directories](#).

MGC_REMAP_RSCM Environment Variable

The software version of the clients and RSCM Servers must match. If you upgrade all clients and servers at one time, you do not need to do anything special to align your RSCM Server and clients. If, however, you upgrade a sub-set of clients for one project, and you do not upgrade the RSCM Server (perhaps because it serves other projects running on another sub-set of clients that use the older version), you must set the project's server to an RSCM Server that runs the version of software that matches the version on the upgraded clients.

You can make sure all clients of a project of one software version will open the project on a machine with a matching version by setting the MGC_REMAP_RSCM environment variable to the appropriate RSCM Server.

When you open the project and get a warning that you are opening a project with a new version of software and you choose to proceed, PADS Designer changes the project's RSCM Server to the one specified by the environment variable.

Note



This only applies when upgrading your software. You cannot use this environment variable to override the server in the project file settings.

Chapter 3

RSCM Server Administration

The RSCM Server runs two processes that you should be aware of. The first process is iCDBNetLauncher. It listens on the network for clients to open projects that are configured to use the RSCM Server as the concurrent design host machine.

When the iCDBNetLauncher gets a request to open a project, it creates the second process called iCDBNetServer. The RSCM Server only runs one iCDBNetLauncher process, but it runs a separate iCDBNetServer process for each open project that it hosts.

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Setting up the RSCM Server

You can set up remote access to your design database.

Procedure

1. Decide which machine on your network will host the RSCM Server. Read the topic, [Preparing Your Environment for Concurrent Design](#) for guidelines on choosing a machine to host an RSCM Server.

2. When you install software on the machine that hosts the RSCM Server, make sure you check **Remote Server Configuration Manager** in the Product Selection window. For more information, see [RSCM Server Components Installation](#).
3. Run the RSCM Server executable on any machine that will host the RSCM Server as described in [Considerations for Setting up the RSCM Server on Windows](#).
4. Create a project. See [Creating a Concurrent Design Project for Netlist Flow](#).

Related Topics

[RSCM Server Administration](#)

RSCM Server Components Installation

The RSCM Server is an independently installed program that allows multiple clients to concurrently design a project across your network.

To use the RSCM Server, you must select the server in System Tools in the Product Selection window during the installation process.

- Only the machine you intend to host the RSCM Server must have the Remote Server Configuration Manager installed.
- If the only purpose of the machine is to host the RSCM Server, then you do not need to install any other products besides the Remote Server Configuration Manager (although you should still install iCDB Server Manager utility to help with troubleshooting).
- After installing the software, you must configure the RSCM Server.
- Optionally, from the System Tools/Services section of the Product Selection window, you can install the Server Manager from which you manage and monitor the RSCM Servers on your network. See [iCDB Server Manager](#).

Related Topics

[Configuring the RSCM Server](#)

[Setting up the RSCM Server](#)

RSCM Server Configuration

Configuration files support the RSCM Server functionality. Two of the files support the client/server functionality: client.cfg, and server.cfg. In most cases, the default values are sufficient for your network.

Configuration files are described in full in [Configuration File Reference](#).

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Configuring the RSCM Server

This topic describes how to configure the RSCM Server.

When you configure the RSCM Server the first time, a directory called iCDB appears in the WDIR directory. This directory contains the configuration files as well as log files for the client/server operations. The configuration file for the RSCM Server is [Launcher.cfg](#).

Prerequisites

- You must be logged in as root to configure the RSCM Server.

Note: If you are not logged in as root, you can view installed servers in the RSCM Configurator, but most of the commands are disabled and the status bar in the bottom-right of the window shows NON-ADMIN.

Procedure

1. Open the RSCM Configurator:
 - **Windows: Start > All Programs > PADS <version> > System Tools > RSCM Configurator <version>**

- **Windows Command:** \<mgc_home>\<release>\SDD_HOME\common\<OS>\bin\iCDBRSCMConfigurator.exe
2. Install the iCDBNetLauncher service/process with **Management > Install**.
 3. In the Add RSCM dialog box, browse to the location of the SDD_HOME directory for the install.
 4. Verify that the default port is acceptable.
 5. Click the **Browse** button next to the **Writable** WDIR field and select the *WDIR* directory.

Note: The writable *WDIR* must be on the local file system because you are logged in as root and are unlikely to have permissions on a remote file system.
 6. Select the **This account** radio button and enter the account name and password of the user account that you will run the service under.

Note: While you must configure the RSCM Server as root, you should run the RSCM Server under a user account to make sure you have full permissions across the concurrent design network environment.
 7. Click **OK**.
 8. Start the RSCM Server with **Management > Start**.

Results

The RSCM Server is configured to host concurrent design projects. If the projects that the RSCM Server will host were created with different versions of software, then you need to install the matching RSCM Server version for each project version. See Related Topics section.

You can start, stop, restart, and uninstall the RSCM Server in the RSCM Configurator as necessary.

Edit any settings with **Management > Edit**.

Related Topics

[RSCM Configurator](#)

[Installing More than One Version of the RSCM Server on a Single Windows Machine](#)

RSCM Coordinator Mode

Use RSCM Coordinator mode when more than one version of RSCM Server is installed. It can be enabled or disabled only when multi-release support is enabled.

RSCM Coordinator mode is designed to administer connections to all installed RSCM Servers that are added under its management. It redirects connections to the appropriate RSCM Server that is compatible with the client requesting the connection.

Prior to the VX.2.2 release, to connect to a specific RSCM Server, users needed to specify the RSCM Server address and the port on which was running. In release VX.2.2 and higher, if RSCM Coordinator mode is enabled and other RSCM Servers are added under its management, users who work on different versions need only specify the RSCM Coordinator address and port. The RSCM Server that is in Coordinator mode will redirect connections to the proper services.

Examples

Table 3-1.

Configured RSCM Servers on Machine1:

MGC.SDD.RSCM.EEVX.2.2 on port 9000 – set as Coordinator
MGC.SDD.RSCM.PADSVX.2.2 on port 9001 – added to coordinator
MGC.SDD.RSCM.EEVX.1.2 on port 9002 – added to coordinator
MGC.SDD.RSCM.EEVX.7.9.4 on port 9003 – not added to coordinator

Table 3-2.

Prior to release VX.2.2:

EEVX.2.2 projects - Machine1
PADS projects - Machine1:9001
EEVX.1.2 projects - Machine1:9002
EE.7.9.4 projects - Machine1:9003

Note



Port 9000 is the default, therefore it does not need to be added.

In [Table 3-3](#), the PADS and EEVX.1.2 RSCM Servers are under RSCM Coordinator management, which redirects the connections for PADS and EEVX.1.2 to the proper ports. The EE7.9.4 RSCM Server is not managed by the RSCM Coordinator, and thus requires the port setting to be specified.

Table 3-3.

Release VX.2.2 (and higher):

EEVX.2.2 projects - Machine1
PADS projects - Machine1
EEVX.1.2 projects - Machine1
EE.7.9.4 projects - Machine1:9003

Installing More than One Version of the RSCM Server on a Single Windows Machine

The RSCM Server is configured to host concurrent design projects. If the projects that the RSCM Server will host were created with different versions of software, then you must install the matching RSCM Server version for each project version.

Note



You should install only the Remote Server Configuration Manager software on the RSCM Server; however, if you do install other software on the RSCM Server, the SDD Configurator might stop the RSCM services already running on the machine. If this happens, restart the RSCM services with the RSCM Configurator. See [RSCM Configurator GUI Reference](#).

iCDB Server Monitor is a single-instance application. Only one version of iCDB Server Monitor can run at a time. See [iCDB Server Monitor](#).

Procedure

1. Install each version of Remote Server Configuration Manager software in a separate location. Do not install in a directory that contains other Mentor Graphics Corporation software.

For example, create directories and name them according to the version you will install to each. You can create these directories manually or specify them during the install process.

```
C:\MentorGraphics\RSCM_7.9.1
C:\MentorGraphics\RSCM_7.9.2
C:\MentorGraphics\RSCM_7.9.3
```

Note: During installation, ignore any prompts that suggest that you reboot. You will reboot once later in this procedure.

2. Create a *WDIR* directory for each version. You can create these directories manually or specify them during the Configuration process.

```
C:\WDIRS\WDIR_7.9.1
C:\WDIRS\WDIR_7.9.2
C:\WDIRS\WDIR_7.9.3
```

3. Open the [RSCM Configurator](#). The RSCM Configurator is in the following locations:
 - **Windows: Start > All Programs > PADS <version> > System Tools > RSCM Configurator <version>**
 - **Windows Command:** `\<mgc_home>\<release>\SDD_HOME\common\<OS>\bin\iCDBRSCMConfigurator.exe`

4. If the RSCM Explorer window is not visible, open it with **View > RSCM Explorer**.
5. Enable Multi Release mode with **Management > Multi Release**.

The RSCM_ENV_CONFIG path dialog box appears. This path specifies where the RSCM Configurator stores the *rscm.env.cfg* file. This file contains the paths and environment variables necessary for the multiple versions of RSCM Server to work together on the same machine.

Note 1: Do not edit the *rscm.env.cfg* file manually. Enter the information in the RSCM_ENV_CONFIG path dialog box.

Note 2: If you defined the environment variable RSCM_ENV_CONFIG prior to enabling multi-release support, the value of the variable determines the location of the existing *rscm.env.cfg* file. You should make a copy of your existing file and allow this procedure to automatically create a new one.

6. Enter the path to the location where you want the RSCM Configurator to store the *rscm.env.cfg* file.
7. Click **OK**.
8. For each version you are installing:
 - a. If the RSCM Server does not appear in the RSCM Explorer window, then install the RSCM Server with **Management > Install**. The Add RSCM dialog box appears. Skip to step c.
 - b. If the RSCM Server appears in the RSCM Explorer window, then select it and open the Edit RSCM settings dialog box with **Management > Edit**.
 - c. Enter the path to the SDD_HOME location of the software by clicking **Browse** and navigating to SDD_HOME.
 - d. Enter a unique TCP port number in the **Port** text field to avoid collisions with other RSCM services you are configuring.

Note: You must append the unique port number to the hostname in your project file in order to reference the correct RSCM service for the version of software you are using for the project. For example:

```
Key DedicatedServerName hostname:9001
Key DedicatedServerName hostname:9008
```

- e. Enter the path to the *WDIR* directory in the **Writable** field by clicking **Browse** and navigating to that version's *WDIR* directory.
- f. Click **OK**.

The version of RSCM Server is successfully configured when the Config column shows a green check mark for that row. If it shows a red 'x', click **Management >**

Edit. The Edit RSCM settings dialog box appears for you to re-configure the RSCM Server.

Note: Do not attempt to configure the service credentials now.

You can edit these settings at any time by selecting the RSCM Server and opening the Edit RSCM settings dialog box with **Management > Edit**.

9. Once all the RSCM Servers are installed and configured, reboot the RSCM Server host machine.

10. After rebooting the RSCM Server host machine, open the RSCM Configurator again.

The RSCM Configurator shows the status of all installed RSCM Servers in the RSCM Explorer window.

11. Edit the configurations as necessary to change the service credentials.

Note: On some systems you may encounter an error that says “Could not get Service handle: The parameter is incorrect.” If you encounter this error, please see KB Article [MG571545](#) on Support Center to resolve it.

Note: You do not need to reboot after configuring the service credentials.

Results

The RSCM Servers are ready to host the projects of matching versions.

You can start, stop, restart, and uninstall RSCM Servers in the RSCM Configurator as necessary.

Edit any settings with **Management > Edit**.

Related Topics

[Configuring the RSCM Server](#)

[RSCM Server Components Installation](#)

Setting Permissions

You should consider permissions as you set up your network.

- The RSCM Server must have write permission to the directories that contain the project data.
- If the project is on a Windows machine, it must be in a shared directory with write permission open to everyone who will work on the project.

Related Topics

[File, Folder, and Share Permissions on Windows](#)

Considerations for Setting up the RSCM Server on Windows

This topic provides best practices and examples for setting up the RSCM Server on Windows.

See [Configuring the RSCM Server](#) for the procedure on setting up the RSCM Server on Windows.

If the project data is on a remote file system, the iCDBNetLauncher (RSCM Server) must run as a user process that has read/write permissions to the project file location. It cannot run as a System process because the System account does not have write permissions to the remote file system.

Be sure that groups and user accounts have permissions set properly so everyone can access the project data. See [File, Folder, and Share Permissions on Windows](#).

The topic [Examples of RSCM Server Configurations for Windows](#) provides practical scenarios for setting up the RSCM Server on Windows.

Domain Accounts vs. Local Accounts

If your systems are part of an Active Directory or Windows NT domain, you should authenticate your RSCM Service with a domain account if you use the This Account option. This gives the iCDBNetServer processes seamless access to design data with normal domain user, group and share permissions. This is the easiest method to implement and secure.

If you are constrained to using a local account to authenticate your RSCM Service, you must create a local account on the RSCM Server machine and put your design data on a local file system on the same machine. Note that on Windows systems local accounts cannot be included in domain groups.

For an example, see [Example C: Using a local account to authenticate the RSCM Server](#).

Running the RSCM Server Under a Service Account

The effective rights of a service account that you create to authenticate the RSCM Server credentials work in tandem with the rights of the user account running the client program. Typically, you give the service account full edit rights to the design data and make it a member of all design groups. To resolve conflicts, the most restrictive rights between this RSCM Service account and the user account running the client will be enforced. Giving this account full access does not allow restricted users access to the data through this account.

On Windows machines you can restrict the service account by denying rights to interactive login with it for added security. To accomplish this task you need to have administrative rights on your domain and knowledge of the Microsoft Management Console, specifically the Microsoft Group Policy Management Console. With this you can deny rights for your service accounts to login to any of the computers in your domain while maintaining their ability to

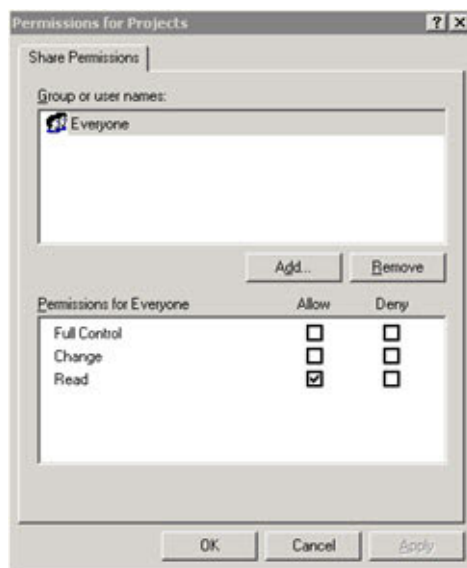
authenticate your RSCM Service so it can access remote file systems where you store your data. The specific procedure for defining this security policy is beyond the scope of this document. Please consult your IT professional or Microsoft customer support for information about defining a group policy for your domain.

File, Folder, and Share Permissions on Windows

By putting user accounts into functional groups and setting specific permissions on shares and folders where you store your project data, you can effectively manage your data security. If you do not store your project data on a file system that is local for your RSCM Server, then a service account to authenticate RSCM Service credentials is a good way to restrict access to only the user accounts you specify.

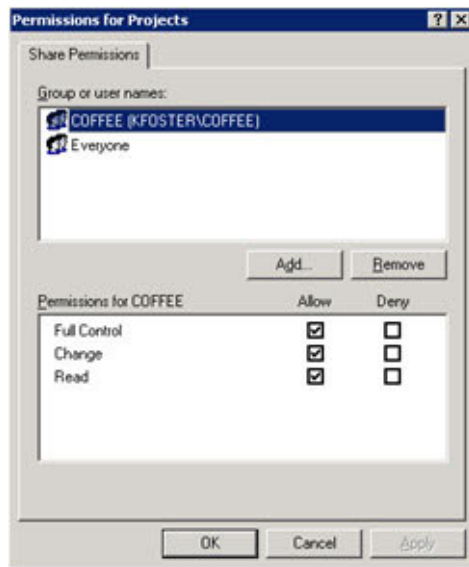
See [Examples of RSCM Server Configurations for Windows](#) for scenarios that describe how security settings and permissions control which users have access to which projects.

On Windows, the most restrictive rights always win when resolving conflicts in access rights between a share and a folder underneath the share. In the example below, the share permissions are read-only for the built in group 'Everyone,' and the folder permissions grant full access to the COFFEE group members. The read-only policy is enforced for users in the COFFEE group even though there are more permissive rights granted on the folder for the COFFEE group.

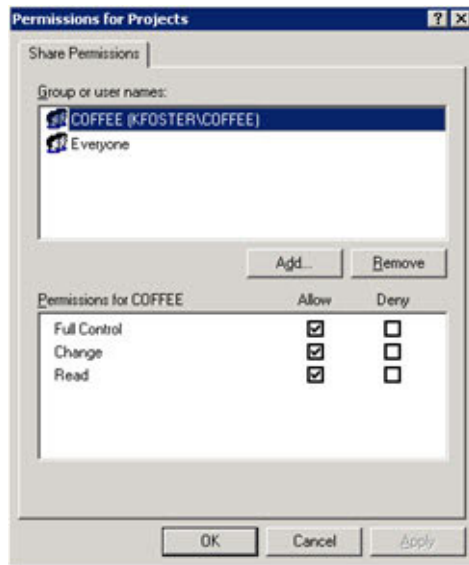


If rights conflict only at the share level, the more permissive rights win. In the example below the 'Everyone' group is read-only but the COFFEE group has full access. The users in the

COFFEE group have full access because the conflict resolved at the share level grants the more permissive access.



In the example below, the share permissions are wide open but the folder permissions are restrictive. The COFFEE group users cannot edit this project.



Conflicts between shares and folders resolve to the most restrictive, regardless of whether that restriction is on the folder or the share. It resolves to most permissive only at the share level.

If you want to have only one share with multiple folders underneath and restrict those folders to particular users or groups, you should add all groups that need to access folders under the share with full control of the share and keep the 'Everyone' built-in group with read (or remove access entirely). This denies any users that are not part of those groups you have granted access

to the share level. Then you can enforce permissions for groups with the folder permissions, restricting the folders as necessary.

Examples of RSCM Server Configurations for Windows

Examples show a variety of security and permissions scenarios for running the RSCM Server. For these examples, imagine you must manage the network infrastructure for a company that produces PCBs for coffee makers, toasters and bagel slicers. Here are your constraints:

- You have one dedicated RSCM Server.
- You have one file server with one shared projects folder called ‘Projects.’
- Since the RSCM Server and File Server are different machines, you need to use a service account to authenticate your RSCM Service. You've created an account called ‘icdbuser’ for this purpose. This account is a member of the COFFEE, TOASTER and SLICERS groups.
- You have three project directories under the Projects share: CoffeeMakers, Toasters and Slicers.
- You have three unique groups of users for your three projects: COFFEE, TOASTERS and SLICERS. Other groups/users are in your domain that will not have access to these projects.

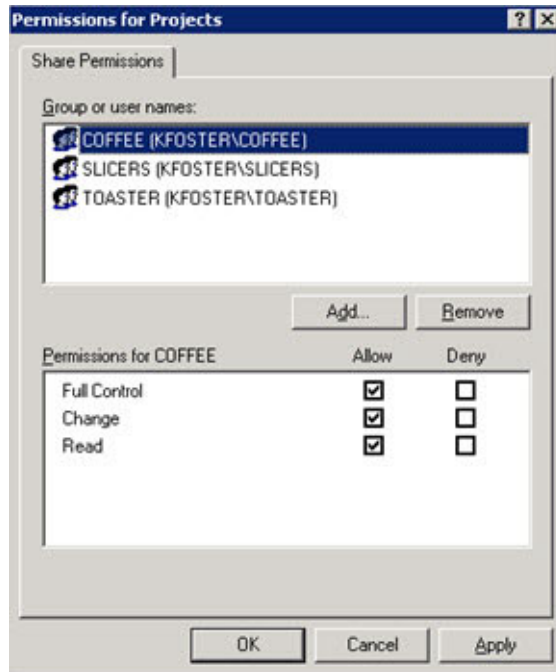
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Example A: Defining a group with full access to one project and read-only for all other projects

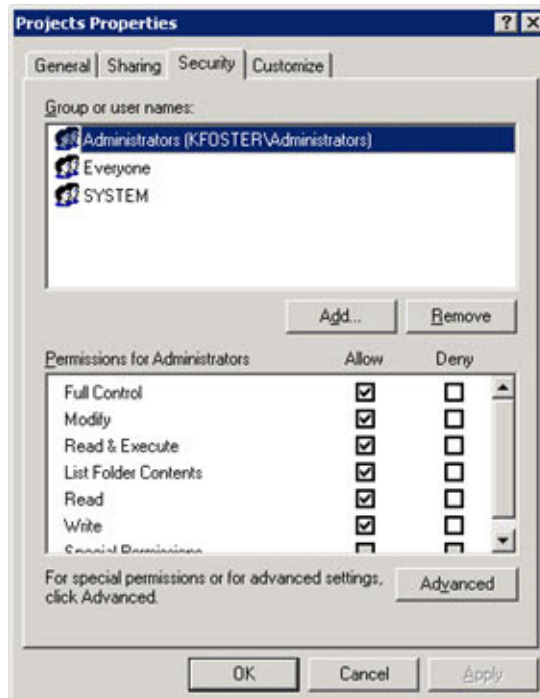
Scenario: Users in your Coffee Maker division need full access to their project folder and read-only access to the Toaster and Slicer projects.

Procedure

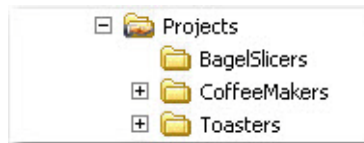
1. On the file server, define the share permissions on the Projects folder so that all groups have full access to the share.



2. For the Projects folder permissions, define only the groups Administrators, Everyone, and System. Give Administrators and SYSTEM full control. Give Everyone Read.



