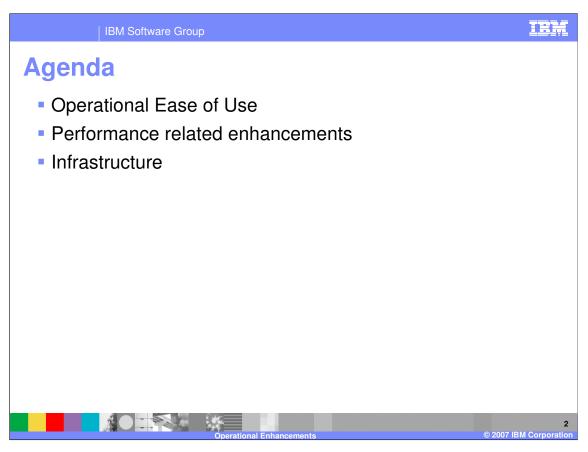
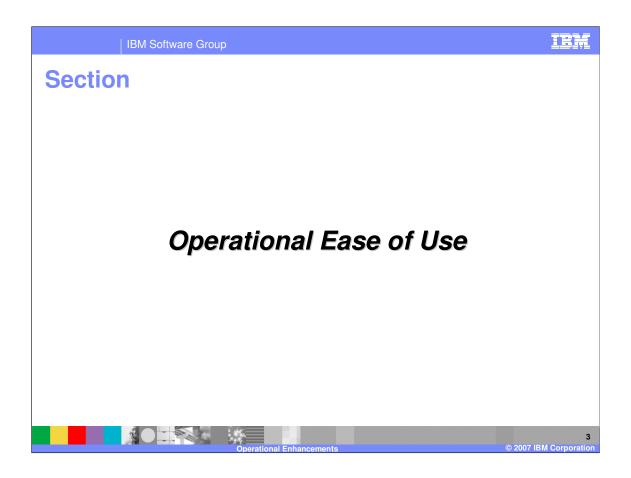


This presentation describes the operational enhancements included with IBM WebSphere Data Interchange version 3.3.



The presentation reviews the operational ease of use and performance related enhancements. Infrastructure changes will also be reviewed.



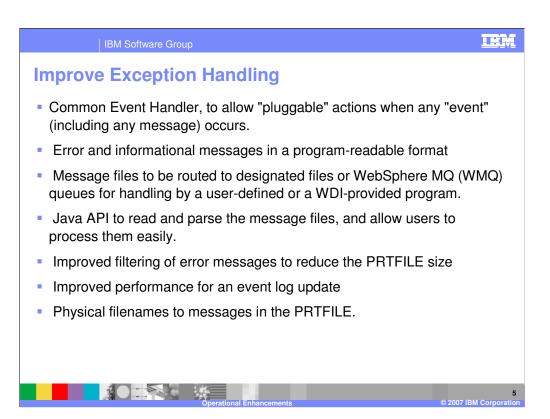
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Operational Ease of Use

- Improve exception handling (program readable event log, API to process log)
- Add ability to generate Common Event Infrastructure
- Add e-mail alert capability to WDI server
- Add WebSphere Data Interchange (WDI) Client Role Based Access Control
- Allow job submission from the WDI Client
- Provide Audit Trail for Client Objects rather than just last updated

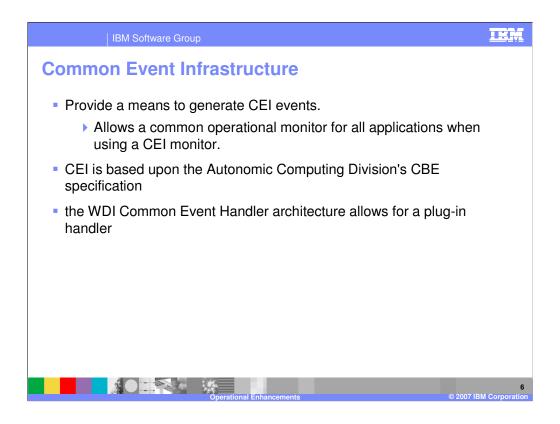


Significant improvements have been made in the areas of error handling, security, and processing capabilities.



WebSphere Data Interchange (WDI) error handling includes a number of improvements. These include:

- 1) Reworking Common Error Services as a Common Event Handler, to allow "pluggable" actions when any "event" (including any message) occurs.
- 2) Providing error and informational messages in a program-readable format (XML and/or fixed-record), to allow automated processing.
- 3) Allowing message files to be routed to designated files or WMQ queues for handling by a user-defined or a WDI-provided program. These are routed based on criteria specified by the user, such as a given error severity level or the presence of specific errors.
- 4) Providing a Java API to read and parse the message files, and allow users to process them easily.
- 5) Providing improved filtering of error messages to reduce the PRTFILE size
- 6) Providing improved performance for an event log update, and,
- 7) Adding the physical filenames to messages in the PRTFILE.



