IBM PowerVM Workload Partitions Manager for AIX

Release Notes

IBM PowerVM Workload Partitions Manager for AIX

Release Notes

> **Note**
>
> Before using this information and the product it supports, read the information in "Notices," on page 17.

Contents

Chapter 1. Installation and Configuration Information

To use IBM® PowerVM™ Workload Partitions (WPAR) Manager for AIX®, you must install the following main components:

- WPAR Manager

  Install the WPAR Manager software on a single AIX system that will be your management server.

- WPAR Manager agent

  Install the WPAR Manager agent on every managed server or logical partition within your management environment.

Installing and configuring the WPAR Manager

You can install and configure the WPAR Manager on any IBM System p® server that is running AIX 6.1 or later software and has a minimum of 1.5 GB of RAM.

Installing the WPAR Manager

To install the WPAR Manager, do the following:

1. Select a system to use for installing the WPAR Manager and mount the WPAR CD.
2. Install the WPAR Manager fileset by running the following command:

   ```
   # installp -acXYgd <MOUNT_POINT>/installp/ppc wparmgt.mgr
   ```
3. If you install and configure the optional DB2® database that is provided on the WPAR Manager CD, do the following:

   Note: You can configure the WPAR Manager with the default Apache Derby database or the DB2 v9.5 database.

   a. To install the WPAR Manager DB2 database fileset, run the following command:

      ```
      # installp -acXYgd <MOUNT_POINT>/installp/ppc wparmgt.db
      ```
   b. To install and configure the WPAR Manager database, run the following **DB2Install.sh** script:

      ```
      # /opt/IBM/WPAR/manager/db/bin/DBInstall.sh -dbinstallerfile <MOUNT_POINT>\
      /db2-v9.5fp1_aix64_limited_use.tar.gz -dbpassword <db2wmgt_user_password>
      ```

      The default values are as follows:
      - The DB2 user is db2wmgt
      - The DB2 home directory is **/home/db2wmgt**
      - The DB2 port is 50000

Configuring the WPAR Manager

After you install the WPAR Manager, you must configure the database connection between the WPAR Manager and the database and define the WPAR Manager agent registration password.

Select one of the following supported modes to run the WPAR Manager configurator:

- Graphical mode

  The graphical mode provides a graphical user interface.

- Console mode

  The console mode provides a text-only user interface.

- Silent mode

  The silent mode uses a property file that does not require user interaction.

Graphical mode

To configure the WPAR Manager by using the graphical mode, do the following:

1. Run the following command with the X11 DISPLAY variable set:

   ```
   # /opt/IBM/WPAR/manager/bin/WPMConfig.sh
   ```

2. Enter information in the fields as you are prompted for it. The fields contain default values. If you use these default values, you will need to only provide a password for the WPAR Manager agent registration.

Console mode

To configure the WPAR Manager by using the console mode, do the following:

1. Run the following command:

   ```
   # /opt/IBM/WPAR/manager/bin/WPMConfig.sh -i console
   ```

2. Enter information in the fields as you are prompted for it. The fields contain default values. If you use these default values, you will need to only provide a password for the WPAR Manager agent registration.

Silent mode

To configure the WPAR Manager by using the silent mode, do the following:

1. Save the original response file by running the following command:

   ```
   # cp /opt/IBM/WPAR/manager/config/wpmInstall.properties\
    /opt/IBM/WPAR/manager/config/wpmInstall.properties.orig
   ```

2. Edit the **/opt/IBM/WPAR/manager/config/wpmInstall.properties** to match your environment. If you use the default installation, the following settings are required:

   - AM_REG_PASSWD=<*the password to be used for agent registration*>
   - AM_REG_PASSWDV=<*verification of the password to be used for agent registration*>

3. To complete the configuration, run the following command:

   ```
   # /opt/IBM/WPAR/manager/bin/WPMConfig.sh -i silent -f/opt\
    /IBM/WPAR/manager/config/wpmInstall.properties
   ```

Installing and configuring the WPAR Manager agent

You can install and configure the WPAR Manager agent on any IBM System p server that is running AIX 6.1 Technology Level 6100-03 or later software.

Installing the WPAR Manager agent

To install the WPAR Manager agent, do the following:

1. Mount the WPAR Manager CD on each managed server.
2. Install the WPAR Manager agent filesets by running the following command:

   ```
   # installp -acqgYXd <MOUNT_POINT>/installp/ppc wparmgt.agent
   ```

Configuring the WPAR Manager agent

After you install the WPAR Manager agent, you must configure it to register with the WPAR Manager and the Agent Manager. This step configures a secure transport between the WPAR Manager and the WPAR Manager agents, and allows a managed system running the WPAR Manager agent to be added to the WPAR Manager GUI.

