

# VISUAL CONFIGURATION EXPLORER



# Agenda

- Motivation for Visual Configuration Explorer (VCE) ?
- Value of VCE
- Architecture
- IBM Support Assistant
- VCE Overview
  - Search
  - Compare
  - Validate
  - Headless Operation
  - Diagrams
- VCE Terminology
- Demo
- Questions

## Motivation for Visual Configuration Explorer ?

### ■ Free Tool ( Tech Preview )

- Reduce time to understand System Configuration
- Quicker navigation to specific pieces of configuration data
- Quickly validate configuration (comparison/validation rules)

### ■ Increase Customer Satisfaction

- Help IBM Support reduce time needed to solve customer problems
- Make it easier for customers to solve configuration related issues

### ■ Other VCE Benefits

- Use in other tools : Headless script operation
- Use in Testing (functional, performance..), Deployments etc.

Fixing problems ...

... is much easier with the right tool for the job!

## Value of VCE

- Uniform Visualization of Multiple Product Configuration information
- Compact, complete, and logical structure of the data (topology objects, relationships, properties)
- Cross-product relationships
- Sophisticated exploration aids – diagramming, searching, comparing and validating
- Extensible drawing aids – templates
- Automation Framework – Headless CLI-based automation of VCE function

# VCE TERMINOLGY

- **VCE Workspace**

- A local file for caching, saving and personalizing information
- The VCE client allows the user to create/open multiple workspaces

- **Provider**

- Source of topology and configuration data
- Currently WAS, Portal and xmlaccess export supported well
- Out of date? : DB2, IBM Tivoli Directory Server, IHS, and WebSphere MQ
- The user adds one or more providers to a workspace
- Next release: wimconfig.xml support, Connections Provider ?