WDI provides a means to generate Common Events Infrastructure (CEI) events. This allows the user to have a common operational monitor for all applications when they are using the CEI monitor.

CEI is based upon the Autonomic Computing Division's CBE specification, which defines a standard format for event information. Devices and software use this event information to keep track of transactions and other activity. In WDI version 3.3, the Common Event Handler architecture allows for a plug-in handler.

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e-mail Alert Capability

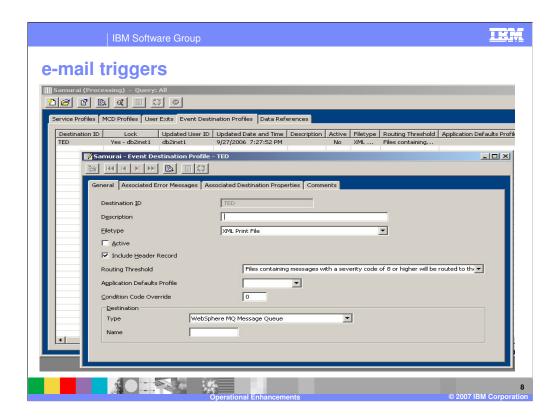
- Generate e-mail alerts via SMTP when errors or other conditions occur.
 - ▶ Send alerts to pagers, cell phones, and any other devices that support SMTP text messages.
 - Provide a handler to process the program-readable message log, and generate an e-mail alert.
 - Allow configuration parameters so that users may customize the email alerts.
- Integrate customer developed plug-ins
- Customize the plug-in, if desired
- Provide sample source for the e-mail plug-in



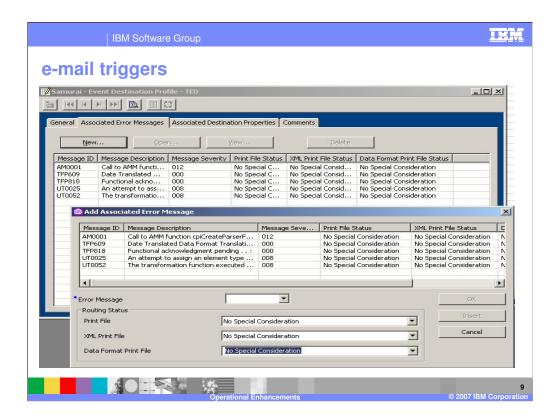
A major function in the Operation ease of use category is the e-mail alert capability. WDI allows the user to generate e-mail alerts via SMTP when errors or other conditions occur. These alerts may also be sent to pagers, cell phones, and any other devices that support SMTP text messages. A handler has been provided to process the program-readable message log, and generate an e-mail alert. Configuration parameters allow users to customize the e-mail alerts.

The use of a pluggable e-mail component allows you to integrate your own component.

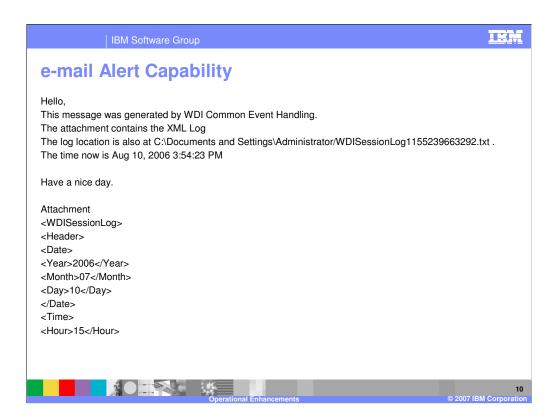
Sample source for the e-mail plug-in provided, so you can customize it if you like.



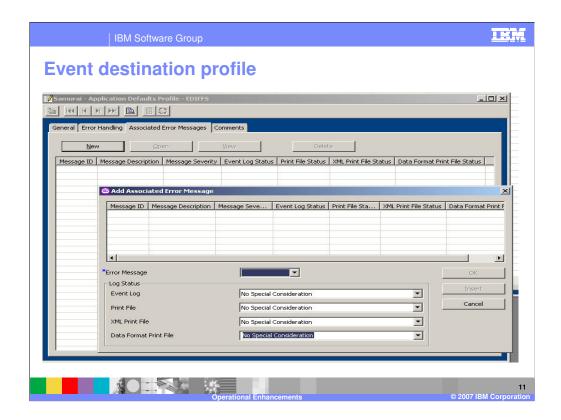
This is an example of how a e-mail trigger would be defined. In this example, the input would be an XML Print file, and would be triggered if a message with severity of 8 or higher were contained in the print file. The CEH event would include a header with routing information for the WDI e-mail plug-in. The data would be written as a WebSphere MQ (WMQ) message. The name of the WMQ queue would be specified.