To configure the WPAR Manager agent if the WPAR Manager ports were not modified from the default values during the installation, run the following configure-agent script as root with the hostname of the WPAR Manager and the Agent Registration password provided in the WPAR Manager configuration:

```
# /opt/IBM/WPAR/agent/bin/configure-agent -amhost <wpar-manager.yourdomain.com>\
 -passwd <agent_registration_password>
```

Using the WPAR Manager

Before you can use the WPAR Manager, JavaScript™ must be enabled in your browser.

After you install and configure the WPAR Manager, you can access it on the following Web site:

`http://<wpar-manager.yourdomain.com>:<public_port>/ibm/console`

The default WPAR Manager public port is 14080. To log in to the console, use the root user name and password for the WPAR Manager system.

Chapter 2. Upgrading the WPAR Manager

The following notes apply to upgrading the WPAR Manager:

Notes:
1. You are not required to run the WPMConfig.sh script as part of the upgrade from WPAR Manager 1.1 or 1.2 to 1.2.1. All previously configured settings are preserved during the upgrade.
2. You are not required to run the DBInstall.sh script as part of the upgrade from WPAR Manager 1.1 or 1.2 to 1.2.1. WPAR Manager 1.2 can continue to use the existing DB2 database.

To upgrade from WPAR Manager 1.1 or 1.2 to 1.2.1, do the following:
1. Upgrade the WPAR Manager and Agent Manager filesets by running the following command:

   ```
   # installp -acXYgd <MOUNT_POINT>/installp/ppc tivoli.tivguid\
    wparmgt.cas.agentmgr wparmgt.mgr
   ```
2. Verify that the WPAR Manager is accessible by logging in to the WPAR Manager 1.2.1 UI:

   ```
   http://<wpar-manager-hostname>:<public_port>/ibm/console
   ```
3. WPAR Manager agent 1.2.1 can be installed on AIX 6.1 with Technology Level 6100-03 or later systems. On AIX 6100-02, WPAR Manager agent 1.2 is the recommended agent. On earlier levels of AIX 6.1, WPAR Manager agent 1.1 is the recommended agent. To upgrade to WPAR Manager agent 1.2.1, run the following command on each managed system:

   ```
   # installp -acXYgd <MOUNT_POINT>/installp/ppc mcr.rte tivoli.tivguid wparmgt.agent
   ```
4. To complete the upgrade, restart the system where the WPAR Manager agent is installed . To restart the system, run the following command:

   ```
   # shutdown -Fr
   ```
5. When you migrate from WPAR Manager agent 1.1 to WPAR Manager agent 1.2.1, the port that is used to communicate with the WPAR Manager agent changes from the default WPAR Manager agent 1.1 port (8211) to the default WPAR Manager agent 1.2.1 port (9510). When the agent port changes, the managed system goes offline in the WPAR Manager UI.

   To restore connectivity with the WPAR Manager agent, click the Discover button in the Managed Systems view of the WPAR Manager UI.

Notes:
1. After the upgrade is complete, clear your browser cache before you use the WPAR Manager UI.
2. Because all previously configured settings are preserved during an upgrade from WPAR Manager 1.1 or 1.2 to 1.2.1, you do not need to run the **WPMConfig.sh** script.
3. Because WPAR Manager 1.2.1 can use the existing DB2 database after an upgrade from WPAR Manager 1.1 or 1.2 to 1.2.1, you do not need to run the **DBInstall.sh** script.

Chapter 3. Migrating the WPAR Manager database

WPAR Manager 1.2.1 provides support for the Apache Derby and DB2 databases. You can use the DBMigrate script to migrate all of the data from one database type to another.

The usage of the DBMigrate script is as follows:

```
Usage: DBMigrate -dbtype {derby|db2} [...]
        -dbtype Database Type (Required)
        -dbhost Database Hostname (DB2 only)
        -dbport Database Port (DB2 only)
        -dbuser Database Username (DB2 only)
        -dbpass Database Password (DB2 only)
        -dbname Database Name (DB2 only)
```

Migrating from Apache Derby to DB2

To migrate from Apache Derby to DB2, do the following:

1. Install and configure the WPAR Manager DB2 database by installing the **wparmgt.db.db2** fileset and then running the DBInstall.sh script as described in Installing the WPAR Manager.

