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# IBM Prerequisite Scanner Version 1.2.0.18 Quick Start Guide

This guide gets you started with installing and running IBM® Prerequisite Scanner Version 1.2.0.18.

Translated versions: To obtain the Quick Start Guide in other languages, access the PDF files from IBM Support Portal.

## Tool overview

Prerequisite Scanner is a scanning tool that performs identification, checking, and verification of prerequisites for specified software before the actual deployment takes place. It scans for hardware and software prerequisites based on the values set for prerequisite properties. The tool displays the results of the scan in the command-line interface and also saves the results to text and optionally XML files. It also writes informational and debugging messages to log files.

## Step 1: Access your software and documentation

Prerequisite Scanner can be packaged with your offering's media, or the latest version of the tool can be downloaded from IBM Support Portal (<http://www-933.ibm.com/support/fixcentral/swg/selectFixes?product=ibm/Tivoli/Prerequisite+Scanner&release=1.2.0.18&platform=All&function=all>). You need to provide your IBM ID and password to download it.

There are two separate packages available to support Windows and UNIX platforms as follows:

- The 1.2.0.18-Tivoli-PRS-Windows-fp0001.zip Windows package supports different Windows platforms.
- The 1.2.0.18-Tivoli-PRS-Unix-fp0001.tar.gz UNIX package supports the AIX®, HP-UX, Linux, Linux for System z®, and Solaris platforms.

Each package contains a readme file that outlines what's new in the release, new or modified prerequisite properties, new or modified configuration files, and any deprecated features.

For the tool's documentation, see the Prerequisite Scanner page at Tivoli® Documentation Central (<https://www.ibm.com/developerworks/community/wikis/home?lang=en#!/wiki/Tivoli%20Documentation%20Central/page/IBM%20Prerequisite%20Scanner>)

## Step 2: Evaluate your hardware and system configuration

Prerequisite Scanner runs on all hardware and operating systems of the supported offerings.

Determine how you want to deploy your offering such as to a single server or distributed environments.

1. Install the tool on a single server or on each target system in the distributed environment.

**Important:** If Prerequisite Scanner is available on your offering's media, you can run it from the media rather than install it.

- Determine the product code for your offering as outlined in Prerequisite Scanner product codes.

**Note:** If you are installing multiple supported offerings on the same target system, you can run the tool to check for all prerequisites of those offerings in a single scan.

- Determine whether your offering uses environment variables that indicate to the tool which set of prerequisites to scan for based on the offering's component being installed or deployment scenario, as outlined in Table 1 on page 7.
- Run the tool.

Ensure that you have the following utilities installed or available in the target environments:

Target system	Prerequisites
Windows	<ul style="list-style-type: none"> <li>The Telnet client is enabled, so that the connectivity checks in the predefined Connectivity collector can function correctly.</li> <li>The Windows Management Instrumentation (WMI) service, <b>Winmgmt</b>, is running, so that Prerequisite Scanner can make WMI requests to get system data.</li> <li>Sufficient disk space to run Prerequisite Scanner. The tool requires the following disk space:               <ul style="list-style-type: none"> <li>4 MB when the <b>debug</b> input parameter is not specified when the tool is run.</li> <li>6 MB when the <b>debug</b> input parameter is specified when the tool is run.</li> </ul> </li> </ul> <p>If the tool detects that there is insufficient disk space, it displays an error message and exits.</p> <p><b>Attention:</b> The amount of required disk space is sufficient to support most Prerequisite Scanner use cases. The disk space can vary based on the number of configuration files and the number of prerequisite properties in those configuration files. More disk space might be required if the tools scans for several products with large configuration files.</p>
UNIX	<ul style="list-style-type: none"> <li>Sufficient disk space to run Prerequisite Scanner. The tool requires the following disk space:               <ul style="list-style-type: none"> <li>5 MB when the <b>debug</b> input parameter is not specified when the tool is run.</li> <li>6 MB when the <b>debug</b> input parameter is specified when the tool is run.</li> </ul> </li> </ul> <p>If the tool detects that there is insufficient disk space, it displays an error message and exits.</p> <p><b>Attention:</b> The amount of required disk space is sufficient to support most Prerequisite Scanner use cases. The disk space can vary based on the number of configuration files and the number of prerequisite properties in those configuration files. More disk space might be required if the tools scans for several products with large configuration files.</p> <ul style="list-style-type: none"> <li>For non-root users, the location of the <b>mount</b>, <b>swapinfo</b>, and <b>psrinfo</b> commands must be set in the PATH environment variable, so that the commands are available to Prerequisite Scanner. The commands are in the /usr/sbin directory; for example, set the PATH environment variable as follows:               <pre>export PATH=\$PATH:/usr/sbin/</pre> </li> <li>Ensure the correct access permissions are assigned to the <b>lscfg</b> command, including any specific permissions that are set by the access-right flags such as <b>setuid</b> bit. The correct access permissions mean that Prerequisite Scanner can run the command and retrieve system information. The command is in the /usr/sbin directory; for example to set the <b>setuid</b> bit for <b>lscfg</b>, run <b>chmod</b> command as follows:               <pre>chmod 4777 /usr/sbin/lscfg</pre> </li> </ul>

## Step 3: Install Prerequisite Scanner

If you downloaded the tool from IBM Support Portal, extract the contents of the compressed file for the relevant platform to preferred location, referred to as *ips\_root*. You must extract the contents of the compressed file on each target system that you intend to install your offering.