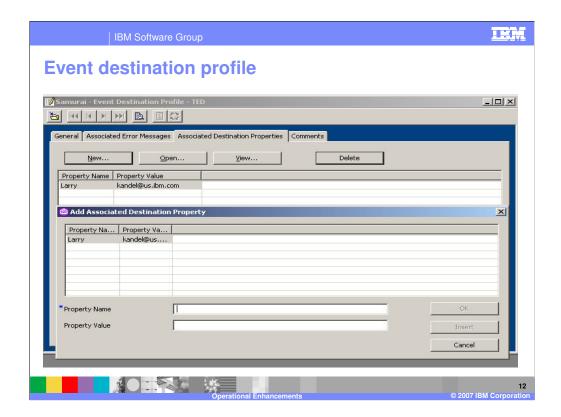
This panel further defines the e-mail trigger. It identifies messages that can be included or excluded from a specific format print file. For example, AM0001 could be specified as "write message to xxx print file" and UT0025 could be specified as "Do not write message to xxx print file".



The sample e-mail plug-in allows for the specification of a text header, and for an attachment, for example the WDI print file.



The Event Destination Profile is used to define the properties associated with the e-mail. On the error messages tab, you can define the message IDs that will trigger an e-mail. The type of print file to be used can also be selected on this tab.



Several pieces of information are required to send e-mail. Property names include defaults for from address, header text, message subject text, SMTP server to use, and content type. Each Event Destination Profile that is active can generate a type of event.

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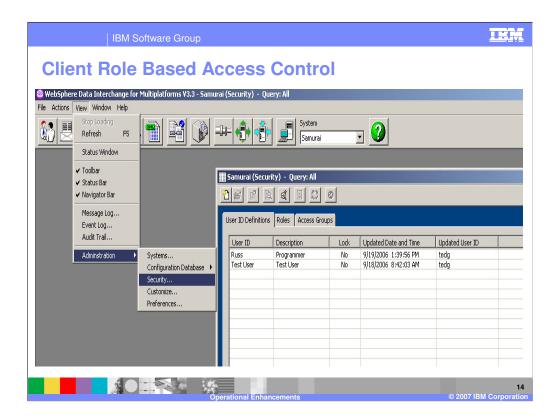
Client Role Based Access Control

- WDI now allows customers to configure their database to assign "roles" to users, and restrict access based on the user's assigned role.
 - ▶ Roles specifies add/change/delete capability for WDI
 - objects, such as maps, standards, or TP profiles
 - Access Groups segregates groups of an object, such as TP profiles by department, and allows the assignment
 - of a group to a user or role
 - Users userid used to connect to a database and the
 - access rights of that user
- Currently, the only way to restrict users to specific functions is using DB2 GRANT authority.

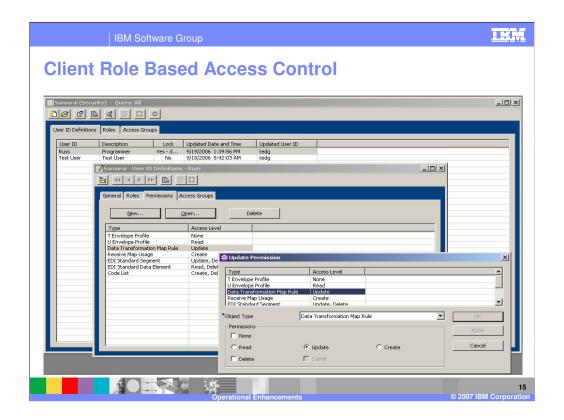


Role Based Access Control is another major enhancement in WDI version 3, release 3. WDI now allows customers to configure their database to assign "roles" to users, and restrict access based on the user's assigned role. A Role specifies add/change/delete capability for WDI objects (for example, maps, standards, and Trading Partner profiles). An Access Group segregates groups of an object, for example Trading Partner profiles by department, and allows the assignment of a group to a user or role. A User, identified by a userid, can connect to a database and the specify the access rights of that user to perform operations on objects of the database, for example, specify the ability to add a Trading Partner Profile, or update a Map.

