# IBM Prerequisite Scanner Version 1.2.0.5 Quick Start Guide

This guide gets you started with installing and running IBM® Prerequisite Scanner Version 1.2.0.5.

**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.ibm.com/support/fixcentral/swg/selectFixes?parent=ibm~Tivoli&product=ibm/Tivoli/Prerequisite+Scanner&release=All&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 `1.2.0.5-Tivoli-PRS-Windows-fp0001.zip` Windows package supports different Windows platforms.
- The `1.2.0.5-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 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.

## Step 2: Evaluate your hardware and system configuration

Prerequisite Scanner runs on all hardware and operating systems supported offerings as outlined in Table 1 on page 5.

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.
2. Determine the product code for your offering as outlined in Table 1 on page 5.

**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.

3. 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 2 on page 8.
4. Run the tool.

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

| Target system | Prerequisites |
|---|---|
| Windows | • The Telnet client is enabled, so that the connectivity checks in the predefined Connectivity collector can function correctly.<br>• The Windows Management Instrumentation (WMI) service, **Winmgmt**, is running, so that Prerequisite Scanner can make WMI requests to get system data.<br>• Sufficient disk space to run Prerequisite Scanner. The tool requires the following disk space:<br>– 4 MB when the **debug** input parameter is not specified when the tool is run.<br>– 6 MB when the **debug** input parameter is specified when the tool is run.<br>If the tool detects that there is insufficient disk space, it displays an error message and exits.<br>**Attention:** 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. |
| UNIX | • Sufficient disk space to run Prerequisite Scanner. The tool requires the following disk space:<br>– 4 MB when the **debug** input parameter is not specified when the tool is run.<br>– 5 MB when the **debug** input parameter is specified when the tool is run.<br>If the tool detects that there is insufficient disk space, it displays an error message and exits.<br>**Attention:** 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.<br>• For non-root users, the location of the **mount**, **swapinfo** , and **psrinfo** 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:<br>`export PATH=$PATH:/usr/sbin/`<br>• Ensure the correct access permissions are assigned to the **lscfg** command, including any specific permissions that are set by the access-right flags such as `setuid` 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 `setuid` bit for **lscfg**, run **chmod** command as follows:<br>`chmod 4777 /usr/sbin/lscfg` |

## 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 as specified by *ips_root* and 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 use a command-line interface to run the Prerequisite Scanner. 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 also uses 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 "Product codes" on page 5 respectively.

   **Windows**

   ```
   prereq_checker.bat
   "Product_Code [Product_Version][,Product_CodeN [Product_VerN]]..."
   [outputDir="ips_output_dir"]
   [xmlResult]
   ```

   **UNIX**

   ```
   ./prereq_checker.sh
   "Product_Code [Product_Version][,Product_CodeN [Product_VerN]]..."
   [outputDir="ips_output_dir"]
   [xmlResult]
   ```

**Example**

This example runs Prerequisite Scanner for IBM Tivoli zEnterprise® Monitoring Agent using product code `KZE`. It also sets the location of the results and log files to *`ips_output_dir`* by using the optional **outputDir** parameter.

**Important:** You must use the **outputDir** parameter to specify a location, if you choose to run Prerequisite Scanner from a CD, DVD, or read-only network drive. You must have write permissions to write to *`ips_output_dir`*; otherwise, Prerequisite Scanner fails.

**Windows**

```
 prereq_checker.bat
"KZE 06020300"
outputDir="%TEMP%\ips"
```

**UNIX**

```
./prereq_checker.sh
"KZE 06020300"
outputDir="/tmp/ips"
```

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**

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**

```
prereq_checker.bat
"BSM 06010100,NCI 06010100"
```

**UNIX**

```
./prereq_checker.sh
"BSM 06010100,NCI 06010100"
```

## Parameters

You can use a command-line interface to run the Prerequisite Scanner. 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 two 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.

**[detail]**

Optional parameter

It indicates whether to display detailed results of the scan in the command-line interface.

