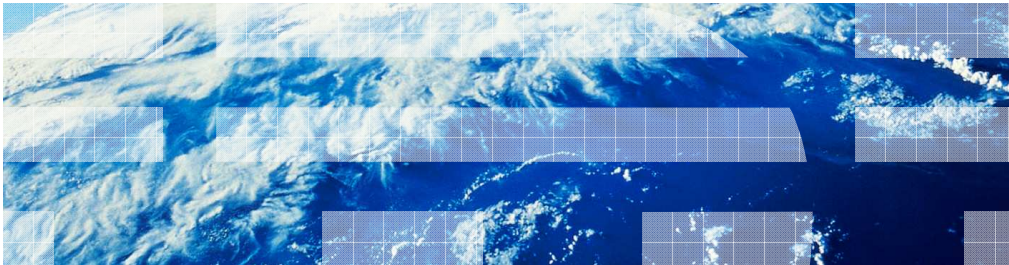# Tivoli Workload Scheduler version 8.5.1

Managing your file system space

In this training module, you learn about managing the size of your file system. You also learn about actions to take before and after you reboot Tivoli® Workload Scheduler version 8.5.1.

Stop and start procedures

To stop Tivoli Workload Scheduler and WebSphere®, perform these steps:

- Stop the WebSphere application server:

  cd <TWSHome>

  . ./tws_env.sh

  conman "stopappserver; wait"

- Stop the engine and all of the processes that support the engine:

  cd <TWSHome>

  . ./tws_env.sh

  conman "stop;wait"

  conman "shut;wait"

- Stop DB2® \\ If you are using DB2 and the server is local to the MDM host

Stopping an instance (Linux®, UNIX®)

http://publib.boulder.ibm.com/infocenter/db2luw/v9/index.jsp?topic=/com.ibm.db2.udb.admin.doc/doc/t0004897.htm

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You can automatically stop and start processes for Tivoli Workload Scheduler before and after you reboot. You can place this function into your RC scripts at startup. Because of the new application server process, you must perform an additional step to stop and start Tivoli Workload Scheduler for WebSphere and DB2 or Oracle. You must make sure to include them in your start and stop procedures.

First, you must stop WebSphere processes. Stop the application server using a **conman "stopappserver;wait"** command.

Next, stop and shut down Tivoli Workload Scheduler using a **conman "stop;wait"** and then a **conman "shut;wait"**.

Then, stop DB2.

Stop and start procedures, continued

After you restart, you perform these tasks:

- Start DB2
- Start WebSphere:

    cd <TWSHome>

    conman "startappserver;wait"

- Start TWS:

    cd <TWSHome>

    ./StartUp

    conman "start"

Managing your file system space

Before restarting Tivoli Workload Scheduler, restart DB2. Next, start WebSphere. Go to the Tivoli Workload Scheduler home directory, enter **conman**, and perform a "startappserver;wait." After that is complete, go to the Tivoli Workload Scheduler startup and perform a conman "start" to see the rest of your processes.

managing_file_system_space.ppt

Managing full file systems

- File space issues in Tivoli Workload Scheduler often occur at JnextPlan
- File space can affect Tivoli Workload Scheduler at any point during production
- Monitor file space frequently to avoid corruption of the production control (Symphony™) file
- For more information, visit this web site:

  http://www-01.ibm.com/support/docview.wss?uid=swg21115012

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Temporary and other directory files linked to Tivoli Workload Scheduler can affect the program. These files include the production control file, also known as the Symphony file. When you visit the web site shown on the slide, you find information about items to check in your environment.

You can also find information about items that you can use to clean your environment. These items include log files that are associated with Tivoli Workload Scheduler and the operating systems.

Clearing space in the file system

Clear these spaces if you have a full file system

- ~twshome/schedlog directory holds previous symphony files. If you perform regular backups of the Tivoli Workload Scheduler directories, keep only 30 days of previous symphony files in this directory

- ~twshome/stdlist directories hold standardlists from the previous day. If regular backups occur, keep only 30 days previous stdlist directories

- ~twshome/audit directories. The audit logs can become large, depending upon the size of the Tivoli Workload Scheduler environment. These logs can be regularly maintained

- ~unisonhome/netman/stdlist directories (Windows® only). The Netman directories can be regularly maintained

- ~twshome /home/m84/appserver/logs/manageprofiles/twsprofile. These logs can be regularly maintained

- ~twshome/appserver/profiles/twsprofile/logs

- ~twshome//appserver/profiles/twsprofile/logs/server1

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The schedlog directory is the old Symphony file. This directory can have up to 255 schedlogs. Keeping stored data for no more than 30 days is a good practice.

The standard list directory is the directory where all daily logs are kept, from the Tivoli Workload Scheduler merge log to your job logs. Thirty days of data are recommended while archiving the rest.

The audit directory, if auditing is turned on, can create large files that can affect performance.

