



IBM Software Group

SW5706 Installation Wizard Hangs



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Case 2: Installation wizard hangs

After completing this topic, you will be able to:

- Recognize symptoms of installation wizard hangs
- Locate the relevant log files
- Collect problem determination data

This section of the module deals with hangs during the installation wizard. After this section, you will be able to recognize the symptoms of a hung installation wizard, locate the relevant log files, and collect the data that is pertinent for problem determination.

Case 2: Installation wizard hangs

- During installation, a progress indicator is displayed to show how far the install has progressed
 - ▶ No change in the indicator for a very long time could be a hang
 - ▶ Use a system monitor to verify a hang
- Reasons that the install process might hang include the following:
 - ▶ Very low on resources such as virtual memory or swap space
 - ▶ Heavy network traffic or network breakdown
 - ▶ A task or thread has gone into an infinite wait or loop

The installation wizard displays a progress indicator during the install process to give you feedback on the installation. There are numerous components that need to be created for WebSphere Application Server to fully install so it is not out of the ordinary for the progress indicator to move slowly and occasionally appear as though it has stopped. Because of this, we recommend you open a system monitor, such as the Windows Task Manager, to monitor the CPU utilization of the installation process. This will help you determine when the installation wizard is actually hung.

If the installation wizard does hang then there are a few causes that occur much more often than others and so they are usually the best place to start. Foremost, make sure the system has enough resources to handle the installation task. This includes the hardware requirements of WebSphere Application as well as ensuring there is enough space in the operating system's temp directory. Make sure there are at least 100Mb of space to begin with. When installing from a network, network traffic can often slow down the installation process and cause it to hang, timeout, or at least appear as though it is hung. A comprehensive system monitor will help determine if the network bandwidth is a problem. Finally, custom scripts may include accidental loops that never escape and force the installation wizard to hang.

Case 2: Data to collect for installation hangs

- If the installation hangs, check
 - ▶ `<WAS_install_root>/logs/log.txt`

- If the installer fails at a very early stage, then this log file might not be created or it might exist in the system temporary area, which is
 - ▶ `%TEMP%\log.txt` in Windows
 - ▶ `/tmp/log.txt` in UNIX.

Once you believe the installation wizard is hung, you should check the log dot txt file found in the logs folder under the WebSphere Install directory. Occasionally, when the installer hangs at a very early point in the installation process, the log dot txt file will be found in the operating system's temporary directory. In either case, the log file contains the most information about the progress of the installation wizard and the point at which it stopped. Furthermore, you can periodically check the log file to verify if the process is actually hung or if the progress indicator is simply progressing extremely slowly.

Case 2: What to look for if installation hangs

- Check for status messages such as
 - ▶ INSTCONFSUCCESS
 - ▶ INSTCONFPARTIALSUCCESS
 - ▶ INSTCONFFAILED
- Look for *error* or *warning* messages
 - ▶ check other system activities such as
 - CPU utilization
 - hard disk usage
 - Or any network activity (if installing remotely)
- If the installation *does* appear to be hung, look for the last recorded message in the log file
 - ▶ This message gives you an idea of what the installer was doing before it hung

There are several messages that may be logged in the installation wizard's log file. The ones that you should be concerned with are the messages that begin with INSTCONF. These messages indicated the success, partial success, and failure of an installation step. If you do find a partial success or failure, you should check the previous log messages for errors or warnings that may explain why the installation wizard could not progress forward. The last message in the logs is also very important because, if the installation wizard is actually hung, the last message will show you what step the installation wizard was executing when it became hung.

Case 2: Identify which process failed (1 of 2)

- Prerequisites check
 - ▶ Check system for a supported operating system
 - ▶ Check operating system for appropriate service packs and patches
- Check for existing WebSphere Application Server products
- Install Core product files
 - ▶ Create installation directory
 - ▶ Extract contents of install media
 - ▶ Create uninstaller
 - ▶ Copy files from installation media to installation directory (file copy process)
 - ▶ Configure components

There are three main steps where the installation wizard is most likely to hang. The first step verifies that the system meets the necessary prerequisites for WebSphere Application Server. If the installation process hangs during the prerequisite check there is actually another log that will contain more detailed information about which prerequisite was not met. The prerequisite check logs its progress in the Operating System's temporary directory in the IBM_WebSphere_launchpad folder. The file is named WASPC_check dot out and may be appended by the check number, meaning the number of checks that have been performed.

The next step is a check for existing WebSphere Application Server products. This check is not as likely to hang the installation wizard but can be complicated by incomplete uninstalls of previous WebSphere Application Server environments.

Finally, the installation wizard will begin the arduous process of installing the core product files. There are numerous sub-steps involved in installing the core product files, each of which is listed. It is important to check the log file to determine exactly where the hang occurred and what is likely to have caused the problem.

Case 2: Identify which process failed (2 of 2)

- Determine if errors occurred during the *Copy files and Configure Components* steps
 - ▶ Look in *log.txt* for an entry such as the following:
(<Date and time stamp>), Install,
com.ibm.ws.install.ni.ismp.actions.
ISMPConfigManagerLaunchAction, msg1, INSTCONFSUCCESS:
Post-installation configuration is successful
- If you see this message, the file copy and configuration process has completed successfully
- If not, inspect the messages in the log for an indication of the error

The last two parts of installing the core product files are the ones where the most problems seem to occur. Those are the Copy files step and the Configure Components step. You can verify that both of these steps have completed properly by opening the log dot txt file and looking for a message like the one you see in the slide. If you see the INSTCONFSUCCESS flag associated with the ISMPConfigManagerLaunchAction, then you know the process completed as intended. Otherwise, you do not have a properly configured WebSphere Application Server and should start looking for warning signs in the log files.

Recovering from a failed or hung installation (1 of 2)

- Depending on the state of your system when an installation fails or hangs, you might need to uninstall WebSphere Application Server manually before you retry the process
- The uninstaller program may leave some files that can prevent you from reinstalling into the original directory
 - ▶ Delete files and registry entries to *clean* the machine so that you can reinstall into any directory

Some failed installations cannot be recovered and in those cases it is best to uninstall WebSphere Application Server, resolve the problem, and try again. In this case, it is important that you return to a clean machine before trying to reinstall the product. The uninstaller that comes with WebSphere Application Server will leave behind the directory structure and the log files but those files need to be removed before the system is considered clean. You can back up the log files if necessary, but be certain to delete the directory structure and anything inside it.

Recovering from a failed or hung installation (2 of 2)

- If possible, issue the uninstall command:
`<app_server_root>_uninst\uninstall`
- If the install fails/hangs before the uninstaller is created, the process of uninstalling is more complex including the following steps:
 - ▶ Backing up and editing the registry on Windows
 - ▶ Deleting the installation root directory
 - ▶ Editing/deleting the *vpd.properties* file (Windows)
- Refer to the Information Center documented procedures
- Platform-specific instructions can be found at:
 - ▶ http://publib.boulder.ibm.com/infocenter/wasinfo/v6r0/index.jsp?topic=/com.ibm.websphere.nd.doc/info/ae/ae/tins_uninstman.html

Ideally, you want start the uninstall process by using the uninstall utility found in the `_uninst` folder in the base WebSphere Application Server directory. However, it is possible for the installer to stop before the uninstall utility is created. In this case, the steps required to return to a clean machine depend on the operating system you are using. Your best bet for successfully uninstalling is to refer to the Information Center to read the documented procedures for your platform. The URL for WebSphere Application Server version 6.0 uninstall manual is provided on the slide.

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