



IBM Software Group

IBM WebSphere® Data Interchange V3.3

Document Store



@business on demand.

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This presentation will give an overview of the Document Store.

Agenda

- Overview
- WebSphere Data Interchange (WDI) Client
- Document Identification
- Remote command execution
- Document Life
- Summary and references



The presentation describes the document store capabilities in for WebSphere Data Interchange (WDI) version 3.3. The remote command execution and Server Commands functional area in the WDI 3.3 Client is also part of the document store function.

Overview

- Data Management and reporting
- WDI Utility interface
 - ▶ Delayed translation
 - ▶ Delayed enveloping
 - ▶ Status Tracking and reporting
 - ▶ Duplicate envelope detection



Data Management and reporting for Data Transformation processing uses the existing Document Store interfaces. The WebSphere Data Interchange Utility interface is supported for all platforms and includes the primary Document Store functions. The primary Document Store functions for EDI messages that are translated using the PERFORM TRANSFORM processing include:

Deferred or Delayed translation - Deenvelope an inbound EDI transaction with one command, then translate it later. This is similar to the existing receive processing commands PERFORM DEENVELOPE with a separate PERFORM TRANSLATE TO APPLICATION.

Deferred or Delayed enveloping - Translate a document to create an EDI transaction with one command, then envelope it at a later time. This is similar to the existing send processing commands PERFORM TRANSLATE TO STANDARD with a separate PERFORM ENVELOPE.

Status Tracking/reporting capability - The existing Document Store interface (WebSphere Data Interchange Client and Utility PERFORM commands) will be used to report the status of transactions in the Document Store.

Duplicate envelope detection - Optional checking to see if inbound EDI envelopes have already been received. If a duplicate exists, appropriate Functional Acknowledgments will be generated. Duplicate envelopes may be reported with the CONTRL Functional Acknowledgment.

Overview

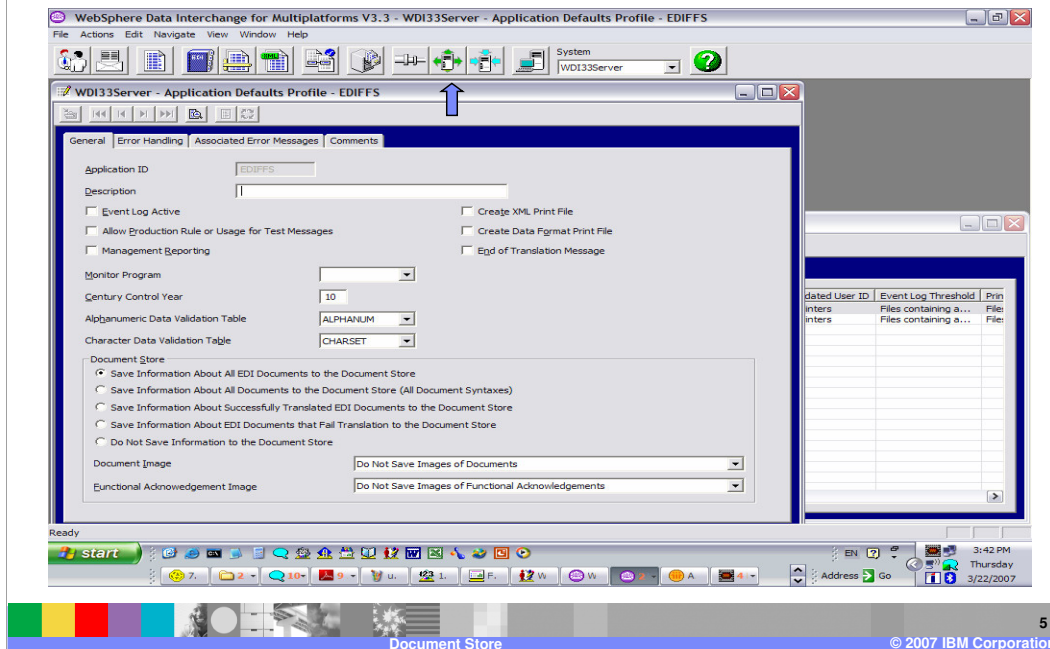
- Contains document images
- Control Information
- Tracking history for Translation execution
- Setting in Application Defaults profile
 - ▶ All translations
 - ▶ Successful translations
 - ▶ Failed translations
 - ▶ No information



The Document Store is a collection of document images and the Control Information that is needed to track the progress of the documents. It can provide a history of all of documents input to and created by WebSphere Data Interchange. You can monitor and maintain activities related to the documents placed into the Document Store using the WebSphere Data Interchange Client. You can also maintain the Document Store using the Server. The Document Store resides on Server databases, so that you can maintain a history of all of your translation activities and track those activities. WebSphere Data Interchange maintains the Document Store automatically during translation, unless you have specified otherwise through an Application Defaults profile located in the WDI Client Environment functional area.