3. Under the Projects folder you have individual project folders called BagelSlicers, CoffeeMakers and Toasters.



4. Set the security on these folders as follows:

Table 3-4. Example A: Security Settings for Projects

Folder	Accounts	Setting
BagelSlicers	Administrators SYSTEM SLICERS	Full Control
	Everyone Coffee	Read*
CoffeeMakers	Administrators SYSTEM COFFEE	Full Control
	Everyone	Read*
Toasters	Administrators SYSTEM TOASTER	Full Control
	Everyone COFFEE	Read*

* The Read right includes Read & Execute, List folder contents, and Read.

Results

The effective rights based on these settings are as follows:

Table 3-5. Effective Rights for Example A

Rights	Accounts
Create objects at the Project folder level	Administrators, SYSTEM
Edit rights to BagelSlicers folder	Administrators, SYSTEM, SLICERS
Read access to BagelSlicers folder	Administrators, SYSTEM, SLICERS, COFFEE
Edit rights to CoffeeMakers folder	Administrators, SYSTEM, COFFEE

Table 3-5. Effective Rights for Example A (cont.)

Rights	Accounts
Read access to CoffeeMakers folder	Administrators, SYSTEM, COFFEE
Edit rights to Toasters folder	Administrators, SYSTEM, TOASTER
Read access to Toasters folder	Administrators, SYSTEM, COFFEE, TOASTER

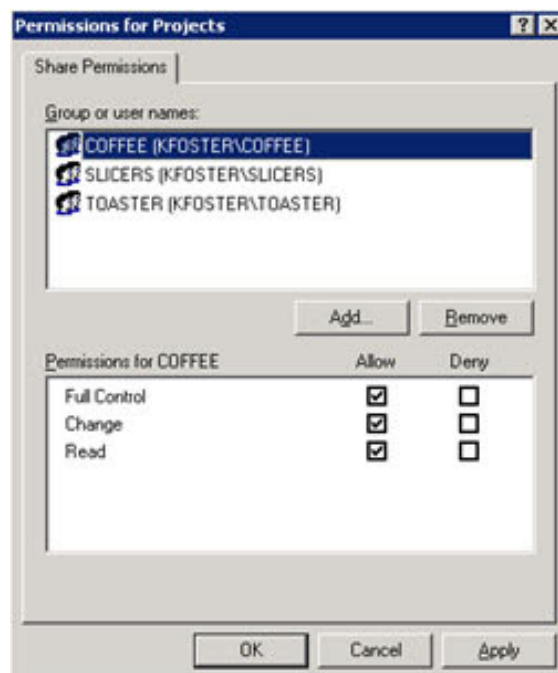
Note that while the Everyone group technically has Read access to these folders; their effective rights are no access. This is because anyone not in COFFEE, TOASTER or SLICER groups are denied access by the share permissions. No one else could even list the folder contents or browse.

Example B: Defining several groups with full access to one project and no access for other projects

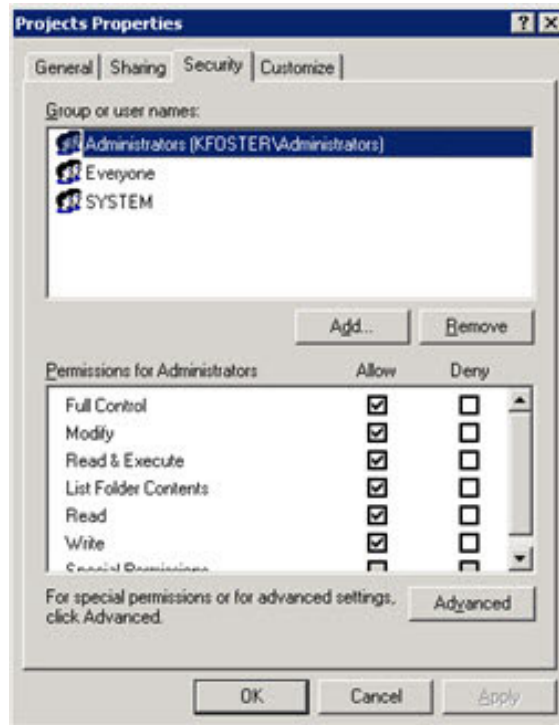
Scenario: Project managers are concerned about security leaks and have requested that you restrict all rights to the project folders to only members of those projects.

Procedure

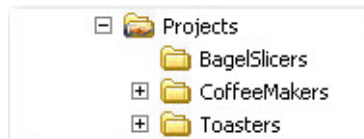
1. On the file server, define the share permissions on the Projects folder so that all groups have full access to the share.



2. For the Projects folder permissions, define only the groups Administrators, Everyone, and System. Give Administrators and SYSTEM full control. Give Everyone Read.



3. Under the Projects folder you have individual project folders called BagelSlicers, CoffeeMakers and Toasters.



4. Set the security on these folders as follows:

Table 3-6. Example B: Security Settings for Projects

Folder	Accounts	Setting
BagelSlicers	Administrators SYSTEM SLICERS	Full Control
	Everyone	Read*

Table 3-6. Example B: Security Settings for Projects (cont.)

Folder	Accounts	Setting
CoffeeMakers	Administrators SYSTEM COFFEE	Full Control
	Everyone	Read*
Toasters	Administrators SYSTEM TOASTER	Full Control
	Everyone	Read*

* The Read right includes Read & Execute, List folder contents, and Read.

Results

The effective rights based on these settings are as follows:

Table 3-7. Effective Rights for Example B

Rights	Accounts
Create objects at the Project folder level	Administrators, SYSTEM
Edit rights to BagelSlicers folder	Administrators, SYSTEM, SLICERS
Read access to BagelSlicers folder	Administrators, SYSTEM, SLICERS
Edit rights to CoffeeMakers folder	Administrators, SYSTEM, COFFEE
Read access to CoffeeMakers folder	Administrators, SYSTEM, COFFEE
Edit rights to Toasters folder	Administrators, SYSTEM, TOASTER
Read access to Toasters folder	Administrators, SYSTEM, TOASTER

Note that while the Everyone group technically has Read access to these folders; their effective rights are no access. This is because anyone not in COFFEE, TOASTER or SLICER groups are denied access by the share permissions. No one else could even list the folder contents or browse.

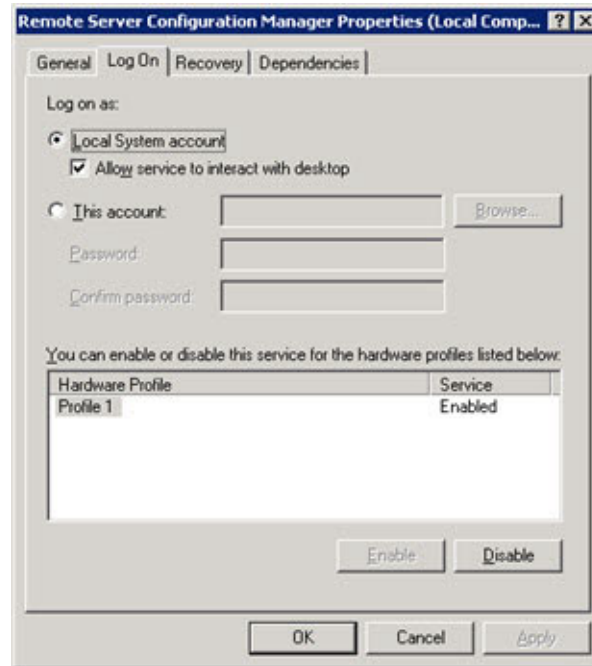
Example C: Using a local account to authenticate the RSCM Server

Scenario: A new IT security policy prohibits you from using domain accounts as service accounts. You need to modify the RSCM Service configuration to use a local account to authenticate. When you do this you must move your data to a file system that is local for your RSCM Server.

Procedure

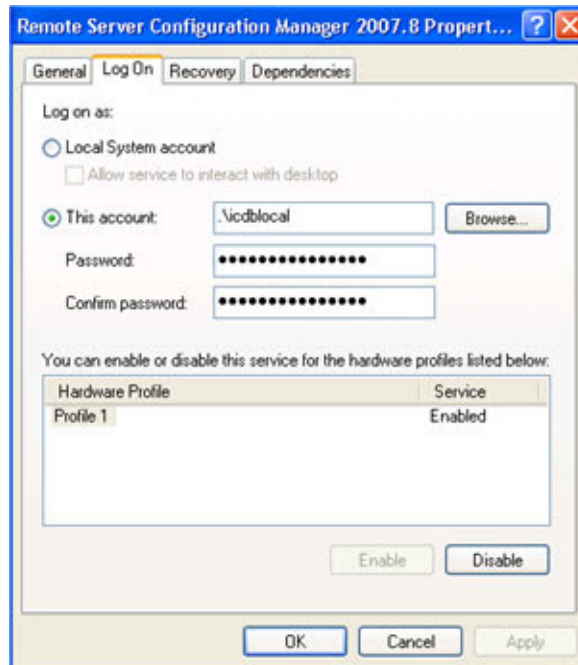
You have the following two options:

- **Option 1:** Use the local system account to authenticate the service.




Note that for added security you can un-check the 'Allow service to interact with the desktop' option. Un-checking this prevents processes started by this account from becoming visible on the logged on desktop. For example, if the iCDBNetLauncher process spawns a window on the desktop, the user logged in to that session will not be able to take control of that window and issue commands as that user. The iCDBNetLauncher and iCDBNetServer processes do not spawn any windows, but the most secure option is to un-check this option.

- **Option 2:** Create a new local account on your computer to authenticate the service.



If you use a local account you must give specific access to the share and folders to either the local Users built in group or to the new account since you cannot add a local account to a domain group.

Note


 You cannot create a local account on a computer that serves a domain controller. In that case, only Option 1 will work.

Example D: Reconfiguring RSCM server and client ports

Scenario: The IT department informs you that another tool needs port 9000 and they have asked you to configure the RSCM service for another port. In addition, they noticed that the default configuration uses port range 10000 - 10100 and requested that you change the values to fit within the range 9100 and 9200. They would also like you to reduce the number of ports to meet your actual need so they could block the ports that are not being used. You estimate that you would never have more than ten active projects, so you've agreed to configure the environment for a maximum of ten ports.

To change the configuration, modify the configuration files `Server.cfg`, `Launcher.cfg`, `ServerMonitor.cfg` and `ServerManager.cfg` as described below.

Note

 You should close all client programs (PADS Designer, PADS Layout, iCDB Server Manager and iCDB Server Monitor) and stop all RSCM Server services before you modify the configuration files.

These files are under the `%WDIR%\iCDB` folder. If your `WDIR` variable has more than one path in it, then you need to modify the files in the first directory listed in the path.

You only need to modify the Server, Launcher, and ServerManager and ServerMonitor configuration files to change the port values.

You need to distribute the configuration files to all users who will access the design. The Launcher configuration file is only required on systems that run an RSCM Service.

All projects that use the RSCM Servers must have their project files updated with the new server name:portnum values. Change them with a text editor by modifying the value for the key `DedicatedServerName` in each project file.

Make a copy of each iCDB directory prior to making the edits. Once you've made the edits and verified the functionality, you should then backup the modified iCDB directories. Doing this will allow you to switch back quickly to a working configuration and to recover if there is a loss of the information in the files you just edited.

Here are the specific modifications you need to make to the configuration files:

Server.cfg Configuration File (on the RSCM Server)

This configuration file is in `%WDIR%\iCDB\Server\Server.cfg`. Make a backup before editing it. The entries marked in red are the changes you need to make to reduce the port range to 10 ports. You must also remove the comment character (`;`). The text comments are optional but recommended.

```
[Network]
; PortRange = 10000,10100
; ServerManagerUDPPort = 10000
; ServerUDPPort = 10000
;
; 5/12/2011 - KF
; Changed the port values to fit with the range of 9100 - 9200.
; Changed default port range to limit the number of open projects to 10
;
PortRange = 9100,9200
ServerManagerUDPPort = 9100
ServerUDPPort = 9100
```

Be sure the check with your IT department to make sure you the new ports are available. If you change the `PortRange`, you must also change the Launcher, Server Manager, and Server Monitor UDP ports to match.

Launcher.cfg Configuration File (on the RSCM Server only)


The *Launcher.cfg* file runs only on machines that run the RSCM Service. The configuration file for the server is in *%WDIR%\iCDB\Launcher\Launcher.cfg*.

If the file does not exist and the *WDIR* location isn't writable, the RSCM Service uses the default values. Make sure a copy of this file exists in your local, writeable *WDIR*. Edit the parameters in red to match those in red under the *Server.cfg* section above. They must match:

```
[Network]
; LauncherUDPPort = 10000
; ServerManagerUDPPort = 10000
; Port = 9000
;
; 5/12/2011 - KF
; Changed the default RSCM Server port
; Changed the UDP port values to match the new port numbers in Server.cfg
;
LauncherUDPPort = 9100
ServerManagerUDPPort = 9100
Port = 9001
```

If you changed the *PortRange* in the *Server.cfg* file, you must also change the Launcher, Server Manager, and Server Monitor UDP ports to match the first port number in the range.

Note

 Changing the default RSCM Server port (Port = 9001 in this example) requires a change in the PADS Designer/PADS project file. You have to append the new port number to the machine name. When you used the default port (9000) this was not required. For example, RSCM Server name was 'server1' and you change the port to 9001, then the name you use to define the RSCM Server must be 'server1:9001'. You must update your project files accordingly or the attempts to connect to the RSCM Server will fail.

ServerManager.cfg Configuration File (on the client system)

The *ServerManager.cfg* file contains the configuration settings for the Server Manager. It is in *%WDIR%\iCDB\ServerManager*. The contents of this file appear in the Settings section of each server's information tree grouped according to the header that appears in the file.


```
[Network]
;LauncherUDPPort = 10000
;ServerManagerUDPPort = 10000
;PortRange = 10000,10100
;ServerUDPPort = 10000
;
; 5/12/2011 - KF
; Changed the UDP port and port range values to match Server.cfg
;
LauncherUDPPort = 9100
ServerManagerUDPPort = 9100
PortRange = 9100,9110
ServerUDPPort = 9100
```

ServerMonitor.cfg Configuration File (on the client system)

The *ServerMonitor.cfg* file contains the configuration settings for the Server Monitor. It is in *%WDIR%\iCDB\ServerMonitor*. The contents of this file appear in the Settings section of each server's information tree grouped according to the same headers as appears in the file.

```
[Network]
;LauncherUDPPort = 10000
;ServerManagerUDPPort = 10000
;PortRange = 10000,10100
;ServerUDPPort = 10000
;
; 5/12/2011 - KF
; Changed the UDP port and port range values to match Server.cfg
;
LauncherUDPPort = 9100
ServerManagerUDPPort = 9100
PortRange = 9100,9110
ServerUDPPort = 9100
```

Restarting RSCM Services

Once you have made all the changes to the configuration files, you must restart all RSCM Services and test by opening projects and observing the port number changes with Server Manager.

Running the RSCM Server Behind a Windows Firewall

The RSCM Server uses ports that may be blocked by the Windows firewall. You need to unblock the Windows firewall for the necessary port in order to allow incoming connections to the computer.

See [RSCM Server Port Usage](#) for more information about which ports you need to unblock.

If you receive a Windows firewall message, choose the **Unblock** option from the following three options:

- **Unblock** — Recommended. Selecting this option adds the port to the list of ports allowed through the Windows firewall.
- **Keep Blocking** — Blocks the iCDBNetLauncher and may prevent the program from working.
- **Ask me Later** — Blocks the port and then displays the Windows Firewall message and options again the next time the tool tries to run.

Related Topics

[Creating a Concurrent Design Project for Netlist Flow](#)

[Creating a Concurrent Design Project for Integrated Flow](#)

Creating a Concurrent Design Project for Netlist Flow

You can create a concurrent design netlist project.

Procedure

1. Invoke Designer.
2. Open the New Project dialog box with **File > New > Project**.
3. Select the **Netlist > pads_template** from the Templates list.
4. Enter the name of the project.
5. Enter the directory location to the project location.
6. Click the **Enable concurrent design** check box.
7. Enter the name of the machine you want to host the RSCM Server. All clients that share this database must be able to resolve this server name to an address. The RSCM Server must be running on the system you specify.
8. Select the layout tool you expect to use with the project.
9. Click **OK**. See the [Troubleshooting RSCM Servers](#) section for any problems.
10. Open the Settings dialog box with **Setup > Settings**.
11. Open the **Project > Symbol Libraries** window.
12. Enter the path to your libraries by clicking the **Import** button and browsing for each library.

13. Repeat the above step until you have added all your libraries to the project.
14. When the project is open, the status of the iCDB Database (either Online or Offline) appears in the bottom-right of the Designer window in the status bar accompanied by a green circle (Online) or empty circle (Offline). The RSCM server name appears next to the green Online circle.

Creating a Concurrent Design Project for Integrated Flow

You can create a concurrent design integrated project.

Procedure

1. Invoke Designer.
2. Open the New Project dialog box with **File > New > Project**.
3. Enter the name of the project.
4. Enter the directory location to the project location.
5. Enter the directory location of the Central Library. You might find it useful to use a relative path or an environment variable to make sure all clients have access to the project's Central Library.
6. Click the **Enable concurrent design** check box.
7. Enter the name of the machine you want to host the RSCM Server. All clients that share this database must be able to resolve this server name to an address. The RSCM Server must be running on the system you specify.
8. Click **OK**. See the [Troubleshooting RSCM Servers](#) section for any problems.
9. When the project is open, the status of the iCDB Database (either Online or Offline) appears in the bottom-right of the Designer window in the status bar accompanied by a green circle (Online) or empty circle (Offline). The RSCM server name appears next to the green Online circle.

Troubleshooting RSCM Servers

This section summarizes symptoms, possible causes, and solutions for issues encountered during the configuration and management of RSCM Servers.

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Cannot Create Project

Refer to this solution if the RSCM Server is unable to create a project.

Symptoms

Error Message

Error: Cannot create project.

Solution

Make sure the **New Project > Location** path is accessible from the client. This error can occur when the data is on an unshared Windows directory.

PADS Designer Can't Connect to Central Library

Refer to this solution if the tool cannot connect to the central library.

Symptoms

Error Message

Warning: PADS Designer can't connect to Central Library..

Solution

Make sure the **New Project > Central Library Path** includes a fully qualified path to the Central Library. If the path is local to the machine on which you created the project and you are on a different machine, you will get this error.

Copying, Moving, or Archiving a Concurrent Design Project

Before copying, moving, or archiving a project that is set up for concurrent design, consider the following points.

1. The project must not be open or else the copy/moved/archived project will have file remnants of the original location that will render the project inoperable in the new location.

If the project has an iCDB Server running for it, then it is in use. The easiest way to check if a project has an iCDB Server running is to check the following directory:

`<project_directory>/database/cdbsvr`

If this directory contains a *sAddress.adr* file, then either an iCDB Server is running for this project, or that iCDB Server was killed unexpectedly.

If the project is in use, simply have the active users close the project until you complete the copy/move/archive operation.

If the iCDB Server persists when all users have closed the project, use iCDB Server Manager to shutdown or kill the iCDB Server or detach “dead” clients. See the topic, [iCDB Server Manager](#), for more information.

2. If the location where you copy/move/archive the project does not have access to the RSCM Server used in the original location, then you must specify a new RSCM Server name for the project in the new location. The method for changing the RSCM Server name varies from tool to tool, so check your tool’s user’s guide or reference manual for this information.
3. Make sure that the file system permissions for the new project directory match the original project directory so all users have the same access. If you intend for the new location to serve users who did not have permissions to the original location or you do not want users from the original location to have access to the new location, then modify the directory’s permissions according to these needs. See the topic, [Setting Permissions](#), for more information.

Front End and Back End Conflict Resolution

The front end data and back end data exist as two different snapshots of the database. When you forward or back annotate, these snapshots are synchronized. Situations might arise where changes to each snapshot conflict (adding the same logical part to each snapshot but with different reference designators; deleting an object, connectivity, or constraint in one snapshot, and editing it in the other).

In the event of a conflict during a forward or back annotation, you must specify which gets priority. In PADS Designer, you can specify this priority with the **Setup > Settings** dialog box under the **Project > Designs > <Name of Design>** tree item. You can set **Conflict resolution** to either Front end always wins or Back end always wins.

Chapter 4

iCDB Server Manager

The iCDB Server Manager is a stand-alone GUI-based application that you use to manage the iCDB Servers (iCDBNetServer processes) for the projects on your network as well as view information on the iCDB Servers and clients, and send messages to other servers and clients on the network.

Note



iCDB Server Manager is backwards compatible with previous VX releases. It is possible to view and manage projects running with previous VX versions of the software.

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Invoking the iCDB Server

You can invoke iCDB Server Manager from the Windows start menu.

Note



Most procedures you can do with the Server Manager require that you to have read/write permissions on the project database that is associated with the iCDB Server.

Procedure

Use the following method to invoke iCDB Server.

- **Windows:**
 - **Start > All Programs > PADS <version> > System Tools > iCDB Server Manager <version>**

iCDB Servers

Each project you create has a dedicated iCDB Server associated with it that runs as a process called iCDBNetServer. An iCDB Server is a process that runs on either the local machine, or a remote machine. The process manages the connection between flow applications and a project's database.

For a machine to run iCDB Servers, the machine must be running the RSCM Server. The RSCM Server starts the iCDB Servers. For more information on the RSCM Server, see [RSCM Server Configuration](#).

If you create a project on the local machine and do not specify a RSCM Server name, the iCDB Server starts on the local machine. The RSCM Server is not required for stand-alone use.

Related Topics

[RSCM Server Processes](#)

Setting Permissions for Server Manager Tasks

You might not want all the Server Manager features available to all users. For instance, you might only want to allow administrators to kill servers or defragment a project's database.

You can set Server Manager permissions as described in the topic, [ServerManager.cfg Configuration File](#).

For additional control, you can set and lock these permissions at a corporate level by setting up the Server Manager configuration file in a corporate *WDIR* area. See [Managing Configuration Files in Centralized WDIR Directories](#).

The Server Manager features that you can control appear in [Table 4-1](#) along with their corresponding entry in the [Permission] section of the ServerManager.cfg configuration file.

