

MSC Licensing 11.9

User's Guide

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Preface

- Technical Support
- Internet Resources

Technical Support

For technical support phone numbers and contact information, please visit:

<http://www.mscsoftware.com/Contents/Services/Technical-Support/Contact-Technical-Support.aspx>

Support Center (<http://simcompanion.mscsoftware.com>)

Support Online. The Support Center provides technical articles, frequently asked questions and documentation from a single location.

Internet Resources

MSC.Software (www.mscsoftware.com)

MSC.Software corporate site with information on the latest events, products and services for the CAD/CAE/CAM marketplace.

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Installing MSC Licensing

- Installing the MSC License Server
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- License Server Specifications
- License Server Diagnostics (MSC Nastran Only)
- ENH Usage Records (Enhanced Logging Initiative)

Installing the MSC License Server

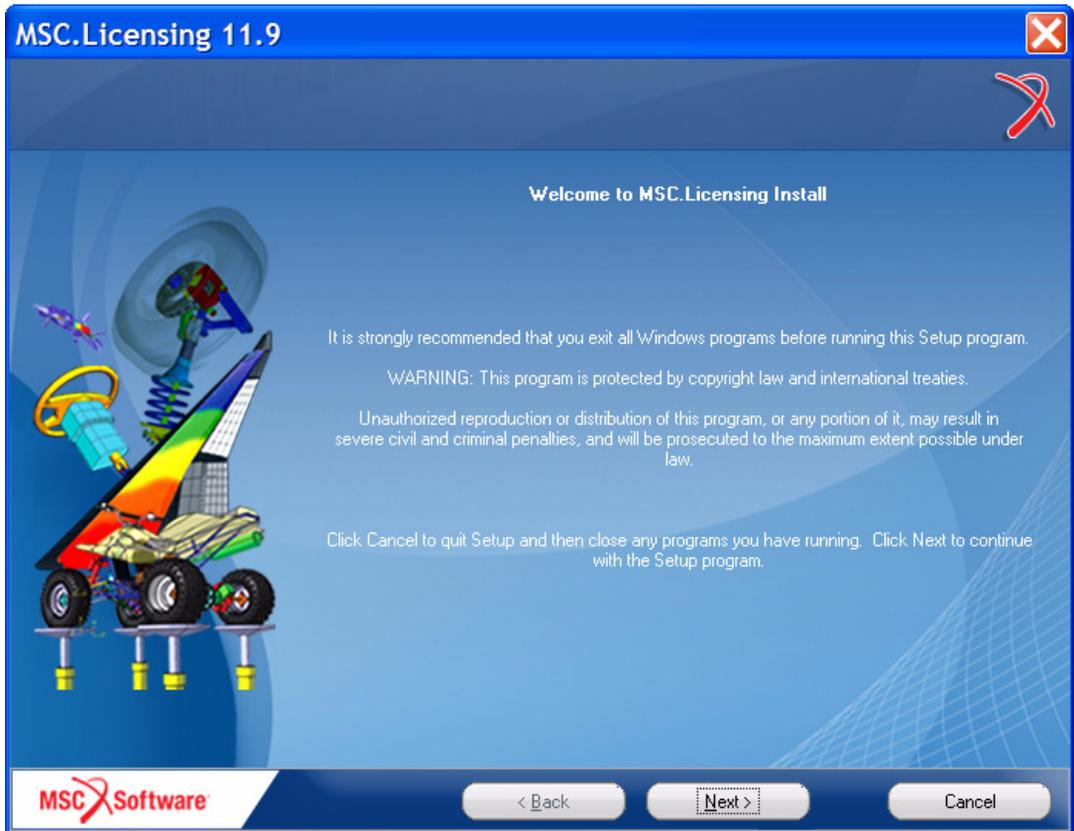
To complete the installation of MSC Licensing you will need a valid MSC License file.

Windows

Follow these steps to install the MSC License Server v11.9 on your Windows system:

1. All older versions of the MSC License Server must be uninstalled before installing MSC License Server v11.9.
2. Download the MSC Licensing installation package from MSC's Software Download Center. This package supports both 32- and 64-bit versions of Windows.
3. Run the installation executable. Certain features of the licensing installation and the license server itself require Administrator privileges.

The following pages illustrate a basic installation.



Review the warnings, and click Next to continue the installation.



You must have a valid, unexpired MSC license file before the MSC License Server can be started. This screen provides your HOSTID that MSC uses to generate the license file.

If you do not have an MSC license file, contact your MSC representative before continuing with the installation.

Click Next to continue.



New Installation

MSC.Software recommends using the 'New Installation' option, which manages the installation process for you.

Manual Installation

If you have special installation requirements, use the "Manual Installation" option to copy the license server files to a location on your system.