- **Topology Objects and Relationships**

- Normalized representation of configuration data - Created by providers

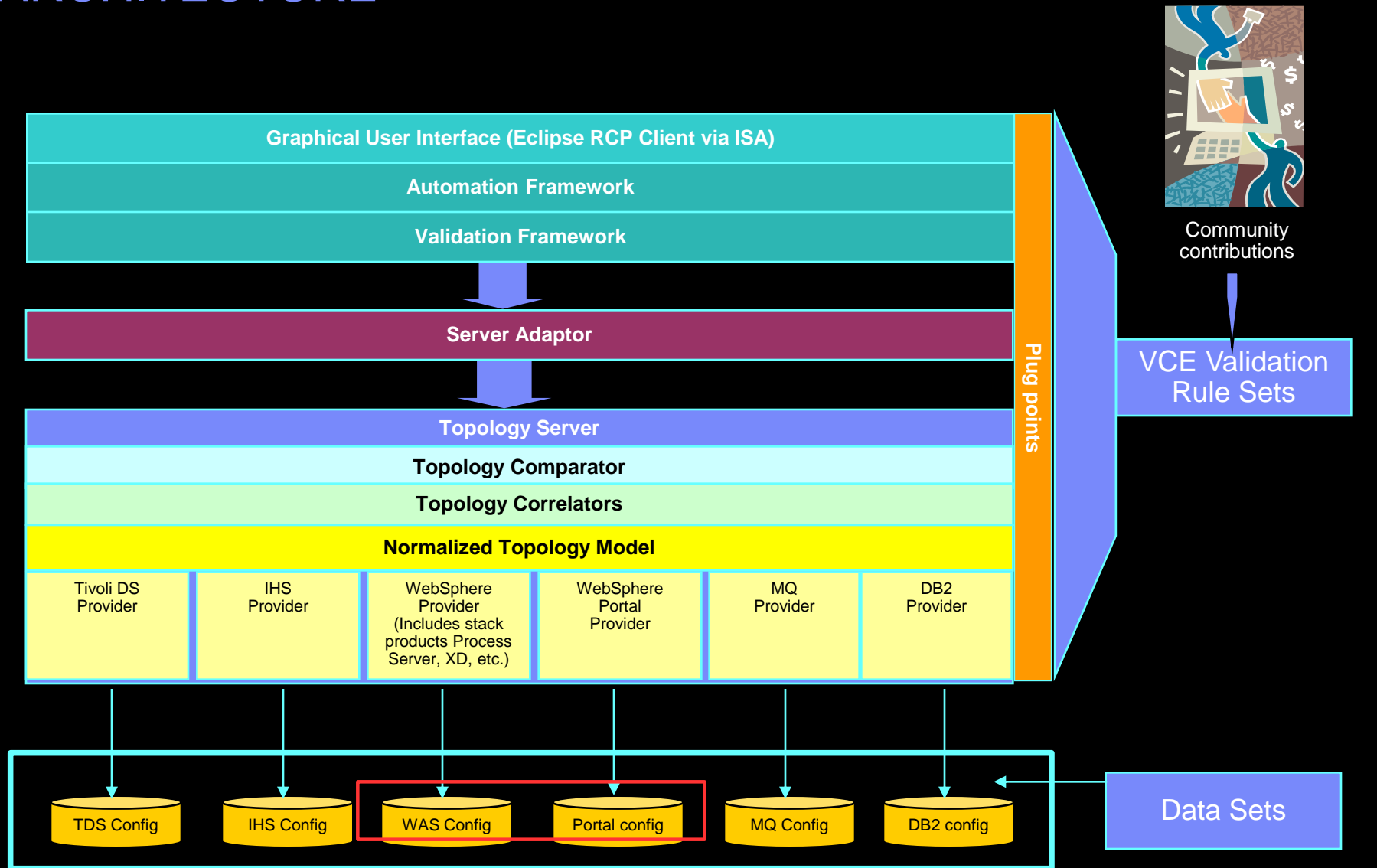
- **Properties**

- Detailed information for a topology object instance; Conceptually a tree of tables

- **Diagrams**

- Visualization of topology objects and relationships

# ARCHITECTURE



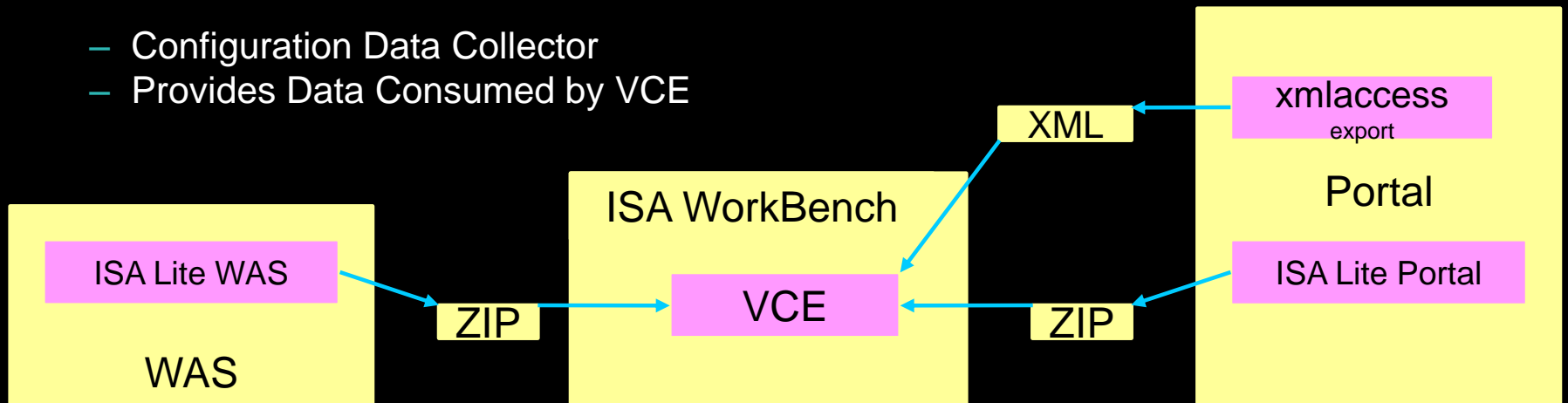
# IBM Support Assistant

## ■ ISA Workbench

- Provides the “toolbox” in which analysis tools reside (e.g. VCE)
- The place to go for Serviceability Tools across product families
- Assist with opening PMRs and working with IBM Support
- Product information to locate APARs and fixes
- Search feature to query IBM and non-IBM knowledge banks