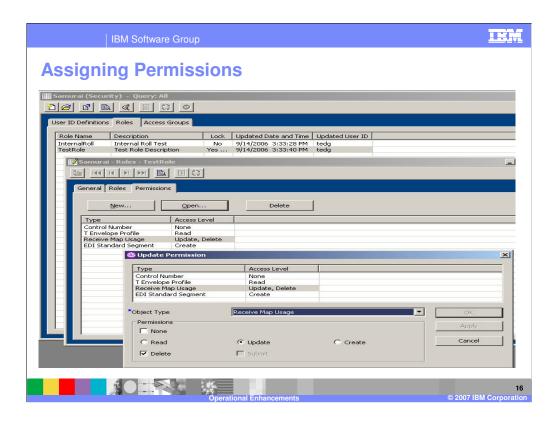
The previous way of restricting users to specific functions using DB2 GRANT authority is still available, and does provide physical security at the Database level..



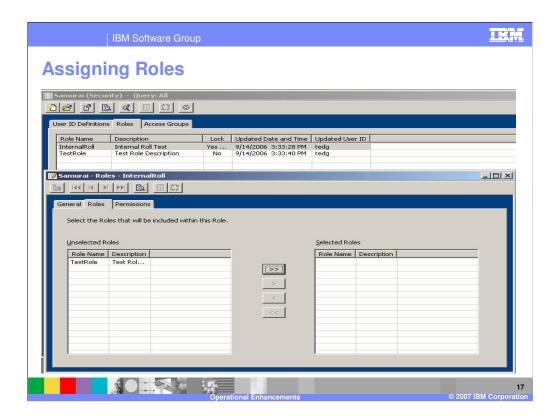
The Security component is entered by selecting the View menu, and then the Administration topic, and then the Security Function. A series of tabs is displayed. These tabs are used to define the security rules and users.



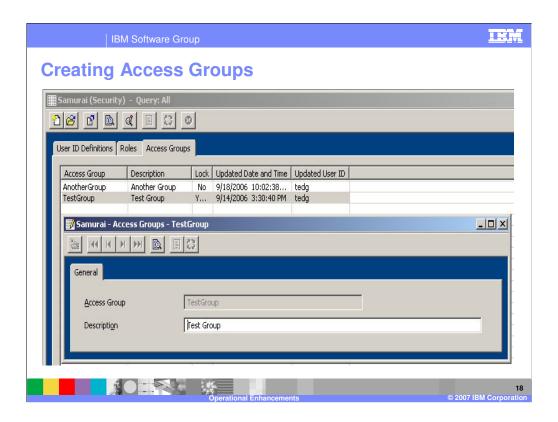
This is an example of specifying the permission on a Map Rule object for a specific user. From the Userid list window, a user ID is selected and "opened". Clicking on the Permissions tab reveals the objects and access level for the user ID. Selecting the "data transformation map rule" object displays the edit panel for changing the access level or permission on that object for the user ID. This, of course, assumes that the person making the change has authority to change security objects.



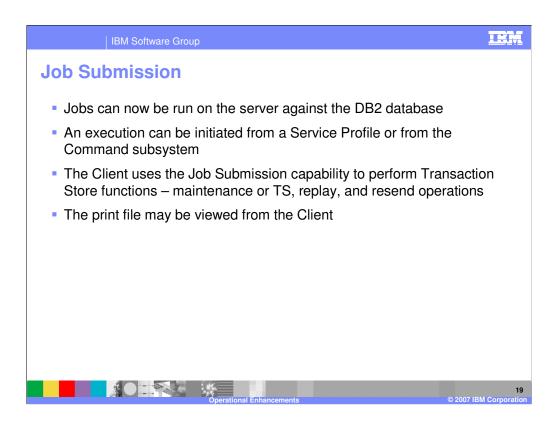
This is an example of assigning permissions to a Role.



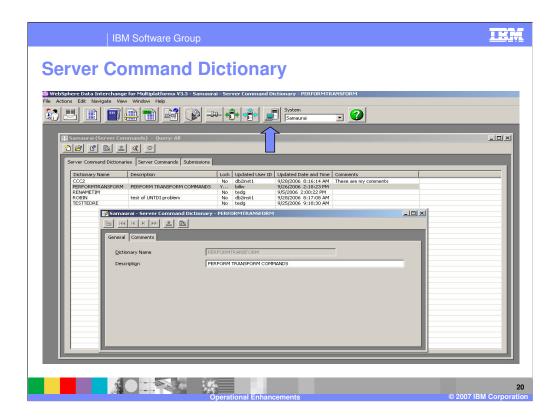
These dialogs show the manner of assigning Roles to Roles.



