



IBM Software Group

IBM WebSphere® Application Server V6

System Management – Generic Server



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This presentation will focus on Generic Servers in WebSphere Application Server V6.

Goals

- Describe Generic Server Support in WebSphere Application Server V6 Network Deployment

The goal of this presentation is to give you an overview of Generic Server – what it is and how it is supported in V6.

Agenda

- Overview
- Basic functions
- wsadmin commands
- Limitations

This presentation will cover an overview, basic functions, wsadmin commands and some limitations.

Generic server: Overview

- A “Generic Server” is a server being managed in the WebSphere administrative domain but it is not a server supplied by the WebSphere Application Server product - They are of 2 types:
 - ▶ Java™ applications or processes (Java class or executable JAR)
 - ▶ Non-Java applications or processes
- Used when you need another application controlled from WebSphere Application Server
 - ▶ For example, you may require it to be running for your J2EE applications
- Generic servers are administered using any Administrative Clients
 - ▶ For Stand-alone Application Server environment, you can create or modify the Generic server from the Administrative Console



Generic Servers are non-WebSphere processes that you can control with the Administrative clients. They are mainly used for applications that require other processes to be running. You can control the starting and terminating of the Generic Servers from using the Administrative Clients.

Examples of Non Java applications include C or C++ Servers, CORBA Server, and so on.

An example of a use case for the Generic Server is where your J2EE application may require that a CORBA server be started. Defining the CORBA server as a Generic server, you can use WebSphere administration to start the CORBA Server and your J2EE application.

Generic server: Overview (cont.)

- History

- ▶ v4 had Generic server support
- ▶ v5 did not have the support
 - Reintroduced in V5.1

- v6 Enhancements:

- ▶ Easy to create Generic Server
 - Option under Server panel in Administrative Console
- ▶ Template support for Generic Server
 - Create templates from existing Generic Servers, which are used when creating new Generic servers

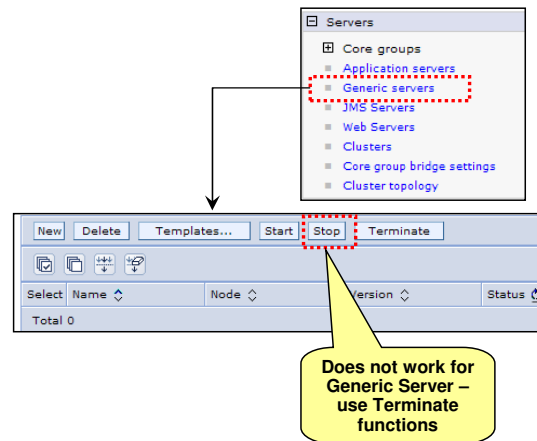
Generic Server support returns in V6, with some usability enhancements in the ease of creating Generic servers and with support for Generic Server template.

Generic server: Basic functions

- Create
 - ▶ A default template is provided
- Create a Template from existing Generic Servers
- Delete
- Start and Terminate the Server
 - ▶ These functions are not supported in Stand-alone Application Server environment – use the startServer and stopServer command
- Monitor the server



Create and Manage Generic Server and Template Demonstration



The Administrative Console and wsadmin scripts provide the basic functions to create and manage Generic Servers. Pause this presentation and click on the Show Me icon for a short demonstration of creating, starting and terminating Generic servers and creating templates from existing generic servers. Note that the Start and Terminate functions are not available in a Stand-alone Application Server environment. Use wsadmin commands in that environment. Also note that the Stop function does not work for Generic Servers – use Terminate function instead.

Monitoring allows you to remotely monitor whether the program is running or not.

Generic server - start and stop server commands

- Start, stop server and server status commands also work on Generic Servers
- Examples
 1. `startServer genericServer01`
 - Starts the generic Server “genericServer01” defined in the default profile
 2. `startServer –profileName AppSrv01 genericServer01`
 - Starts the generic Server “genericServer01” defined in profile “AppSrv01”
 3. `stopServer –profileName AppSrv01 genericServer01`
 - Stops the generic Server “genericServer01” defined in profile “AppSrv01”
 4. `serverStatus –profileName AppSrv01 genericServer01`
 - Returns the status of the generic Server “genericServer01” defined in profile “AppSrv01”



The start, stop server and server status commands have been enhanced to work on Generic Servers, just as well as they work on the Application Servers.

Listed on this page are examples of using these commands on generic servers. Note that if a `profileName` option is not provided, the command will work on the default profile, as shown in example 1. The remaining examples specify a profile name for the commands.

Generic server wsadmin commands

- Create a Generic server syntax:
 - ▶ `$AdminTask createGenericServer mynode {-name generic1 -ConfigProcDef {{cmd.exe "arg1 arg2" "" "" "/tmp/workingDirectory" "/tmp/stopCommand" "argy argz"}}} $AdminConfig save`
- Start Generic Server
 - ▶ Returns true or false
 - `set nodeagent [$AdminControl queryNames *.*.type=NodeAgent]`
 - `$AdminControl invoke $nodeagent launchProcess generic1`
- Terminate Generic Server
 - ▶ Returns true or false
 - `set nodeagent [$AdminControl queryNames *.*.type=NodeAgent]`
 - `$AdminControl invoke $nodeagent terminate generic1`
- Monitor Generic Server –
 - ▶ Returns running or stopped
 - `set nodeagent [$AdminControl queryNames *.*.type=NodeAgent]`
 - `$AdminControl invoke $nodeagent getProcessStatus generic1`



This slide shows the basic wsadmin commands used for managing Generic Servers. The listed examples show the commands using JACL scripts. Refer to the WebSphere Application Server V6 Information Center for more details and commands in Jython.

Limitations

- Cannot monitor or terminate a generic servers that are launched using a shell script
 - ▶ This is because the WebSphere Application Server logic receives the process ID (PID) for the process it launched, but not any child of that process
 - ▶ Without access to the PID, the WebSphere Application Server code cannot attach to, monitor, or terminate a process



WebSphere Application Server can only monitor Generic Servers that it has launched. If you have a Shell script as your generic server, WebSphere has no way of knowing what the shell script launches. Therefore, you should not define Generic Servers that are launched using scripts, if you need the ability to monitor or terminate that process.

Summary

- Generic Server allows you to manage your own processes using WebSphere administration

In summary, Generic servers allow you to manage non-WebSphere processes from within WebSphere Application Server.

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