Table 4-1. Editable Permission Settings in Server Manager

Server Manager Feature	ServerManager.cfg Parameter
Modify Server.cfg Configuration File in local <i>WDIR</i> to override Corporate <i>WDIR</i>	ChangeServerConfiguration
Tools > Defragment database	DefragmentDatabase
Tools > Diagnostics > Check database	DiagCheckDatabase
Tools > Diagnostics > Ports	DiagPorts
Tools > Diagnostics > RSCM	DiagRSCM
Tools > Disconnect client	DisconnectClient
Tools > Kill server	KillServer
Tools > Send message	SendMessage
Tools > Shutdown server	ShutdownServer
Tools > View server	ViewServer

The Server Manager Window

For each iCDB Server, the path to the database and the name of the machine running the iCDB Server appears in the Server Manager Window. The iCDB server information is in bold if you have marked it a favorite iCDB Server, and in regular font if you have not marked it as a favorite iCDB Server. Favorite iCDB Servers remain on the list even after they are shut down.

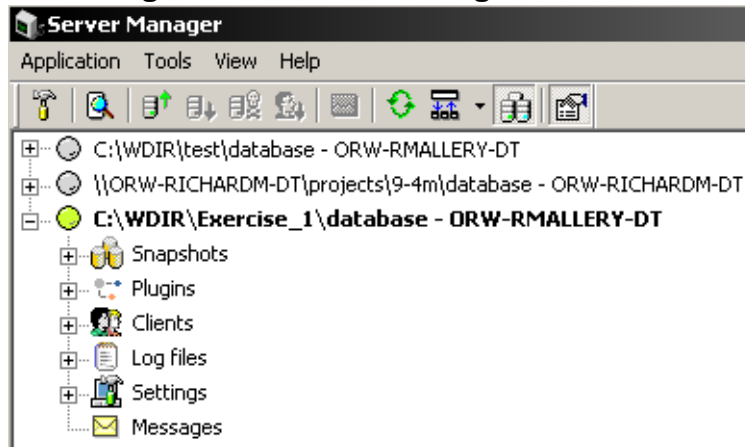
[Figure 4-1](#) shows an example of the Server Manager Window.

The circle to the left of the iCDB Server information shows the status of the iCDB Server connection as indicated by one of the following colors:

- **White:** The iCDB Server is in an unknown state.
- **Blue:** The iCDB Server is starting.
- **Orange:** The iCDB Server is working.
- **Green:** The iCDB Server is idle.
- **Light Gray:** The iCDB Server is closing.
- **Red:** The iCDB Server has encountered an error.
- **Dark Gray:** The iCDB Server is shut down.
- **“R”:** If the circle shows an “R” on the lower right, it means the project is read-only for the user who has opened Server Manager. This occurs when the share permissions

restrict the user from editing the project. Users who have write permissions on the project do not see the “R” when they run Server Manager.

Figure 4-1. Server Manager Window



Related Topics

[Setting or Unsetting an iCDB Server as a Favorite](#)


Broadcasting iCDB Servers

With **View > Show All Servers**, you can view all running iCDB Servers that are working on the same subnet mask as the machine that is running Server Manager; otherwise, the Server Manager tree only shows the iCDB Servers of projects running on the local machine and on the iCDB Servers you have specified as Favorite Servers. Additionally, only iCDB Servers for which you have read/write permissions to their respective databases appear in the Server Manager.

If you want to view a server outside the local subnet, see [Viewing an iCDB Server Outside the Local Subnet](#).

The Server Manager finds these running iCDB Servers by listening for traffic on ports 10000-10100 which is the default port range of the iCDB Servers. If you experience slow performance in a Windows OS environment, you might find some performance improvement by having your anti-virus software ignore these ports. Also, you can change the range of ports that iCDB Servers use with the **PortRange** keyword in the server.cfg file. See [Server.cfg Configuration File](#).

Note

 Your Mentor Graphics customer support representative is unable to provide specific information for configuring your network security or anti-virus software. Contact your internal IT organization for assistance.

The iCDB Servers do not start until either you open the project or until you explicitly start the iCDB Server with the Server Manager (see [Starting an iCDB Server](#)).

Related Topics

[Setting or Unsetting an iCDB Server as a Favorite](#)

Viewing an iCDB Server Outside the Local Subnet

To view an iCDB Server that is on a machine outside the subnet, you must add the machine name or IP address (with an optional port number) to the **MonitorRSCMs** parameter in the *ServerManager.cfg* configuration file.

Separate machine entries with a comma and no spaces. The first example is correct, all others are wrong (notice the spaces in the wrong examples):

```
MonitorRSCMs = orw-rscmserver-dt:9000,147.35.84.166,alh-rscmserver2-dt
MonitorRSCMs = orw-rscmserver-dt:9000, 147.35.84.166,alh-rscmserver2-dt
MonitorRSCMs = orw-rscmserver-dt:9000,147.35.84.166 ,alh-rscmserver2-dt
MonitorRSCMs = orw-rscmserver-dt:9000 , 147.35.84.166 , alh-rscmserver2-dt
```

If you use hostnames rather than IP addresses as parameters for MonitorRSCMs, be sure that the machine running the iCDB Server Manager can ping the RSCM machine outside the subnet, and that the RSCM machine can ping the machine with the iCDB Server Manager.

You can also add machines that are in the same subnet, however you can access such machines through the iCDB Server Manager GUI with **View > Show All Servers**. See [Broadcasting iCDB Servers](#).

Note



You must restart the iCDB Server Manager to recognize the changes made in the *ServerManager.cfg* file.

Related Topics

[Configuration File Parameter Descriptions](#)

Managing iCDB Servers

You can perform several tasks on iCDB Servers with Server Manager.

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Starting an iCDB Server

If you specified an RSCM Server location in the Project Settings dialog box when you created the project, that system name is stored in the project's *.prj* file. Server Manager starts an iCDB Server on the RSCM Server for that project.

Video

Learn how to:

- Start an iCDB Server.
- Set and unset an iCDB Server as a favorite.



Procedure

1. Open the **Open** browser (**Tools > View Server**).
2. Navigate to the project location of the project whose iCDB Server you want to start.
3. Select the project's *.prj* file.
4. Click **Open**.

The path to the project database appears in the Server Manager. The colored circle to the left indicates the iCDB Server status.

Shutting Down an iCDB Server

You can only shut down an iCDB Server if it has no clients connected to it. If the iCDB Server has live clients connected to it, then you can disconnect them.

Dead clients can occur when the client did not disconnect from the iCDB Server as expected. If you want to shut down an iCDB Server that has dead clients connected to it, you must kill the iCDB Server. See [Killing an iCDB Server](#).

Only users who have read/write access to the database folder can perform this procedure.

Video

Learn how to:

- Shut down an iCDB Server.
- Disconnect clients.
- Kill an iCDB Server.



Procedure

1. Select the iCDB Server you want to shut down from the list of iCDB Servers.
2. Click **Tools > Shut down server**. A message box asks you if you are sure you want to shut down the iCDB Server.
3. Click **Yes**.

The iCDB Server disappears from the list, and its process should no longer appear in the iCDB Server machine's task manager or process list. If you have book marked the iCDB Server as a favorite, it does not disappear from the list, but the text changes from bold to regular text, and the status indicator changes to gray indicating the iCDB Server is shut down.

Note



An iCDB Server also shuts down when the last client connected to the iCDB Server closes that iCDB Server's project.

Related Topics

[Disconnecting Clients](#)

Killing an iCDB Server

Kill an iCDB Server when you want to shut down an iCDB Server that has dead clients. Dead clients occur when the client did not disconnect from the iCDB Server as expected. You cannot shut down an iCDB Server that has dead clients; you must kill it.

If the iCDB Server has live clients connected to it, then you can simply disconnect them. See [Disconnecting Clients](#).

Only users who have read/write access to the database folder can perform this procedure.

Procedure

1. Select the iCDB Server you want to kill from the list of iCDB Servers.
2. Click **Tools > Kill server**.
3. Click **Yes** to shut down the iCDB server.

The iCDB Server disappears from the list, and its process should no longer appear in the iCDB Server machine's task manager or process list. If you have book-marked the iCDB Server as a favorite, it does not disappear from the list, but the text changes from bold to regular text, and the status indicator changes to gray indicating the iCDB Server is shut down.

Setting or Unsetting an iCDB Server as a Favorite

When you start an iCDB Server, it appears in the Server Manager when it is running. A favorite iCDB Server appears in the list in bold font, and it remains in the iCDB Server list even after the iCDB Server is shut down. You can set an iCDB Server as a favorite, and access its information, even if it is not a part of the local subnet.

Procedure

1. Select the iCDB Server you want to set/unset as a favorite.
2. To set as a favorite, click **Tools > Add to favorites**.
3. To unset as a favorite, click **Tools > Remove from favorites**.

The project database path is bolded/unbolded accordingly.

Viewing iCDB Server Information

You can view many categories of information about an iCDB Server, but none of the information is editable.

The following categories of information appear expanded under an iCDB Server in the Server Manager.

- **Server Properties:** The server properties show the path, network, and system information for the iCDB Server.

Note: The flow properties might show a flow that is different than the one you have installed on the machine on which you are running iCDB Server Manager. For more information about this scenario, see KB Article [MG527576](#) on Support Center.
- **Snapshots:** Lists all the available snapshots for the selected iCDB Server. When you expand a snapshot, you can see all the locked objects along with information on the client that obtained the lock.
- **Plugins:** Lists all the available plugins as well as their properties.
- **Clients:** Lists the clients that are connected to the iCDB Server, as well as their properties.
- **Log files:** Lists all the iCDB Server log files, sorted by time stamp. You can view the log files with a **RMB: Open**.
- **Settings:** Lists the iCDB Server settings from the *Server.cfg* configuration file, and the Server Manager settings from the *ServerMonitor.cfg* configuration file.
- **Messages:** Lists all the messages sent by all Server Managers on the local network.

Related Topics

[Managing Messages](#)

Disconnecting Clients

You can disconnect live clients of the iCDB Server. If the clients are dead clients, you will need to kill the iCDB Server.

Only users who have read/write access to the database folder can perform this procedure.

Procedure

1. Expand the **Clients** list item for the iCDB Server whose client you want to disconnect.
2. Select the client you want to disconnect.

When you select a client you should see some indication of its status in the Properties window. Clients that appear to be active should always be shut down by exiting the

client application if possible. The client status should indicate the user name of the person running the application and what machine they are running it from.

3. Disconnect the client with **Tools > Disconnect client**.

The client disappears from the list of clients for that iCDB Server.

Related Topics

[Killing an iCDB Server](#)

Managing Messages

The Server Manager allows you to view system messages from the iCDB Server, and messages sent from other Server Managers. The messages appear in the **Server > Messages** tree.

Received messages for favorite iCDB Servers are saved within each session.

Sending Messages

When you send a message from the Server Manager, it appears in all Server Managers on the local network that monitor the selected iCDB Server, including the sending Server Manager.

Procedure

1. Select the iCDB Server you want to send the message from.
2. Open the **Message** dialog box with **Tools > Send message**.
3. Enter your message.
4. Click **Send**.

The message appears in the information section of the selected iCDB Server's Messages tree item.

Viewing Groups

By default, the iCDB Servers in Server Manager appear as a flat list. You can group the iCDB Servers by the computers on which they reside with **View > Group by computer name**.

Running Diagnostic Checks with iCDB Server Manager

You can run diagnostic checks on the database, the RSCM Server, and the ports for any iCDB Server in the list. These diagnostics are available from **Tools > Diagnostics**.

Database Diagnostics

Tools > Diagnostics > Check Database. Checks the internal consistency of the database.

RSCM Server Diagnostics

Tools > Diagnostics > RSCM. Tests whether the RSCM Server can open the project specified in the Project Path.


Port Diagnostics

Tools > Diagnostics > Ports. Tests either applications or ports for network activity and broadcast size.

The **Test applications** radio button allows you to test the port activity of the iCDB Server (Server), RSCM Server (Launcher), and Server Manager (Monitor). Also gives the maximum size of UDP broadcasts.

The **Test ports** radio button allows you to test if either TCP/IP or UDP ports are available, and if so, what is the maximum size. Use to test which ports are available if the default ports are unavailable.

Note

 UDP port are tested by sending a broadcast to the subnet for defined ports, so you should be careful about using a large range of ports (the operation can be long). Also be aware that your network can have security enabled to interpret the UDP test as an overload of the sub-network attached to this machine. It could turn off the network card to this machine.

The ports test does not detect firewall blocking. If the firewall is set to block iCDBNetLauncher (RSCM Server) or iCDBNetServer (iCDB Server) processes, this ports test will show the port as open.

Defragmenting the Database

Over time, the database file on hard drive can fragment. This can degrade server performance, especially with large designs. By default, the iCDB Server automatically defragments the database when you shut it down, but if you begin to have performance issues, you can defragment the database manually.

You can specify which users can run defragmentation by setting the DefragmentDatabase permissions as described in [Setting Permissions for Server Manager Tasks](#).

You can toggle whether or not the iCDB Server defragments the database on shutdown with the [DBDefragmentOnShutdown](#) configuration file parameter.

Procedure

1. Open the Defragment database window with **Tools > Defragment database**.
2. Navigate to the project file (*.prj) for the database that you want to defragment.
3. Click **Defragment**.
4. Monitor the Output window for information on the defragmentation process.

Searching for Text in iCDB Server Manager

You can search for any text in the iCDB Server tree with **Tools > Find**. The search scope does not include contents of log files.

Viewing Application Settings and Data

Application settings and data reside in support files that you can view.

The %WDIR%\iCDB\ServerManager directory contains the following support files for the Server Manager.

- **Logs:** This directory contains the transcripts of the Server Manager.
- **ServerManagerGUI.xml:** Contains the following application settings:
 - Application position
 - Show/Don't show display properties window
 - Properties windows dock position
 - State of "Show All Servers" toolbar button/menu item.
 - State of Group/Ungroup toolbar button/menu item.
- **ServerManagerData.xml:** Contains a history of messages received for favorite iCDB Servers.
- **ServerManagerSearchHistory:** Contains a history of searches.
- **ServerManager.cfg:** Contains configuration settings for the Server Manager.

Chapter 5

iCDB Project Backup

Manage a project's backups and backup settings with the iCDB Project Backup utility.

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iCDB Project Backup Concepts

Several concepts apply to all project backup tasks.

Depending on the settings, different triggers can cause the project database to create a backup copy in a zipped file. The zipped backup files reside in the project directory's ProjectBackup/backups sub-directory.

For a list of settings and triggers that control when the project database creates a backup, see [Changing Backup Settings](#).

The settings for the backups are in the *ProjectBackup.cfg* configuration file. This configuration file resides in the *\$WDIR/iCDB/ProjectBackup* directory. For more information on this configuration file, see [ProjectBackup.cfg Configuration File](#).

You can place the configuration file in a centralized *WDIR* directory and set permissions to control what Project Backup features users and clients have access to. For more information about placing the *ProjectBackup.cfg* configuration file in a centralized *WDIR* directory, see [Managing Configuration Files in Centralized WDIR Directories](#). For more information about the particular user and client-based permissions, see [Changing Backup Settings](#) and [ProjectBackup.cfg Configuration File](#).

Invoking the iCDB Project Backup Utility

When you invoke the iCDB Project Backup utility, you are prompted to select a backup container that points to a set of backups for your project. The backup container can be a project's *.prj* file, the project's *ProjectBackup/backups* sub-directory, or a single zipped backup file.

Procedure

1. Invoke the iCDB Project Backup Utility as follows:
 - **Windows: Start > All Programs > PADS <version> > System Tools > iCDB Project Backup <version>**
2. In the **Open backup storage** dialog box, select the type of storage container you want to open in the **Type** field. If you select any type other than Project file, the following Project Backup features are not available:
 - **Project > Clean up**
 - **Backup > Settings**
 - **Backup > Persistent**
 - **Backup > Create backup**
 - The **Project is in use** indicator in the status bar
 - The **Connected clients** window is empty.
 - You cannot send messages to iCDB Clients.

The Project Backup types are:

- **Project file (.prj):** You can manage all the backups that have been created for the project.
- **Backup directory:** You can manage multiple backup files (*.zip) created with Archiver.

Note: When you restore an Archiver backup, you are prompted to restore it to a new location. You cannot overwrite the existing project.

- **Backup file (.zip):** You can manage a single backup file (*.zip) created with Archiver. See link and notes in the previous bullet item.
3. Enter the container's location in the **Location** field.
 4. Click OK. The iCDB Project Backup utility appears.

Cleaning up a Project

You can remove various log files, debugging files, and internal backup files manually.

This is only available when you have a project open, not a backup. See [Invoking the iCDB Project Backup Utility](#).

Prerequisites

- The project must not be open in any other application.

Procedure

1. Open the Clean up project dialog box with **Project > Clean up**.
2. Enable/disable the clean up items as needed.
3. Click **Clean up project**.

The results appear in the Output window.

Creating a Support Package

You can create a package of zip files of your project directory to send to your Mentor Graphics Corporation support representative for troubleshooting.

You can create a package for either a concurrent design project or a local project. If you create a package from a concurrent design project, you can choose whether or not to include data from the other machines that connected to the project.

For security, you can exclude design data and only package support files.

The maximum size of a single zip file is one gigabyte, but you can set a lower maximum. For designs that are larger than the maximum size, the project splits into multiple zipped files (.zip, .z01, .z02, and so on).

Prerequisites

- The project cannot be open in any other application.

Procedure

1. Create a support package with **Project > Create support package**. The Create Support Package dialog box appears.
2. Select whether to package a concurrent design project (Project) or a local project (Local) in the **Package type** list box. If you choose Project, you can enable/disable the **Collect data from other machines from which the project was accessed** check box.
3. Enable or disable **Package content** categories.
4. Enter the target location in the **Package directory path** text field where you want iCDB Project Backup to create the package (it will be a zip file).
5. Specify the maximum size of a file in **Max size of single package file**.
6. Enter a description for your package. The description is saved as a text file at the top level of the package.
7. Click **Create**. The zip file appears where you specified.
8. Send the zip file to Mentor Graphics Corporation as you have arranged with your support representative.

Repairing a Project

Repairing a project fixes several database problems.

- Someone copied the database when the RSCM Server was still running.
- The database cannot be opened because temporary snapshots are corrupted.
- The database cannot be merged automatically with an emergency save of iCDB transactions.
- The database contains a lock file (*.lck) that the system did not properly dispose of.
- The iCDBNetServer unexpectedly disconnected from the design data due to machine shutdown or network problems.

Note



iCDB Project Backup automatically creates a repair backup before it attempts to repair a database.

When you open a project that needs repair, the Server Monitor shows a **Lost connection to iCDB Server** diagnostic message in a balloon pop-up in your system notification area. Make sure the iCDB Server machine and its network connection to the design data are restored before repairing the project.

Prerequisites

- The project cannot be open in any other application.

Procedure

1. Open the iCDB Project Backup Utility. See [Invoking the iCDB Project Backup Utility](#).
2. Repair the database with **Project > Repair**. A message appears reminding you that the database structure will be upgraded.

Results

The results appear in the Output window.

If the repair fails, restore the most recent backup.


Changing Backup Settings

For each type of backup, you can change the number of backups to keep at any one time and the time interval between backups (for time-based backups). You can also activate and deactivate the backup as well as specify whether or not to create log files for each backup.

You can control the permissions to limit the settings that individual client machines can change. See [ProjectBackup.cfg Configuration File](#) for more information on setting permissions.

You can only change backup settings when you have a project open, not a backup. See [Invoking the iCDB Project Backup Utility](#).

Note

 You can also configure a project's backup settings in PADS Designer's **Setup > Settings > Project Backup** window. Those settings are identical to the settings in the Backup Settings dialog box. See [Settings Dialog Box - Project Backup](#).

Procedure

1. Open the Backup Settings dialog box with **Backup > Settings**.
2. Select the backup type whose settings you want to change.
3. Click **Edit**. The Backup type settings dialog box appears.
4. Change the settings to suit your needs.
5. Click **OK**.
6. Optionally, in the Backup settings dialog box, you can set the size limit for all backup log files.

7. You can also enable or disable backups entirely with the Enable backups check box if you have permission to do so. The [ActivateDeactivate](#) key in the [ProjectBackup.cfg Configuration File](#) sets this permission.
8. Click **OK** to close the Backup settings dialog box.

Related Topics

[Backup Settings Dialog Box](#)

Creating a Backup Manually

You can create a backup on-demand with **Backup > Create backup**.

This is only available when you have a project open, not a backup. See [Invoking the iCDB Project Backup Utility](#).

Procedure

1. Open the Create backup dialog box with **Backup > Create backup**.
2. Enter a description in the Backup description text field.
Note: You must include a description to create a backup manually.
3. Click **Create backup**.

The backup appears in the iCDB Project Backup list as a User type.

Related Topics

[Backup Settings Dialog Box](#)

Restoring a Backup

You can restore a backup to the current project location or to a different location if you do not want the backup to overwrite the existing project.

Prerequisites

- You should verify a backup before restoring it.
A backup's zipped file can be corrupt for various reasons, and the file can also be removed from the backup directory manually. Verifying the backup before restoring it ensures that the restored project is fully functional. See [Verifying a Backup](#).
- You must have all applications exit from the project before restoring.
You can send a message to active clients with the **Send message to connected clients** button in the Connected clients window.

Procedure

1. In the iCDB Project Backup utility, select the backup that you want to restore.
2. Open the Restore backup dialog box with **Backup > Restore backup**.
3. If you want to overwrite the existing project, click **Restore**.
4. If you do not want to overwrite the existing project then do the following:
 - a. Check the **Restore to new location** check box.

If the check box is grayed out, then you do not have permission to restore to a new location. This permission is set with the [RestoreBackupToNewLocation](#) key in the [ProjectBackup.cfg Configuration File](#).
 - b. Enter a path in the **Restore location** field where you want to restore the backup.
 - c. Click **Restore**.

Results

Before the backup is restored, the current database and project file are backed up. After the backup is restored, all backups remain in the list, even if they were created after the backup you have just restored.