## ■ ISA Lite

- Configuration Data Collector
- Provides Data Consumed by VCE

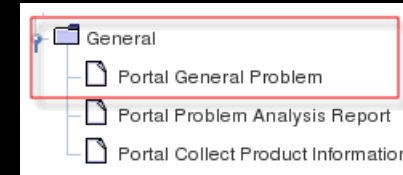


# IBM Support Assistant

## ■ Configuration Data Collection Tools

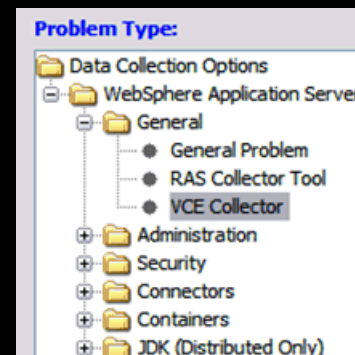
### – WebSphere Portal

- ISA Lite for WebSphere Portal v6.x v7.x (OK for VCE)
- ISA Data Collector for WebSphere Portal v8.x (incompatible with VCE)
- xmlaccess export (OK for VCE)



### – WebSphere Application Server

- ISA Lite for WAS v6.x v7.x v8.0 (OK for VCE)
- ISA Data Collector for WAS v6.x v7.x v8.0 (incompatible with VCE)
- Data Collection Tools for WAS 8.5 (incompatible with VCE)
- "collector" for WAS - deprecated as of WAS v7 (incompatible with VCE)

