IBM Software Group

WebSphere Application Server V6.1

Jython development tools
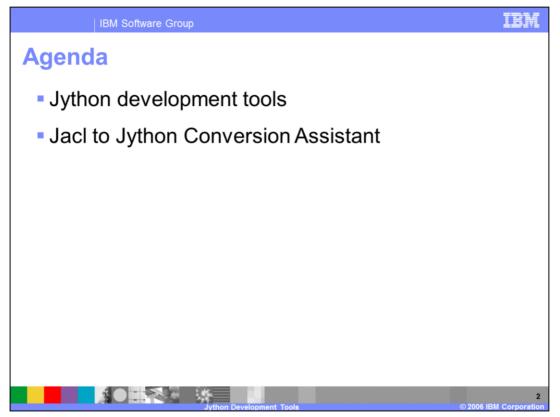
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This presentation focuses on the Jython development tools in WebSphere Application Server Toolkit Version 6.1.

Agenda

- Jython development tools
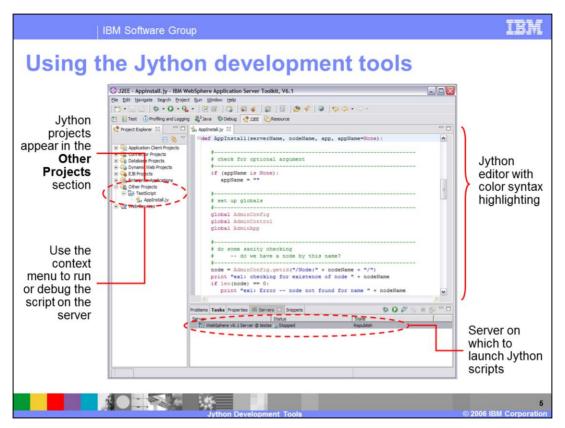- Jacl to Jython Conversion Assistant

Jython is the new strategic direction for administrative scripting in WebSphere Application Server. In fact, effective V6.1, Jacl is being deprecated. This does not mean that Jacl support has been removed in this release; Jacl will continue to be supported for two full releases of the application server. In an effort to help you transition to using Jython to write your administrative scripts, IBM is providing several Jython development tools as a part of the Application Server Toolkit V6.1.
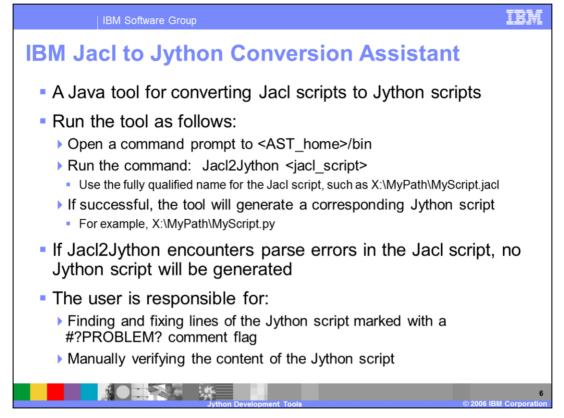
Section

Overview

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The first section of the presentation provides an overview of the WebSphere Application Server Toolkit V6.1 and its architecture.

Jython development tools overview

- Motivation
  - Increase productivity and shorten learning curve for automation script development
- Tools provide support to simplify development and maintenance of automation (wsadmin) scripts
  - Eclipse based Jython editor – use wizards to create Jython projects and Jython script files
  - Improved launching support for both Jython and Jacl scripts
  - Full debugging support
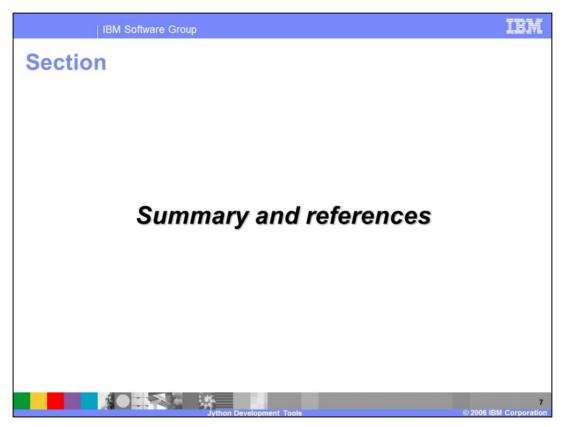 - WebSphere Administration Command view

