Using UNIX Commands in BW

Applies to:

SAP BW 3.5 and BI 7.0. For more information, visit the Business Intelligence homepage.

Summary

UNIX commands are very important while handling the files. Files can be moved, copied, renamed etc by using UNIX commands. In BW this could be achieved through OS Commands. We could directly use the UNIX commands in the OS Commands or can call a UNIX script file through OS Command. It is also possible to automate an OS Command through Process Chain and SM37 job.

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Pre Requisites

Basic knowledge about the UNIX Commands is required.

In all my examples I will be considering the following

File name: Test.dat

Source Directory on Application Server: \usr\sap\N4S\SYS\

Destination Directory on Application Server: \usr\sap\N4S\SYS\Test\

UNIX Script File: Testscript.sh

Following are some basic UNIX commands and the syntax that we use for handling the files. One important thing to be noted is that UNIX is case sensitive. So make sure the filename and path name are proper.

Syntax: Command<space>source<space>destination

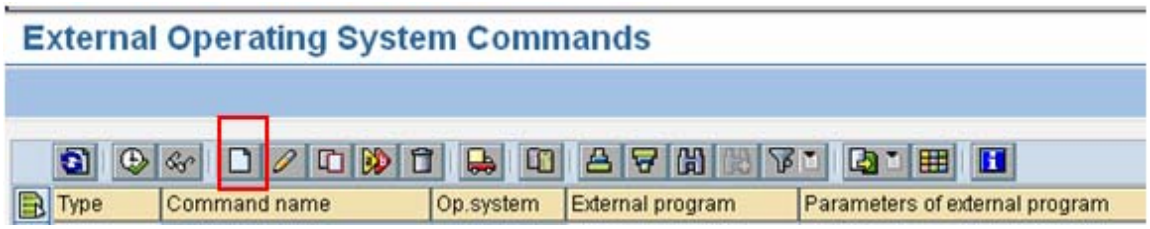
Moving a File: mv \usr\sap\N4S\SYS\Test.dat \usr\sap\N4S\SYS\Test\Test.dat

Copying a File: cp \usr\sap\N4S\SYS\Test.dat \usr\sap\N4S\SYS\Test\Test.dat

Triggering a UNIX script: sh \usr\sap\N4S\SYS\Testscript.sh

Directly Using the UNIX Commands

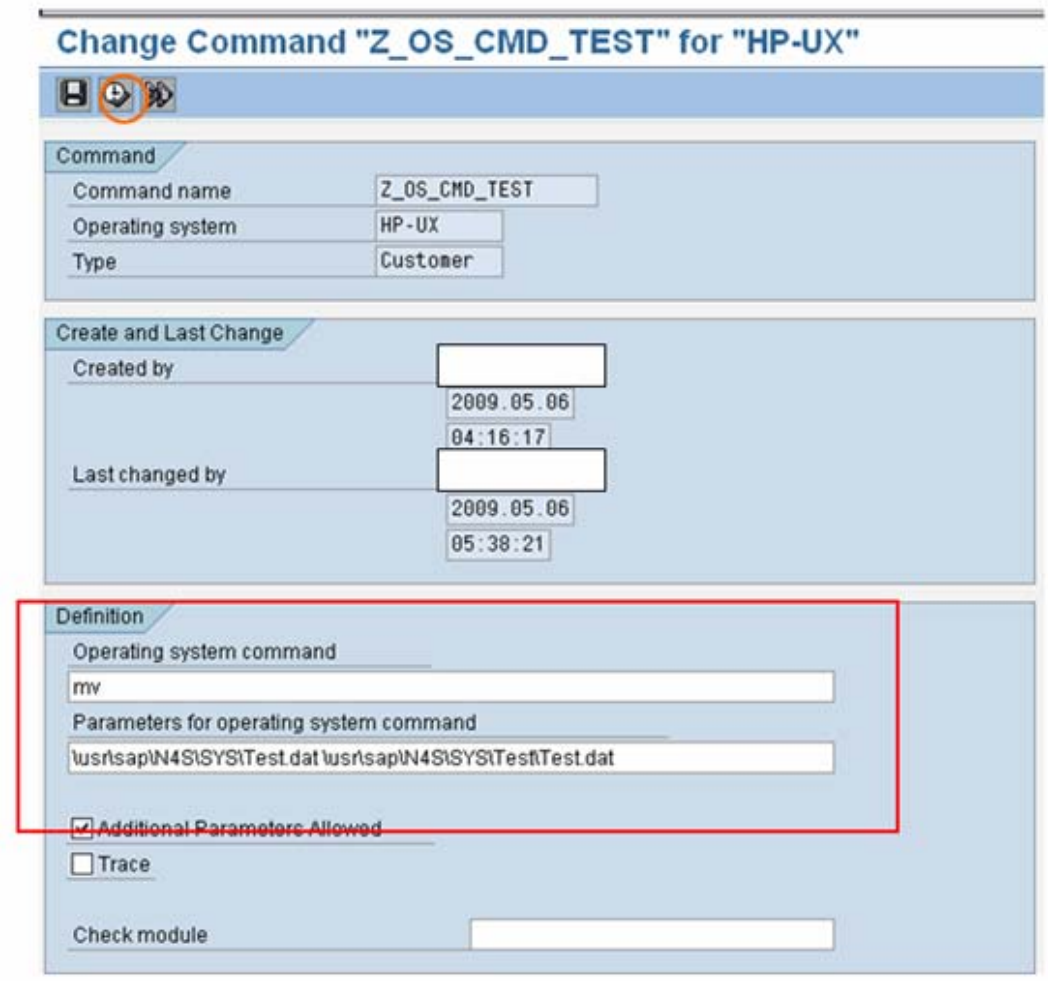
Goto Transaction SM69 and click on the create button as shown below to create the OS command.



