Managing WLM on your desktop

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Together with z/OS 1.8, IBM made available a tool named "WLM Service Definition Editor".
It is a workstation-based tool that allows you to maintain your WLM service definitions using a more user friendly interface than the classic, ISPF based, WLM Administrative Application.
Using this tool you can get many advantages in terms of visibility and manageability of WLM definitions especially in complex, multi sysplex environments.
However it's important to remember that this tool is not a standard IBM product, nor part of any other one; it is a free tool provided "as is" without warranty of any kind.
In this paper the more interesting features of the tool are described together with our first impressions and experiences using it.

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1 Overview

Managing WLM definitions using the classic ISPF based administrative interface has always been a bit difficult especially when managing multi sysplex environments.

The major limitations of this interface are:

➢ A very limited visibility of the overall definitions structure due to the use of pop up menus;
➢ The use of key stroke selections, in some case inconsistent between different panels;
➢ The need to log on each sysplex to manage its specific definitions.

Finally IBM made available a workstation-based tool named "WLM Service Definition Editor" (WSE in the following) which permits to maintain WLM service definitions using a much more user friendly interface. Using this tool you can get many advantages in terms of visibility and manageability of WLM definitions especially in complex, multi sysplex environments.

WSE can be downloaded, together with the user's guide manual, at:
http://www-03.ibm.com/servers/eserver/zseries/zos/wlm/tools/sdeditor.html

WSE integrates a transfer function that allows you to download/upload, using FTP, WLM service definitions in ISPF format between host and workstation. This means, WSE does not interact directly with the WLM component of the z/OS operating system, it solely operates on WLM Service Definitions in ISPF format (see Figure 1).
WSE does not provide any support to extract, install, and activate z/OS WLM Service Definitions[1].

Service definitions edited with the WLM Service Definition Editor have to be in XML format.
The transfer function automatically converts XML service definitions into ISPF service definitions and vice versa.
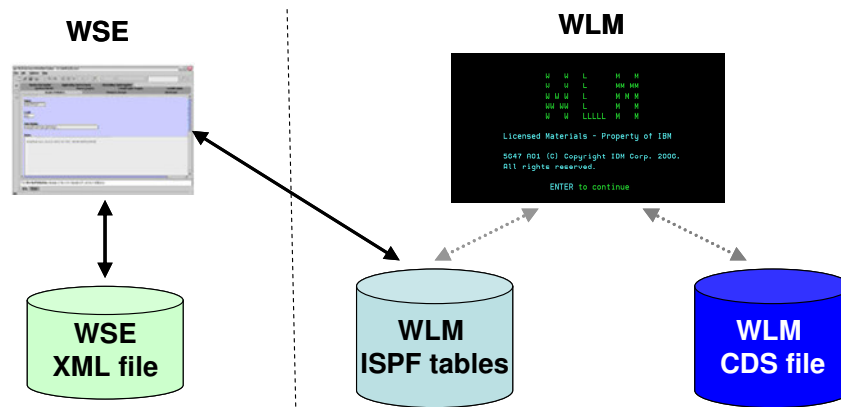

Figure 1

The current version is WSE 1.1.0 and it supports all the versions from z/OS 1.4 up to z/OS 1.8[2].

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[1] It's important to remember that this tool is not a standard IBM product nor part of any other one; it is a free tool provided "as is" without warranty of any kind.
[2] If you are running z/OS V1R4 or z/OS V1R5 you need to install the IBM Communications Server PTF UK06395 (APAR PK08856).

2 Preparing to connect to z/OS

The fist step to do, before starting to download WLM Service Definitions from the host, is defining an appropriate FTP profile using the *FTP Profile* option in the *Options* menu.
Figure 2 shows a sample FTP Profile definition.

Three different transfer modes are supported; if the configuration of the z/OS FTP server allows the submission of batch jobs in JES you can use transfer mode 1 which provides a fully automatic conversion between XML Service Definitions and ISPF Service Definitions.
To use transfer mode 1 the *Script PDS* field must not be specified.