**Important:** You must have write permissions to the root directory in which you extract the contents of the compressed file.

After you extract the contents of the compressed file, you are ready to run Prerequisite Scanner.

## Step 4: Run Prerequisite Scanner

You can run Prerequisite Scanner from the command line. The Prerequisite Scanner script, **prereq\_checker**, takes a set of required and optional parameters and a command flag for additional optional parameters.

1. Open the command window and change to the *ips\_root* directory.
2. If your offering uses environment variables to indicate to Prerequisite Scanner which component is planned for installation on the target computer, set the value for relevant environment variable to True, for example:
  - On Windows systems: set *ENV\_NAME*=True
  - On UNIX systems: export *ENV\_NAME*=True

**Note:** Jazz™ for Service Management Version 1.1.0.1 and later fix packs also use an environment variable to indicate whether it is a fresh Jazz for Service Management installation, *JazzSM\_FreshInstall*=True, or an update to an existing Jazz for Service Management installation, *JazzSM\_FreshInstall*=False.

3. Run the Prerequisite Scanner script file, **prereq\_checker**, with the relevant parameters. For more information about the full set of parameters and valid product codes, see “Parameters” on page 4 and Prerequisite Scanner product codes.

### Windows

```
prereq_checker.bat
"Product_Code [Product_Version][,Product_CodeN [Product_VerN]...]"
[outputDir="ips_output_dir"]
[xmlResult]
[configHomeDir="config_files_home"]
[detail|detail -s|detail -a]
[prereq_checker.bat version |-listcodes]
```

### UNIX

```
./prereq_checker.sh
"Product_Code [Product_Version][,Product_CodeN [Product_VerN]...]"
[outputDir="ips_output_dir"]
[xmlResult]
[configHomeDir="config_files_home"]
[detail|detail -s|detail -a]
[prereq_checker.bat version |-listcodes]
```

### Example 1

This example runs Prerequisite Scanner for IBM Tivoli zEnterprise® Monitoring Agent by using the KZE product code. The **detail-s** parameter means that the tool outputs the shortened results to the command window, displaying the overall

result and any prerequisite properties with FAIL or WARN results. It sets the location of the results and log files to the *ips\_output\_dir* file system path that is specified with the optional **outputDir** parameter. T

**Important:** You must use the **outputDir** parameter to specify a location, if you choose to run Prerequisite Scanner from a mounted CD, DVD, or read-only file system and network drive. You must have write permissions to write to *ips\_output\_dir*; otherwise, Prerequisite Scanner fails.

It also sets the home location of the configuration files to the *config\_files\_home* path that is specified by the optional **configHomeDir** parameter.

#### Windows

```
prereq_checker.bat
"KZE 06020300"
outputDir="%TEMP%\ips"
configHomeDir="C:\MyCfgFiles\cfgfiles"
detail -s
```

#### UNIX

```
./prereq_checker.sh
"KZE 06020300"
outputDir="/tmp/ips"
configHomeDir="/usr/myname/MyCfgFiles/cfgfiles"
detail -s
```

The tool outputs the *result.txt* file and *precheck.log* files to the following locations:

- On Windows systems: D:\temp\ips where TEMP is environment variable for the temporary folder.
- On UNIX systems: /tmp/ips

#### Example 2

You can run the tool to check prerequisites for multiple offerings, for example, IBM Tivoli Business Service Manager and IBM Tivoli Netcool/Impact, by specifying multiple product codes.

#### Windows

```
set TBSM_PREREQ_BOTH=True
set IMPACT_PREREQ_BOTH=True
prereq_checker.bat
"BSM 06010100,NCI 06010100"
```

#### UNIX

```
export TBSM_PREREQ_BOTH=True
export IMPACT_PREREQ_BOTH=True
./prereq_checker.sh
"BSM 06010100,NCI 06010100"
```

## Parameters

You can run Prerequisite Scanner from the command line. The Prerequisite Scanner script, **prereq\_checker**, takes a set of required and optional parameters and a command flag for additional optional parameters. The primary parameters are as follows:

**Product\_Code** [**Product\_Version**][,**Product\_CodeN** [**Product\_VerN**]...]

Required parameter

You must set at least one **Product\_Code** parameter to identify the offering or component for which to run the prerequisite check and the associated configuration file.

The optional **Product\_Version** parameter for the associated **Product\_Code** parameter indicates the version of the offering. It is the 8-digit code to represent the version, release, modification, and level, with 2 digits for each part of the code; for example, 7.3.21 is 07032100.

You can set one or many **Product\_Code** parameters with the optional **Product\_Version** parameter, each separated by a comma.

See Prerequisite Scanner product codes.