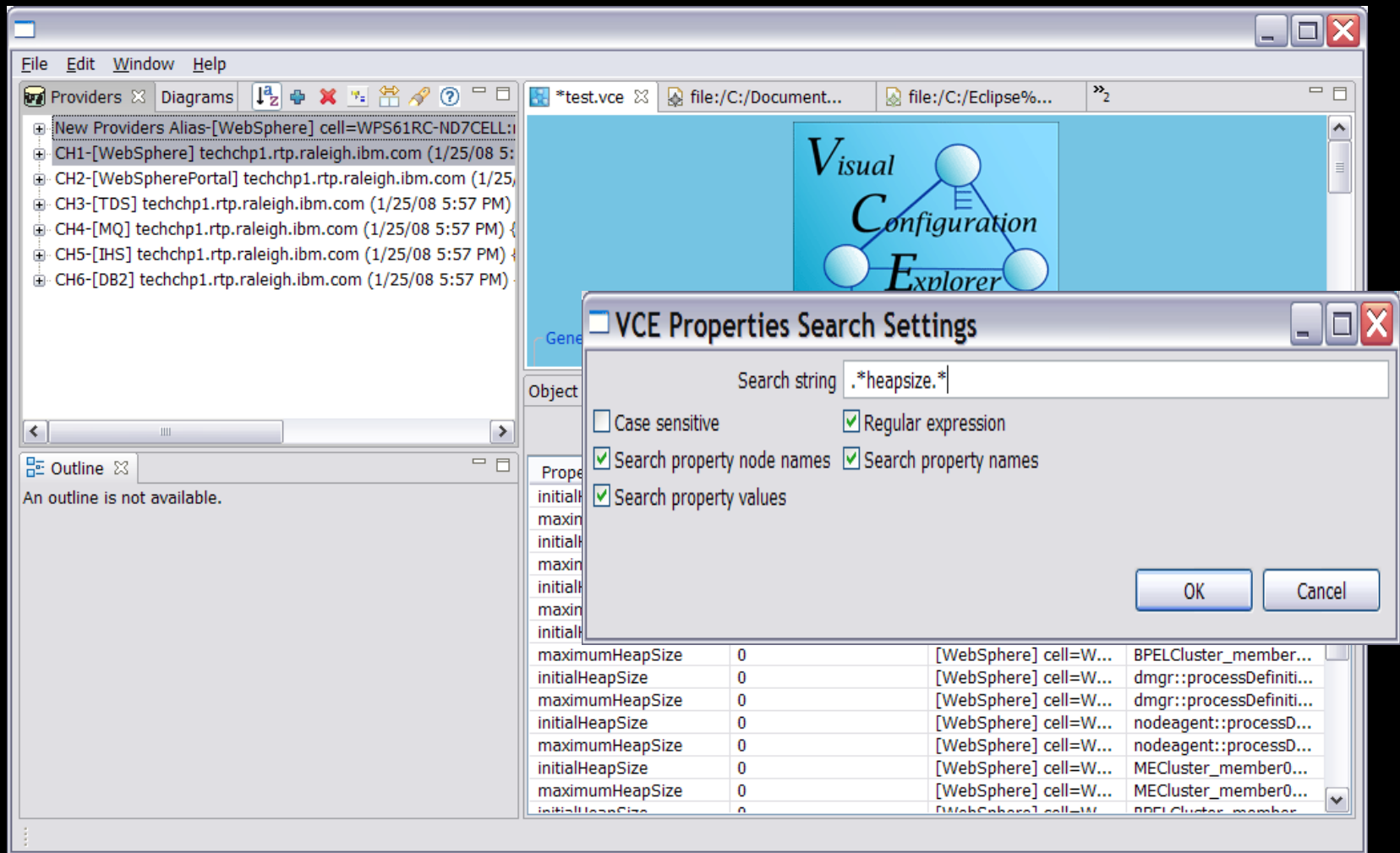




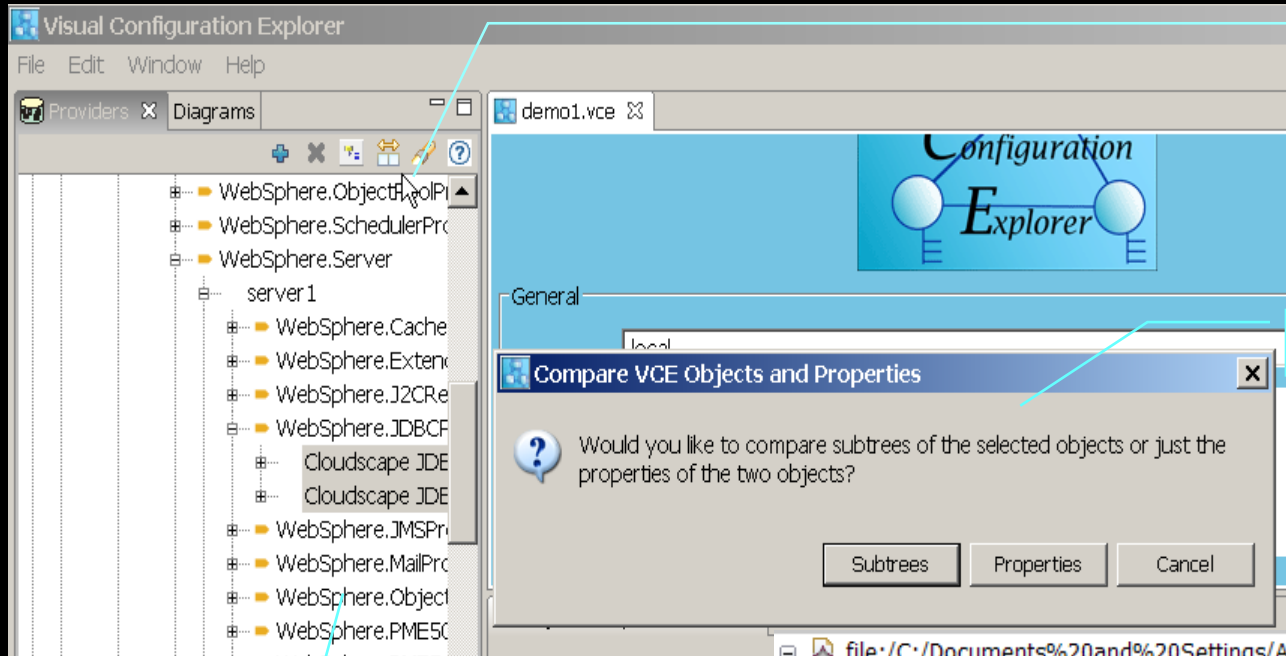
# Demonstration

# VCE OVERVIEW - Search

- Powerful Scoped Searching



# VCE OVERVIEW - Compare

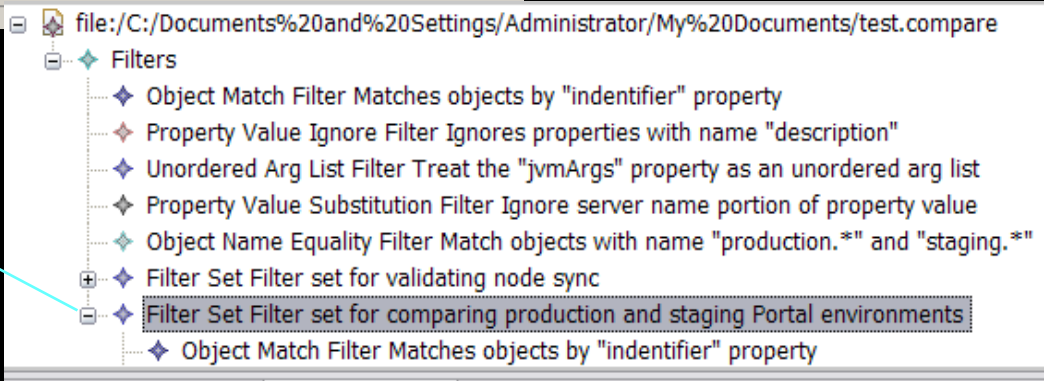


2. Compare Tool

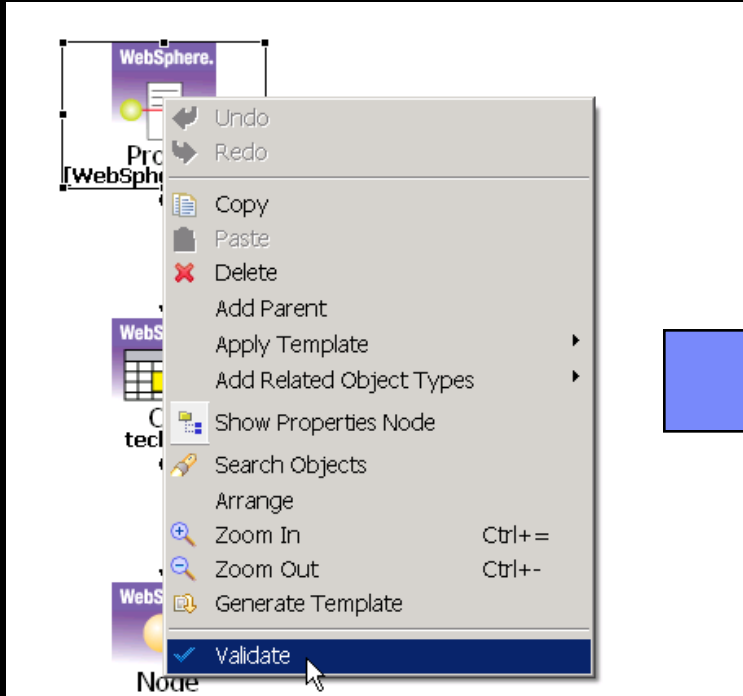
3. Choose Scope

1. Select

4. Customizable filters



# VCE OVERVIEW - Validate



A screenshot of the 'Validation Results' window. It displays a table with the following data:

Severity	Rule Name	Target	Message
Warning	Non Default Log Level D...	server 1	The log level detail has a non-default value services[2]::startupTraceSpecification: *=all=disabled
Info	Verbose mode garbage c...	server 1	Verbose mode garbage collection is recommended for serviceability jymEntries[0]::verboseModeGarbageCollection: false
Warning	Non Default Log Level D...	WebSphere_Portal	The log level detail has a non-default value services[2]::startupTraceSpecification: *=all=disabled
Info	Verbose mode garbage c...	WebSphere_Portal	Verbose mode garbage collection is recommended for serviceability

# VCE OVERVIEW - Headless

- Headless Runtime can be installed directly on target systems
  - ANT-based scripting drives VCE function from CLI