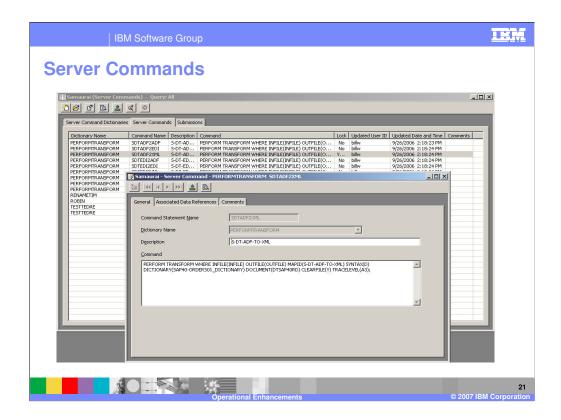
This is an example of creating a new Access Group.



With WDI version 3.3, batch jobs can now be run against the server database. The Command subsystem of the WDI Client is the primary mechanism, but jobs can be submitted from the Service Profile panels, and indirectly from the Transaction Store and Document Store transaction lists. The print file can be specified to return to a DB2 table from which it can be viewed from the Client.

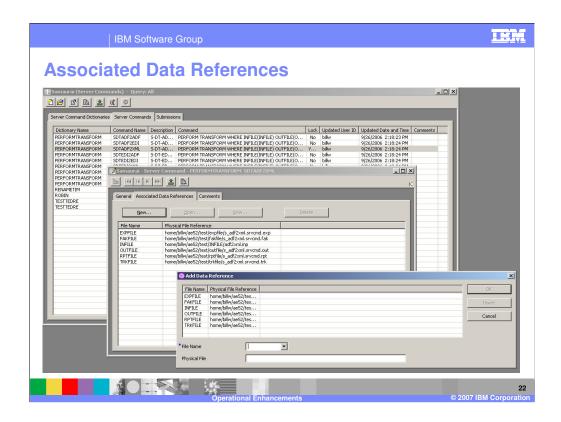


The Server Command Dictionary is the home for a collection of commands. It may be grouped by userid or business area.

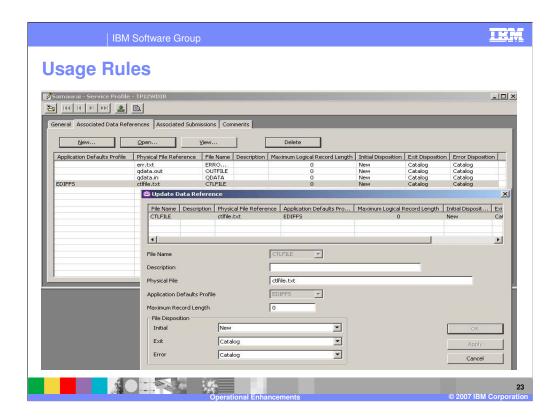


The Server commands panel shows a list of commands previously entered. Commands also can be created from this panel.

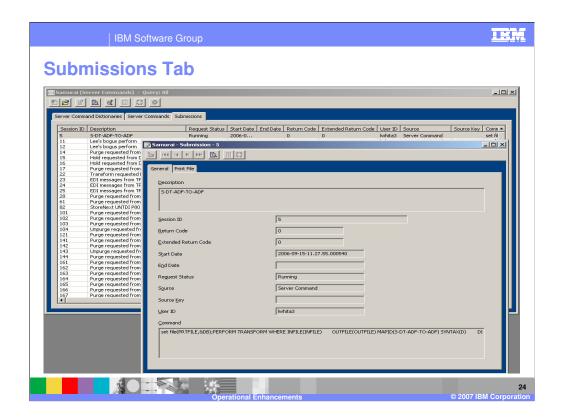
The General Tab of the Server Command entry shows the batch PERFORM command to be processed.



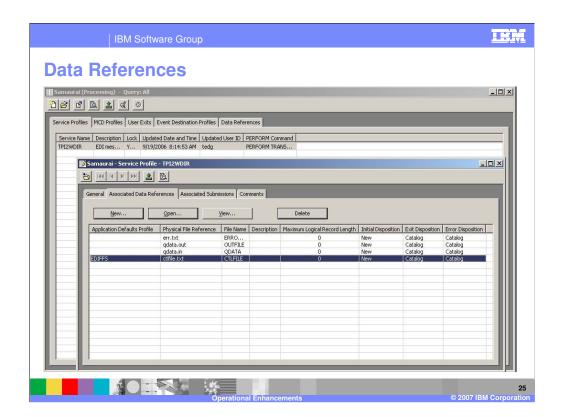
The Associated Data References define the inputs and outputs needed by the command. The logical and physical names are shown, as well as characteristics of the files.