Following page appears. Give the technical name (**Z_OS_CMD_TEST**) and select the **Operating System** as **HP-UX**. Now goto the definition section as shown below and put the UNIX command in the **Operating System Command** field and the source and destination directory in the **Parameters for operating system command** field.

Operating system command: UNIX Command

Parameters for operating system command : <origin> <destination>



Here we will **move** the file **Test.dat** from the directory **\usr\sap\N4S\SYS** to **\usr\sap\N4S\SYS\Test**

Now when you click on the execute button, **Test.dat** file will be moved from the source to destination directory.

- ✓ Instead of moving, if you want to copy the file then just put **cp** in **Operating System Command** field. So file gets copied from the source to destination directory.

Accessing the UNIX Script File through OS Command

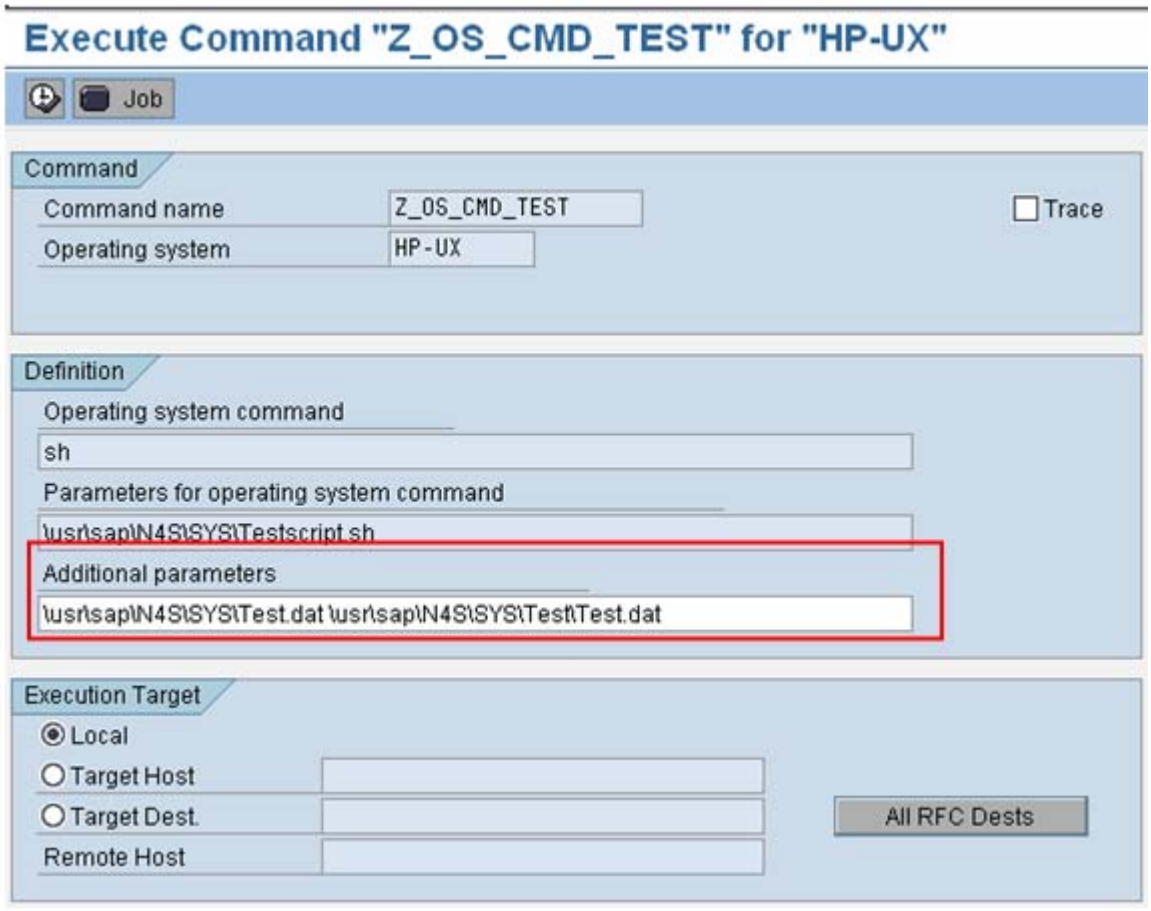
Above process is simple if you have to handle one file. Suppose you have many files then it is not possible to create OS commands for each file. There is a simple process for doing this. Create the following UNIX script and trigger this UNIX script from the OS command as shown below.