2. Stop the WPAR Manager by running the following command:

   ```
   # wparmgr stop
   ```

3. Run the following **DBMigrate** command with the settings for the DB2 database:

   ```
   # /opt/IBM/WPAR/manager/bin/DBMigrate \
   -dbtype db2 \
   -dbhost <hostname> \
   -dbport <port (default: 50000)> \
   -dbuser <username (default: db2wmgt)> \
   -dbpass <password> \
   -dbname <database name (default: WPARMGT)>
   ```

4. Start the WPAR Manager by running the following command:

   ```
   # wparmgr start
   ```

Migrating from DB2 to Apache Derby

To migrate from DB2 to Apache Derby, do the following:

1. Stop the WPAR Manager by running the following command:

   ```
   # wparmgr stop
   ```

2. Run the following **DBMigrate** command:

   ```
   # /opt/IBM/WPAR/manager/bin/DBMigrate -dbtype derby
   ```

3. Start the WPAR Manager by running the following command:

   ```
   # wparmgr start
   ```

Chapter 4. Additional information

Internet Explorer requires the SVG graphics plugin from Adobe. You can obtain the plugin from the following Adobe Web site:

`http://www.adobe.com/svg/viewer/install/`

Additional information about the WPAR Manager is available on the IBM PowerVM Workload Partitions Manager for AIX Web site.

Chapter 5. Known Issues

The **syncwpar** command might fail when you create a WPAR on a system with the Director agent installed. To avoid this problem, run the following command before you create the WPAR:

```
swvpdmgr -p DirectorCommonAgent
```

If you are using Olson time zones (for example, America/Chicago) on the WPAR Manager system, apply the latest fixes for AIX 6.1 to prevent incorrect date issues.

For AIX 6.1, apply the following APARs:
- IZ20674
- IZ09601

For AIX 6.1 with the 6100-01 Technology Level, apply the following APARs:
- IZ12765
- IZ22206

Chapter 6. Limitations and restrictions

This section lists the restrictions and limitations that apply to the WPAR Manager.

- The COMPAT_AUTOMOUNT environment variable that is used to specify a different **automount** command behavior is not compatible with application WPARs that have an IP address that is different from the Global environment IP address. If the COMPAT_AUTOMOUNT environment variable is set to any value before you run the **automount** command, the file system access from the application WPAR might hang indefinitely.

- The application WPARs that are created from the command-line cannot be relocated by using the Workload Partition Manager, and application WPARs that are created from the Workload Partition Manager cannot be relocated from the command-line. This limitation does not exist for system WPARs.

- The processes that are launched from inside a system WPAR by using the **clogin** command are not relocatable.

- A process that is running in an unlinked working directory cannot be relocated.

- A checkpoint will fail if processes or threads are stopped in the WPAR.

- The relocation of applications with memory regions that are created by using the **mmap** (MAP_SHARED) subroutine for an unlinked file is not supported.

- The relocation of applications with deleted POSIX shm maps is not supported.

- Applications that use the AIX pollset feature are not supported for mobility.

- The performance state of a WPAR group that uses automatic relocation is not affected by the fixed resource controls of the WPARs in the WPAR group.

- Policy-based relocation results are summarized in the following log file: **/opt/IBM/WPAR/manager/logs/policy.log**.

- During static relocation or backing up a system, WPAR might fail in some instances with the following error message: `A file cannot be larger than the value set by ulimit`. To correct this problem, use the **smitty chuser** command to increase the maximum file size for the root user and restart the WPAR Manager agent (wparagent restart). If you are backing up to a remote filesystem (for static relocation), a similar change on the NFS server might be needed to allow larger files to be created.

Chapter 7. Accessibility

This section lists the accessibility issues that apply to the WPAR Manager. The latest accessibility information is available on the following WPAR Manager Web site:

https://www14.software.ibm.com/webapp/set2/sas/f/wpar/home.html

- IBM Workload Partitions Manager™ for AIX has been tested with JAWS for Windows® 9.0.515.
- To navigate to the main content frame of the WPAR Manager application, you must list the frames using JAWS, and then select the `Content` frame from the list.
- Several of the user interface components that are used by the WPAR Manager application must be configured to work properly with screen readers. You can configure these components in the User Preferences page by selecting `Configure WPAR Manager>User Preferences>Enable additional accessibility for screen readers`.
- When you use keyboard navigation to select an action from an Actions menu in Internet Explorer, do the following:
  1. Use the Tab key to highlight the Actions menu.
  2. Click Enter to expand the menu.
  3. Continue to press the Tab key until the action is selected