Related Topics

[Sending Messages to Connected Clients](#)

[Viewing Connected Clients](#)

Removing a Backup

When you remove a backup from the iCDB Project Backup utility, the software removes the backup from the project's ProjectBackup/backups sub-directory.

Note



You can remove only the backups you have permission to remove. See the [RemoveSystemBackup](#), [RemoveUpgradeBackup](#), and [RemoveUserBackup](#) keys in the [ProjectBackup.cfg Configuration File](#) for more information.

Procedure

1. In the iCDB Project Backup utility, select the backup you want to remove.
2. Remove the backup with **Backup > Remove backup**.
3. Click **Yes** in the message box to remove the backup.

Making a Backup Persistent

iCDB Project Backup has features and settings that automatically remove backups.

You can preserve a backup from these operations by setting it to be Persistent.

Procedure

Set a backup to be persistent by selecting it in the iCDB Project Backup window and clicking **Backup > Persistent**. An orange check mark in the Persistent column indicates that the backup is set to Persistent.

This is only available when you have a project open, not a backup. See [Invoking the iCDB Project Backup Utility](#).

Note: The Persistent setting does not apply to manual removal. If you have permission to remove a backup manually, you can remove the backup even if it is set to Persistent.

Related Topics

[Pruning Backups](#)

[Changing Backup Settings](#)

Verifying a Backup

Because the backups are zipped files and are stored in the project's ProjectBackup/backups directory, it is possible someone can delete or move the files from the project directory. The zipped backup files can also become corrupt.

Prerequisites

- You should verify your backups before restoring a backup to make sure the restored project will be valid. See [Restoring a Backup](#).

Procedure

1. In the iCDB Project Backup utility, select the backup that you want to verify.
2. Verify the backup with **Backup > Verify backup**.
3. View the results of the verification in the Output window.

Pruning Backups

Over time you can end up with many backups for a project. You can remove backups in bulk by specifying how many backups of each type you want to keep. The iCDB Project Backup utility removes all other backups.

Note



Backups marked as Persistent are not removed. See [Making a Backup Persistent](#).

Procedure

1. In the iCDB Project Backup utility, open the Backup prune dialog box with **Backup > Prune backups**.
2. If you want to change the **Backups to leave** number for any of the backup types, select the row and click **Edit**. The Backup type prune settings dialog box appears.
3. Select the number of backups to keep.

Note



Only the backups you have permission to remove appear in the Backup prune dialog box. See the [RemoveSystemBackup](#), [RemoveUpgradeBackup](#), and [RemoveUserBackup](#) keys in the [ProjectBackup.cfg Configuration File](#) for more information.

4. Click **Prune**.

Viewing Backup Details

The Backup details window displays a variety of data for the selected backup.

Procedure

1. The Backup details window is open in the iCDB Project Backup utility by default. If it is not open, you can open it with **View > Backup details**.

Note: The Backup details window shares the space with the connected clients window. When the Connected clients window is open, the Backup details window becomes a tab and its content is hidden behind the Connected clients window.

2. Select the backup in the main window to view the data. The data appears in the Backup details window.

Related Topics

[Viewing Connected Clients](#)

Viewing Backup Descriptions

Each backup type has different information available in the Backup description window.

Procedure

1. The Backup description window is open in the iCDB Project Backup utility by default. If it is not open, you can open it with **View > Backup description**.
2. Select the backup in the main window to view the data. The description appears in the Backup description window.

Viewing Connected Clients

The Connected clients window shows you what clients are connected to the current project. You cannot restore a backup if the current project has any connected clients. You can send a message to active clients with the send message to connected clients button in the Connected clients window.

Procedure

1. The Connected clients window is open in the iCDB Project Backup utility by default. If it is not open, you can open it with **View > Connected clients**.

Note: The Connected clients window shares the space with the Backup details window. When the Backup details window is open, the Connected clients window becomes a tab and its content is hidden behind the Backup details window.
2. Expand the Connected client tree to view information about the connected clients.
3. Refresh the list of Connected clients with the **Reload client list** button as needed.

Related Topics

[Restoring a Backup](#)

[Sending Messages to Connected Clients](#)

[Viewing Backup Details](#)

Sending Messages to Connected Clients

You can send a message to all clients that are connected to the current project. The message appears in the Output window of each client tool.

This is only available when you have a project open, not a backup. See [Invoking the iCDB Project Backup Utility](#).

Prerequisites

- The Connected clients window must be open. See [Viewing Connected Clients](#).

Procedure

1. Open the Send message dialog box with the **Send message to connected clients** button in the Connected clients window.
2. Enter the message in the **Enter message** field.
3. Click **Send**.

The message appears in the Output window of each client tool.

Viewing the iCDB Project Backup Operation Log

While each backup can have its own log file, so does the iCDB Project Backup utility. This log file resides in the project's Log Files sub-directory. You can view the log file from within the iCDB Project Backup utility.

Procedure

1. Open the log file with **Backup > View operation log**. The File View appears with *ProjectBackupLog.txt* loaded.
2. Close the File Viewer with **File > Exit**.

Backup Settings Dialog Box

To access: **Backup > Settings** in the iCDB Project Backup utility

Use this dialog box to set up backups.

- The backup types are described in [Table 5-1](#).
- The dialog box fields are described in [Table 5-2](#).

Each backup type is further grouped under three categories: system, upgrade, or user. You can set permissions for which category a client can change settings. See the [SystemBackupsSettings](#), [UpgradeBackupsSettings](#), and [UserBackupsSettings](#) keys for the [ProjectBackup.cfg Configuration File](#) for more information on setting Backup settings permissions.

Active	Type	Group	Number	Interval	Logs
<input checked="" type="checkbox"/>	AutoSave	User	3	4 hours	Yes
<input type="checkbox"/>	Session Startup	User	3	N/A	Yes
<input type="checkbox"/>	Session Shutdown	User	3	N/A	Yes
<input type="checkbox"/>	Application	User	3	4 hours	Yes
<input checked="" type="checkbox"/>	xDX Diagnostics	System	1	N/A	Yes
<input checked="" type="checkbox"/>	CES Diagnostics	System	4	N/A	Yes
<input checked="" type="checkbox"/>	Database Upgrade	Upgrade	2	N/A	No
<input checked="" type="checkbox"/>	Clear All Constraints	System	1	N/A	Yes
<input checked="" type="checkbox"/>	Update Reuse Block	System	1	N/A	Yes
<input checked="" type="checkbox"/>	Symbol Update	System	1	N/A	Yes
<input checked="" type="checkbox"/>	Symbol Substitute	System	1	N/A	Yes
<input checked="" type="checkbox"/>	Constraints Definition Upgrade	Upgrade	1	N/A	No
<input checked="" type="checkbox"/>	xDX I/O Designer Schematic C...	System	1	N/A	Yes
<input checked="" type="checkbox"/>	User	User	1	N/A	Yes
<input checked="" type="checkbox"/>	Project Repair	System	1	N/A	Yes
<input checked="" type="checkbox"/>	Clear Unused Constraints	System	3	N/A	Yes
<input checked="" type="checkbox"/>	Global Fix	User	1	N/A	No

Limit Project Backup log file size to between kB and kB

☒ Enable backups

Table 5-1. Backup Types

Backup Type	Description
AutoSave	Created every <Interval> if the content has changed since the last AutoSave made by the current server session.
Session Startup	Created on server session startup, before the database is opened.
Session Shutdown	Created on server session shutdown, after the database is closed.

Table 5-1. Backup Types (cont.)


Backup Type	Description
Application	<p>Compatibility replacement for AutoBackup functionality. Triggered by applications in specific situations (project close, save, etc.). The interval <Interval> defines the minimum time period between successive backups.</p> <p> Note: In PADS Designer, the following actions will trigger an AutoBackup:</p> <ul style="list-style-type: none">• Closing Designer• Diagnostics fixes• Substituting symbols from Designer Databook• Updating symbol definitions• Replacing parts• Assigning reference designators• Updating managed blocks
DxD Diagnostics	Created before repairing the design with PADS Designer Diagnostics.
CES Diagnostics	Created before repairing the design with CES Diagnostics.
Database Upgrade	Created before iCDB database upgrade. The number of backups to store is per software release version.
Clear All Constraints	Created before using “Clear All Constraints” in CES.
Update Reuse Block	Created before updating each Reuse Block in PADS Designer.
Symbol Update	Created before each symbol update in PADS Designer.
Symbol Substitute	Created before each symbol substitution in PADS Designer. Note: This is not related to symbol replacement.
Constraints Definitions Upgrade	Created before constraint definition upgrade.
I/O Designer Schematic Changes	Created before schematic changes made by I/O Designer.
User	Created when you click the Backup > Settings menu item in iCDB Project Backup.
Project Repair	Created before repairing the design with Project > Repair in iCDB Project Backup.
Clear Unused Constraints	Created before “Clear All Unused Constraints” operation made by CES.
Global Fix	Created before “Global Fix” operation performed during DB load.

Table 5-2. Backup Setting Dialog Box Controls

Control	Description
Active	Toggles the type on and off. See Changing Backup Settings .
Type	See Table 5-1 for description. See Changing Backup Settings .
Group	Specifies whether the type belongs in the System, Upgrade, or User group. See Changing Backup Settings .
Number	Specifies the number of backups to keep for the selected type. See Changing Backup Settings .
Interval	Specifies the time between backups. See Changing Backup Settings .
Logs	Specifies whether or not to keep log files for the selected type.
Limit Project Backup log file size between ____ kb and ____ kb.	Over time the size of backup log files can grow to a size that reduces project performance. This setting limits the size of log files so they cannot grow unchecked. When the file reaches the upper limit, the software erases enough of the earliest entries to make the size match the lower limit.
Enable backups	This global switch enables/disables the iCDB Project Backup functionality entirely. This control is grayed out if you do not have permission to set this feature. See the Activate/Deactivate key for the ProjectBackup.cfg Configuration File .
Edit	<p>Opens the Backup type settings dialog box so you can change the settings for the selected type. The dialog box will not appear if you do not have permission to change settings on that type of backup (see ProjectBackup.cfg Configuration File).</p> <p>In the Backup type settings dialog box, you can set the number backups to save for each type, the frequency to make the backups if the backup is time-based. You can set whether or not to create log files for that type. You can also set whether or not the backup type is active or not.</p>
Defaults	Sets all settings to default values.

Chapter 6

iCDB Server Monitor

The iCDB Server Monitor runs on iCDB clients and monitors network activity between the iCDB client, iCDB servers, and file servers for projects that use the Remote Server Configuration Manager.

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iCDB Server Reporting

The iCDB Server Monitor reports various warnings, errors, and notes about the state of the network connections. It does not provide any repair suggestions. It is intended to be an aid in detecting and debugging problems with your network or software configuration that might reduce performance.

Reports appear in the [iCDB Server Monitor GUI](#) and in balloons that pop up in the system notification area on operating systems that support them.

For information on the particular diagnostics that the iCDB Server Monitor performs, see [Categories of Diagnostics](#).

What to do when a Problem is Reported

Most of the problems you encounter should be addressed by your IT department or CAD support group. Where possible, the messages and log files contain data to help your administrator debug the problem with the network or software configuration. In a few cases, the reports can be the result of a problem with data integrity. These problems might require support from Mentor Graphics.

If you receive a large number of reports but do not notice unacceptable performance issues, you can raise the error and warning thresholds for many of the diagnostics in the configuration file.

See [ServerMonitor.cfg Configuration File](#) for more information. Also notice that the descriptions in the [Categories of Diagnostics](#) tables describe the configuration file keys that relate to each diagnostic.

Version Restrictions

iCDB Server Monitor is a single instance application. Only one version of iCDB Server Monitor can run at a time.

Note



The iCDB Server Monitor Workspace view does not make a distinction between major version releases of software older than VX.2. For example, EE7.9.4 Update 5 and EE7.9.4 Update 10 are both presented as “7.9.4”.

Note that MGC SDD Release Switcher automatically replaces iCDB Server Monitor in autostart with the version that matches the release version being switched to.

Related Topics

[Concurrent Design Overview](#)

[Categories of Diagnostics](#)

[iCDB Server Monitor GUI Reference](#)

Categories of Diagnostics

The iCDB Monitor tools monitors and reports categories of diagnostics.

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Server Connection Diagnostics

Problems with server connections are reported in iCDB server messages.

Table 6-1. Server Connection Diagnostics

Diagnostic	Description
Lost connection to iCDB Server Message: The connection to the iCDB Server (<server_address>) for project <project_path> has been lost. You may not be able to continue working until the connection is restored. You will be notified when the connection is restored.	Issue Type: Error Configuration File: None Keys: None Description: Reports when the client loses the connection to the server. Action: When the connection to the project is restored, you must repair and verify the database with Project Backup. See Repairing a Project and Verifying a Backup .
Restored connection to iCDB Server Message: The connection to the iCDB Server (<server_address>) for project <project_path> has been restored after <offline_elapsed_time>. You may safely continue your work.	Issue Type: Note Configuration File: None Keys: None Description: Reports when the client's connection to the server is restored.
Reloaded Project Message: The project <project_path> has been reloaded. You may continue your work.	Issue Type: Note Configuration File: None Keys: None Description: Reports when the project is reloaded.

Table 6-1. Server Connection Diagnostics (cont.)

Diagnostic	Description
<p>Connection speed to iCDB Server</p> <p>Messages:</p> <ul style="list-style-type: none"> • Error: The connection to the iCDB Server (<server_address>) for project <project_path> is extremely slow. It takes <ping_time> for the server to respond. Performance may be degraded whilst working. If the condition persists contact your IT department for advice. • Warning: The connection to the iCDB Server (<server_address>) for project <project_path> is slow. It takes <ping_time> for the server to respond. Slow connections to the iCDB Server may cause some operations to take longer than expected. For better performance lower access time is required. • Note: Optimal access time to the iCDB Server has been restored. The server responds in <ping_time>. 	<p>Issue Type: Error, Warning, or Note, depending on actual measured connection speed.</p> <p>Configuration File: ServerMonitor.cfg</p> <p>Keys:</p> <p>SlowPingTime_USec (Default = 100000)</p> <p>CriticalPingTime_USec (Default = 200000)</p> <p>PingInterval_MSec (Default = 1000)</p> <p>StableMargin_Percentage (Server.cfg: SystemMemoryMonitor section: Default = 10)</p> <p>Description: The client pings the iCDB Server at intervals of PingInterval_MSec. The average delay is calculated over the past 20 pings.</p> <p>If the average is greater than SlowPingTime_USec, then the warning is given. If the average is greater than CriticalPingTime_USec, then the error is given.</p> <p>The standard deviation is also calculated. If the standard deviation is less than or equal to the percentage (relative to the average) specified in StableMargin_Percentage, then the average remains unchanged and the connection is considered stable.</p> <p>If the standard deviation is greater than the StableMargin_Percentage relative to the average, all samples that fall outside one sigma are thrown out and the average is recalculated.</p> <p>However, if more than half the samples fall outside one sigma, the average is not computed because the connection is too unstable. An average is calculated again when the sample is stable.</p>

File Access Diagnostics

The connection time between the client and file server might differ from the connection time between the iCDB Server and file server even if the client and iCDB Server are on the same machine. This is because the default thresholds that trigger a warning or error differ between the two diagnostics.

Please note the default thresholds for each diagnostic.

Table 6-2. File Access Diagnostics

Diagnostic	Description

Table 6-2. File Access Diagnostics (cont.)

Diagnostic	Description
File server off-line Message: The connection to the file server has been lost. Work on project <project_path> may not be possible.	Issue Type: Error Configuration File: None Keys: None Description: Reports when the client loses the connection to the File Server.
File server on-line Message: The connection to the file server for project <project_path> has been restored after <offline_elapsed_time>. You may safely continue your work.	Issue Type: Note Configuration File: None Keys: None Description: Reports when the client connection to the File Server is restored.

Table 6-2. File Access Diagnostics (cont.)

Diagnostic	Description
<p>Connection speed to File Server</p> <p>Messages:</p> <ul style="list-style-type: none"> • Error: The connection to the file server for project <project_path> is extremely slow. It takes <access_time> to access it. You will experience degraded performance if you continue to work. You may also experience problems with connecting to iCDB Server. If the condition persists contact your IT department for advice. • Warning: The connection to the file server for project <project_path> is slow. It takes <access_time> seconds to access it. You may experience performance issues. • Note: Optimal access time to the file server for project <project_path> has been restored. It takes <access_time> to access it. 	<p>Issue Type: Error, Warning, or Note, depending on actual measured connection speed.</p> <p>Configuration File: ServerMonitor.cfg</p> <p>Keys:</p> <p>SlowAccessTime_USec (Default = 100000)</p> <p>CriticalAccessTime_USec (Default = 200000)</p> <p>SlowAccessFactor (Default = 10)</p> <p>CriticalAccessFactor (Default = 100)</p> <p>CheckInterval_MSec (Default = 1000)</p> <p>StableMargin_Percentage (Server.cfg: FilerAccessMonitor section: Default = 20)</p> <p>AbsoluteRating (Default = yes)</p> <p>Relative Rating (Default = no)</p> <p>Description: The client performs a “file stat” command to the File Server at intervals of CheckInterval_MSec. A standard deviation filter to discard extreme peaks and valleys operates similarly to the one described in Connection speed to iCDB Server diagnostic.</p> <p>Two benchmarks and threshold calculations are available. Absolute Rating and Relative Rating.</p> <p>Absolute Rating is on by default. (AbsoluteRating = yes) The average is based on measures of the absolute access time to the iCDB database folder. This means it can be affected by current system/network load. If the average is above SlowAccessTime_USec, the warning is given. If the average is above CriticalAccessTime_USec, the error is given.</p> <p>Relative Rating is off by default. (RelativeRating = no) The average is based on the ratio of (Access Time to iCDB Database Folder) to (Access Time to a Temporary Folder on Local Disk). This is more immune to current system load. If the average is above SlowAccessFactor, the warning is given. If the average is above CriticalAccessFactor, the error is given.</p> <p>If both AbsoluteRating and RelativeRating are set to “yes” then an error or warning is given if either measure is greater than the specified threshold.</p>

Table 6-2. File Access Diagnostics (cont.)

Diagnostic	Description
<p>iCDB server connection speed to project filer</p> <p>Messages:</p> <ul style="list-style-type: none"> • Error: The iCDB Server (<server_address>) for project <project_path> is experiencing degraded performance due slow file server access. It takes <access_time> to access the file server. You will experience degraded performance if you continue to work. You may also experience problems with connecting to iCDB Server. If the condition persists contact your IT department for advice. • Warning: The iCDB Server (<server_address>) for project <project_path> is experiencing poor performance due to slow file server access. It takes <access_time> to access the file server. You may experience performance issues if you continue to work. • Note: The iCDB Server (<server_address>) for project <project_path> has optimal access time to the file server. It takes <access_time> to access the file server. 	<p>Issue Type: Error, Warning, or Note, depending on actual measured connection speed.</p> <p>Configuration File: Server.cfg (On the machine running iCDBNetServer)</p> <p>Keys:</p> <p>SlowAccessTime_USec (Default = 10000)</p> <p>CriticalAccessTime_USec (Default = 30000)</p> <p>SlowAccessFactor (Default = 10)</p> <p>CriticalAccessFactor (Default = 100)</p> <p>CheckInterval_MSec (Default = 1000)</p> <p>StableMargin_Percentage (Server.cfg: FilerAccessMonitor section: Default = 20)</p> <p>AbsoluteRating (Default = yes)</p> <p>Relative Rating (Default = no)</p> <p>Description: The iCDB Server performs a “file stat” command to the File Server at intervals of CheckInterval_MSec. A standard deviation filter to discard extreme peaks and valleys operates similarly to the one described in Connection speed to iCDB Server diagnostic.</p> <p>Two benchmarks and threshold calculations are available. Absolute Rating and Relative Rating.</p> <p>Absolute Rating is on by default. (AbsoluteRating = yes) The average is based on measures of the absolute access time to the iCDB database folder. This means it can be affected by current system/network load. If the average is above SlowAccessTime_USec, the warning is given. If the average is above CriticalAccessTime_USec, the error is given.</p> <p>Relative Rating is off by default. (RelativeRating = no) The average is based on the ratio of (Access Time to iCDB Database Folder) to (Access Time to a Temporary Folder on Local Disk). This is more immune to current system load. If the average is above SlowAccessFactor, the warning is given. If the average is above CriticalAccessFactor, the error is given.</p> <p>If both AbsoluteRating and RelativeRating are set to “yes” then an error or warning is given if either measure is greater than the specified threshold.</p>

Table 6-2. File Access Diagnostics (cont.)

Diagnostic	Description
Broken connection between iCDB and File Server Message: The iCDB Server (<server_address>) for project <project_path> has lost the connection to the file server. It may be impossible to continue working on this project.	Issue Type: Error Configuration File: None Keys: None Description: Reports when the server loses connection to the File Server.

Client Processes Diagnostics

Problems with client processes are reported in client messages.

Table 6-3. Client Processes Diagnostics

Diagnostic	Description
Application disconnect Message: Application [<app_name>] with PID [<app_pid>] did not close all connections to the server. Any open connections to the server will be closed shortly.	Issue Type: Error Configuration File: None Keys: None Description: Reports when applications unexpectedly end without closing all connections with iCDB.
Application runs in compatibility mode Message: Application [] with PID [] runs in compatibility mode. Please refer to the <i>Concurrent Design Administrator's Guide</i> for assistance.	Issue Type: Warning Configuration File: Client.cfg Keys: UserNameProxy (Default=no) Description: In the following scenario: <ul style="list-style-type: none">• an application is run on a 64-bit version of Windows Server 2008, Windows Vista, Windows Server 2008 R2, or Windows 7• and an exception that is thrown in a callback routine runs in the user mode. The application could be run in compatibility mode that could affect iCDB. If you are not able to open any design, please activate UserNameProxy setting in Client.cfg file.

Server Processes Diagnostics

Problem with server processes are reported in server messages.