AST provides a rich set of tools to develop and work with Jython scripts, including a new Jython editor, complete with color syntax highlighting, code completion, and keyword help for wsadmin Jython keywords. You no longer need to switch out of the Application Server Toolkit to a wsadmin prompt to run your administrative scripts – you can launch them directly from within the workbench and view the resulting output in the Console View. The AST also offers full debugging support. You can launch your scripts in debug mode, set breakpoints, and debug them just like you would debug your Java™ code. The WebSphere Administration Command view is also new in this release. In this view, you can connect to a server, perform a sequence of events from the administrative console, and Jython code that represents those actions is generated automatically.
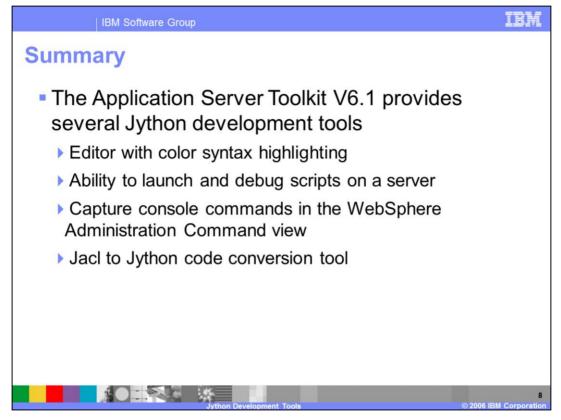
This view of the AST workbench shows a simple Jython project. The Jython project appears in the Other Projects section of the Project Explorer view. Right-clicking on the Jython script brings up a context menu that allows you to launch your script directly on the server – either in debug mode or normal mode. Output from the script will appear in the Console view at the bottom of the workbench. Notice that the editor provides color syntax highlighting for Jython scripts.

IBM Jacl to Jython Conversion Assistant

- A Java tool for converting Jacl scripts to Jython scripts
- Run the tool as follows:
  - ▸ Open a command prompt to <AST_home>/bin
  - ▸ Run the command: Jacl2Jython <jacl_script>
    - Use the fully qualified name for the Jacl script, such as X:\MyPath\MyScript.jacl
  - ▸ If successful, the tool will generate a corresponding Jython script
    - For example, X:\MyPath\MyScript.py
- If Jacl2Jython encounters parse errors in the Jacl script, no Jython script will be generated
- The user is responsible for:
  - ▸ Finding and fixing lines of the Jython script marked with a #?PROBLEM? comment flag
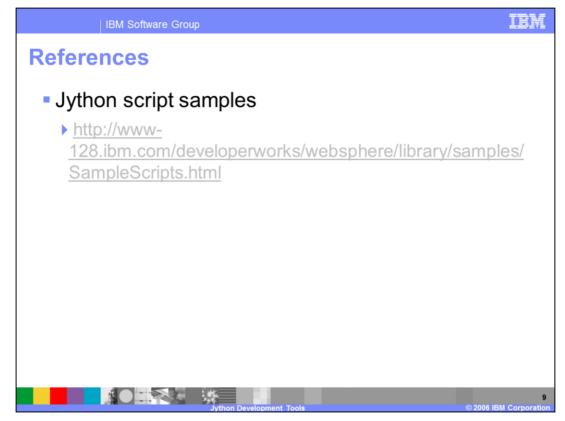 - ▸ Manually verifying the content of the Jython script

To help facilitate your transition from Jacl to Jython scripting, the Application Server Toolkit comes with a Jacl to Jython conversion tool. This tool is only available through the command line. If the Jacl script being used as input to the tool cannot be parsed, no Jython script will be produced as output. It is your responsibility to fix the parse errors in the Jacl script in order to be able to use the tool. Even if the tool is able to parse the Jacl file and runs successfully to completion, there may be some lines that might not convert accurately. These lines will be marked with a special #?PROBLEM? comment flag, and you will need to fix them by hand. The documentation for the conversion tool provides information on helping to resolve these problems. It is also your responsibility to verify the content of the Jython script that the tool generates.

The last portion of the presentation contains a summary and references.

This version of the Application Server Toolkit provides several Jython development tools to help you develop new scripts and migrate your existing Jacl scripts to Jython. You can develop scripts, launch and debug them on a server, and capture commands for the functions you perform in the administrative console directly to the AST. The AST also provides a script conversion assistant.

References

- Jython script samples
  - http://www-128.ibm.com/developerworks/websphere/library/samples/SampleScripts.html

Jython Development Tools

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This reference contains several sample Jython scripts.

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