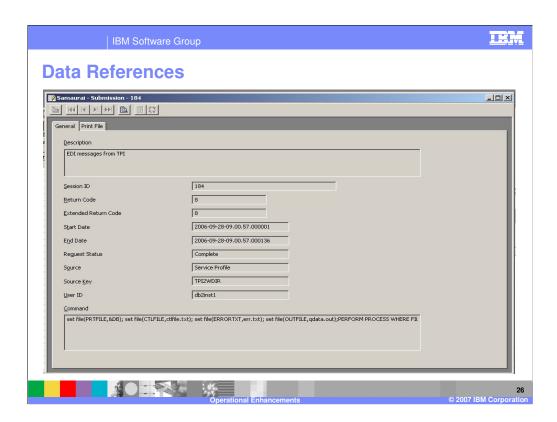
This is information and usage rules that can be applied to Data References.



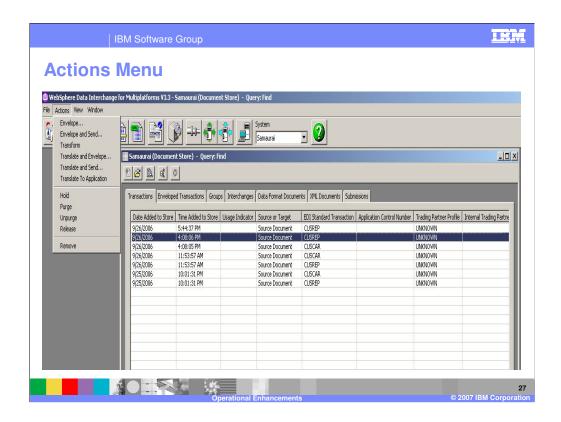
The Submissions tab shows the status of each request made through the Command subsystem and also allows the viewing of the returned print file.



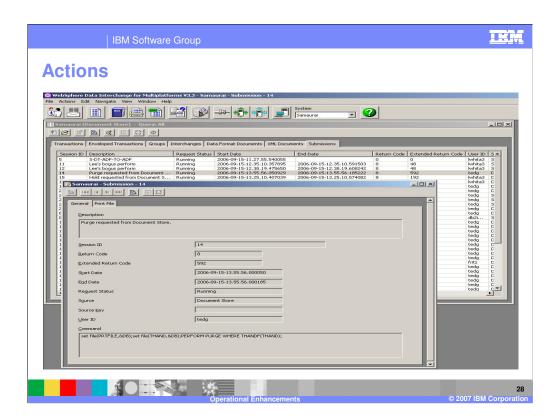
The Data References capability also can be accessed from the Service Profile. This extends the WDI version 3.2 capability which restricted definition of inputs and outputs to 7 data references.



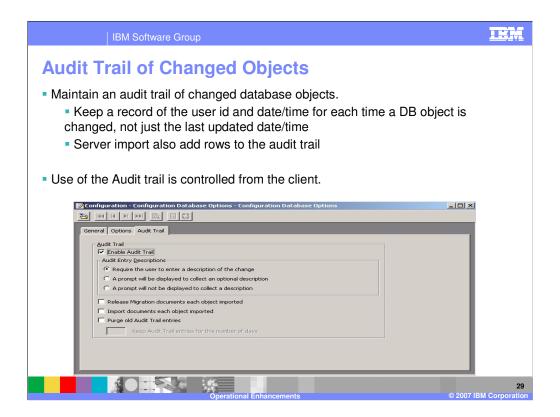
Data References are shown as "set file" statements on the Submission General tab with status about the submitted request.