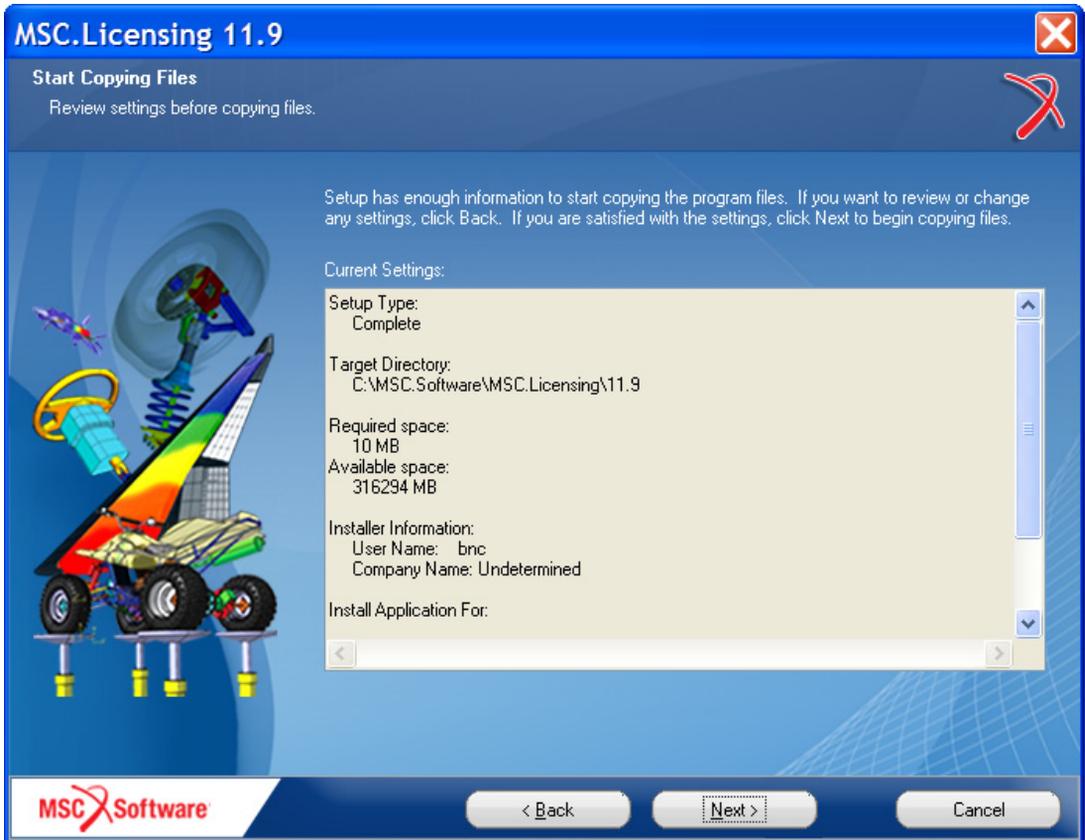
Click Next to continue.



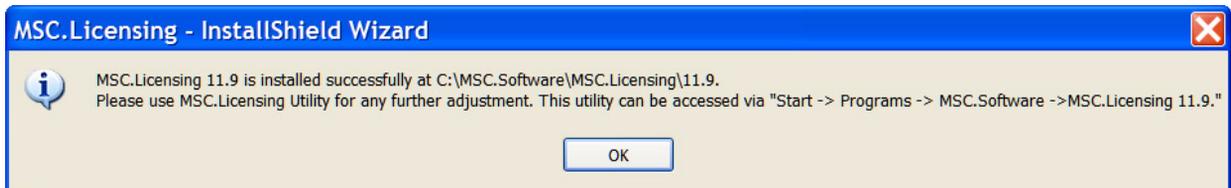
The default destination folder (`C:\MSC.Software\MSC.Licensing\`) is appropriate for most installations. Use the Browse button to select an alternate destination folder. You must have permission to write to the selected folder.



- Enter the location of the license file that was provided by MSC.Software.
- The standard installation is appropriate for most installations. You can edit the advanced properties to:
 - Specify an alternate port number
 - Specify an alternate hostname
 - Add a options file
 - Specify an alternate log file location
 - Restrict access only to users with administrator privileges
- If the last box is selected, the installation will register the License Server as a service, set for automatic start-up when the computer is started.



Review the selections, and click Next to complete the installation.



The installer creates a program group on the Start menu containing the MSC.Licensing Utility. This utility can be used to start, stop, and refresh the license server, and make other changes to the license server configuration.