Testscript.sh

```
#!/bin/ksh
ORIGIN=$1                          # Variable which takes Source path
DESTINATION=$2                     # Variable which takes the destination path
 if [ -f $ORIGIN ]                 # Check if the file is available
 then
   mv $ORIGIN $DESTINATION         # Move the file from source to destination
   exit 0
 else
   exit 0
 fi                                # End of IF Command
```

Now once the above script is ready. Create the OS Command from SM69. But this time make sure you put the **sh** in **Operating System Command** field and UNIX script file path in **Parameters for operating system command** field as shown below. Also tick the checkbox **Additional parameters Allowed**.

Now when you execute the OS command, it would trigger the UNIX script and would ask for the parameters to be passed. You can put the **source** and **destination** in the **additional parameters** and click on execute as shown below. These parameter values go into the script file as the variable entries for **$ORGIN** and **$DESTINATION** and move the file.

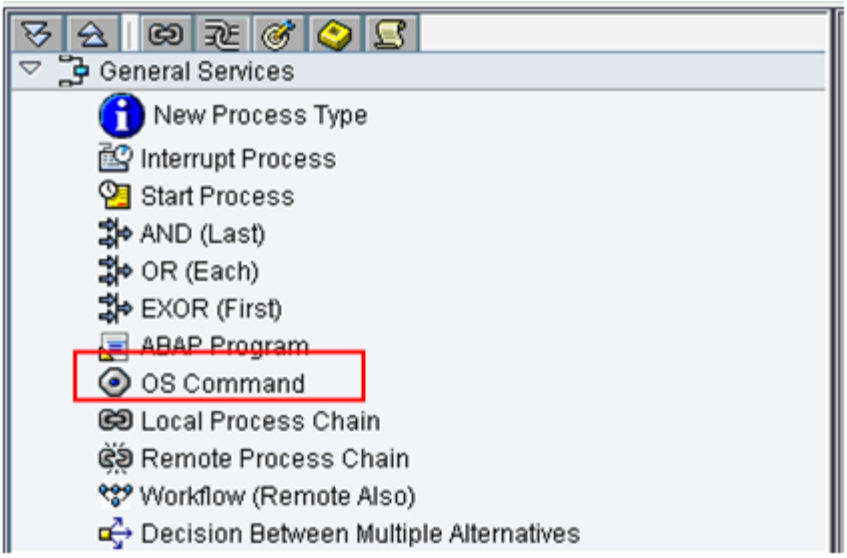


- ✓ Now if you want to move a different file then trigger the same OS command from SM69 and in the **additional parameter** field give the **source** and the **destination** of the **new file**.
- ✓ Similarly if you want to copy the file instead of moving then change **mv** to **cp** in the UNIX script file **Testscript.sh**.