Table 6-4. Server Processes Diagnostics

Diagnostic	Description
Server Startup Message: <app_name> with PID (<app_pid>) reported a problem starting the iCDB Server for project <project_path>. Please check the iCDB client log files in the client <i>WDIR</i> directory for detailed information.	Issue Type: Error Configuration File: None Keys: None Description: Reports when the server cannot start.
Server Shutdown Message: The last iCDB Server session <icdb_session_info> for project <project_path> shutdown unexpectedly. Please check the log files in <server_log_dir_path> and in the iCDB server <i>WDIR</i> directory on <server_address> machine for more information or contact Mentor Graphics Customer Support.	Issue Type: Error Configuration File: None Keys: None Description: Reports when the Server shuts down unexpectedly.
Server Unreachable Message: The iCDB Server (<server_address>) for project <project_path> could not be reached. Please ensure the iCDB Server at location <server_address> is running and you have access to it.	Issue Type: Error Configuration File: None Keys: None Description: Reports when the client cannot connect to the server.
Database Integrity Message: Error encountered reading the iCDB database for project <project_path>. Please check the log files in <server_log_dir_path> for detailed information and contact Mentor Graphics Customer Support.	Issue Type: Error Configuration File: None Keys: None Description: Reports when the database is possibly corrupt.

Table 6-4. Server Processes Diagnostics (cont.)

Diagnostic	Description
<p>Server Plug in Error</p> <p>Message: The iCDB Server for project <project_path> was not started because the plugin <plugin_name> could not be loaded. Please check the log files in <server_log_dir_path> for more information and contact your system administrator for advice.</p>	<p>Issue Type: Error</p> <p>Configuration File: None</p> <p>Keys: None</p> <p>Description: Reports when the iCDB Server cannot start because a plugin cannot be loaded. This can happen if environment variables are broken (wrong SDD_HOME, or SDD_PLATFORM) or if it cannot find libraries.</p>
<p>Auto Backup Error</p> <p>Message: The iCDB Server (<server_address>) for project <project_path> could not create a database backup in <backup_path>. Please check the log files in <server_log_dir_path> for more information and contact your systems administrator for advice.</p>	<p>Issue Type: Error</p> <p>Configuration File: None</p> <p>Keys: None</p> <p>Description: Reports when the iCDB Server cannot create an auto backup. This can happen if the client has access to the autobackup directory but the iCDB Server does not.</p>
<p>Detect Defunct Client</p> <p>Message: The iCDB Server (<server_address>) for project <project_path> has <dead_clients_count> defunct clients connected: <dead_clients>. The iCDB Server will shut down after <server_shut_down_elapsed_time>. You may use Server Manager to shut it down manually.</p>	<p>Issue Type: Warning</p> <p>Configuration File: None</p> <p>Keys: None</p> <p>Description: Reports when the iCDB Server detects dead clients. A dead client is a client that gets disconnected from the iCDB Server (for example because of network problems).</p> <p>All dead clients are kept on a list of dead/defunct clients for defined time: by default 10 minutes (600 seconds). Change this time with the ClientOffline_Sec key in the Server.cfg configuration file. If the connection is available before it times out, the iCDB Server sets this client to online-mode. If the only client connected to an iCDB Server is a dead client, the server does not stop.</p>

Table 6-4. Server Processes Diagnostics (cont.)

Diagnostic	Description
<p>Server Memory</p> <p>Messages:</p> <ul style="list-style-type: none"> • Warning: The iCDB Server (<server_address>) for project <project_path> is using <memory_usage_bytes> bytes of memory. Performance may be affected by this high memory usage. If you see this message frequently you may need to add additional system memory on the machine running the iCDB Server. • Note: The iCDB Server (<server_address>) for project <project_path> is using <memory_usage_bytes> bytes of memory. Normal operation has been restored. 	<p>Issue Type: Warning or Note.</p> <p>Configuration File: Server.cfg (On the machine running iCDBNetServer)</p> <p>Keys:</p> <p>WarningFactor (Default = 85)</p> <p>CheckInterval_MSec (Default = 1000)</p> <p>StableMargin_Percentage (Default = 10)</p> <p>Description: iCDB Server issues this warning if its memory used is greater than the percentage specified by WarningFactor. A standard deviation filter to discard extreme peaks and valleys operates similarly to the one described in Connection speed to iCDB Server diagnostic.</p>
<p>Server log file size</p> <p>Message: There are more than <log_files_size> MB of log files in project <project_path>. Please consider archiving the log files for better performance.</p>	<p>Issue Type: Warning</p> <p>Configuration File: Server.cfg (On the machine running iCDBNetServer)</p> <p>Keys: LogFilesWarningSize_MB (Default = 20)</p> <p>Description: Reports when the server log files are greater than LogFilesWarningSize_MB.</p>
<p>Database rollback size</p> <p>Message: There are <backup_snapshots_number> Designer rollback points in project <project_path>. Please consider removing some of them for better performance.</p>	<p>Issue Type: Warning</p> <p>Configuration File: Server.cfg</p> <p>Keys: DBSavepointWarningNumber (Default=200)</p> <p>Description: Reports when the number of savepoints (backups of sheets/ICTs with Designer: File > Backup) exceeds the threshold specified in the configuration file.</p>

Project Configuration Diagnostics

Problems with project configuration such as version mismatch or project location change are reported in messages.

Table 6-5. Project Configuration Diagnostics

Diagnostic	Description
<p>Client version mismatch</p> <p>Message: The application <app_name> with PID (<app_pid>) is a different version to the iCDB Server for project <project_path>. You cannot connect an iCDB Client with <version_diff_type_name> <client_version> of software to an iCDB Server with <version_diff_type_name> <server_version> of the software. Please contact your system administrator for advice.</p>	<p>Issue Type: Error</p> <p>Configuration File: None</p> <p>Keys: None</p> <p>Description: Reports when a client machine has a different version of software from the server machine.</p>
<p>Project server address change</p> <p>Message: The iCDB Server for project <project_path> was run on a different machine. Current address is <current_server_address>. Previous address was <previous_server_address>. Please verify the change was intentional.</p>	<p>Issue Type: Warning</p> <p>Configuration File: None</p> <p>Keys: None</p> <p>Description: Reports when server for the project changes. This happens when multiple users work on the project, but not at the same time. Use the Remote Server Configuration Manager to ensure that the project is configured the same for all users. It has the additional benefit of allowing multiple users to work on the project at the same time.</p>
<p>Project location change</p> <p>Message: The project location has changed. The current project path is <current_project_path>. The previous project path was <previous_project_path>. Please verify the change was intentional.</p>	<p>Issue Type: Warning</p> <p>Configuration File: None</p> <p>Keys: None</p> <p>Description: Reports when the project location changes. If the copy was not intentional and multiple users were working concurrently, the users can be confused as to which location is the correct one. Also, changing the location of the database can decrease performance.</p> <p>Note: This message also appears in a mixed-platform environment when you switch operating systems and cause a change in path format from POSIX to UNC or UNC to POSIX.</p>

Table 6-5. Project Configuration Diagnostics (cont.)

Diagnostic	Description
<p>Project RSCM change</p> <p>Message: The iCDB Server for project <project_path> was started by a different RSCM Server. The current RSCM address is <current_rscm_address>. The previous RSCM address was <previous_rscm_address>. Please verify the change was intentional.</p>	<p>Issue Type: Warning</p> <p>Configuration File: None</p> <p>Keys: None</p> <p>Description: Reports when the RSCM Server associated with the project changes. If the change was not intentional the performance can be diminished because the server would be started on different machine and the access to client or the file server could have changed.</p>
<p>Project RSCM enabled</p> <p>Message: The last project <project_path> session did not use RSCM Server. Now <rscm_address> as RSCM Server is used. Please verify the change was intentional.</p>	<p>Issue Type: Warning</p> <p>Configuration File: None</p> <p>Keys: None</p> <p>Description: Reports when an RSCM Server is detected on a project that previously was not associated with an RSCM Server. If the change was not intentional the performance could be diminished because the setup (client, server, and filer) has changed.</p>
<p>Project RSCM disabled</p> <p>Message: The last project <project_path> session used RSCM Server <rscm_address>. Now usage of RSCM Server for this project is disabled. Please verify the change was intentional.</p>	<p>Issue Type: Warning</p> <p>Configuration File: None</p> <p>Keys: None</p> <p>Description: Reports when an RSCM Server is no longer detected on a project that previously was associated with an RSCM Server.</p> <p>Any project that has at least two users working on it, whether at the same time or not, should be set up with the Remote Server Configuration Manager. This ensures the same setup (client, server, filer) for all users. It allows for predictable startup, and it eliminates problems when a user opens a project that is already opened by another user.</p>

Related Topics

[iCDB Server Monitor](#)

[iCDB Server Monitor GUI Reference](#)

Invoking iCDB Server Monitor

You can invoke iCDB Server Monitor with several methods.

Procedure



Use one of the following methods

- **Windows:**
 - **Start > All Programs > PADS <version> > System Tools > iCDB Server Monitor <version>**
 - `<mgc_home>\<release>\SDD_HOME\common\<OS>\bin\iCDBServerMonitor.exe`

iCDB Server Monitor GUI Reference

The iCDB Server Monitor GUI notifies and displays issues related to current open projects by applications on the same machine. This includes both servers and clients.

Open the GUI with a click on the iCDB Server Monitor icon in the system tray. The icon appears as follows:

-  — The iCDB Server Monitor tool is active, but detects no open projects.
-  — The iCDB Server Monitor tool is active and is currently monitoring an open project.

The GUI contains the following windows:

- **Status:** The top banner shows the current status while the list shows any active notifications.
- **Journal:** Shows the history of notifications for the current machine.
 - **Remove:** This button opens a window from which you can select a time frame to remove messages.
 - **Report:** This button opens a window from which you can generate a report in HTML, XML, or plain text formats.
- **Workspace:** Shows locally opened projects. It shows basic information about the project, the RSCM Server, and the current session.
 - **Workspace:** Show the opened projects.
 - **Information Tabs:** Shows the following information for the project selected in the Project List. None of these fields are editable.

- **General:** Shows general information about the project.
- **Connected Clients:** Shows all clients that are connected to the project. It shows the user, machine name, what time the client joined, and which application the client is using. You can expand the information on a client to show the log file entry from when the client joined. This information includes the PID.
- **Local applications:** Shows the Process ID, the application name and the path to the project, and the executable that launched the application.
- **Performance:** Shows the network connection status to from the local machine to the file server that hosts the project data and also to the RSCM Server that hosts the iCDB Server for the project.
- **Status:** Repeats the Status window as described above, but only for the selected project.
- **Journal:** Repeats the Journal window as described above, but only for the selected project.
- **Messages:** Shows public messages received from other clients or the iCDB Server Manager during the current session.

Right-click in the window to send a public message.

Right-click on a message to reply to the message.

All messages appear in the Output window of each client's application and also in each client's iCDB Server Monitor > Workspace > Messages window.

- **System information:** Shows system information that is relevant to the iCDB Server Monitor tool.
- **Settings:** Has the following sub-windows:
 - **Application:**
 - **Enable iCDB Server Monitor:** Enable/disable for each project start. Does not enable/disable the tool itself.
 - **Autostart:** Specify whether or not you want the iCDB Server Monitor tool to start automatically on boot-up and login.
 - **Keep application window always on top:** Makes the iCDB Server Monitor on top of all other applications on your desk top.
 - **Issues:**
 - **Balloon timeout (sec):** Specifies the number of seconds the balloon appears above the system tray when iCDB Server Monitor issues a notification.
 - **Schemes:** Use schemes to load custom issues notifications. There are two predefined schemes: Network issues and Performance issues. You create a

custom scheme by enabling/disabling issues and saving the settings to a named scheme to load again when needed.

- **Issues:** Enable/disable the various issues and types of issues for which you want to receive notification. See [Categories of Diagnostics](#) for details. **Note:** If you disable a diagnostic you are only turning off the balloon report. All diagnostic reports are always captured in the logs and reports.
- **Messages:** Toggles which kinds of messages you want to receive. Messages appear in your notification area or system tray. Links in messages open the iCDB Server Monitor > Workspace window to the relevant tab based on the type of message.
- **Help:** Opens online help.
- **Stop & Exit:** Stops the iCDB Server Monitor tool and closes the GUI.

Note: If you want to exit the GUI without stopping the tool, click the “X” control in the top-right corner of the GUI window.

Chapter 7

RSCM Configurator GUI Reference

Topics in the section describe reference information for the RSCM Configurator.

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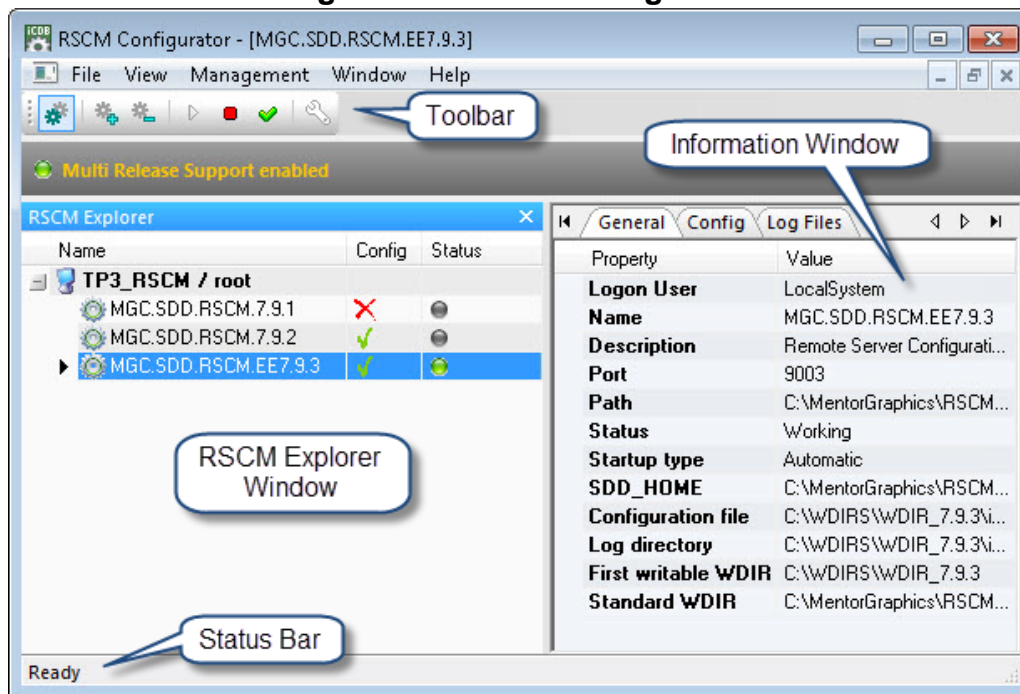
RSCM Configurator

To Access:

- **Windows: Start > All Programs > PADS <version> > System Tools > RSCM Configurator <version>**
- **Windows Command:** \<mgc_home>\<release>\SDD_HOME\common\<OS>\bin\iCDBRSCMConfigurator.exe

Use the RSCM Configurator to install, uninstall, start, stop, and edit settings for RSCM Servers. You can also configure a machine to host multiple versions of RSCM Servers in a multi-release configuration.

Figure 7-1. RSCM Configurator



Examples

In the image of the RSCM Configurator above, the software for three RSCM Servers are installed on the server machine. The Config and Status columns show that the first version of RSCM Server software is neither configured nor started. The second version is configured but not started. The third version is both configured and started.

Select each version to see its general information, contents of its [Launcher.cfg](#) file, and contents of its log files.

Related Topics

[RSCM Configurator Menus](#)

[RSCM Settings Dialog Box](#)

[Configuring the RSCM Server](#)

[Installing More than One Version of the RSCM Server on a Single Windows Machine](#)

RSCM Configurator Menus

This topic describes the menus available in the RSCM Configurator.

- [File](#)
- [View](#)

- [Management](#)
- [Window](#)
- [Help](#)

Table 7-1. RSCM Configurator File Menu Items

Menu Item	Description
Exit	Closes the RSCM Configurator application

Table 7-2. RSCM Configurator View Menu Items

Menu Item	Description
Toolbar	Toggles visibility of the toolbar.
Status Bar	Toggles visibility of the status bar.
RSCM Explorer	Toggles visibility of the RSCM Explorer window.
Output	Toggles visibility of the Output window.
Refresh	Manually refresh the content of the RSCM Explorer window and the information window. Use if the windows do not refresh automatically when you make a change to an RSCM Server.

Table 7-3. RSCM Configurator Management Menu Items

Menu Item	Description
Multi Release	Enables/disables Multi Release mode.
Install	Opens the Add RSCM Settings dialog box .
UnInstall	Uninstalls the selected RSCM Server.
Start	Starts the selected RSCM Server. It is only active if the selection is installed.
Stop	Stops the selected RSCM Server. Only active if the selected RSCM Server is started.
Edit	Opens the Edit RSCM settings dialog box from which you can edit settings for the selected RSCM Server.
Coordinator Mode On	Enables selected RSCM Server as Coordinator.
Coordinator Mode Off	Disables selected RSCM Server as Coordinator.
Add to the Coordinator	Put selected RSCM Server under Coordinator management.

Table 7-3. RSCM Configurator Management Menu Items (cont.)

Menu Item	Description
Remove from the Coordinator	Remove selected RSCM Server from Coordinator management.

Table 7-4. RSCM Configurator Window Menu Items

Menu Item	Description
Cascade	Cascades the information windows for all installed servers in the information window.
Tile	Tiles the information windows for all installed servers in the information window.
Arrange Icons	Automatically arranges information windows when they are all minimized.
<RSCM Servers>	Each installed server is in this list. Select the server from this list to select it in the RSCM Explorer window and show its information in the information window. If the RSCM Explorer window is closed, use this menu to select the contents of the information window.
System	Shows the system information in the information window.

Table 7-5. RSCM Configurator Help Menu Items

Menu Item	Description
Help	Opens help.
About	Shows version and trademark information.

RSCM Settings Dialog Box

To Access:

- **Management > Install:** The dialog box opens as the Add RSCM dialog box. After you specify the SDD_HOME path and the *WDIR* path, the other fields are enabled.
- **Management > Start** with an unconfigured RSCM Server selected: The dialog box opens as the Edit RSCM settings dialog box. Any required fields that need input are highlighted in red. You must complete configuration before the RSCM Configurator can start the RSCM Server.
- **Management > Edit** on any selected RSCM Server: The dialog box opens as the Edit RSCM settings dialog box. Change options as you desire.

Use this dialog box to set up parameters for the RSCM Configurator.

Figure 7-2. RSCM Settings Dialog Box

Edit RSCM settings

RSCM data

Name: MGC.SDD.RSCM.EEVX.2.2

SDD_HOME: C:\MentorGraphics\EEVX.2.2\SDD_HOME [Browse...]

Port: 9000 Startup type: Automatic Coordinator mode: ☐

WDIR

Writable: C:\WDIR\EEVX.2.2 [Browse]

Additional: [Empty text box]

Standard: C:\MentorGraphics\EEVX.2.2\SDD_HOME\standard

Path: C:\WDIR\EEVX.2.2;C:\MentorGraphics\EEVX.2.2\SDD_HOME\standard

[Add] [Remove] [Up] [Down]

Log on as

☒ Local System account

☐ This account: [Username field] [Browse...]

Password: [Password field]

Confirm password: [Confirm password field]

Account rights

Please make sure that selected user has read/write rights to projects which will be opened by the iCDBServer.

[OK] [Cancel]

Objects

Table 7-6. RSCM Settings Dialog Box Options


Field	Description
Name	The RSCM Configurator creates a string for this name.
SDD_HOME	Specifies the path to the SDD_HOME location of the install with the RSCM Server software.
Port	Specifies the port number for the RSCM Server
Startup type	List box with three options: <ul style="list-style-type: none">• Automatic (default): The RSCM Server will start automatically every time you power on the RSCM Server machine.• Disabled: The RSCM Server software remains installed, but does not run.• Manual: The RSCM Server will not start when you power on the RSCM Server machine until you start it manually from the RSCM Configurator.
Coordinator mode	Enables/disables RSCM Server as Coordinator.
WDIR > Writeable	Specifies path to the local <i>WDIR</i> directory.
WDIR > Additional	Specifies any additions <i>WDIR</i> paths, such as a corporate <i>WDIR</i> location.
WDIR > Standard	Shows the path to the standard <i>WDIR</i> directory in the install. This is not editable.
WDIR > Path	Shows the full <i>WDIR</i> path as defined in the <i>WDIR</i> environment variable. It is the concatenation of all <i>WDIR</i> paths specified above.
Local System account	Specifies to run the RSCM Server service with the local system account's user settings.
This account	Specifies to run the RSCM Server service with a user account other than the local system account.
Password	Password for the user account.
Confirm password	Repeat the password for the user account.
Account rights	This is a fixed message that reminds you to make sure the user account you specify has read/write permissions to the projects and you expect this RSCM Server to host.

Appendix A

Configuration File Reference

The Remote Server Configuration Manager uses several configuration files. You can set up multiple sets of configuration files to apply to different users, different projects, or different machines on your network and you can create multiple *WDIR* directories that contain configuration files with different values.

Note

 Software updates might contain new parameters or changes in default values that are not recognized unless the configuration file is updated. The best practice is to allow configuration files to be re-created with each update release then compare the new configuration file with the old one to understand the changes.

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Managing Configuration Files in Centralized WDIR Directories

The RSCM configuration files follow the general *WDIR* policy for PADS Designer support files. You can maintain a corporate set of configuration files as a template for your users. Local copies of the configuration files overwrite the values in the corporate copy.

You can lock configuration file parameters so the local copy does not overwrite the corporate copy, and you can group configuration file parameters according to users, machines on your network, and operating systems. The general *WDIR* policy is described in the [Search Path Specification \(WDIR\)](#) topic.

Procedure

1. Create a read-only directory for the corporate configuration files on a network drive accessible to your users through a UNC path.