Unix and Linux systems

Follow these steps to install the MSC License Server v11.9 on your Unix/Linux system:

1. Verify that a Java runtime environment is installed on the system. Java can be downloaded from www.java.com.
2. Download the MSC Licensing installation package for your platform from MSC's Software Download Center.
3. The installer package for Unix and Linux platforms supports both GUI and terminal-mode installations. MSC recommends that the installer be run in a GUI environment.
4. Run the installer to begin the installation. Use of a root account or sudo is not required. However, running the installation as root allows the installer to use system resources that require root privileges.

The following pages illustrate a basic installation using both the GUI and terminal (console) modes.

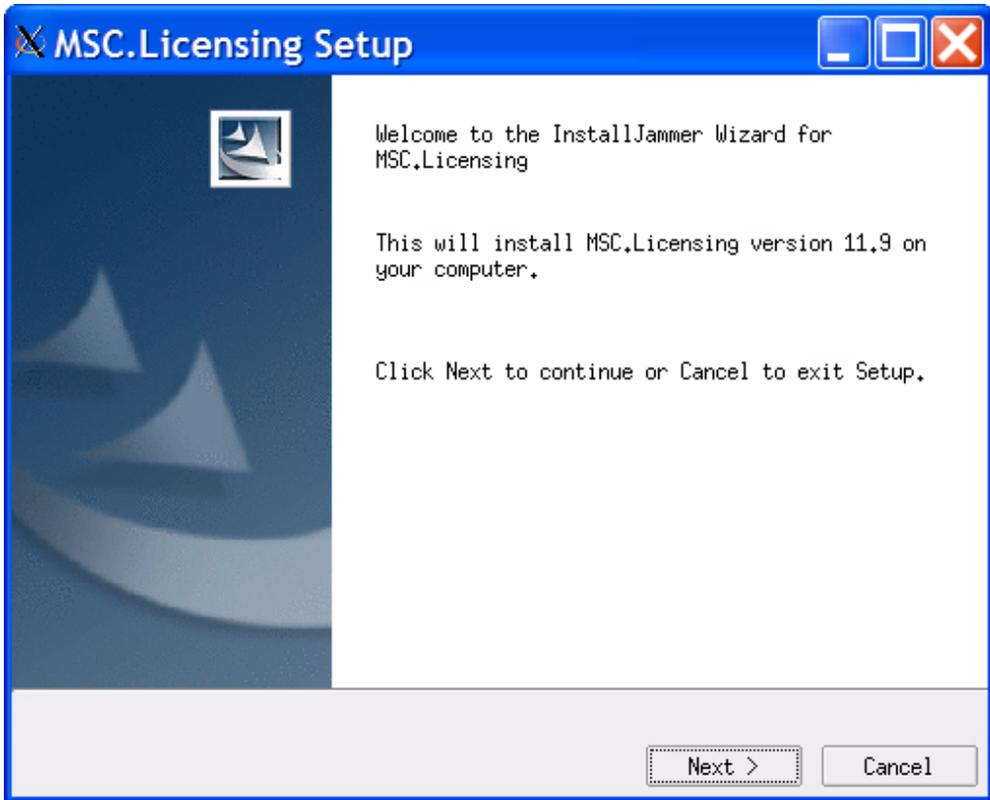
GUI Mode



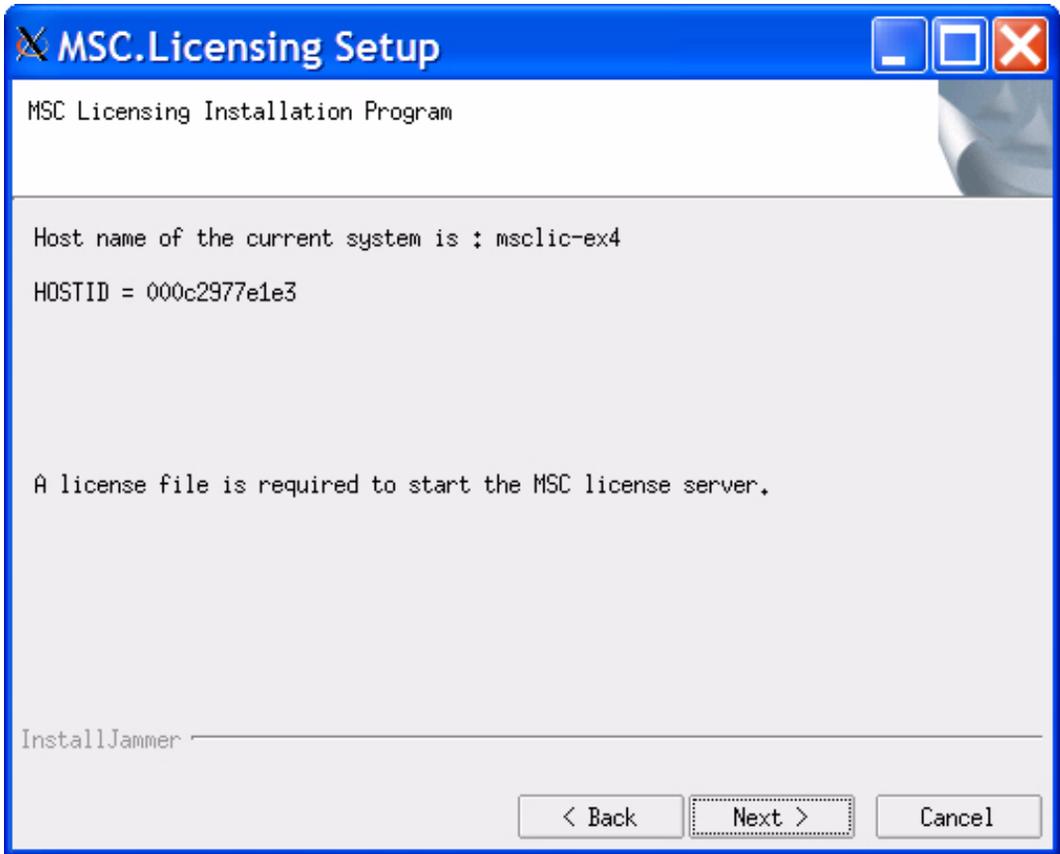
Select the language, and click OK to continue.