Figure 2

The second step is the definition of a FTP Connection, using the *Transfer* option in the *File* menu, to establish a relation between the XML Service Definition file located on the workstation and an ISPF Service Definition dataset located on a host.
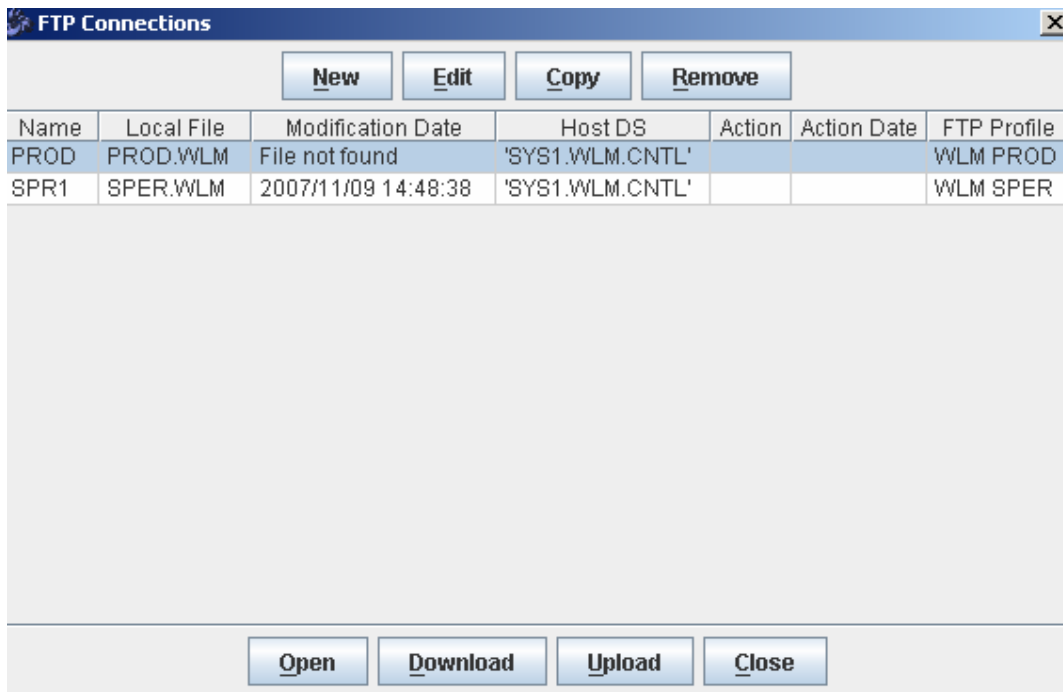
Figure 3

Clicking on the Edit button you can modify the settings to associate FTP Connections to FTP Profiles.
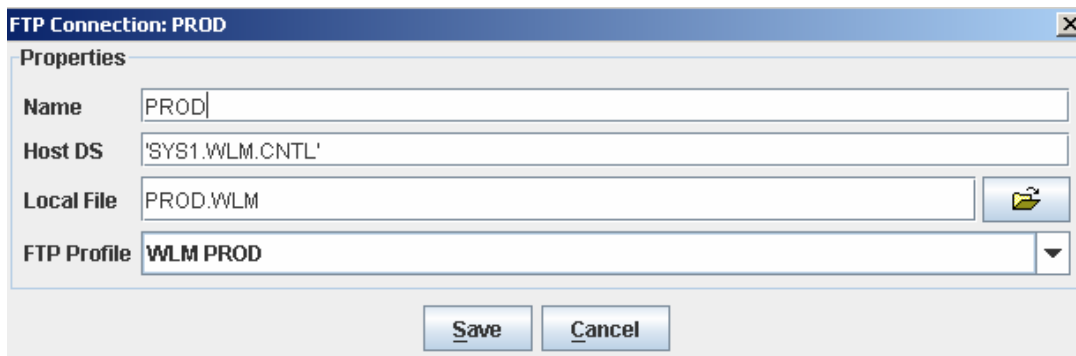

Figure 4

Otherwise you can click Download or Upload to start the communication with the host.