Note: You can create multiple corporate directories for RSCM configuration files and reference them in a single *WDIR* variable, separated by a semi-colon. RSCM reads multiple corporate *WDIR* directories from right to left, overwriting parameters in that order (see Examples).

2. Copy the files from a local *WDIR* directory into your corporate directory so you can use them as a template.
3. Modify the parameters and be sure to understand how you can [lock parameters](#) and [group parameters](#) to take full advantage of the *WDIR* policy for RSCM configuration files.

Note: Only the parameters that you modify need to be in the configuration files. RSCM uses either default or local parameters for parameters that are missing from the corporate configuration files.

4. Modify the *WDIR* Environment Variable on each local machine. Use the following format:

WDIR=<local_directory>;\\server\<CorpWDIR_directory>;<SDD_HOME>/standard

- *local_directory*: The *WDIR* location set during install on the local machine.
- \\server\<CorpWDIR_directory>: Your corporate configuration file area. This directory should be read-only to preserve your control over the configuration files.
- <SDD_HOME>/standard: The install directory of the software. RSCM does not use this directory for configuration files, but the general corporate *WDIR* policy requires it for other tools.

Examples

This example shows how to use multiple corporate *WDIR* directories to manage configuration file parameters.

The *WDIR* environment variable is set as follows:

WDIR=c:\WDIR;\\server\corp_WDIR_1;\\server\corp_WDIR_2;\\server\corp_WDIR_3;c:\MentorGraphics\7.9EE\SDD_HOME\standard

The non-default contents of the four Server.cfg file are shown below in the order that RSCM applies the settings (it is reversed from the environment variable assignment):

\\server\corp_WDIR_3\iCDB\Server\Server.cfg contains the following parameters:

```
[Logging]
Level = 2

[Network]
PortRange* = 10500,10600
```

\\server\corp_WDIR_2\iCDB\Server\Server.cfg contains the following parameters:

```
[Network]
PortRange = 10000,10100

[System]
AutoBackupSupport = no
```

\\server\corp_WDIR_1\iCDB\Server\Server.cfg contains the following parameters:

```
[Logging]
Level = 5
```

c:\WDIR\iCDB\Server\Server.cfg contains the following parameters:

```
[System]
AutoBackupSupport = yes
```

RSCM applies configuration settings from all locations in the following order, overwriting any existing values:

1. \\server\corp_WDIR_3
2. \\server\corp_WDIR_2
3. \\server\corp_WDIR_1
4. c:\WDIR

So the latest set value wins. In other words, except for locked values, entries in local *WDIR* are the most important, and entries in corp_WDIR_3 are least important.

In this case the effective settings are:

```
[Logging]
Level = 5 ; (Set to 2 in corp_WDIR_3, but overwritten in corp_WDIR_1)

[Network]
PortRange* = 10500,10600 ; (set and LOCKED (*) in corp_WDIR_3, so the
different value set in corp_WDIR_2 is discarded)

[System]
AutoBackupSupport = yes ; (set to "no" in corp_WDIR_2, but overwritten
with "yes" in local WDIR)
```

Related Topics

[Locking Centralized Configuration File Parameters](#)

[Grouping Centralized Configuration File Parameters](#)

Locking Centralized Configuration File Parameters

In some cases, you might want to keep users from changing corporate configuration files in their local *WDIR* area.

For instance, Server Manager provides administrative tools, such as killing servers and defragmenting a project's database, that you want to limit most users from being able to run. While you can set permissions for using these tools in the *ServerManager.cfg* file (see [Setting Permissions for Server Manager Tasks](#)), a user can overwrite those permission settings at the local *WDIR* copy of the configuration file.

To make sure local *WDIR* configuration files do not overwrite critical parameters, you can lock those parameters in your corporate *WDIR* configuration files with an asterisk (*) after the parameter name.

For example, `KillServer* = no` set in a corporate configuration file disallows any user who has a *WDIR* environment variable pointing to that corporate configuration file from overwriting the `KillServer` permission in the local *WDIR* configuration file.

Related Topics

[Managing Configuration Files in Centralized WDIR Directories](#)

Grouping Centralized Configuration File Parameters

When you want to assign parameter values differently for sets of users, sets of machines on your network, or according to machines with specific operating systems, you could create a unique corporate *WDIR* directory for each scenario and modify the local *WDIR* environment variable accordingly. But an easier way to maintain these groups of parameters is to use the special grouping statements that RSCM understands.

Grouping statements define sets of conditions which must be met to apply the associated configuration entries. Condition statements are set of with curly brackets {condition1, condition2, condition3, ... , conditionN}.

Example of a grouping statement:

```
{all}
[Logging]
Level = 1

{unix}
[System]
TimeStampCheck* = no
```

In the first grouping statement, all logging levels are set to 1, regardless of the user, machine, or operating system. In the second grouping statement, the TimeStampCheck parameter is set to “no” for all UNIX machines. Notice this parameter is locked so this parameter cannot be changed at a local *WDIR* level. See [Locking Centralized Configuration File Parameters](#) for more information about locking parameters.

Guidelines to help you understand and use grouping statements:

- All configuration parameters that follow a grouping statement (until another grouping statement appears) belong to that group.
- Grouping statements do not allow nesting groups: RSCM evaluates statements in order of appearance in the configuration file.
- Combine conditions in a grouping statement (separating them with a comma) to “and” them together.
- All conditions in the grouping statement must be met to satisfy a grouping statement and apply the configuration parameters to that group.
- Configuration parameters that appear before the first grouping statement, apply to all groups.
- The same configuration parameter can appear in multiple groups. If an end user’s machine belongs to multiple groups, and more than one of those groups contain the

same configuration parameter, RSCM uses the value that last appeared in the configuration file.

- You can view the effective Server configuration (*Server.cfg*) parameter values for any project's iCDB Server in Server Manager. View a project in Server Manager and expand the Settings tree for that project in the left-hand window. The contents of the Server configuration file appear in the Properties window (**View > Properties**).
- Configuration groups cannot contain configuration parameters without the section name. The section name is the heading of a section of parameters that is surrounded by square brackets, such as [Logging].

Grouping Statement Conditions

The following list shows the conditions you can use to create grouping statements:

Table A-1. Grouping Statement Conditions

Condition	Description	Example
windows	True on all Windows platforms	{ windows } [Logging] Level = 3;
solaris	True on all Solaris platforms	{ solaris } [Logging] Level = 1
client	True for client applications (such as PADS Designer, CES, and PADS Layout).	{ client } [Logging] Level = 5
server	True on server processes (such as iCDB Server, and RSCM Server).	{ server } [Logging] Level = 1
machines:	True on any machine in the list (separate multiple machines with spaces).	{ machines: win-abc-def-10 win-abc-def-11 } [System] AutoBackupSupport = no
users:	True for any user whose name is on the list (separate multiple machines with spaces).	{ users: jsmith fdoe gbrady } [Permissions] KillServer* = no
all	Special Condition: suppresses all other conditions. Forces the condition to always be met.	{ all } [Logging] Level = 1

Table A-1. Grouping Statement Conditions (cont.)

Condition	Description	Example
continue	Special Condition: Causes the next grouping statement to be evaluated after applying the current configuration group. This is the default configuration behavior.	{continue, machines: win-abc-def-10} [System] TimeStampCheck* = no {users: jsmith fdoe} [Permissions] DefragmentDatabase* = no
stop	Special Condition: If this grouping statement's conditions are met, no more grouping statements are considered. Any following grouping statements are ignored. (In the example, if the user is jsmith, then use the first mapping and stop. All other users get the global mapping.)	{unix, users: jsmith, stop} /home/pcb1 \\server\homes\pcb1 {unix} /mnt/global/share \\global\share

Related Topics

[Managing Configuration Files in Centralized WDIR Directories](#)

Server.cfg Configuration File

Generated by: RSCM Server

This configuration file is located at %WDIR%\iCDB\Server\Server.cfg. It controls functions like server logging, network connection settings, plug-in locations, and other server parameter settings.

The *Server.cfg* file is automatically generated for the first time when you open a project. It shows default settings, however they are commented out. If you want to change a default within the file, uncomment the line by removing the “;” and change the value. The next time the project is opened the database server will use your new settings.

Format

This file must conform to the following syntax restrictions:


- Only one keyword per line.
- All keyword values must appear on the same line as the keyword name.
- Keyword names must begin in the first column of the line.
- Lines starting with a semicolon (;) are treated as comments.

Parameters

[Example A-1](#) identifies default settings and provides links to a brief description of each.

Examples

Note

 If you make extensive changes to this file, you should back it up in another location. If your iCDB folder is removed or updated, the file you modified could be lost as a new one overwrites it. You should also compare the settings in the new file with those in your saved file before you replace it with your modified file, as new settings that might not be compatible.

Example A-1. Server.cfg Default Setting Example

```
[EventLog]
; Active = yes
; AvgEventSize = 400
; MaxQuantity = 10000
; MinQuantity = 9000

[FilerAccessMonitor]
; AbsoluteRating= yes
; Active = yes
; CheckInterval_MSec = 1000
; CriticalAccessFactor = 100
; CriticalAccessTime_USec = 30000
; RelativeRating = no
; SlowAccessFactor = 10
; SlowAccessTime_USec = 10000
; StableMargin_Percentage = 20

[Logging]
; DBCheckLogFilesArchiveSizeLimit_MB = 5
; DBCheckLogFilesSizeLimit_MB = 10
; DBRestoreLogFilesArchiveSizeLimit_MB = 5
; DBRestoreLogFilesSizeLimit_MB = 10
; DBUpgradeLogFilesArchiveSizeLimit_MB = 10
; DBUpgradeLogFilesSizeLimit_MB = 20
; Expire_Days = 7
; ForcedExpireCount = 100
; Level = 1
; LogFilesWarningSize_MB = 20
; NoExpireCount = 12
; ObjStateTxtLogActive = no
; PIMBALogFilesArchiveSizeLimit_MB = 5
; PIMBALogFilesSizeLimit_MB = 10
; PIMFALogFilesArchiveSizeLimit_MB = 5
; PIMFALogFilesSizeLimit_MB = 10
; ServerLogFilesArchiveSizeLimit_MB = 50
; ServerPermanentLogFilesArchiveSizeLimit_MB = 1
; ServerPermanentLogFilesSizeLimit_MB = 2

[Network]
; Address =
; MaxClientQueueLength = 128
; PortRange = 10000,10100
; ServerManagerUDPPort = 10000
; ServerUDPPort = 10000

[Plugins]
; ConsDefLoaderActive = yes
; ConsDefLoaderFileName = ConsDefLoader70.dll
; ConsDefLoaderName = ConsDefLoader70
; ENetGenActive = yes
; ENetGenFileName = ENetGen70.dll
; ENetGenName = ENetGen70
; PIMActive = yes
; PIMFileName = PIM.dll
; PIMName = PIM
```

```
; Path =

[System]
; AutoBackupSupport = yes
; DBCheckAfterUpgradeOnlyAsWarning = no
; DBCheckOnShutdown = no
; DBCheckOnStartup = no
; DBCheckOnUpgrade = yes
; DBDefragmentOnShutdown = yes
; DBInternalBackupFilesArchiveSizeLimit_MB = 100
; DBSavepointWarningNumber = 200
; DBSynchronousIO = yes
; DatabaseAutoRepairSupport = no
; DebugMode = no
; EventPollingMode = auto
; PercentageStorageSaveTime = 5
; SafeMode = no
; ServerManagerSupport = yes
; ServerMonitorSupport = yes
; SingleUserMode = auto
; UnloadStorageAfterRead = auto

[SystemMemoryMonitor]
; Active = yes
; CheckInterval_MSec = 300
; StableMargin_Percentage = 10
; WarningFactor = 85

[Timeouts]
; AcceptNewConnection_USec = 100000
; BetweenDuplicatedCommands_USec = 100000
; BetweenPingReceive_Sec = 10
; ClientOffline_Sec = 600
; CreatingServerProperties_MSec = 20000
; InitReceiveCommand_Sec = 10
; ReadingServerProperties_MSec = 10000
; ReceiveBroadcast_USec = 100000
; ReceiveCommand_USec = 100000
; ServerAutoCloseWithoutAnyClientEver_Sec = 10
; ServerAutoClose_Sec = 1

[Times]
; BetweenCheckProjectAccess_MSec = 1000
; BetweenCheckStats_MSec = 100
; BetweenCheckStorageSave_MSec = 1000
; BetweenPingSend_Sec = 5
; BetweenStorageSave_Sec = 5
; ClientManagerMainLoopSleep_MSec = 100
; FileCreationMargin_Sec = 1
```

Related Topics

[Configuration File Parameter Descriptions](#)

[Managing Configuration Files in Centralized WDIR Directories](#)

Client.cfg Configuration File

Input for: All applications using Client-Server Configuration Manager clients.

The configuration file for the server is located at %WDIR%\iCDB\Client\Client.cfg, where %WDIR% is the first writable directory from WDIR environmental variable.

The *Client.cfg* file is per machine for all applications using Client-Server Configuration Manager clients. If the file does not exist or there are some missing settings, the Client-Server Configuration Manager client uses the defaults.

Format

This file must conform to the following syntax restrictions:

- Only one keyword per line.
- All keyword values must appear on the same line as the keyword name.
- Keyword names must begin in the first column of the line.
- Lines starting with a semicolon (;) are treated as comments.

Parameters

[Example A-2](#) identifies default settings and provides links to a brief description of each.

Examples

Note



If you make extensive changes to this file, you should back it up in another location. If your iCDB folder is removed or updated, the file you modified could be lost as a new one overwrites it. You should also compare the settings in the new file with those in your saved file before you replace it with your modified file, as new settings that might not be compatible.

Example A-2. Client.cfg Default Setting Example

```
[Logging]
; Expire_Days = 7
; ForcedExpireCount = 100
; Level = 1
; NoExpireCount = 12

[Network]

[Plugins]
; ConsDefLoaderActive = yes
; ConsDefLoaderFileName = ConsDefLoader70.dll
; ConsDefLoaderName = ConsDefLoader70
; Path =

[System]
; DBCheckAfterUpgradeOnlyAsWarning = no
; DBCheckOnUpgrade = yes
; DebugMode = no
; LauncherAddress =
; SafeMode = no
; ServerMonitorSupport = yes
; ServerPath =
; TimeStampCheck = yes

[Timeouts]
; BetweenReceive_Sec = 15
; CheckingServerRootPathAccess = 20000
; CreatingServerProperties_MSec = 40000
; ReadingServerProperties_MSec = 10000
; ReceiveCommand_USec = 100000
; Receive_Sec = 3600
; ServerConnectionCheck_Sec = 10

[Times]
; BetweenPingSend_Sec = 5
; BetweenServerTouchAddressFile_MSec = 250
; BetweenSnapshotSaveCommand_Sec = 1
; ClientAliveSleep_MSec = 500
; ExecuteMainLoopSleep_MSec = 1
; FileCreationMargin_Sec = 1
; NotifyQueueEmptySleep_MSec = 100
; ReceiveWaitForOnLineSleep_MSec = 10
; ServerAliveWaitStep_MSec = 100
; ServerAliveWait_MSec = 30000
; StampMargin_Sec = 10
; ThreadsDisconnectSleep_MSec = 1000
```

Related Topics

[Configuration File Parameter Descriptions](#)

[Managing Configuration Files in Centralized WDIR Directories](#)

Launcher.cfg Configuration File

Input for: Machines that run the service (daemon).

Launcher.cfg is used only on machines that run the service (daemon). The configuration file for the server is located at %WDIR%\iCDB\Launcher\Launcher.cfg, where %WDIR% is the first writable directory from WDIR environmental variable.

If *Launcher.cfg* does not exist or there are some missing settings, the Client-Server Configuration Manager launcher uses the defaults.

Format

This file must conform to the following syntax restrictions:

- Only one keyword per line.
- All keyword values must appear on the same line as the keyword name.
- Keyword names must begin in the first column of the line.
- Lines starting with a semicolon (;) are treated as comments.

Parameters

[Example A-3](#) identifies default settings and provides links to a brief description of each.

Examples

Note



If you make extensive changes to this file, you should back it up in another location. If your iCDB folder is removed or updated, the file you modified could be lost as a new one overwrites it. You should also compare the settings in the new file with those in your saved file before you replace it with your modified file, as new settings that might not be compatible.

Example A-3. Launcher.cfg Configuration File Example

```
[Logging]
; Expire_Days = 7
; ForcedExpireCount = 100
; Level = 1
; NoExpireCount = 12

[Network]
; Address =
; LauncherUDPPort = 10000
; MaxConnectionQueueLength = 128
; Port = 9000
; ServerManagerUDPPort = 10000

[System]
; DebugMode = no
; ProxyMode = no
; ServerManagerSupport = yes
; ServerMonitorSupport = yes
; ServerPath =

[Time]
; FileCreationMargin_Sec = 1
; ProxyManagerMainLoopSleep_MSec = 100
; ServerAliveWait_MSec = 30000

[Timeouts]
; AcceptNewConnection_USec = 100000
; BetweenDuplicatedCommands_USec = 100000
; CheckingServerRootPathAccess = 20000
; InitReceiveCommand_Sec = 10
; ReadingServerProperties_MSec = 10000
; ReceiveCommand_USec = 100000
; WaitingProjectAvailable_MSec = 10000
```

Related Topics

[Configuration File Parameter Descriptions](#)

[Managing Configuration Files in Centralized WDIR Directories](#)

ProjectBackup.cfg Configuration File

Input for: iCDB Project Backup

This configuration file is located at %WDIR%\iCDB\ProjectBackup. It contains the configuration settings for the iCDB Project Backup tool, including settings for how to create, store, and manage log files. *ProjectBackup.cfg* also contains settings for managing client-specific permissions for various Project Backup tasks.

You can set a default *ProjectBackup.cfg* file to be applied to a template by placing the configuration file in a directory with the same name as the template, under the template's directory, as follows:

Template: \$WDIR\templates\dxdesigner\pads\<template_name>.prj

ProjectBackup.cfg: \$WDIR\templates\dxdesigner\pads\<template_name>\ProjectBackup\ProjectBackup.cfg

Note

 By placing your template and *ProjectBackup.cfg* file under the \$WDIR directory, you can control your *ProjectBackup.cfg* file at a corporate or group level. See [Managing Configuration Files in Centralized WDIR Directories](#).

Format

This file must conform to the following syntax restrictions:


- Only one keyword per line.
- All keyword values must appear on the same line as the keyword name.
- Keyword names must begin in the first column of the line.
- Lines starting with a semicolon (;) are treated as comments.

Parameters

[Example A-4](#) identifies default settings and provides links to a brief description of each.

Examples

Note

 If you make extensive changes to this file, you should back it up in another location. If your iCDB folder is removed or updated, the file you modified could be lost as a new one overwrites it. You should also compare the settings in the new file with those in your saved file before you replace it with your modified file, as new settings that might not be compatible.

Example A-4. ProjectBackup.cfg Default Setting Example

```
[Logging]
; Expire_Days = 7
; ForcedExpireCount = 100
; Level = 1
; NoExpireCount = 12
[Network]
; DiagPortRange = 10000,10100
[Permissions]
; ActivateDeactivate = no
; BackupsSettings = yes
; CleanUp = yes
; CreateSupportPackage = yes
; LogSizeSettings = yes
; RemoveSystemBackup = no
; RemoveUpgradeBackup = no
; RemoveUserBackup = yes
; RepairProject = yes
; RequestUserBackup = yes
; RestoreBackup = yes
; RestoreBackupToNewLocation = yes
; SendMessage = yes
; SetBackupPersistent = yes
; SystemBackupsSettings = no
; UpgradeBackupsSettings = no
; UserBackupsSettings = yes
; VerifyBackup = yes
```

Related Topics

[iCDB Project Backup](#)

[Configuration File Parameter Descriptions](#)

[Managing Configuration Files in Centralized WDIR Directories](#)

ServerManager.cfg Configuration File

Input for: iCDB Server Manager

This file contains the configuration settings for the iCDB Server Manager. It is located in *%WDIR%\iCDB\ServerManager*. The contents of the *ServerManager.cfg* file appear in the Settings section of each server's information tree grouped according to the same headers as appears in the file.

Format

This file must conform to the following syntax restrictions:

- Only one keyword per line.
- All keyword values must appear on the same line as the keyword name.
- Keyword names must begin in the first column of the line.
- Lines starting with a semicolon (;) are treated as comments.

Parameters

[Example A-5](#) identifies default settings and provides links to a brief description of each.

Examples

Note



If you make extensive changes to this file, you should back it up in another location. If your iCDB folder is removed or updated, the file you modified could be lost as a new one overwrites it. You should also compare the settings in the new file with those in your saved file before you replace it with your modified file, as new settings that might not be compatible.

Example A-5. ServerManager.cfg Default Setting Example

```
[Logging]
; Expire_Days = 7
; ForcedExpireCount = 100
; Level = 1
; NoExpireCount = 12

[Network]
; Address =
; LauncherUDPPort = 10000
; MaxClientQueueLength = 128
; MonitorRSCMs =
; PortRange = 10000,10100
; ServerManagerUDPPort = 10000
; ServerUDPPort = 10000

[Permissions]
; ChangeServerConfiguration = yes
; DefragmentDatabase = yes
; DiagCheckDatabase = yes
; DiagPorts = yes
; DiagRSCM = yes
; DisconnectClient = yes
; KillServer = no
; SendMessage = yes
; ShutdownServer = yes
; ViewServer = yes

[System]
; DebugMode = no
; ServerPath =

[Time]
; BetweenPingSend_Sec = 10
; FileCreationMargin_Sec = 1
; MonitorSleep_MSec = 100
; ServerAliveWait_MSec = 30000

[Timeouts]
; AcceptNewConnection_USec = 100000
; BetweenDuplicatedCommands_USec = 100000
; BetweenReceive_Sec = 30
; CheckingServerRootPathAccess = 20000
; InitReceiveCommand_Sec = 10
; ReadingServerProperties_MSec = 10000
; ReceiveBroadcast_USec = 100000
; ReceiveCommand_USec = 100000
; RequestReply_Sec = 60
```

Related Topics

[Configuration File Parameter Descriptions](#)

[Managing Configuration Files in Centralized WDIR Directories](#)

ServerMonitor.cfg Configuration File

Input for: iCDB Server Monitor

This file contains the configuration settings for the iCDB Server Monitor tool. It is located in *%WDIR%\iCDB\ServerMonitor*.

