Luncheon Webinar Series
March 21, 2011

"Unleashing DataStage 8.5 - Source Code Control Integration - Then and Now"

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Agenda

- The Then
  - DataStage Version Control
- The Now
  - Information Server Manager – SCCS
- Demonstration
DSXchange
Version Control

Rick Schirm, creator of Version Control, Webmaster of DSXchange
March 2011
Where did Version Control Come From?

- Version Control was born from the needs of a migration project.
  - 2 targets of the migrated data (Kenan and Siebel)
  - 70 plus source systems all the same base system (Informix) with uniqueness to each as to how the data was being stored and for what reasons. Thus requiring 70 plus projects.
  - **One major obstacle.** DataStage was sold by the project and the cost for that many projects would be well into the millions. So we end up working with 5 projects.

- On this project we had nearly 40 people:
  - A team of Requirements Analysts
  - A team of DataStage Developers
  - A team of Validation Analysts
Where did Version Control Come From?

• A project workflow consisted of:
  – Requirements Analysts – define the business rules and the data mapping.
  – DataStage Developers – Design the jobs to support the bus. Rules and data mapping.
  – Jobs get executed landing data in a testing environment
  – Validation Analysts verify the data and functionality in the target systems in test. If problems go back to first step.
  – Successful Validation then meant a development freeze on that project and wait for scheduled execution.

• Then the next project would be started and follow the same steps.
Where did Version Control Come From?

• Project Issues
  – Only had 5 DataStage projects to work with.
  – Schedule of actual conversion runs after the testing could be weeks out.
  – Had to perform the following to allow continues development.
    • After a project had past testing a DSX export was created named accordingly for the specific project (typically took 3 hours for the export)
    • Then start modifying jobs for the next project specifications.
  – When a project was scheduled to run the following would occur.
    • Development in one of the new projects were halted.
    • A DSX Export for the project was created.(3 + ours approx. 2000 jobs)
    • The DataStage project was deleted and recreated.
    • A DSX Import for the project to be executed was loaded (4+ Hours)
The Solution is born – “Version Control”

How did it work?

• Version Control needs a use of a project to act as its own repository

• Version Control handles the following:
  – Check for duplicate – if component already exists it checks for uniqueness if they are the same then does not add a new version if different then created a new version
  – Option to mark the component in the source system as read only
  – Places notations in the description field in each component.
  – Allows for creating release batches so when publishing components out to a target project you can manage it like a package.
  – Option to mark components as read only when publishing components.

• Since all the version components were stored in a DataStage project all components could be viewed using the DataStage Client tools
End of one era to begin with a new!

• Ascential purchases Version Control in 2001
• With the release of DataStage 8 and the shift of the repository now in the XMETA, the current Version Control sunsets
• With the release of 8.5 comes the Information Service Manager and SCCS.
DSXchange
Source Code Control System Integration

Tony Curcio, InfoSphere Product Management
March 2011
SCCS Integration

- Leveraging the Eclipse Platform for Team Development
- Integration with code-management (SCCS) providers supported through Eclipse Plugins
- Support for ClearCase, CVS
  - Other providers configurable via Eclipse Team Plugins
- Functions to interact with the SCCS invoked from the Information Server Manager
Information Server Manager Overview

- New deployment tool
- Connects to multiple domains
- Shows view of multiple DataStage servers and projects
- Includes corresponding command line interface (istool)
- Provides enhanced export, import and search capabilities
Deployment Packages Introduction

- Package
  - User-defined grouping of related items
- Package file
  - Archive containing design-time and/or run-time data
- Workflow
  - Define
  - Save
  - Build (i.e., create a package file)
  - Deploy
Deployment Packages Introduction (continued)

- **Build history**
  - Previous builds can be maintained and re-deployed

- **Build comparison**
  - Shows items that were added, deleted or modified

- Only updated items are included in subsequent builds
  - Prevents redundant copies of items in package file
Deployable Items

- **DataStage**
  - Data elements and data connections
  - IMS database and IMS viewsets
  - Jobs (mainframe, parallel, server)
  - Machine profiles
  - Parameter sets
  - Routines
    (mainframe, parallel, server)
  - Shared containers
    (parallel, server)
  - Table definitions
  - Transforms