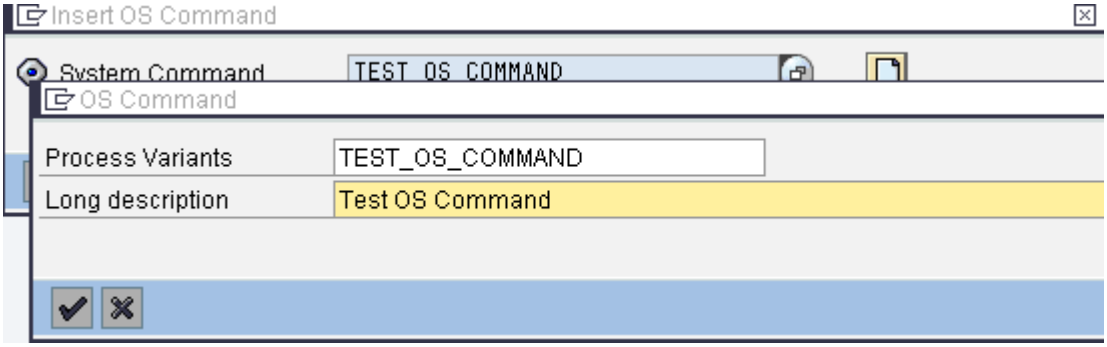
Automating the OS Command

Suppose you have to carry out these file activities (moving/copying/renaming/deleting) after loading the data through a flat file from the process chain. Then these activities can also be included in the process chain.

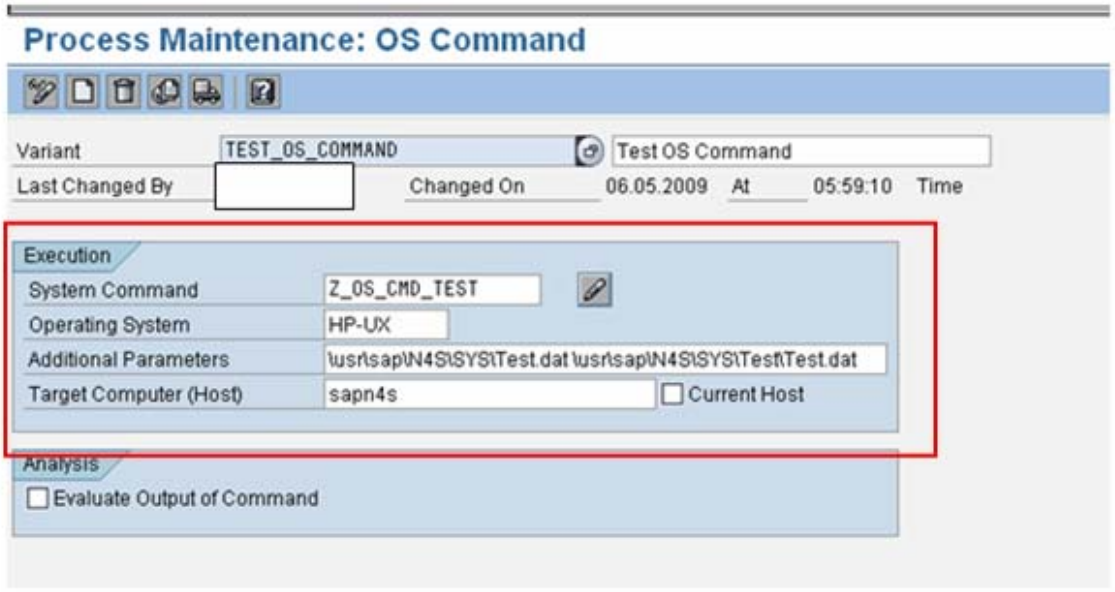
Use the OS Command option while creating the process chain as shown below.