Format

This file must conform to the following syntax restrictions:

- Only one keyword per line.
- All keyword values must appear on the same line as the keyword name.
- Keyword names must begin in the first column of the line.
- Lines starting with a semicolon (;) are treated as comments.

Parameters

[Example A-6](#) identifies default settings and provides links to a brief description of each.

Examples

Note



If you make extensive changes to this file, you should back it up in another location. If your iCDB folder is removed or updated, the file you modified could be lost as a new one overwrites it. You should also compare the settings in the new file with those in your saved file before you replace it with your modified file, as new settings that might not be compatible.

Example A-6. ServerMonitor.cfg Default Setting Example

```
[FilerAccessMonitor]
; AbsoluteRating = yes
; Active = yes
; CheckInterval_MSec = 1000
; CriticalAccessFactor = 100
; CriticalAccessTime_USec = 200000
; RelativeRating = no
; SlowAccessFactor = 10
; SlowAccessTime_USec = 100000

[Logging]
; Expire_Days = 7
; ForcedExpireCount = 100
; Level = 1
; NoExpireCount = 12

[Network]
; Address =
; LauncherUDPPort = 10000
; MaxClientQueueLength = 128
; PortRange = 10000,10100
; ServerManagerUDPPort = 10000
; ServerUDPPort = 10000

[ServerMonitor]
; Active = yes
; CriticalPingTime_USec = 200000
; PingInterval_MSec = 1000
; SlowPingTime_USec = 100000
; StableMargin_Percentage = 10

[System]
; DebugMode = no
; ServerPath =

[Time]
; BetweenPingSend_Sec = 10
; FileCreationMargin_Sec = 1
; MonitorSleep_MSec = 100
; RefreshAppName_MSec = 1000
; ServerAliveWait_MSec = 30000

[Timeouts]
; AcceptNewConnection_USec = 10000
; BetweenDuplicatedCommands_USec = 100000
; BetweenReceive_Sec = 30
; InitReceiveCommand_Sec = 10
; ReadingServerProperties_MSec = 10000
; ReceiveBroadcast_USec = 10000
; ReceiveCommand_USec = 10000
; RequestReply_Sec = 60
```

Related Topics

[iCDB Server Monitor](#)

Configuration File Parameter Descriptions

Managing Configuration Files in Centralized WDIR Directories

Configuration File Parameter Descriptions

This topic provides information on the configuration file parameters. It includes which files include the parameters, which sections of those files, the default values, and description.

AbsoluteRating

Files: Server

Section: [FilerAccessMonitor]

Default: AbsoluteRating = yes

Description: Specifies whether or not to rate the speed to file server (from either the client or server) according to the absolute access time to the iCDB database folder.

Used for both the “Connection speed to File Server” and the “iCDB server connection speed to project filer” diagnostics. See [Table 6-2](#) for more information.

AcceptNewConnection_USec

Files: Server, Launcher, ServerManager, ServerMonitor

Section: [Timeouts]

Default: AcceptNewConnection_USec = 10000

Description: An internal switch for debugging.

ActivateDeactivate

Files: ProjectBackup

Section: [Permissions]

Default: ActivateDeactivate = no

Description: Specifies whether or not the client has permission to toggle the Enable backups check box in the [Backup Settings Dialog Box](#).

Active

Files: Server and ServerMonitor

Section: [FilerAccessMonitor], [SystemMemoryMonitor], and [EventLog]

Default: active = yes

Description: An internal switch for debugging.

Address

Files: Server, Launcher, ServerManager, ServerMonitor

Section: [Network]

Default: No default

Description: Network address (either the machine name or IP) used to listen for incoming TCP/IP client connections.

AutoBackupSupport

Files: Server

Section: [System]

Default: AutoBackupSupport = yes

Description: Toggles auto-backup functionality. When disabled, no auto-backups are created. See the topic, [iCDB Project Backup](#), for more information.

AvgEventSize

Files: Server

Section: [EventLog]

Default: AvgEventSize = 400

Description: An internal switch for debugging.

BackupsSettings

Files: ProjectBackup

Section: [Permissions]

Default: BackupsSettings = yes

Description: Specifies whether or not the user on the client machine can access the [Backup Settings Dialog Box](#) to make changes to the Backup settings.

BetweenCheckProjectAccess_MSec

Files: Server

Section: [Times]

Default: BetweenCheckProjectAccess_MSec = 1000

Description: Time interval (in milliseconds) between checking server address file access. Detects network connection issues with the project file server. If you have slow file servers, consider increasing this time.

BetweenCheckStats_MSec

Files: Server

Section: [Times]

Default: BetweenCheckStats_MSec = 100

Description: An internal switch for debugging.

BetweenCheckStorageSave_MSec

Files: Server

Section: [Times]

Default: BetweenCheckStorageSave_MSec = 1000

Description: Used to change the frequency (specified in milliseconds) of the check storage save procedure.

BetweenDuplicatedCommands_USec

Files: Server, Launcher, ServerManager, ServerMonitor

Section: [Times]

Default: BetweenDuplicatedCommands_USec = 100000

Description: An internal switch for debugging.

BetweenPingReceive_Sec

Files: Server

Section: [Timeouts]

Default: BetweenPingReceive_Sec = 10

Description: Used to set the timeout (specified in seconds) while determining if the connection with a client exists.

BetweenPingSend_Sec

Files: Server, Client, ServerManager, ServerMonitor

Section: [Time]

Default: BetweenPingSend_Sec = 5 (For Server and Client)

BetweenPingSend_Sec = 10 (For ServerManager and ServerMonitor)

Description: Used to change the frequency (specified in seconds) of sending PING commands to clients.

BetweenReceive_Sec

Files: Client, ServerManager, ServerMonitor

Section: [Timeouts]

Default: BetweenReceive_Sec = 30

Description: Sets the timeout between two successive commands (including PINGs) received from the server. After this timeout the client assumes server problems have occurred.

BetweenServerTouchAddressFile_MSec

Files: Client

Section: [Times]

Default: BetweenServerTouchAddressFile_MSec = 250

Description: An internal switch for debugging.

BetweenSnapshotSaveCommand_Sec

Files: Client

Description: No longer used.

BetweenStorageSave_Sec

Files: Server

Section: [Times]

Default: BetweenStorageSave_Sec = 5

Description: Used to change the timeout (specified in seconds) of when changed files will be flushed to the disk.

ChangeServerConfiguration

Files: ServerManager

Section: [Permissions]

Default: ChangeServerConfiguration = yes

Description: Specifies whether or not the user of the local machine has permission to change the server configuration in Server Manager.

CheckingServerRootPathAccess

Files: Client, Launcher, ServerManager

Section: [Timeouts]

Default: CheckingServerRootPathAccess = 20000

Description: Specifies a period of time (in milliseconds) that the client tries to check if the server has write permission to the server's root directory in a project.

CheckInterval_MSec

Files: Server, ServerMonitor

Section: In Server, appears in both [FilerAccessMonitor] and [SystemMemoryMonitor]

In ServerMonitor, appears in [FilerAccessMonitor]

Default: In [FilerAccessMonitor], default is CheckInterval_MSec = 1000

In [SystemMemoryMonitor], default is CheckInterval_MSec = 300

Description: Sets the frequency of sending “file stat” commands to test the access time between the iCDB client and File Server or between the iCDB Server and File Server.

Used for both the “Connection speed to File Server” and the “iCDB server connection speed to project filer” diagnostics. See [Table 6-2](#) for more information.

CleanUp

Files: ProjectBackup

Section: [Permissions]

Default: CleanUp = yes

Description: Specifies whether or not this client has permission to run **Project > Clean up**. The menu item is grayed out if no.

ClientAliveSleep_MSec

Files: Client

Section: [Times]

Default: ClientAliveSleep_MSec = 500

Description: An internal switch for debugging.

ClientManagerMainLoopSleep_MSec

Files: Server

Section: [Times]

Default: ClientManagerMainLoopSleep_MSec = 100

Description: An internal switch for debugging.

ClientOffline_Sec

Files: Server

Section: [Timeouts]

Default: ClientOffline_Sec = 600

Description: Used to control the time (in seconds) after which an offline client (disconnected improperly) will be removed from server client list.

ConsDefLoaderActive

Files: Server, Client

Section: [Plugins]

Default: ConsDefLoaderActive = yes

Description: Enable/disable the constraint definition loader plug-in.

ConsDefLoaderFileName

Files: Server, Client

Section: [Plugins]

Default: ConsDefLoaderFileName = ConsDefLoader70.dll

Description: Specifies the file name of the library used for this plug-in.

ConsDefLoaderName

Files: Server, Client

Section: [Plugins]

Default: ConsDefLoaderName = ConsDefLoader70

Description: Specifies the name of the plug-in; this appears in the log file.

CreateSupportPackage

Files: ProjectBackup

Section: [Permissions]

Default: CreateSupportPackage = yes

Description: Specifies whether or not this client has permission to run **Project > Create support package**. The menu item is grayed out if no.

CreatingServerProperties_MSec

Files: Server, Client

Section: [Timeouts]

Default: CreatingServerProperties_MSec = 20000

Description: Timeout (in milliseconds) for creating server address file. In the event of a slow project file server, you can increase this time.

CriticalAccessFactor

Files: Server, ServerMonitor

Section: [FilerAccessMonitor]

Default: CriticalAccessFactor = 100

Description: Sets the threshold that prompts a warning when the calculated access time to the File Server exceeds this time and RelativeRating is enabled.

Used for both the “Connection speed to File Server” and the “iCDB server connection speed to project filer” diagnostics. See [Categories of Diagnostics](#) for more information.

CriticalAccessTime_USec

Files: Server, ServerMonitor

Section: [FilerAccessMonitor]

Default: CriticalAccessTime_USec = 30000

Description: Sets the threshold that prompts a warning when the calculated access time to the File Server exceeds this time and AbsoluteRating is enabled.

Used for both the “Connection speed to File Server” and the “iCDB server connection speed to project filer” diagnostics. See [Table 6-2](#) for more information.

CriticalPingTime_USec

Files: ServerMonitor

Section: [ServerMonitor]

Default: CriticalPingTime_USec = 200000

Description: Sets the threshold that prompts a warning when the calculated access time from the iCDB Client to the iCDB Server exceeds this time.

Used for the “Connection speed to iCDB Server” diagnostic. See [Categories of Diagnostics](#) for more information.

DatabaseAutoRepairSupport

Files: Server

Section: [System]

Default: DatabaseAutoRepairSupport = yes

Description: If the database loses connection with the file server, then the next server session will try to repair the database. If this is disabled, the server will not try to repair the database on the next session.

DBCheckAfterUpgradeOnlyAsWarning

Files: Server, Client

Section: [System]

Default: DBCheckAfterUpgradeOnlyAsWarning = no

Description: Specifies to treat all errors found during iCDB internal database check as warnings.

DBCheckLogFilesArchiveSizeLimit_MB

Files: Server

Section: [Logging]

Default: DBCheckLogFilesArchiveSizeLimit_MB = 5

Description: Specifies the maximum size for check log files.

DBCheckLogFilesSizeLimit_MB

Files: Server

Section: [Logging]

Default: DBCheckLogFilesSizeLimit_MB = 10

Description: Specifies the maximum size for the log file when the Server checks the database.

DBCheckOnShutdown

Files: Server

Section: [System]

Default: DBCheckOnShutdown = no

Description: Specifies whether or not to run iCDB internal database check on every server shutdown.

DBCheckOnStartup

Files: Server

Section: [System]

Default: DBCheckOnStartup = no

Description: Specifies whether or not to run iCDB internal database check on every server startup.

DBCheckOnUpgrade

Files: Server, Client

Section: [System]

Default: DBCheckOnUpgrade = yes

Description: Specifies whether or not to run iCDB internal database check after every iCDB database upgrade.

DBDefragmentOnShutdown

Files: Server

Section: [System]

Default: DBDefragmentOnShutdown = yes

Description: Specifies whether or not to defragment the iCDB database file (if needed at all) on server shutdown. iCDB database file defragmentation helps provide optimal performance.

DBInternalBackupFilesArchiveSizeLimit_MB

Files: Server

Section: [System]

Default: DBInternalBackupFilesArchiveSizeLimit_MB = 100

Description: Specifies the maximum size for the database's internal backup files.

DBRestoreLogFilesArchiveSizeLimit_MB

Files: Server

Section: [Logging]

Default: DBRestoreLogFilesArchiveSizeLimit_MB = 5

Description: Specifies the maximum size for restore log files.

DBRestoreLogFilesSizeLimit_MB

Files: Server

Section: [Logging]

Default: DBRestoreLogFilesArchiveSizeLimit_MB = 10

Description: Specifies the maximum size for the Server's restore log files.

DBSavepointWarningNumber

Files: Server

Section: [System]

Default: DBSavepointWarningNumber = 200

Description: Specifies threshold at which the Server Monitor issues a warning that the number of save points exceeds this threshold. Toggle this feature in the Server Monitor's Settings section. See [Database rollback size](#).

DBSynchronousIO

Files: Server

Section: [System]

Default: DBSynchronousIO = yes

Description: Specifies whether the database is open for synchronous I/O.

DBUpgradeLogFilesArchiveSizeLimit_MB

Files: Server

Section: [Logging]

Default: DBUpgradeLogFilesArchiveSizeLimit_MB = 10

Description: Specifies the maximum size for upgrade log files.

DBUpgradeLogFilesSizeLimit_MB

Files: Server

Section: [Logging]

Default: DBUpgradeLogFilesSizeLimit_MB = 20

Description: Specifies the maximum size for the Server's upgrade log files.

DebugMode

Files: Server, Client, Launcher, ServerManager, ServerMonitor

Section: [System]

Default: DebugMode = no

Description: Enables/disables debug mode.

DefragmentDatabase

Files: ServerManager

Section: [Permissions]

Default: DefragmentDatabase = yes

Description: Specifies whether or not the users of the local machine have permission to defragment the database from Server Manager.

DiagCheckDatabase

Files: ServerManager

Section: [Permissions]

Default: DiagCheckDatabase = yes

Description: Specifies whether or not the users of the local machine have permission to check the database from Server Manager (**Server Manager: Tools > Diagnostics > Check database**).

DiagPorts

Files: ServerManager

Section: [Permissions]

Default: DiagPorts = yes

Description: Specifies whether or not the users of the local machine have permission to run the ports diagnostic in Server Manager (**Server Manager: Tools > Diagnostics > Ports**).

DiagPortRange

Files: ProjectBackup

Section: [Network]

Default: DiagPortRange = 10000,10100

Description: Specifies the range of network TCP/IP port numbers that the Server Monitor listens to for incoming connections.

DiagRSCM

Files: ServerManager

Section: [Permissions]

Default: DiagRSCM = yes

Description: Specifies whether or not the users of the local machine have permission to run the RSCM diagnostic in Server Manager (**Server Manager: Tools > Diagnostics > RSCM**).

DisconnectClient

Files: ServerManager

Section: [Permissions]

Default: DisconnectClient = yes

Description: Specifies whether or not the users of the local machine have permission to disconnect a client in Server Manager.

ENetGenActive

Files: Server

Section: [Plugins]

Default: ENetGenActive = yes

Description: Enables/disables this plugin.

ENetGenFileName

Files: Server

Section: [Plugins]

Default: ENetGenFileName = ENetGen70.dll

Description: Specifies the name of the file name of the library used for this plug-in

ENetGenName

Files: Server

Section: [Plugins]

Default: ENetGenName = yes

Description: Specifies the name of the plug-in; this appears in the log file.

EventPollingMode

Files: Server

Section: [System]

Default: EventPollingMode = auto

Description: An internal switch for debugging.

ExecuteMainLoopSleep_MSec

Files: Client

Section: [Times]

Default: ExecuteMainLoopSleep_MSec = 1

Description: Specifies the name of the plug-in; this appears in the log file.

Expire_Days

Files: Server, Client, Launcher, ProjectBackup, ServerManager, ServerMonitor

Section: [Logging]

Default: Expire_Days = 7

Description: Sets the time (in days) after which the server log files will be deleted. The creation date of the file is used for the comparison. If the value is set to 0, the server log files are never deleted.

FileCreationMargin_Sec

Files: Server, Client, Launcher, ServerManager, ServerMonitor

Section: [Times]

Default: FileCreationMargin_Sec = 1

Description: Maximum allowed time difference (in seconds) between the system time on the server machine and file creation time on the file server when saving the server address file. In event of a slow file server (or incorrect real time clock settings) you can increase this time.

ForcedExpireCount

Files: Server, Client, Launcher, ProjectBackup, ServerManager, ServerMonitor

Section: [Logging]

Default: ForcedExpireCount = 100

Description: Sets the maximum number of log files even if they have not reached the number of days specified in [Expire_Days](#).

InitReceiveCommand_Sec

Files: Server, Launcher, ServerManager, ServerMonitor

Section: [Timeouts]

Default: InitReceiveCommand_Sec = 10

Description: Sets the timeout (in seconds) for determining that a failure occurred when receiving an initialization command from a client.

InWDIR

Files: Launcher

Section: [Logging]

Default: InWDIR = yes

Description: For Linux/UNIX only. If set to “yes,” the logging information is stored in *WDIR* instead of the system logs. (Windows stores the logging information in *WDIR* by default.)

KillServer

Files: ServerManager

Section: [Permissions]

Default: KillServer = no

Description: Specifies whether or not the users of the local machine have permission to kill a server in Server Manager.

LauncherAddress

Files: Client

Section: [System]

Default: No default

Description: Overrides RSCM address settings for all opened projects. This forces clients to use the one specified.

LauncherUDPPort

Files: Launcher, ServerManager, ServerMonitor

Section: [Network]

Default: LauncherUDPPort = 10000

Description: Specifies the network UDP port number used by the Remote Server Configuration Manager.

Level

Files: Server, Client, Launcher, ProjectBackup, ServerManager, ServerMonitor

Section: [Logging]

Default: Level = 1

Description: In general, the higher log level provides more information. Each level provides the information provided by the lower levels plus new information. Specifically, the levels provide the following information:

- 0 - Logs all errors

- 1 - (Default) Level 0 information plus the following:
 - Logs all errors and warnings.
 - Monitors key iCDB activity.
- 2 - Level 1 information plus the following:
 - Monitors iCDB threads lifetime.
 - Monitors each client connection status on the server.
 - Detailed information about rejected client connections.
 - Monitors plug-in lifetime on the server.
- 3 - Level 2 information plus the following:
 - Monitors iCDB infrastructure objects lifetime.
 - Information about rejected LOCKs by the iCDB Server.
 - Information about removing a snapshot from memory cache by the iCDB Server.
 - Information about begin/commit/rollback of each transaction on the client.
 - Information about found drive mapping.
- 4 - Level 3 information plus the following:
 - Detailed information about client session status.
 - Detailed information about iCDB threads finish.
 - Monitors notify command queue on the client.
 - Monitors notify commands on the client.
 - Monitors client commands on the server.
- 5 - Level 4 information plus the following:
 - Detailed information about each client command.
 - Detailed information about each server command.
 - Detailed information about each event on the client.
 - Monitors client connection process to the server.
 - Monitors snapshot memory cache on the server.
- 6 - Level 5 information plus the following:
 - Monitors iCDB physical storage file operations.
 - Monitors notify waiting queue on the client.

- Monitors snapshot reference counting on the server.
- Detailed information about access rights to project path by the Server Manager.
- 7 - Level 6 information plus the following:
 - Monitors network package sending on the server.

LogFilesWarningSize_MB

Files: Server

Section: [Logging]

Default: LogFilesWarningSize_MB = 20

Description: Sets the threshold at which an iCDB Server Monitor warning appears when the log file exceeds this many MegaBytes.

Used for the “Server log file size” diagnostic. See [Table 6-4](#) for more information.

LogSizeSettings

Files: ProjectBackup

Section: [Permissions]

Default: LogSizeSettings = yes

Description: Specifies whether or not this client has permission to change the log size settings in the **Backup > Settings** dialog box.

MaxClientQueueLength

Files: Server, ServerManager, ServerMonitor

Section: [Network]

Default: MaxClientQueueLength = 128

Description: Sets the maximum length of the queue of the pending TCP/IP connections.

MaxConnectionQueueLength

Files: Launcher

Section: [Network]

Default: MaxClientQueueLength = 128

Description: Sets the maximum length of the queue of the pending TCP/IP connections.

MaxQuantity

Files: Server

Section: [EventLog]

Default: MaxQuantity = 10000

Description: An internal switch for debugging.

MinQuantity

Files: Server

Section: [EventLog]

Default: MinQuantity = 9000

Description: An internal switch for debugging.

MonitorRSCMs

Files: ServerManager

Section: [Network]

Default: MonitorSleep_MSec =

Description: A list of machine names or IP addresses outside the local subnet that you want to view in the Server Manager. See [Viewing an iCDB Server Outside the Local Subnet](#).

MonitorSleep_MSec

Files: ServerManager, ServerMonitor

Section: [Time]

Default: MonitorSleep_MSec = 100

Description: An internal switch for debugging.

NoExpireCount

Files: Server, Client, Launcher, ProjectBackup, ServerManager, ServerMonitor

Section: [Logging]

Default: NoExpireCount = 12

Description: Sets the minimum number of log files to keep even if they exceed the number of days specified in [Expire_Days](#).

NotifyQueueEmptySleep_MSec

Files: Client

Section: [Times]

Default: NotifyQueueEmptySleep_MSec = 100

Description: An internal switch for debugging.

ObjStateTxtLogActive

Files: Server

Section: [Logging]

Default: ObjStateTxtLogActive = no

Description: An internal switch for debugging.

Path

Files: Server, Client

Section: [Plugins]

Default: No default

Description: Specifies the path to the plugins.