- **QualityStage**
  - Rule sets
  - Match specifications
General System Overview (8.1.x)

- **DataStage Server**
- **DataStage Project**
- **Information Server Domain**
- **Metadata Repository**
- **Local File System**
- **DataStage Designer**
- **Information Server Manager**

*Eclipse-based application with enhanced import/export capabilities used to deploy DataStage jobs and other related items*
General System Overview (8.5)

Third party components provided through external source code control system’s implementation of Eclipse Team Support
Source Control Integration Overview

• Leverage export and import capabilities of Information Server Manager
  • Includes DataStage and QualityStage assets
  • Exported files placed under source control

• Integrate with Eclipse Team Support
  • Multiple source code control systems provide Eclipse integration
  • Intuitive user experience since work directly with familiar dialogs and commands from integrated team provider
Source Control Integration Overview (continued)

• Primary features
  • Send To Source Control Workspace
    • Export an asset to an archive that can be submitted to source control
  • Replace From Source Control Workspace
    • Import an asset from an archive that is under source control
  • Support source code control system's user interface within Information Server Manager to manage files under source control
  • Integrate with existing Information Server Manager capabilities such as deployment and search
Information Server Manager with ClearCase

ClearCase icon decorations

ClearCase commands provided and controlled by ClearCase Remote Client for Eclipse
Information Server Manager with CVS

CVS icon decorations

CVS commands provided and controlled by Eclipse CVS Client
Information Server Manager with VSS (Microsoft Team Foundation Server)
Information Server Manager with VSS

Preferences Configuration

VSS

General settings for VSS Plugin:
- Show number of checked out files in each folder
- Always assume recursive refresh/get latest version on folders
- Integrate with internal move/delete file system commands
- Ask for comment on add/check-in
- Ask for comment on check-out:
- Confirm Undo Checkout? (Applies only to the shortcut key)
- Enable a background thread running status updates every 10 minutes.

Comment Templates
Add comment template

Check-in comment template

Restore Defaults  Apply

OK  Cancel
Information Server Manager with VSS

3. Your project is now configured for using the VSS Plugin.

4. If you now bring up the right-click context menu on the project and select Team, there will be some additional functions available. The context menu option will vary depending on the status of the file. If you have any trouble with that option isn't available, but it should be, always try to do a refresh and see what happens. All errors within the plugin can be found in the Eclipse log file located at "your workspace".metadata Taj always check that if you have any trouble.
Installing CVS

- CVS plugins are included with Information Server
- Right Click on the domain name
- Select Integrate Source Control...
- Ensure that “Share project under source control after successful project creation” is selected and click OK
Installing CVS

- Enter the Location information for the CVS Repository you are connecting to.
- Specify the Connection type and any customization for the port.
Installing CVS

- Assign the Module name … typically that will relate to the project name.
- Click Finish to complete the setup (you will then add comments on the following screen)
Demonstration

• Source Control Integration “Round-trip”
  • Create a new version of a job
  • Restore a previous version of a job
  • Add a job to source control
  • Restore a deleted job from source control
Get More details on the IS 8.5 InfoCenter

http://publib.boulder.ibm.com/infocenter/iisinfsv/v8r5/index.jsp
During the last two days, I had the privilege of attending the DataStage User Group in Bremen, Germany. I understand the city is the 10th largest town in the country, but my tour guide would say it is the richest in culture. I can attest to the fact that the location was beautiful - surrounded on three sides by both natural and man-mades waterways and built with all the architectural charm you would expect of a historic German town. My laptop bag is filled with goodies for the kids and, of course, some chocolates for my wife. As they have been meeting bi-annually for the past ten years, the user group celebrated their 20th meeting this week. The session opened with a review of topics that they have covered during each of these meetings. As we reviewed those topics, it was a great reminder of how far DataStage, Information Server and the industry as a whole have come. If you have an opportunity to read analysts’ reports, you’ll see that the

Thank You

Tony Curcio
IBM Software Group
InfoSphere Product Management
tcurcio@us.ibm.com
www.ibm.com/software/data/infosphere