  For Firefox, after the menu has been expands, use the arrow keys to reach the action.
- When you use keyboard navigation to select an action from the Select Action menu, do the following:
  1. Navigate to the Select Action menu.
  2. Use the **Alt+down arrow** keys to open the menu list.
  3. Use the up or down arrow keys to highlight a menu option.
  4. Press the Enter key to select the highlighted option.
- Because of a space limitation in the GUI, the page tabs that are displayed in the task bar at the top of a content frame might have truncated titles after you select a page from a navigation link or launch another page. The full titles of the tabs can be voiced in JAWS by pressing the **Tab+Insert** keys in the JAWS browser.
- JAWS incorrectly identifies several layout tables as data tables. These layout tables are listed as data tables when you use the **list tables** command. Until this issue is addressed in JAWS, these tables have been labeled with a summary attribute value of `Content layout table`. Because these tables are not data tables, do not use table navigation or reading commands to inspect them.
- When you activate filtering in tables, JAWS might not read the row that is used for activating or deactivating the table filters. In these cases, use the Tab key to navigate through each of the filters in the filter row.
- If you list frames after you open a popup dialog, an additional frame might be listed. Ignore this additional frame.
- When you use Internet Explorer 7, the focus in the column configuration popup dialog does not always go to the first component in the dialog. Use the **Shift+Tab** keys to tab to the first component.

Appendix. Notices

This information was developed for products and services offered in the U.S.A.

IBM may not offer the products, services, or features discussed in this document in other countries. Consult your local IBM representative for information on the products and services currently available in your area. Any reference to an IBM product, program, or service is not intended to state or imply that only that IBM product, program, or service may be used. Any functionally equivalent product, program, or service that does not infringe any IBM intellectual property right may be used instead. However, it is the user's responsibility to evaluate and verify the operation of any non-IBM product, program, or service.

IBM may have patents or pending patent applications covering subject matter described in this document. The furnishing of this document does not give you any license to these patents. You can send license inquiries, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

The following paragraph does not apply to the United Kingdom or any other country where such provisions are inconsistent with local law: INTERNATIONAL BUSINESS MACHINES CORPORATION PROVIDES THIS PUBLICATION "AS IS" WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESS OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF NON-INFRINGEMENT, MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE. Some states do not allow disclaimer of express or implied warranties in certain transactions, therefore, this statement may not apply to you.

This information could include technical inaccuracies or typographical errors. Changes are periodically made to the information herein; these changes will be incorporated in new editions of the publication. IBM may make improvements and/or changes in the product(s) and/or the program(s) described in this publication at any time without notice.

Licensees of this program who wish to have information about it for the purpose of enabling: (i) the exchange of information between independently created programs and other programs (including this one) and (ii) the mutual use of the information which has been exchanged, should contact:

IBM Corporation
Dept. LRAS/Bldg. 003
11400 Burnet Road
Austin, TX 78758-3498
U.S.A.

Such information may be available, subject to appropriate terms and conditions, including in some cases, payment of a fee.

The licensed program described in this document and all licensed material available for it are provided by IBM under terms of the IBM Customer Agreement, IBM International Program License Agreement or any equivalent agreement between us.

For license inquiries regarding double-byte (DBCS) information, contact the IBM Intellectual Property Department in your country or send inquiries, in writing, to:

IBM World Trade Asia Corporation
Licensing
2-31 Roppongi 3-chome, Minato-ku
Tokyo 106, Japan

IBM may use or distribute any of the information you supply in any way it believes appropriate without incurring any obligation to you.

Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. Questions on the capabilities of non-IBM products should be addressed to the suppliers of those products.

Any references in this information to non-IBM Web sites are provided for convenience only and do not in any manner serve as an endorsement of those Web sites. The materials at those Web sites are not part of the materials for this IBM product and use of those Web sites is at your own risk.

This information contains examples of data and reports used in daily business operations. To illustrate them as completely as possible, the examples include the names of individuals, companies, brands, and products. All of these names are fictitious and any similarity to the names and addresses used by an actual business enterprise is entirely coincidental.

Trademarks

IBM, the IBM logo, and ibm.com are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both. If these and other IBM trademarked terms are marked on their first occurrence in this information with a trademark symbol ($^{®}$ or $^{™}$), these symbols indicate U.S. registered or common law trademarks owned by IBM at the time this information was published. Such trademarks may also be registered or common law trademarks in other countries. A current list of IBM trademarks is available on the Web at Copyright and trademark information at www.ibm.com/legal/copytrade.shtml

Java and all Java-based trademarks and logos are registered trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Linux is a trademark of Linus Torvalds in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are trademarks of Microsoft Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Other company, product, or service names may be trademarks or service marks of others.

IBM

Printed in U.S.A.