Click Yes to continue.



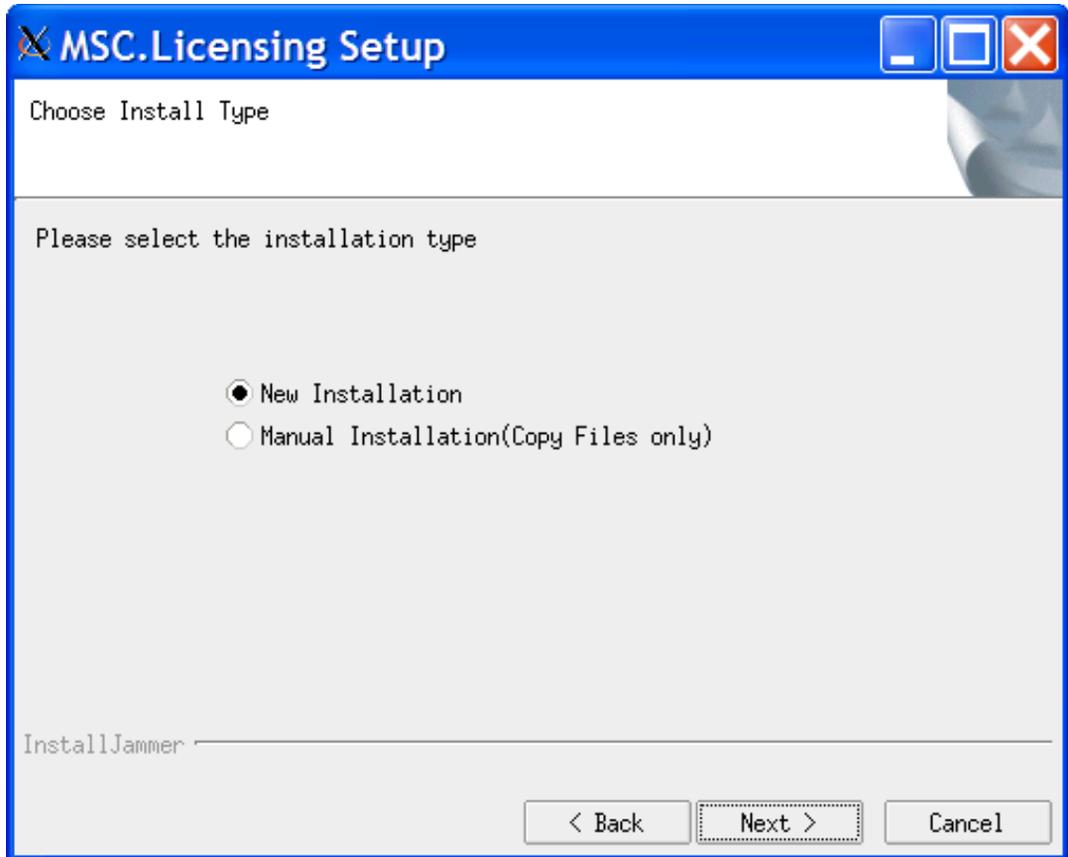
Click Next to continue.



You must have a valid, unexpired MSC license file before the MSC License Server can be started. This screen shows your HOSTID that MSC uses to generate the license file.

If you do not have an MSC license file, contact your MSC representative before continuing with the installation.

Click Next to continue.