  - Allows integration with other roll-your-own or formal systems management infrastructures

```
</description>
<!-- Default main target for automation-example. -->
<target name="main" depends="initProps" description="Main target for automation-example.">
  <!--Call the WebSphere Exporter-->
  <ant antfile="wasexporter\wasexport.xml" />
  <antcall target="createWorkspace" />
  <antcall target="createProviders" />
  <antcall target="exportConfig" />
  <antcall target="createAppServerDiagram" />
  <antcall target="validateConfig" />
  <vce.saveWorkspace workspace="ws1" />
</target>
```

```
createWorkspace:
  [echo] Creating workspace foo.vce
[vce.createWorkspace] File model 'ws1' exists -- overwriting it.

createProviders:
  [echo] Creating providers from c:\bofa\vce\wasconfigs\foo.configuration using current
[vce.createProviders] Creating provider at relative path ${workspace.path}/wasconfigs/foo.configuration

exportConfig:
[vce.query] Query found 237 objects
[vce.query] Query results written to C:\bofa\vce\foo.export.xml

createAppServerDiagram:
[vce.createDiagram] Adding 3 objects to diagram.

validateConfig:
[vce.validate] Wrote validation results to file C:\bofa\vce\foo.validate.xml

BUILD SUCCESSFUL
BUILD SUCCESSFUL
Total time: 2 minutes 56 seconds
```