#### **[detail|detail -s|detail -a]**

Optional parameter

The optional parameter and its optional option indicates the detail level of the results in the command window. If you specify the **detail** parameter, the tool outputs detailed results to the command window, including the overall result and the scan result for each prerequisite property. If you specify the **detail** parameter with the **-s** option, the tool outputs the shortened results, including the overall result and only the prerequisite properties with FAIL or WARN results. If you specify the **detail** parameter with the **-a** option, the tool hides the aggregation section of the output.

#### **[outputDir="ips\_output\_dir"]**

Optional parameter

It indicates that you want to set the output directory for the scan results and log files for Prerequisite Scanner as specified by the *ips\_output\_dir* value.

#### **[xmlResult]**

Optional parameter

It indicates that you want to output the results to the XML result file, *ips\_output\_dir/result.xml*, in addition to the plain text result file.

#### **[configHomeDir="config\_files\_home"]**

Optional parameter

It indicates the home location of the configuration files, as specified by the *config\_files\_home* path. When the tool scans the target environment, it uses the configuration files in this location. If this input parameter is not specified, the following default location is used:

- On UNIX systems: *ips\_root/UNIX\_Linux*
- On Windows systems: *ips\_root\Windows*

**Attention:** The home location can be a mounted CD, DVD, or read-only file system and network drive. You must have read permissions to read from *config\_files\_home*; otherwise, Prerequisite Scanner fails. The file names for the configuration files in this home location must follow the standard file naming convention as follows:

*product\_code*[\_<version>].cfg

where:

- *product\_code*

It is the variable to represent a product code on either Windows or UNIX systems. Product codes identify the product and optionally the version of the operating system that is supported by that product. They are stored in the *codename.cfg* file. A product that supports multiple platforms might have multiple product codes, with each one identifying a product, platform, and version of the operating system as required.

- <version> is the 8-digit code to represent the version, release, modification, and level, with 2 digits for each part of the code; for example, 7.3.21 is 07032100.

#### **[PATH="product\_root"]**

Optional parameter

It indicates the installation directories for the offerings that will be installed.

If the parameter is not specified, the default path is:

- On UNIX systems: opt/IBM/ITM if the Disk prerequisite property is specified in a configuration file
- On Windows systems: C:\IBM\ITM

#### **version|-v**

Required parameter only when checking the tool's version

You must set only this parameter when you want to check the tool's version. If you specify it when you run the tool to scan for prerequisites, the tool runs the scan only. It outputs an information message about the usage of the **version** input parameter, but it does not output the version details.

#### **UNIX systems**

```
./prereq_checker.sh version
```

#### **Windows systems**

```
prereq_checker.bat version
```

For a full list of the parameters, go to the *prereq\_checker* topic in the latest available version of the documentation, which can be accessed from the Prerequisite Scanner page at Tivoli Documentation Central.

## **Environment variables**

This table outlines the offerings that use environment variables and those environment variables.

Table 1. Prerequisite Scanner environment variables for offerings

Offering version, platform, operating system	Installation option	Environment variable
IBM Tivoli Netcool Performance Manager Version 1.4.0 , 1.4.1, 1.4.2	Impact oracle server installation only	TNPM_ORACLE_SERVER
	Impact oracle client installation only	TNPM_ORACLE_CLIENT
	Standalone installation for oracle Database	TNPM_STAND_ALONE
Tivoli Network Manager Version 4.2	The ITNM installs CORE functionality as a part of the installation.	tnmCORE
	The ITNM installer installs GUI functionality including Tivoli Integrated Portal (TIP)	tnmGUI
	Data server installation only	TBSM_PREREQ_DATA
Tivoli Business Service Manager Version 6.1.1	Dashboard server installation only	TBSM_PREREQ_DASH
	Combined dashboard and data server installation	TBSM_PREREQ_BOTH
	Fresh installation or update existing installation	JazzSM_FreshInstall
Jazz for Service Management Version 1.1.0.1 and later Version 1.1 fix packs	Full installation	JazzSM_TYPICAL
Registry Services in Jazz for Service Management <b>Tip:</b> Jazz for Service Management uses convenience scripts to run the tool, and which set these environment variables. Only set these environment variables, if you want to run the tool by using the Registry Services configuration file.	Custom installation, DB2® server installation only	FRS_DBSERVER
	Custom installation, application server installation only	FRS_BACKENDSERVER
Tivoli Netcool® Configuration Manager Versions 6.4.0 and 6.4.1 <b>Tip:</b> Use the <i>ips_root/NCM.sh</i> script to run the scan for Tivoli Netcool Configuration Manager. It prompts you to choose which components to run the scan for, and thereby automatically sets the environment variables.	Compliance core installation	TNCM_COMPLIANCE_CORE
	Compliance evaluation engine installation	TNCM_COMPLIANCE_EVALUATION
	Presentation (GUI) server installation	TNCM_PRESENTATION_SERVER
	Tivoli Common Reporting installation	TNCM_REPORTING
	Worker server installation	TNCM_WORKER_SERVER

## More information

For more information, see the following resources:

- Go to IBM Prerequisite Scanner page on IBM Support Portal.
- Go to the Prerequisite Scanner community on Service Management Connect. Feel free to contribute to these topics.

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