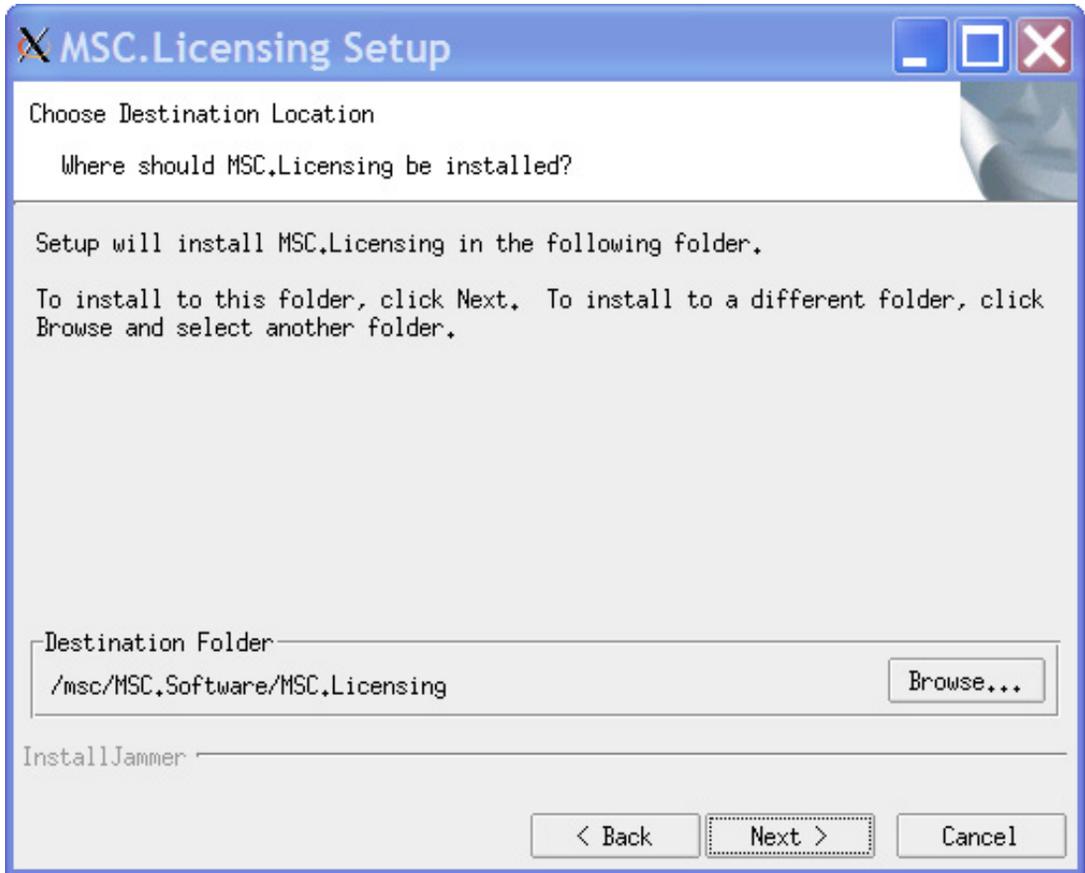
New Installation

MSC.Software recommends using the 'New Installation' option, which manages the installation process for you.