3 Downloading WLM definitions from z/OS

Once you created the FTP Connections and FTP Profiles for each sysplex, the first thing to do is to download all the WLM Service Definitions to your workstation.

When you click the Download button a FTP communication is established between the workstation and the selected host and a job is submitted on z/OS.

As soon as the job ends all the produced sysout are sent back and analyzed by WSE. If any error has occurred you'll get a window including the "SPOOLFILE' list.
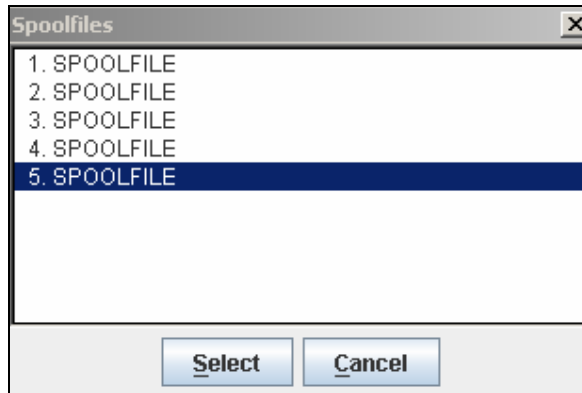

Figure 5

Clicking the Select button you can analyze the sysout as if you would be logged on z/OS.
The report in Figure 6 clearly states that the input file name was not correct. In fact instead of reading the 'SYS1.WLM.CNTL' file, WSE tried to open 'ESC01.SYS1.WLM.CNTL' which doesn't exist. We intentionally produced the error, for didactic purpose, by omitting quotes in the FTP Connection settings.

Figure 6

Based on our (short) experience we can say that the download process works well with no critical issues to highlight.
We also downloaded WLM definitions from a system running z/OS 1.9 with no apparent problem.

4 Working with WSE

WSE provides three different views of a WLM Service Definition:
➢ Tree View
➢ Table View
➢ Print View

The first two views can be used to edit the Service Definition while the third is a read-only, ready-to-print view.

The major benefits provided are:

- ➢ All the information is represented as tables
- ➢ Direct manipulation of tables
- ➢ Display of relations between policy elements
- ➢ Real-time error checking
- ➢ Context-sensitive help
- ➢ Automatic problems check

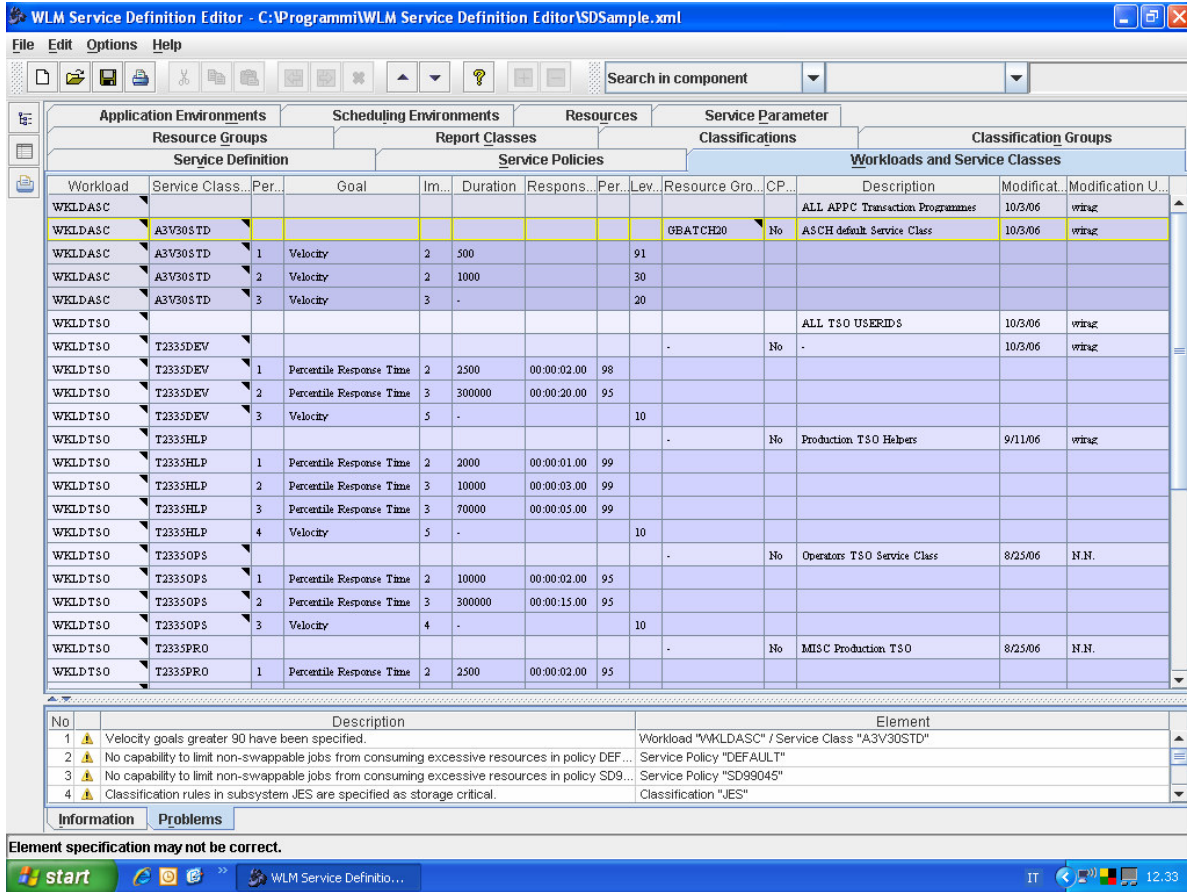In Figure 7 a sample of Table View is presented.