**[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 test result file.

**[PATH="*product_root*"]**

Optional parameter

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

If not specified, Prerequisite Scanner uses the default path C:\IBM\ITM on Windows systems or opt/IBM/ITM on UNIX systems, if the Disk prerequisite property is specified in a configuration file.

For a full list of the parameters, go to the *prereq_checker* topic in the latest information center, which can be accessed from the Prerequisite Scanner page at Tivoli Documentation Central.

## Product codes

This table outlines the current set of predefined product codes.

*Table 1. Predefined product codes*

| Offering version, platform, operating system | Predefined product code |
|---|---|
| Autonomic Deployment Engine | ADE |
| IBM Security Access Manager Authorization Server | AMA |
| Security Access Manager Policy Server | AMP |
| Security Access Manager WebSEAL | AMW |
| Tivoli Business Service Manager | BSM |
| IBM Tivoli Composite Application Manager (ITCAM) for Applications: DB2® | CDB |
| Tivoli Provisioning Manager for UNIX | COA |
| Tivoli Provisioning Manager for AIX | COB |
| Tivoli Provisioning Manager for AIX V5.3.0.0 {64 bit} | COC |
| Tivoli Provisioning Manager for AIX 6.1 | COD |
| Tivoli Provisioning Manager for Linux | COE |
| Tivoli Provisioning Manager for Red Hat Linux | COF |
| Tivoli Provisioning Manager Version 7.2 for Red Hat Enterprise Linux 5 x86 64 bit | COG |
| Tivoli Provisioning Manager for Red Hat Enterprise Linux 5 System z 64 bit | COH |
| Tivoli Provisioning Manager for SUSE 10 | COI |
| Tivoli Provisioning Manager Version 7.2 for Solaris | COJ |
| Tivoli Provisioning Manager Version 7.2 for HP-UX | COK |
| Tivoli Provisioning Manager Version 7.2 for SUSE zSeries® 10 | COL |
| Tivoli Provisioning Manager Version 7.2 for SUSE 11 | COM |

*Table 1. Predefined product codes (continued)*

| Offering version, platform, operating system | Predefined product code |
|---|---|
| Tivoli Provisioning Manager Version 7.2 for SUSE zSeries 11 | CON |
| Tivoli Provisioning Manager Version 7.2 for Windows 2008 | COX |
| Tivoli Provisioning Manager Version 7.2 for Windows 2003 | COY |
| Tivoli Provisioning Manager Version 7.2 for Windows | COZ |
| Prerequisite Scanner demo | DMO |
| Tivoli Workload Scheduler Dynamic Agent | DA1 |
| IBM Dashboard Application Services Hub Versions 3.1 and 3.1.0.1 | DSH |
| Security Services in Jazz for Service Management | ESS |
| Administration Services in Jazz for Service Management | FAS |
| Registry Services in Jazz for Service Management | FRS |
| Tivoli Workload Scheduler Fault-Tolerant Agent | FTA |
| IBM Tivoli Netcool® Performance Manager | GYM |
| Tivoli Enterprise Monitoring Automation Server | KAS |
| Tivoli Enterprise Portal Client | KCJ |
| Tivoli Enterprise Portal Client for UNIX | |
| Tivoli Enterprise Portal Server | KCQ |
| Tivoli Enterprise Portal Server for UNIX | |
| Warehouse Proxy Agent | KHD |
| Warehouse Proxy Agent for UNIX | KHE |
| Tivoli Composite Application Manager (ITCAM) for Transactions: Internet Service Monitoring | KIS |
| Tivoli Monitoring Operating System Agent for Linux | KLZ |
| IBM Tivoli Composite Application Manager Agent for WebSphere® MQ File Transfer Edition | KM6 |
| IBM Tivoli Composite Application Manager Agent for WebSphere MQ | KMQ |
| Tivoli Enterprise Monitoring Server | KMS |
| Tivoli Enterprise Monitoring Server for UNIX | |
| Tivoli Monitoring Operating System Agent for Windows | KNT |
| Windows OS monitoring Agent for UNIX | |
| Tivoli Monitoring Agent for Oracle | KOR |
| Tivoli Performance Analyzer | KPA |
| Tivoli Composite Application Manager Agent for WebSphere Message Broker | KQI |
| Summarization and Pruning Agent | KSY |
| Summarization and Pruning Agent for UNIX | |
| Tivoli Monitoring Agent for DB2 | KUD |
| Tivoli Monitoring Agent for DB2 | |
| Tivoli Monitoring Operating System Agent for UNIX | KUX |
| Tivoli Monitoring Operating System Agent for UNIX | |
| Tivoli Composite Application Manager (ITCAM) for Transactions: Transaction Reporter | KTO |
| Tivoli Composite Application Manager (ITCAM) for Transactions: Transaction Collector | KTU |