Manual Installation

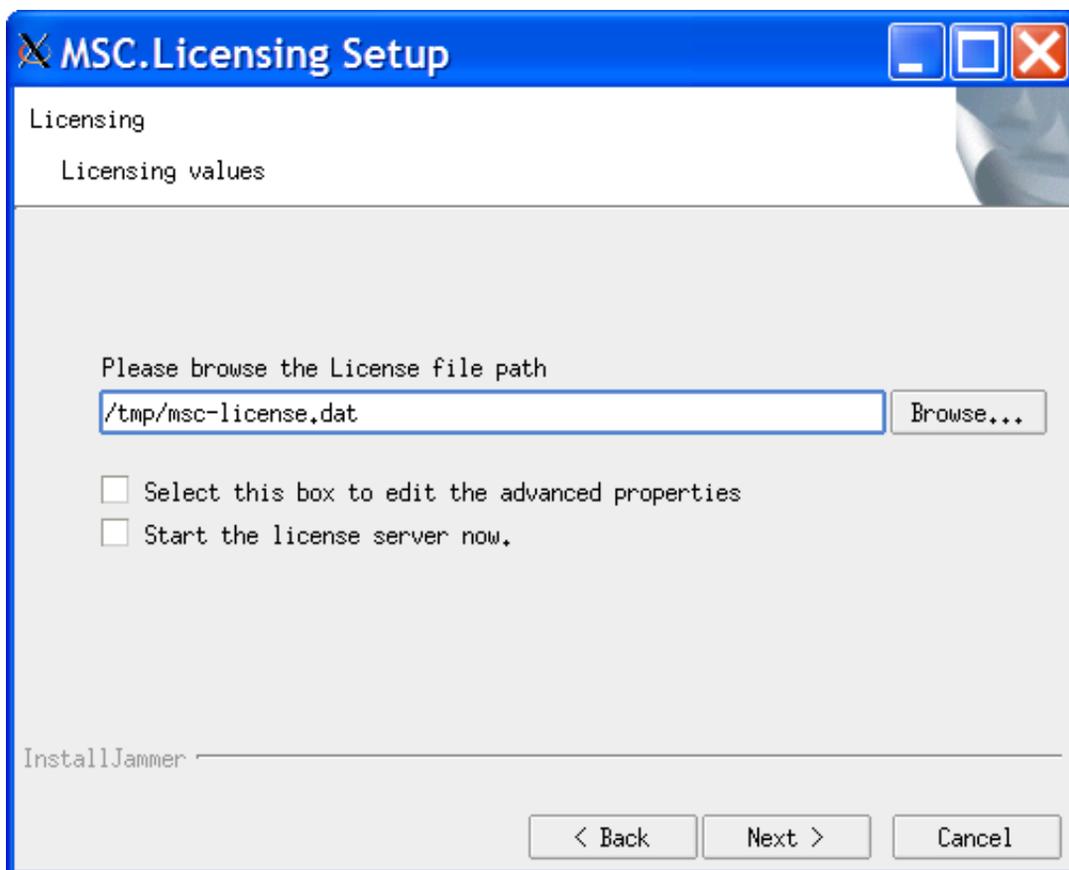
If you have special installation requirements, use the "Manual Installation" option to copy the license server files to a location on your system.

Click Next to continue.

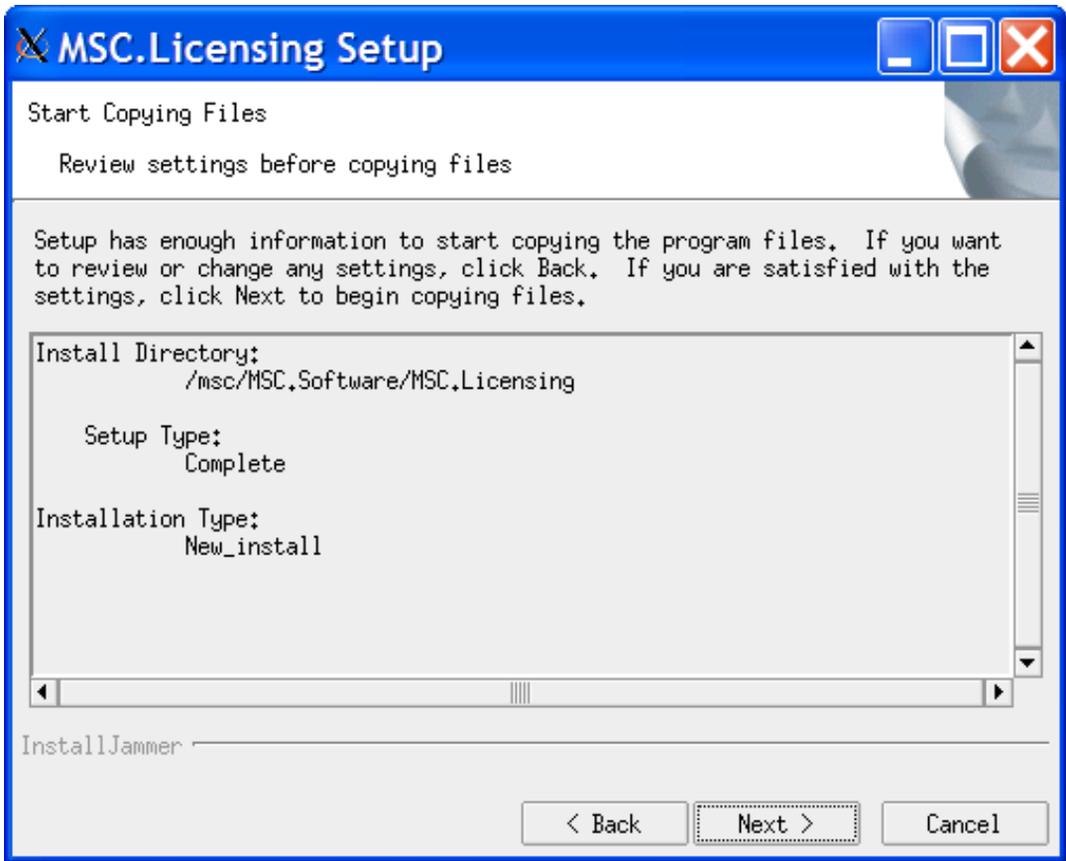


The default installation directory (`/msc/MSC.Software/MSC.Licensing`) is appropriate for most installations.