In a Windows environment, there is an additional Netman standard list directory that should be regularly maintained.

Application server logs and profiles track Tivoli Workload Scheduler login and logout. They also track access to TDWC or JSE and other programs.

Utility to calculate disk space

calculate_disk_usage.sh

- This UNIX script monitors available disk space for Tivoli Workload Scheduler file system and sends notification when available disk space drops below defined threshold

- Tivoli Workload Scheduler does not have a feature to self-monitor the Tivoli Workload Scheduler file system

- Monitoring of disk space prevents filling up a Tivoli Workload Scheduler file system and causing Tivoli Workload Scheduler processes to terminate. This termination can compromise the production file and prevent production downtime

- This function was added to mon_msg.sh utility

Technote: 1306331

http://www-01.ibm.com/support/docview.wss?uid=swg21306331

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The **calculate disk usage** utility monitors and sends notifications about available disk space. You can set a threshold limit defining when you want to be notified about approaching space requirements and other alerts to space issues that can compromise your Symphony file.

When you visit the web site shown on the slide, you can download a script and additional documentation for this utility.

Utility to monitor available space

mon_avail_space

- The *mon_avail_space.sh* is used to monitor file system available disk space

- The script uses a user-specified variable that specifies the available space threshold limit of a file system.

- When available disk space for file system drops below the threshold limit, a script sends a notification. The notification states that available disk space is below the defined threshold limit. A suggestion is to increase available disk space for the file system

- The script determines the file system to monitor if the directory name is specified instead of the file system.

- The *mon_avail_space.sh* should be run periodically to monitor available disk space on any file system

Technote: 1326416

http://www-01.ibm.com/support/docview.wss?uid=swg21326416

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The **mon_available_space.sh** is another utility that can be set up in a job or run periodically to monitor disk space. This utility sends an email notifying you of potential space issues. If the directory fills up, it can corrupt your Symphony file. Then, you must perform a reset or manually delete message files and reinitialize Tivoli Workload Scheduler.

When you visit the web site shown on the slide, you can download a script and additional documentation for this utility.

Utility to monitor message files

mon_msg.sh

- Is a UNIX script that monitors size of .msg files

- Can be configured to auto increase size of .msg files that exceed defined threshold.

- Can send notification that threshold has been exceeded

- Can send these notifications by email or text message to cell phone

- Currently this function does not exist in Tivoli Workload Scheduler

Technote: 1306335

http://www-01.ibm.com/support/docview.wss?uid=swg21306335

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Mon_msg.sh is a UNIX script that monitors the size of .msg files. You can automatically configure this file to send emails or text messages. These messages alert administrators when size thresholds are about to be exceeded. The default threshold is 10 megabytes. Network bottlenecks and other issues can cause file sizes to grow. Growing beyond the threshold can shut down Tivoli Workload Scheduler. These email and text message alerts serve as an early warning to prevent this issue.

You can run an EVT size command to increase the size limit of the message file.

What each line of "planman showinfo" means

- Plan date that was last added to the Symphony file
  Production plan start time of last extension: 03/06/2010 06:00 TZ CST

- Date the added plan will end
  Production plan end time: 03/07/2010 05:59 TZ CST

- A 48-hour plan and number of hours in the last plan extension
  Production plan time extension: 024:00

- Date and time that the last plan was extended.
  Plan last update: 03/05/2010 08:45 TZ CST
  Preproduction plan end time: 03/20/2010 07:00 TZ CDT
  Start time of first not complete preproduction plan job stream instance: 03/05/2010 06:00 TZ CST

- Current run number of plan
  Run number: 7
  Confirm run number: 7

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Planman has been an available command since version 8.3. You can use this command to obtain information related to your current production plan and your Symphony file.

Planman displays creation time and end time of the Symphony file. It also displays plan extensions, the current number of plans that are running, and other information.

At the bottom of the report is a note showing the start time of the first **not complete preproduction plan**. This start time is generally based on the first time Jnex is run or the first time a plan is reset.

Summary

- In this presentation, you learned about processes to use before and after you restart. You also learned about full file system procedures, schedule logs, and Tivoli Workload Scheduler commands

- For more information, use these sources:

  Starting a DB2 instance (Linux, UNIX):
  http://publib.boulder.ibm.com/infocenter/db2luw/v9/index.jsp?topic=/com.ibm.db2.udb.admin.doc/doc/t0004676.htm

  Stopping the WebSphere application server and the appservman process:
  http://www-01.ibm.com/support/docview.wss?uid=swg21406241

  Using the Appservman process:
  http://publib.boulder.ibm.com/infocenter/tivihelp/v3r1/index.jsp?topic=/com.ibm.tivoli.itws.doc_8.5.1/appserverman.htm

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In this presentation, you learned about processes to use before and after you restart. You also learned about full file system procedures, schedule logs, and Tivoli Workload Scheduler commands.

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