*Table 1. Predefined product codes (continued)*

| Offering version, platform, operating system | Predefined product code |
|---|---|
| Tivoli Composite Application Manager (ITCAM) for Transactions: Application Management Console | KT3 |
| Tivoli Composite Application Manager (ITCAM) for Transactions: Client Response Time | KT4 |
| Tivoli Composite Application Manager (ITCAM) for Transactions: Web Response Time | KT5 |
| Tivoli Composite Application Manager (ITCAM) for Transactions: Robotic Response Time | KT6 |
| Tivoli zEnterprise Monitoring Agent | KZE |
| Tivoli License Compliance Manager | LCM |
| Tivoli License Compliance Manager for UNIX | |
| Tivoli Netcool/Impact | NCI |
| Tivoli Netcool/OMNIbus server, desktop, and probe components | NOC |
| Tivoli Netcool/OMNIbus desktop component | NOD |
| Tivoli Netcool/OMNIbus probe components | NOP |
| Tivoli Netcool/OMNIbus server components | NOS |
| Common prerequisites in Jazz for Service Management | ODP |
| Tivoli Process Automation Engine | PAE |
| Tivoli Asset Discovery for Distributed | TAD |
| Tivoli Asset Discovery for Distributed for UNIX | |
| IBM Tivoli Common Reporting | TCR |
| Tivoli Provisioning Manager | TPM |
| IBM Tivoli Application Dependency Discovery Manager Domain Server - Small | TS1 |
| Tivoli Application Dependency Discovery Manager Domain Server - Large | TS2 |
| Tivoli Application Dependency Discovery Manager Domain Server - Enterprise | TS3 |
| Database Server for Tivoli Application Dependency Discovery Manager Domain Server - Small | TS4 |
| Database Server for Tivoli Application Dependency Discovery Manager Domain Server - Large | TS5 |
| Database Server for Tivoli Application Dependency Discovery Manager Domain Server - Enterprise | TS6 |
| Tivoli Application Dependency Discovery Manager Discover or Storage Server - Small | TS7 |
| Tivoli Application Dependency Discovery Manager Discover or Storage Server - Large | TS8 |
| Tivoli Application Dependency Discovery Manager Discover or Storage Server - Enterprise | TS9 |
| Database Server for Tivoli Application Dependency Discovery Manager Storage Server - Small | TSA |
| Database Server for Tivoli Application Dependency Discovery Manager Storage Server - Large | TSB |
| Database Server for Tivoli Application Dependency Discovery Manager Storage Server - Enterprise | TSC |
| Tivoli Workload Automation - UNIX only | TWA |

## Environment variables

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

*Table 2. Prerequisite Scanner environment variables for offerings*

| Offering version, platform, operating system | Installation option | Environment variable |
|---|---|---|
| Tivoli Business Service Manager Version 6.1.1 | Data server installation only | `TBSM_PREREQ_DATA` |
| | Dashboard server installation only | `TBSM_PREREQ_DATA` |
| | Combined dashboard and data server installation | `TBSM_PREREQ_BOTH` |
| Jazz for Service Management Version 1.1.0.1 | Fresh installation or update existing installation | `JazzSM_FreshInstall` |
| Registry Services in Jazz for Service Management **Tip:** 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. | Full installation | `JazzSM_TYPICAL` |
| | Custom installation, DB2 server installation only | `FRS_DBSERVER` |
| | Custom installation, application server installation only | `FRS_BACKENDSERVER` |

## 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.