VisualAge Generator to WSED: Migration Strategies

Paul R. Hoffman

hoffmanp@us.ibm.com

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Transition From VisualAge Generator

- WSED Release 5 - Initial EGL Release
- WSED Release 5.1 - First Migration Target

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Disclaimer

- Description of Release 5.1 function is description of current direction and should not be considered a commitment to deliver

- Priorities may change based on discussion with customers like yourselves

- This conference is a good place to express your immediate reactions

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Topics

- Runtime Platforms & Languages
- EGL Functions
- 4GL to EGL Migration
- Development Environment Customization

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Transition To WSED:

Platforms, Languages, Functions

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Platform & Language Support

Platform:	Language:
z/OS - CICS	COBOL
z/OS - IMS	COBOL
z/OS - Batch	COBOL
zOS - USS	Java
iSeries (OS/400)	COBOL
iSeries (OS/400)	Java
Windows	Java
Linux	Java
AIX	Java
Solaris	Java

WSED Release 5
WSED Release 5.1 (Proposed)

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Platforms & Languages Not Supported

- VM, VSE, TSO
  - ► Alternative: Linux on same box accessing shared DB2 database
- C++ Generation
  - ► Alternative: Java
- CICS on Windows, AIX, Solaris
  - ► Alternative: Web transaction on WAS

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EGL Function - Release 5

- EGL Language (enhanced 4GL)
- Server programs
- Struts actions
- DB2
- MQ
- Serial files
- Indexed, relative files (COBOL only)

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EGL Function - Release 5.1

- Web Transactions
- TUI (Map) Programs
- Diagrams For Transaction Flow
- DL/I Database
- Indexed, relative files for test & Java

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Function Support - Not In Plan

- Print Maps
- EGL embedded in Java GUI
- GUI migration*
- RAD template migration

*Vendors may support

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Transition To WSED:

4GL To EGL Migration

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Why Migration ?

- File based development
- People friendly syntax

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File Based Development

- File types for EGL files
  - ►.EGLPGM - program & other parts unique to the program
  - ►.EGLTBL - table
  - ►.EGLFORM - form (user interface record)
  - ►.EGLMGRP - map group w/maps
  - ►.EGLDEF- parts shared by multiple programs
  - ►.EGLBLD - parts describing how program is to be generated
- Files import EGLDEF files to access shared parts

People Friendly Syntax

- VisualAge Generator Source
  - ► Machine oriented
  - ► Repository format different from external format
  - ► Editors hide source format
- EGL Source
  - ► People oriented
  - ► Repository format same as external format
  - ► Source editor and part editor

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Migration Tool - Release 5.1

- Two separate functions
  - ► Configuration
    - – Assignment of parts to files and files to projects
  - ► Translation
    - – Conversion of 4GL Syntax to EGL Syntax
- Migration tool built on VisualAge Generator 4.5.3
- Persistent migration plan in DB2 data base

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Migration: Process

- Developer sets rules for part conversion
- Developer selects set of projects to be exported
- Tool assigns 4GL projects/packages to EGL projects
- Developer reviews project assignments
- Tool assigns 4GL parts to EGL files and EGL files to EGL projects
- Developer reviews part and file assignments
- Tool creates EGL files from the 4GL parts
- WSED tool loads EGL files into a WSED repository

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Migration: Part Conversion Rules

- Maximum parts per file
- Default project mapping
  - ► Java IDE: project-to-project or package-to-project
  - ► ST IDE: configuration map-to-project or application to project
- Name conversion rules
  - ► lowercase
  - ► delete dash, underscore with following letter uppercase
  - ► string substitution

Migration: Project Selection

- Java IDE alternatives:
    - ► package/version
    - ► project/version
    - ► Project List Part
- ST IDE alternatives:
    - ► application/version
    - ► Configuration map/version

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Migration: Part To File Assignment Algorithm

- Each progam part to own eglpgm file
- Unshared associates in same package to same eglpgm file
- Each table part to own egltab file
- Each map group with maps to eglmap file
- Shared associates and unassociated parts to *package*.egldef file
- Build parts with same name as program to *program*.eglbld file
- Other build parts to *package*.eglbld file

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Preparation For A Smooth Migration

- No more than 500 parts per package/application
- Shared parts in separage package/application
- Parts unique to program in same package/application as program
- Use Project List Parts or Configuration Maps to identify package/application dependencies

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Transition To WSED:

Customization Of The Development Environment

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Customization Of The IDE: VisualAge Generator

- APIs for
  - ► Adding menu options to the IDE
  - ► Validating part names
  - ► Manipulating parts in the workspace and the repository
  - ► Administering repository users
- Batch commands for running utilities
- Running generation on a server

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WSED Release 5 Customization: Eclipse Workbench APIs
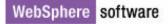
- ► Adding new behaviors, views, editors
  - – See help section titled "Tool Developer Information"
- ► Manipulating files and projects in the workspace
  - – See Eclipse package org.eclipse.core.resources

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WSED Release 5 Customization:
Batch Commands

- Two batch command interfaces for generate command
  - ► EGLCMD - run generation as workbench command fu
  - ► EGLSDK - run generation outside workbench
  - ► Developer must insure correct version of EGL progran loaded
- Use java batch interface to start program preparation
  - ► java com.ibm.etools.egl.distributedbuild.BuildPlanLau buildPlan

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WSED Release 5 Customization: Repository APIs

- No workbench APIs for
  - ► Manipulating files in repository
  - ► Loading project versions from repository
  - ► Administering users
- Use repository APIs for these functions
- No abstract API declaration or specification for these functions

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WSED Release 5.1:
Requirements For Customization

- Parts search facility
- Part manipulation APIs
- Extension point for part name validation
- Batch commands for list, list a, and print
- Server generation with automatic load of specified projects & versions

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Transition To WSED:

Your Turn...

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Your Response.....

- Any showstoppers in function not supported?
- Are priorities in the right place?
- What else do we need to understand about your development process?

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