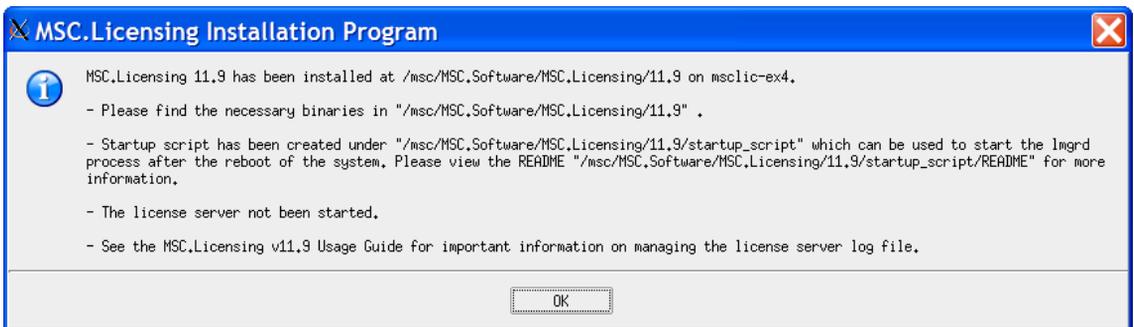
Use the Browse button to select an alternate destination folder. You must have permission to write to the selected folder.



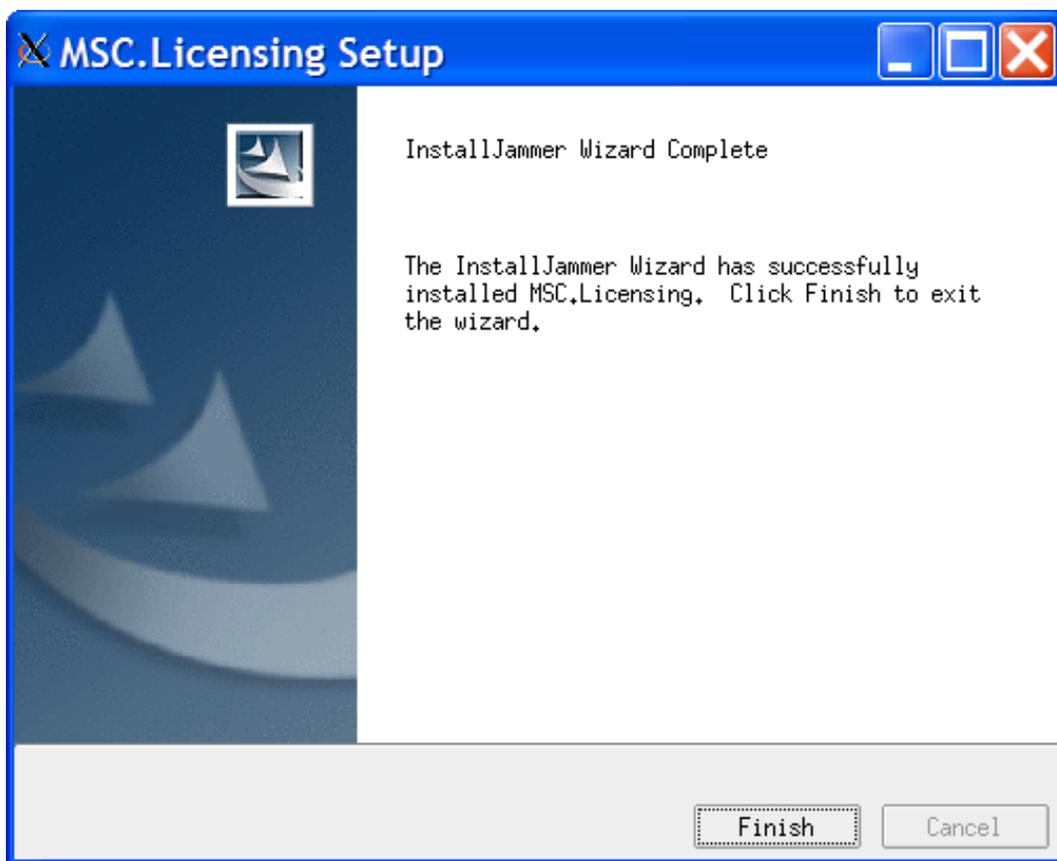
- Enter the location of the license file that was provided by MSC.Software.
- The standard installation is appropriate for most installations. You can edit the advanced properties to:
 - Specify an alternate port number
 - Specify an alternate hostname
 - Add a options file
 - Specify an alternate log file location
 - Restrict access only to users with administrator privileges
- Click the box labeled "Start the license server now" to run the license server at the end of the installation.