When a transaction is selected from a list of transactions in the Document Store component, a number of actions can be processed against the data. The processing takes place as a submitted job – using a PERFORM statement created internally by the WDI Client. The Actions dropdown menu shows available actions for the screen. The results are the same as if the transactions were specified in a batch PERFORM command,

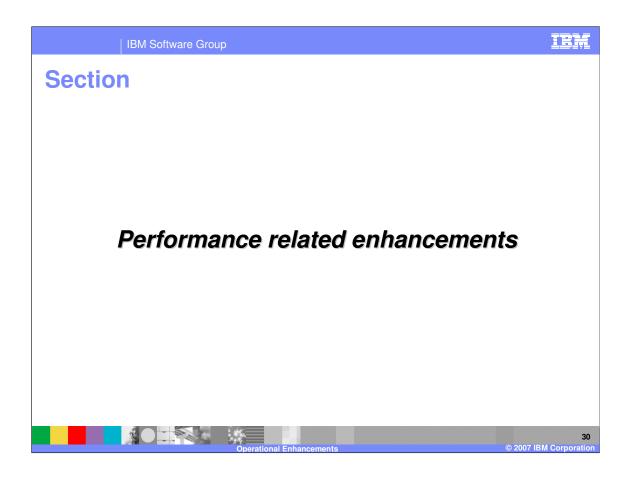


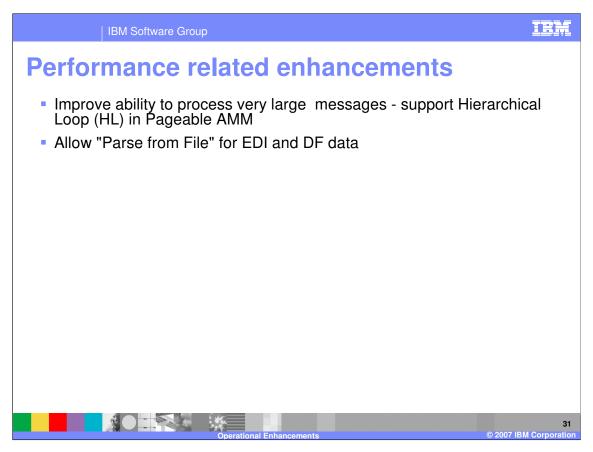
Actions which are taken can be viewed from the Submissions tab – as in the same manner as the Command subsystem submissions.



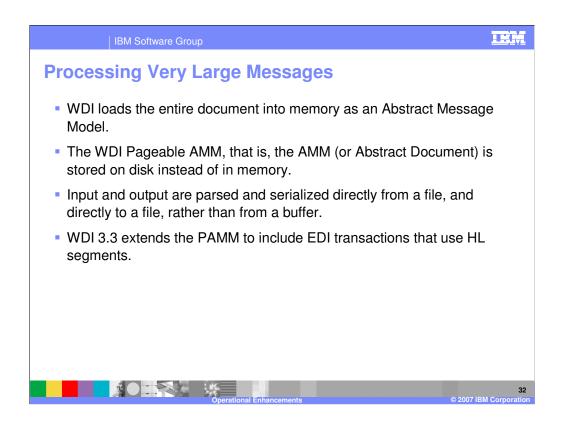
The Audit Trail enhancement keeps an audit trail, or log, of changed database objects. The audit trail will keep a record of the user ID and date/time for each time a DB object is changed, not just the last updated date/time (as was done in WDI 3.2). This is also true during server import.

Use of the Audit trail is controlled from the client.



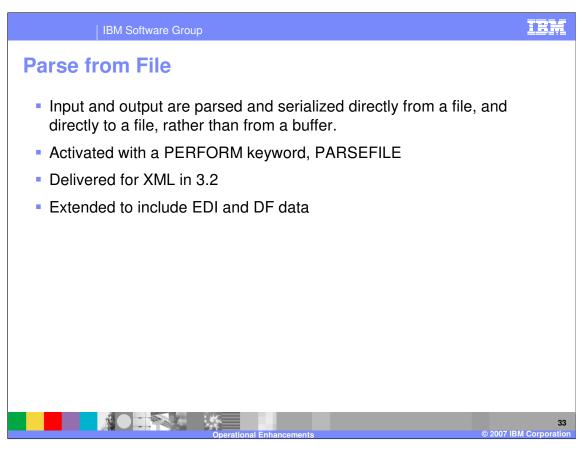


Performance enhancements were made to improve the paging of the WebSphere Data Interchange abstract message and to allow parsing from a file for all syntax types.