PathTranslatorConfigFile

Files: Launcher

Section: [System]

Default: No default

Description: Specifies the path to the PathsMap.cfg file.

PercentageStorageSaveTime

Files: Server

Section: [System]

Default: PercentageStorageSaveTime = 10

Description: Specifies the maximum percentage of execution time the server can spend when saving a project to the disk drive.

PIMActive

Files: Server

Section: [Plugins]

Default: PIMActive = yes

Description: Enables/disables this plug-in.

PIMBLogFilesArchiveSizeLimit_MB

Files: Server

Section: [Logging]

Default: PIMBLogFilesArchiveSizeLimit_MB = 5

Description: Specifies the maximum size for back annotation log files.

PIMBLogFilesSizeLimit_MB

Files: Server

Section: [Logging]

Default: PIMBLogFilesSizeLimit_MB = 10

Description: Specifies the maximum size for back annotation log files. File names appear as follows: *BA_2012_09-30_17.43.16.log*

PIMFLogFilesArchiveSizeLimit_MB

Files: Server

Section: [Logging]

Default: PIMFLogFilesArchiveSizeLimit_MB = 5

Description: Specifies the maximum size for forward annotation log files.

PIMFALogFileSizeLimit_MB

Files: Server

Section: [Logging]

Default: PIMFALogFileSizeLimit_MB = 10

Description: Specifies the maximum size for back annotation log files. File names appear as follows: *FA_2012_09-30_17.43.16.log*

PIMFileName

Files: Server

Section: [Plugins]

Default: PIMFileName = PIM.dll

Description: Specifies the file name of the library for this plug-in.

PIMName

Files: Server

Section: [Plugins]

Default: PIMName = PIM

Description: Specifies the name of the plug-in; this appears in the log file.

PingInterval_MSec

Files: ServerMonitor

Section: [ServerMonitor]

Default: PingInterval_MSec = 1000

Description: Sets the frequency at which the iCDB Client pings the iCDB Server to test for access time to the iCDB Server.

Used for the “Connection speed to iCDB Server” diagnostic. See [Categories of Diagnostics](#) for more information.

Port

Files: Launcher

Section: [Network]

Default: Port = 9000

Description: Specifies the network TCP/IP port number on which the RSCM process listens for incoming client connections.

PortRange

Files: Server, ServerManager, ServerMonitor

Section: [Network]

Default: PortRange = 10000, 10100

Description: Specifies the range of network TCP/IP port numbers allowed within which the server process can listen for incoming client connections.

ProxyManagerMainLoopSleep_MSec

Files: Launcher

Section: [Times]

Default: ProxyManagerMainLoopSleep_MSec = 100

Description: An internal switch for debugging.

ProxyMode

Files: Launcher

Section: [System]

Default: ProxyMode = no

Description: Specifies whether or not RSCM should work in proxy mode. In this mode all client/server connections are made through RSCM TCP/IP port, so clients do not need direct access to server port range. ProxyMode does degrade overall performance.

ReadingServerProperties_MSec

Files: Server, Client, Launcher, ServerManager, ServerMonitor

Section: [Timeouts]

Default: ReadingServerProperties_MSec = 10000

Description: Timeout (in milliseconds) for reading server address file. In the event of a slow project file server, you can increase this time.

Receive_Sec

Files: Client

Section: [Timeouts]

Default: Receive_Sec = 3600

Description: Sets the timeout for receiving a single command from the server.

ReceiveBroadcast_USec

Files: Server, ServerManager, ServerMonitor

Section: [Timeouts]

Default: ReceiveBroadcast_USec = 10000

Description: An internal switch for debugging.

ReceiveCommand_USec

Files: Server, Client, Launcher, ServerManager, ServerMonitor

Section: [Timeouts]

Default: ReceiveCommand_USec = 10000

Description: An internal switch for debugging.

ReceiveWaitForOnLineSleep_MSec

Files: Client

Section: [Times]

Default: ReceiveWaitForOnLineSleep_MSec = 10

Description: An internal switch for debugging.

RefreshAppName_MSec

Files: ServerMonitor

Section: [Times]

Default: RefreshAppName_MSec = 1000

Description: An internal switch for debugging.

RelativeRating

Files: Server, ServerMonitor

Section: [FilerAccessMonitor]

Default: RelativeRating = no

Description: Specifies whether or not to rate the speed to file server (from either the client or server) according to the relative ratio between the access time to the iCDB database folder and the access time to a temporary folder on the local system.

Used for both the “Connection speed to File Server” and the “iCDB server connection speed to project filer” diagnostics. See [Table 6-2](#) for more information.

RemoveSystemBackup

Files: ProjectBackup

Section: [Permissions]

Default: RemoveSystemBackup = no

Description: Specifies whether or not this client has permission to remove backups created by the system’s auto backup .

RemoveUpgradeBackup

Files: ProjectBackup

Section: [Permissions]

Default: RemoveUpgradeBackup = no

Description: Specifies whether or not this client has permission to remove backups created when the project is opened in a new version of software.

RemoveUserBackup

Files: ProjectBackup

Section: [Permissions]

Default: RemoveUserBackup = yes

Description: Specifies whether or not this client has permission to remove backups that this client creates with the iCDB Project Backup tool.

RepairProject

Files: ProjectBackup

Section: [Permissions]

Default: RepairProject = yes

Description: Specifies whether or not this client has permission to run **Project > Repair**. The menu item is grayed out if no.

RequestReply_Sec

Files: ServerManager, ServerMonitor

Section: [Timeouts]

Default: RequestReply_Sec = 60

Description: An internal switch for debugging.

RequestUserBackup

Files: ProjectBackup

Section: [Permissions]

Default: RequestUserBackup = yes

Description: Specifies whether or not this client has permission to run **Backup > Create backup**. The menu item is grayed out if no.

RestoreBackup

Files: ProjectBackup

Section: [Permissions]

Default: RestoreBackup = yes

Description: Specifies whether or not this client has permission to restore backups. The **Backup > Restore backup**, and its accompanying toolbar icon, are grayed out when this is set to “no”.

RestoreBackupToNewLocation

Files: ProjectBackup

Section: [Permissions]

Default: RestoreBackupToNewLocation = yes

Description: Specifies whether or not the user of the client machine has permission to toggle the Restore to new location check box in the Restore Backup dialog box. See [Restoring a Backup](#).

SafeMode

Files: Server, Client

Section: [System]

Default: SafeMode = no

Description: When set to “yes,” the server launches without plug-ins.

SendMessage

Files: ServerManager, ProjectBackup

Section: [Permissions]

Default: SendMessage = yes

Description: Specifies whether or not the users of the local machine have permission to send messages in Server Manager (**Server Manager: Tools > Send message**) or ProjectBackup (**ProjectBackup: Connected Clients Window > Send message to connected clients icon**).



ServerAliveWait_MSec

Files: Client, Launcher, ServerManager, ServerMonitor

Section: [Times]

Default: ServerAliveWait_MSec = 30000

Description: Specifies the waiting time between starting the server and being ready to accept client connections.

ServerAliveWaitStep_MSec

Files: Client

Section: [Times]

Default: ServerAliveWaitStep_MSec = 100

Description: An internal switch for debugging.

ServerAutoClose_Sec

Files: Server

Section: [Timeouts]

Default: ServerAutoClose_Sec = 1

Description: Specifies the timeout (in seconds) after which the server starts the closing procedure when there are no clients left.

ServerAutoCloseWithoutAnyClientEver_Sec

Files: Server

Section: [Timeouts]

Default: ServerAutoCloseWithoutAnyClientEver_Sec = 10

Description: Specifies the timeout (in seconds) after which the server starts the closing procedure after no clients are found.

ServerConnectionCheck_Sec

Files: Client

Section: [Timeouts]

Default: ServerConnectionCheck_Sec = 10

Description: Time interval (in seconds) for checking network connection between client and server for user activity.

ServerLogFilesArchiveSizeLimit_MB

Files: Server

Section: [Logging]

Default: ServerLogFilesArchiveSizeLimit_MB = 50

Description: Specifies the maximum size for server log files.

ServerManagerSupport

Files: Server, Launcher

Section: [System]

Default: ServerManagerSupport = yes

Description: Specifies whether or not the server supports iCDB Server Manager functionality.

ServerManagerUDPPort

Files: Server, Launcher, ServerManager, ServerMonitor

Section: [Network]

Default: ServerManagerUDPPort = 10000

Description: Specifies the network UDP port number for the iCDB Server Manager.

ServerMonitorSupport

Files: Server, Client, Launcher

Section: [System]

Default: ServerMonitorSupport = yes

Description: Specifies whether or not the server supports iCDB Server Monitor functionality

ServerPath

Files: Client, Launcher, ServerManager, ServerMonitor

Section: [System]

Default: No default

Description: Specifies the pathname to the server if it is in a non-standard directory.

ServerPermanentLogFilesArchiveSizeLimit_MB

Files: Server

Section: [Logging]

Default: ServerPermanentLogFilesArchiveSizeLimit_MB = 1

Description: Specifies the maximum size for the server's permanent log files.

ServerPermanentLogFileSizeLimit_MB

Files: Server

Section: [Logging]

Default: ServerPermanentLogFileSizeLimit_MB = 2

Description: Specifies the maximum size for the Server's permanent log files.

ServerUDPPort

Files: Server, ServerManager, ServerMonitor

Section: [Network]

Default: ServerUDPPort = 10000

Description: Specifies the network UDP port number for the iCDB Server.

SetBackupPersistent

Files: ProjectBackup

Section: [Permissions]

Default: SetBackupPersistent = yes

Description: Specifies whether or not this client has permission to set a backup as Persistent with **Backup > Persistent**. The menu item is grayed out if no.

ShutdownServer

Files: ServerManager

Section: [Permissions]

Default: ShutdownServer = yes

Description: Specifies whether or not the users of the local machine have permission to shut down a server in Server Manager (**Server Manager: Tools > Shutdown server**).

SingleUserMode

Files: Server

Section: [System]

Default: SingleUserMode = auto

Description: An internal switch for debugging.

Description: By default (SingleUserMode = auto) concurrent design requires you to specify an RSCM Server for a project.

Setting this entry to “yes” disregards any RSCM Server settings and disallows concurrent design. Only one user at a time can open the project.

Setting this entry to “no” allows all clients (even from different machines) to connect to a project concurrently, and it ignores any RSCM server settings for the project (the project’s iCDB Server runs on the local machine that first opens the project).

You should not change this setting from the default value except in rare cases where you have a clear and specific reason for doing so or you are instructed to do so by your Mentor Graphics customer support representative. You should always use an RSCM Server for concurrent design.

Arguments: [yes/no/auto]

SlowAccessFactor

Files: Server, ServerMonitor

Section: [FilerAccessMonitor]

Default: SlowAccessFactor = 10

Description: Sets the threshold that prompts an error when the calculated access time to the File Server exceeds this time and RelativeRating is enabled.

Used for both the “Connection speed to File Server” and the “iCDB server connection speed to project filer” diagnostics. See [Table 6-2](#) for more information.

SlowAccessTime_USec

Files: Server, ServerMonitor

Section: [FilerAccessMonitor]

Default: SlowAccessTime_USec = 10000

Description: Sets the threshold that prompts an error when the calculated access time to the File Server exceeds this time and AbsoluteRating is enabled.

Used for both the “Connection speed to File Server” and the “iCDB server connection speed to project filer” diagnostics. See [Table 6-2](#) for more information.

SlowPingTime_USec

Files: ServerMonitor

Section: [ServerMonitor]

Default: SlowPingTime_USec = 100000

Description: Sets the threshold that prompts an error when the calculated access time from the iCDB Client to the iCDB Server exceeds this time.

Used for the “Connection speed to iCDB Server” diagnostic. See [Categories of Diagnostics](#) for more information.

StableMargin_Percentage

Files: Server, ServerMonitor

Section: [FilerAccessMonitor] and [SystemMemoryMonitor]

Default: StableMargin_Percentage = 20 (in [FilerAccessMonitor])

StableMargin_Percentage = 10 (in [SystemMemoryMonitor])

Description: Specifies the threshold for the standard deviation of connection speed measurements. If the standard deviation exceeds this threshold, the samples that exceed one sigma are removed and the average is recalculated. Notice that the default StableMargin_Percentage for FilerAccessMonitor is 20 percent while for SystemMemoryMonitor it is 10 percent. Notice the same key exists in two different sections of the configuration file. See [Categories of Diagnostics](#) for more information on the SystemMemoryMonitor use of StableMargin_Percentage. See [Table 6-2](#) for more information on the FilerAccessMonitor use of StableMargin_Percentage.

StampMargin_Sec

Files: Client

Section: [Times]

Default: StampMargin_Sec = 10

Description: Maximum allowed time difference (in seconds), when saving database file, between the system time on server machine and file time stamps on file server. In the event of a slow file server (or incorrect real time clock settings), you can increase this time.

SystemBackupsSettings

Files: ProjectBackup

Section: [Permissions]

Default: SystemBackupsSettings = no

Description: Specifies whether or not the client has permission to change the settings for the System backups. See [Backup Settings Dialog Box](#) for a list of System backups.

ThreadsDisconnectSleep_MSec

Files: Client

Section: [Times]

Default: ThreadsDisconnectSleep_MSec = 1000

Description: An internal switch for debugging.

TimeStampCheck

Files: Client

Section: [System]

Default: TimeStampCheck = yes

Description: Specifies whether or not to check the iCDB database file time stamps. Checking iCDB database time stamps ensures proper database management.

UnloadStorageAfterRead

Files: Server

Section: [System]

Default: UnloadStorageAfterRead = auto

Description: iCDB server runs at optimal overall performance when it places the entire database content in memory, or it can preserve memory by unloading some of the stored data (the unloaded data is accessed across the file system when needed). By default, the server decides whether or not to unload data based on file server access times. In case of slow project file server you can set it to “no” to make sure the data remains in memory.

Arguments: [yes/no/auto]

UpgradeBackupsSettings

Files: ProjectBackup

Section: [Permissions]

Default: UpgradeBackupsSettings = no

Description: Specifies whether or not the client has permission to change the settings for the Upgrade backups. See [Backup Settings Dialog Box](#) for a list of Upgrade backups.

UserBackupsSettings

Files: ProjectBackup

Section: [Permissions]

Default: UserBackupsSettings = yes

Description: Specifies whether or not the client has permission to change the settings for the User backups. See [Backup Settings Dialog Box](#) for a list of User backups.

VerifyBackup

Files: ProjectBackup

Section: [Permissions]

Default: VerifyBackup = yes

Description: Specifies whether or not this client has permission to verify backups. The **Backup > Verify backup**, and its accompanying toolbar icon, are grayed out when this is set to “no”.

ViewServer

Files: ServerManager

Section: [Permissions]

Default: ViewServer = yes

Description: Specifies whether or not the users of the local machine have permission to view servers from Server Manager (**Server Manager: Tools > View server**).

WaitingProjectAvailable_MSec

Files: Launcher

Section: [Timeouts]

Default: WaitingProjectAvailable_MSec = 10000

Description: Specifies a period of time during which the RSCM Server continues to try to find a file created by a client but has not yet been made visible on the file system. The problem arises when the file system does not refresh its file list faster than the client reports to the RSCM Server that a new file exists. If the RSCM Server cannot find the file, it continues to seek it for the amount of time specified in this parameter.

WarningFactor

Files: Server

Section: [SystemMemoryMonitor]

Default: WarningFactor = 85

Description: Sets the threshold (by percentage) beyond which the iCDB Server Monitor issues a warning that the system is using too much memory.

Used for the “Server Memory” diagnostic. See [Table 6-4](#) for more information.

Related Topics

[Managing Configuration Files in Centralized WDIR Directories](#)

Appendix B

iCDB Command Line Tool Reference

The iCDB command line tool (iCDBCmdLine.exe) lets you execute common iCDB administration operations from the command line.

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iCDBCmdLine Tool

OS: Windows and Linux

iCDBCmdLine.exe is a command line tool that executes specific operations in the database, RSCM configurator, and server monitor modules. Operations include installing, uninstalling, starting and stopping an RSCM service, listing installed RSCM services, showing the status of a service, generating a server monitor report, and updating the database to the current version.

Usage

Windows:

```
<MentorGraphics-root>\SDD_HOME\common\<OS>\bin> iCDBCmdLine <module_name>  
<command>
```


Linux:

```
[<MentorGraphics-root>/SDD_HOME/common/<OS>/bin>]# ./iCDBCmdLine  
<module_name> <command>
```

Arguments


- Modules — (Required) iCDBCmdLine requires one of the following modules:
 - database
 - rscm_configurator
 - server_monitor

Note

 If an iCDB tool is not installed, then its corresponding module will not be available in the iCDBCmdLine tool. For example, if iCDB Server Monitor is not installed, the server_monitor module will not be available in the iCDBCmdLine tool.

- Commands — (Required) iCDBCmdLine requires one of the following commands listed for the given module:

Note

 You can use either the full command or its shortcut. For example, use the command **is_update_needed**, or substitute the shortcut **n**. See the Examples section.

- database: See [Table B-1](#) for database commands.

Table B-1. Database Commands and Arguments for the iCDBCmdLine Tool

Command	Arguments	Description
s, get_list_snapshots	<path_to_database_folder>	Returns names of all snapshots in the database.
n, is_update_needed	<path_to_database_folder>	Check if the database needs to be upgraded to the current version.

Table B-1. Database Commands and Arguments for the iCDBCmdLine Tool

Command	Arguments	Description
u, update	<path_to_database_folder>	Update the database to the current version.

- o rscm_configurator: See [Table B-2](#) for RSCM configurator commands.

Table B-2. RSCM Configurator Commands and Arguments for the iCDBCmdLine Tool

Command	Arguments	Description
m, addsub	<service_name> ¹	Add RSCM Service to the Coordinator.
c, -change	-sdd_home <sdd_home>, -port <port>, -wdir <wdir>	Reconfigure the RSCM Service settings.
g, config	<service_name>	Show the RSCM Service configuration details.
dc, delcoordinator	None	Turn off Coordinator mode on the RSCM Service.
ds, delsub	<service_name>	Remove RSCM Services from the Coordinator.
gc, getcoordinator	None	Get an RSCM coordinator.
k, getsubs	None	Get a list of RSCM Services managed by Coordinator.
i, install	-sdd_home <sdd_home>, -port <port>, -wdir <wdir>	Install the RSCM Service.
l, list	None	Show the list of installed RSCM Services.
f, mrsoff	None	Turn off Multi Release Support.
n, mrson	<mrs_config_file_folder>	Turn on Multi Release Support.
sc, setcoordinator	<service_name>	Set the RSCM Service into Coordinator mode.
t, start	<service_name>	Start the RSCM Service.
s, status	<service_name>	Return the status of the RSCM Service.
p, stop	<service_name>	Stop the RSCM Service.
u, uninstall	<service_name>	Uninstall the RSCM Service.

1. <service_name> can be long (MGC.SDD.RSCM.EEVX.2.6) or short (EEVX.2.6)

- o server_monitor: See [Table B-3](#) for server monitor commands.

Table B-3. Server Monitor Commands and Arguments for the iCDBCmdLine Tool

Command	Arguments	Description
g, generate_report	<path_to_report>	Generate an iCDB Server Monitor report.

Description

To show the list of available modules, type the following:

```
iCDBCmdLine help
```

To show the list of commands for a specific module, type the following:

```
iCDBCmdLine help <module_name>
```

To get help for a specific command, type the following:

```
iCDBCmdLine help <module_name> <command>
```

Examples

The following are examples of the install, start, list, status, report, stop, and uninstall commands:

```
C:\MentorGraphics\EEVX.2.6\SDD_HOME\common\win64\bin>iCDBCmdLine
rscm_configurator install -sdd_home "C:\MentorGraphics\EEVX.2.6\SDD_HOME"
-port 9000 -wdir "C:\WDIR\EEVX.2.5\EEVX.2.6"
Installing service.
MGC.SDD.RSCM.EEVX.2.6; Service install requested.
MGC.SDD.RSCM.EEVX.2.6; Service installed successfully
RSCM [MGC.SDD.RSCM.EEVX.2.6] has been installed
```

```
C:\MentorGraphics\EEVX.2.6\SDD_HOME\common\win64\bin>iCDBCmdLine
rscm_configurator start MGC.SDD.RSCM.EEVX.2.6
MGC.SDD.RSCM.EEVX.2.6; start requested
MGC.SDD.RSCM.EEVX.2.6; Service has started successfully
RSCM [MGC.SDD.RSCM.EEVX.2.6] has been started.
```

```
C:\MentorGraphics\EEVX.2.6\SDD_HOME\common\win64\bin>iCDBCmdLine
rscm_configurator list
MGC.SDD.RSCM.EEVX.2.6
```

```
C:\MentorGraphics\EEVX.2.6\SDD_HOME\common\win64\bin>iCDBCmdLine
rscm_configurator status MGC.SDD.RSCM.EEVX.2.6
NAME: MGC.SDD.RSCM.EEVX.2.6
STATUS: Working
```

```
C:\MentorGraphics\EEVX.2.6\SDD_HOME\common\win64\bin>iCDBCmdLine
server_monitor gen_report "C:\users\tnelson\downloads\test.html"
The report has been generated: file[C:\users\tnelson\downloads\test.html]
```

```
C:\MentorGraphics\EEVX.2.6\SDD_HOME\common\win64\bin>iCDBCmdLine
rscm_configurator stop MGC.SDD.RSCM.EEVX.2.6
Service stop requested
MGC.SDD.RSCM.EEVX.2.6; Service has stopped successfully
RSCM [MGC.SDD.RSCM.EEVX.2.6] has been stopped.

C:\MentorGraphics\EEVX.2.6\SDD_HOME\common\win64\bin>iCDBCmdLine
rscm_configurator u MGC.SDD.RSCM.EEVX.2.6
Service remove requested
Service removed successfully
MGC.SDD.RSCM.EEVX.2.6; has been uninstalled.
RSCM [MGC.SDD.RSCM.EEVX.2.6] has been uninstalled.
```


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