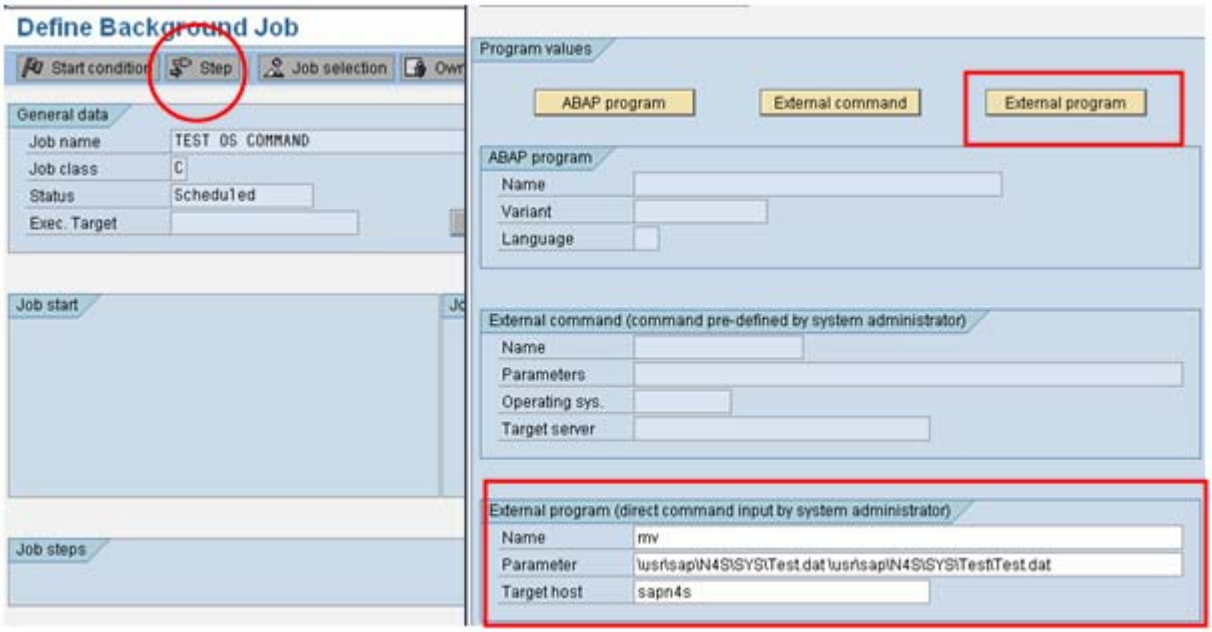
Put the technical name and description of the process variant as shown below.



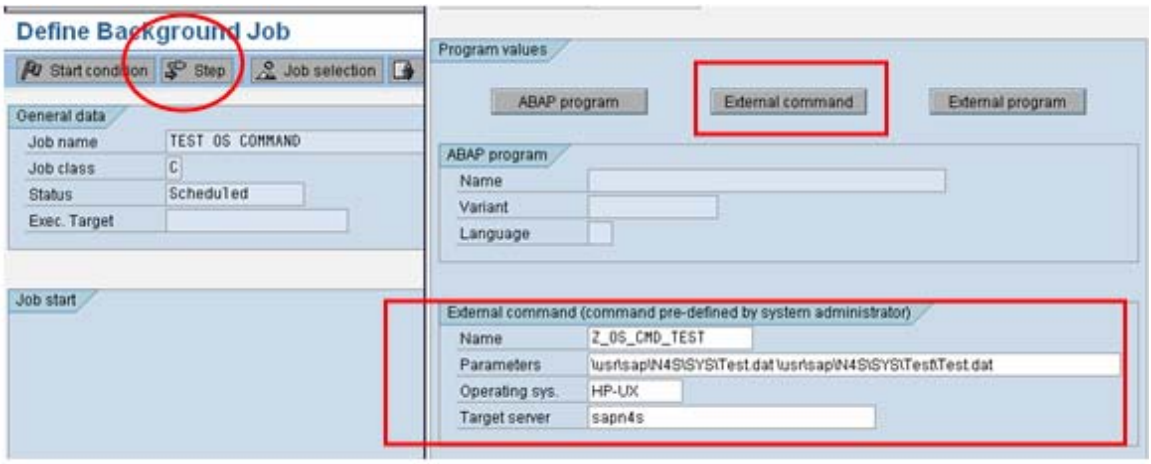
When you get inside the process variant, give the **OS Command name** and the **additional parameters** as shown below. So when the process chain executes this variant, it will trigger the **OS Command (Z_OS_CMD_TEST),** which would trigger the UNIX script **Testscript.sh** and will take the source and destination path as the parameters for the variables and file would be successfully moved from **source** to **destination**.



This can also be automated using an SM37 job. Goto SM36 for creating a job. While assigning a step to the job, click on the External Program. This is used when the OS command is directly used for moving the file as shown below.



If the UNIX script file is to be triggered by passing the parameter then External Command is used as shown below.


Define Background Job
Start condition
Step
Job selection
General data
Job name
TEST OS COMMAND
Job class
C
Status
Scheduled
Exec. Target
Job start
Program values
ABAP program
External command
External program
ABAP program
Name
Variant
Language
External command (command pre-defined by system administrator)
Name
Z_OS_CMD_TEST
Parameters
\usr\sap\N4S\SYS\Test.dat \usr\sap\N4S\SYS\Test\Test.dat
Operating sys.
HP-UX
Target server
sapn4s

Related Content

External Commands Overview

Maintaining OS COMMAND

Additional Parameters

For more information, visit the Business Intelligence homepage.

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