Figure 7

The Automatic error check feature is a kind of WLM health check and can be very useful. Whatever view you are using you have the possibility to click on Problems (at the left bottom of the screen) and access a list showing errors, warnings and informational messages WSE found in your Service Definition.

Figure 8

Additional useful functionality provided are:
➢ Table columns can be moved as needed
➢ Table rows can be sorted as needed
➢ Rearranged tables can be edited
➢ Search function for arbitrary text within tables

5 Uploading WLM definitions to z/OS

After editing WLM settings you have to send the updated Service Definition to Z/OS.

Similarly to the Download you just have to use the *Transfer* option in the *File* menu and select the appropriate FTP Connection.
Again when you click the Upload button a FTP communication is established between the workstation and the selected host and a job is submitted on z/OS[3].
As soon as the job ends all the produced sysout are sent back and analyzed by WSE. If any error has occurred you'll get a window including the "SPOOLFILE' list.

Unfortunately we discovered an unexpected behavior in this phase. We tried to upload the Service Definition on the same PDS file we normally use to save WLM definitions in z/OS.
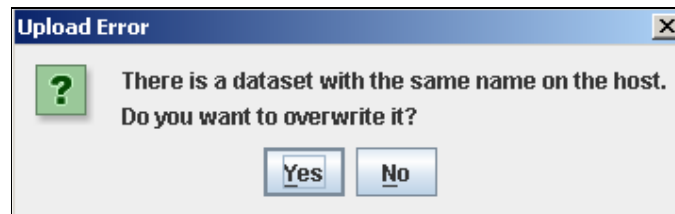WSE realized the dataset already existed and sent the message in Figure 9.

Figure 9

We answered yes and apparently everything ended correctly. We accessed the new definitions using the classic WLM interface and installed and activated them on the system.
On the next day we discovered the WLM PDS file had been deleted by our "public" disks cleaning job.
What had happened was that WSE instead of overwriting the PDS file, deleted it and created a new one, unfortunately on a "public" disk.

6 Conclusion

IBM made available a workstation-based tool named "WLM Service Definition Editor" which maintains WLM service definitions using a much more user friendly interface. Using this tool you can get many advantages in terms of visibility and manageability of WLM definitions especially in complex, multi sysplex environments.
We tested WSE and found many benefits but also an unexpected behavior in the uploading of a WLM Service Definition to z/OS that, in some situation, could become a critical issue.

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[3] This time however you are converting from XML to ISPF format while in Download you do the opposite.