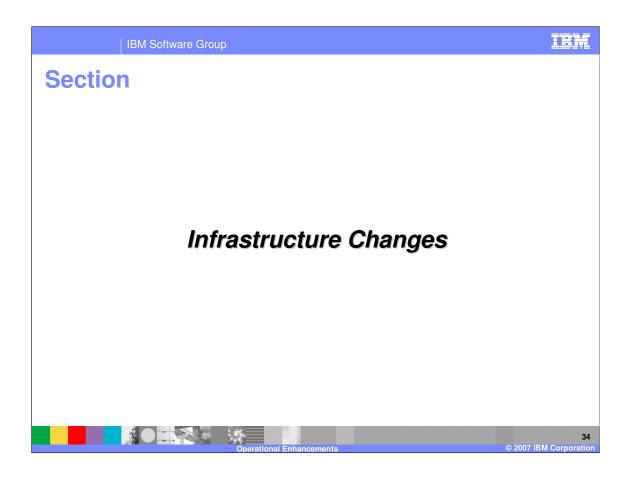


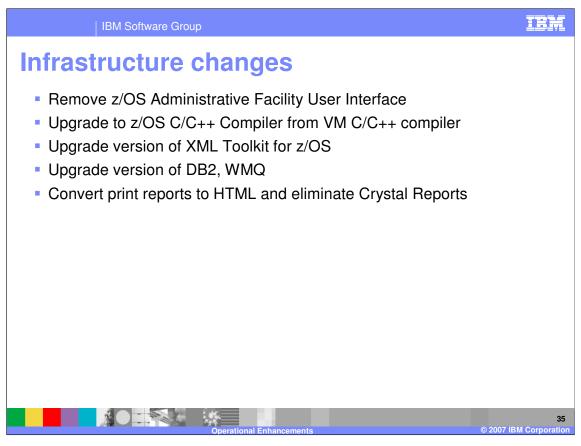
WebSphere Data Interchange version 3, release 3 has added a number of features to enhance the processing of very large messages (greater than 200 MB).

Currently WDI loads the entire document into memory as an Abstract Message Model (AMM). Some customers have 2 GB EDI transactions they process regularly. Some have expressed a need to handle a 5 GB document requirement or larger. WDI implemented a Pageable AMM, that is, the AMM (or Abstract Document) is stored on disk instead of in memory. Input and output are parsed and serialized directly from a file, and directly to a file, rather than from a buffer. This was delivered in the service stream in WDI version 3.2.1. It has been extended in WDI version 3.3 to include EDI transactions that use HL segments.

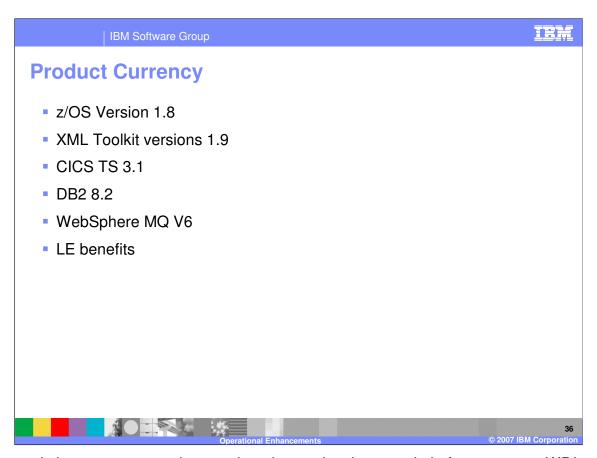


Another feature for large messages is the "Parse from File". This also was delivered as a service stream enhancement in WDI version 3.2.1. It was only available for XML documents. In WDI version 3.3 this has been extended to EDI input as well as record-oriented data, or data format data.

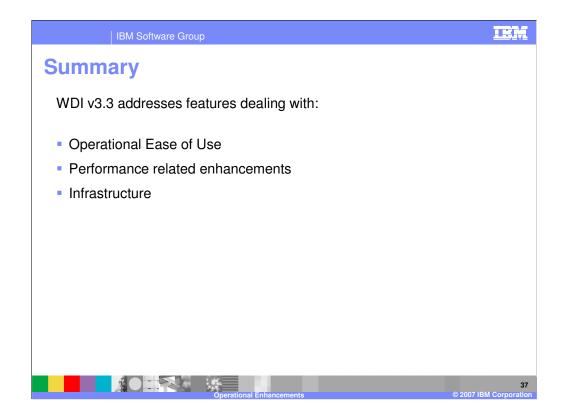




Infrastructure changes include the removal of the z/OS administration facility. Upgrades were made for the C/C++ compiler, the XML Toolkit for z/OS, DB2, and WebSphere MQ. The Client reports were converted to HTML format.



The internal changes were made to update the product base and platform support. WDI version 3.3 now supports z/OS version 1.8, the XML Toolkit used is version 1.9, and Language environment (LE) parameters can now be specified via JCL statements. Platform support has been extended to allow WDI 3.3 to run using CICS TS version 3.1, DB2 version 8.2, and WebSphere MQ version 6.



In summary, WebSphere Data Interchange version 3.3 has addressed a number of product areas. See the related presentations about those that are of interest to you.



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