Review your selections, and select Next to complete the installation.



The installer creates a sample script that can be used to start the license server after a system reboot. This script and a README file with important details are written to a directory named **startup_script** under the installation directory you selected.



Click Finish to complete the installation.

Terminal/Console Mode

If you do not have access to a GUI environment, you can run the installer in a standard terminal window by adding the arguments `--mode console` to the installer command line.

Console mode is similar to GUI mode, with these important differences:

- In console mode, file and directory browsing is not available. You must manually enter these file names.
- To select an option from a list, enter the text found between the brackets for that option.

Operating System Requirements

The following table lists the minimum operating system version required to run the MSC license server and related tools:

Platform	Hardware	Supported Operating Systems
aix	PowerPC	AIX 5.3 ML 07
aix32	PowerPC	AIX 5.3 ML 07
hpux	PA_RISC 64-bit	HP-UX 11i v2, v3
hpux32	PA_RISC 32-bit	HP-UX 11i v2, v3
hpuxipf	Itanium	HP-UX 11i v2, v3
irix	MIPS 64-bit	IRIX 6.5
linux32	x86	Linux Standard Base (LSB) 3.0
linux64	x64	Linux Standard Base (LSB) 3.0
linuxipf	Itanium	RHEL 4.0 and 5.0
solaris	Sparc 64-bit	Solaris 9 and 10
solaris32	Sparc 32-bit	Solaris 9 and 10
solaris8664	x64	Solaris 10
win32	x86	Windows Server 2008 SP2 Windows Vista SP2 Business, Enterprise, Ultimate Windows 7 Professional, Enterprise, Ultimate Windows Server 2003 SP1, SP2
win64	x64	Windows Server 2008 SP2 and R2 Windows Vista SP2 Ultimate Windows 7 Ultimate Windows Server 2003 SP1, R2

License Server Specifications

All MSC applications support use of the standard FLEXlm environment variables for specifying the license servers to be used for license requests.

For each method, the actual license specification can consist of one or more strings containing either a license server or the fully qualified path name of a license file.

The environment variable `MSC_LICENSE_FILE` is the preferred way to set a license server specification. All MSC applications also support use of the `LM_LICENSE_FILE` environment variable. If both of these are set, the value of `MSC_LICENSE_FILE` is used.

Some MSC applications also support other methods for setting the license specification. For example, Nastran uses the `AUTH` keyword (on either the command line or in an RC file) for setting the license specification. If `AUTH` is used, it overrides the values on `MSC_LICENSE_FILE` and/or `LM_LICENSE_FILE`.

License Server Diagnostics (MSC Nastran Only)

MSC.Nastran users can set the `AUTHINFO` keyword to enable licensing diagnostics. The value of `AUTHINFO` can be a whole number from 0 (no diagnostics) to 9 (very detailed diagnostics). The diagnostics are printed to the Nastran .log file.

Note: Older versions of MSC.Nastran can have problems with `AUTHINFO` settings greater than 6.

ENH Usage Records (Enhanced Logging Initiative)

What are ENH usage records?

The ENH system was developed by a consortium of leading independent software vendors in conjunction with License Tracker, Inc. When ENH records are enabled, the MSC vendor daemon outputs formatted records to the lmgrd log file whenever a license check-out or check-in occurs.

How are ENH usage records enabled?

To enable ENH usage records, set this environment variable before starting the license server:

```
MSC_ENH_RECORDS=1
```

How can I get usage reports using ENH usage records?

[License Tracker, Inc.](#) offers an application that can read ENH usage records and create detailed and summary reports of license usage, including details of which features resulted in MasterKey and/or Enterprise Advantage token usage.

You can also write your own ENH usage record tools to analyze usage data.

What is the format of ENH usage records?

MSC produces two types of ENH usage records: ENH_OUT, with details on license check-outs, and ENH_IN, with details on license check-ins. Each ENH record appears on a single line in the lmgrd log file.

The general format of an ENH_OUT record is:

```
hh:mm:ss (MSC) ENH_OUT: "feature" user@host timestamp  
  num_licenses session_handle "display" addr "dup_group"  
  "project" "sw_version" "actual_feature"  
  "actual_feature_count"
```

The general format of an ENH_IN record is:

```
hh:mm:ss (MSC) ENH_IN: "feature" user@host timestamp  
  num_licenses session_handle "display" addr linger "dup_group"  
  "project" "sw_version" "actual_feature" "next_token_pool"
```

MSC does not currently create ENH_SECURITY or ENH_DIGEST records.

Complete details on the format of ENH records can be found in this document:

http://licensetracker.ca/documents/ENH_Spec.pdf