# VCE OVERVIEW - Diagrams

Configurations - IBM Support Assistant Workbench

File Edit Administration Update Diagram Window Help

Support Assistant

Launch Activity Home Analyze Problem Visual Configuration Explorer (Tech...)

Configurations \*env diff demo.vce env diff demo.vce::wps Show application topology env diff demo.vce::wmmApp Show application topology

Production [WebSphere]

Staging [WebSphere]

WebSphere.Cell

- XDPortalStageCell03
  - WebSphere.AppPlacementCo
  - WebSphere.AuthorizationTal
  - WebSphere.AutonomicReque
  - WebSphere.CacheProvider
  - WebSphere.CoreGroup
  - WebSphere.CoreGroupBridg
  - WebSphere.DataReplicationC
  - WebSphere.HealthClass
  - WebSphere.J2CRResourceAd
  - WebSphere.JDBCProvider
  - WebSphere.JMSProvider
  - WebSphere.MailProvider
  - WebSphere.NamingContext
  - WebSphere.Node
  - WebSphere.NodeGroup
  - WebSphere.ObjectPoolProvi
  - WebSphere.PMIRrequestMeb

Deployment wmmApp

EAR EAR EAR EAR

WorkClass Default\_I10P\_WC

WorkClass Default\_JMS\_WC

ServerClist NG001DC000

cluster cluster

ServerClist NG000DC000

DataSrc Common\_DB2\_00

JDBCPrvdr wpdbJDBC\_db2

DataSrc Common\_DB2\_00

JDBCPrvdr wpdbJDBC\_db2

Object Compare Results (409 differences detected)

- Cell=XDPortalXXXXXCell03/Node=epXai300Node00/Server=NG000DC000\_epXai300Node00/WorkManagerProvider/WorkManagerInfo=DefaultWorkManager (8 diff)
- Cell=XDPortalXXXXXCell03/Node=epXai300Node00/Server=NG000DC000\_epXai300Node00 (3 differences)
- object 1: [WebSphere]Production/Cell=XDPortalProductionCell03/Node=epXai300Node00/Server=NG000DC000\_epXai300Node00
- object 2: [WebSphere]Staging/Cell=XDPortalStageCell03/Node=epXai300Node00/Server=NG000DC000\_epXai300Node00
- libraries[9]: [libraryName=WCMRemoteLib...] <=> N/A
- genericJvmArguments: \${WPS\_JVM\_ARGUMENTS\_EXT} -Ddb2j.system.home=\${WPS\_HOME}/cloudscape -Xp128k,64k -Xk22000 <=> \${WPS\_JVM\_ARGUMENTS}
- value: \${JVM\_NAME} <=> \${WAS\_SERVER\_NAME}
- Cell=XDPortalXXXXXCell03/Node=epXai300Node00/Server=NG000DC000\_epXai300Node00\_1/VariableMap (1 difference)
- Cell=XDPortalXXXXXCell03/Node=epXai300Node00/Server=NG000DC000\_epXai300Node00\_1/WorkManagerProvider/WorkManagerInfo=DefaultWorkManager (8 diff)
- Cell=XDPortalXXXXXCell03/Node=epXai300Node00/Server=NG000DC000\_epXai300Node00\_1/WorkManagerProvider/WorkManagerInfo=wpsWorkManager (1 difference)

# Where to find more information

- VCE Community on IBM Connections

<https://ibm.biz/BdxRkk>

- IBM Support Assistant – WorkBench ( → VCE Tool Download)

<http://www.ibm.com/software/support/isa>

- IBM Support Assistant (ISA) Lite for WebSphere Portal

<http://www.ibm.com/support/docview.wss?uid=swg24008662>

- IBM Support Assistant (ISA) Lite for WebSphere Application Server

<http://www.ibm.com/support/docview.wss?uid=swg24020502>

Any Questions ?