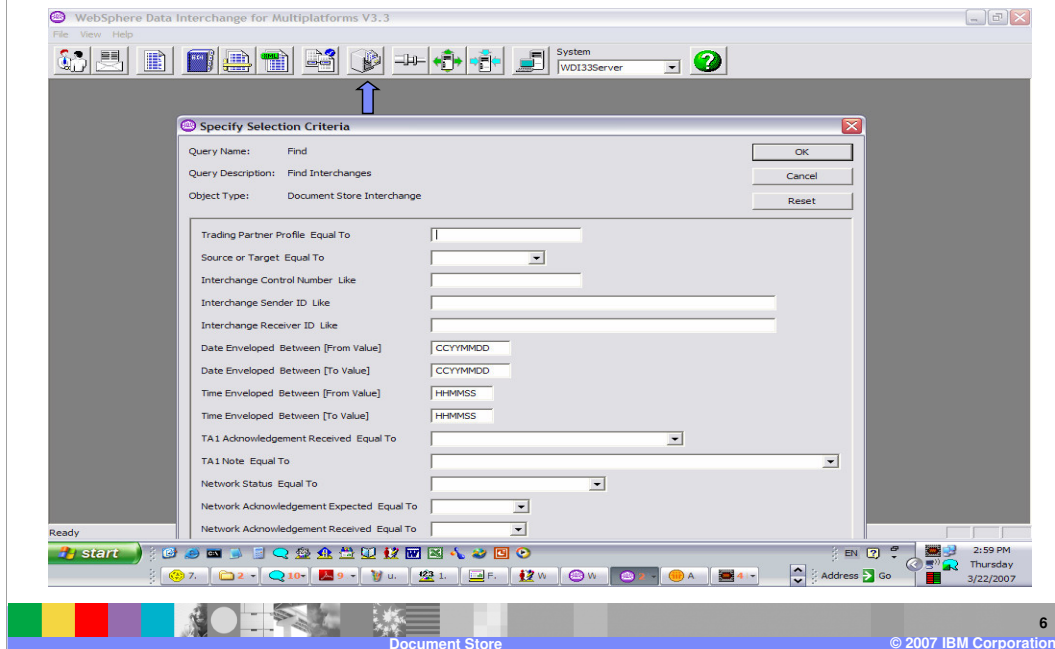
For any given application, you can choose to store all translations, only those translations that are successful, only those translations that fail, or no translation information at all.

WebSphere Data Interchange Client



Application Defaults profiles are located in the Environment Functional area. An **Application Defaults profile** allows you to identify your business applications, such as purchasing and accounts receivable, to WebSphere Data Interchange and set specific WebSphere Data Interchange processing defaults for an application. You need not create an Application Defaults profile for each application. A single Application Defaults profile can be used for multiple applications, as long as you want WebSphere Data Interchange to process documents for each application in the same manner.

WebSphere Data Interchange Client



To use the Document Store, you must run a query. You access the Document Store by clicking the Document Store icon on the WebSphere Data Interchange Client Navigator bar. A query setup dialog displays, and you may enter selection criteria to limit or filter the data selection you want to display. The Document Store contains a vast amount of data. WebSphere Data Interchange Client provides you with the tools you need to limit the number of transactions that display as a result of running a query. The Document Store list window runs a Find query as the default query.

WebSphere Data Interchange Client

The screenshot displays the WebSphere Data Interchange Client interface. The main window is titled "WebSphere Data Interchange for Multiplatforms V3.3 - WD133Server (Document Store) - Query: Find". Below the main window, a smaller window titled "WD133Server (Document Store) - Query: Find" is open, showing a table of transactions. The table has the following columns: Trading Partner Profile, Source or Target, Interchange Control Number, Interchange Sender ID, Interchange Receiver ID, Date Enveloped, Time Enveloped, and TA1. The table contains 57 rows of data, including transactions from D53TSA2 and DATATYPE1.

Trading Partner Profile	Source or Target	Interchange Control Number	Interchange Sender ID	Interchange Receiver ID	Date Enveloped	Time Enveloped	TA1
D53TSA2	Source Docum...	00000000000004	D53T J0RH4	D53T J0RH4	2/1/2007	5:03:06 PM	Not
D53TSA2	Target Docum...	00000000000004	D53T J0RH4	D53T D53TSA2	2/1/2007	5:03:06 PM	Not
D53TSA2	Target Docum...	00000000000003	D53T J0RH4	D53T D53TSA2	2/1/2007	5:00:36 PM	Not
D53TSA2	Target Docum...	00000000000002	D53T J0RH4	D53T D53TSA2	2/1/2007	4:58:28 PM	Not
D53TSA2	Target Docum...	00000000000001	D53T J0RH4	D53T D53TSA2	2/1/2007	4:57:11 PM	Not
DATATYPE1	Target Docum...	00000000000004	DATATEST1	DATATYPE1	1/17/2007	4:49:52 PM	Not
DATATYPE1	Target Docum...	00000000000003	DATATEST1	DATATYPE1	1/17/2007	9:11:26 AM	Not
DATATYPE1	Target Docum...	00000000000002	DATATEST1	DATATYPE1	1/17/2007	9:11:16 AM	Not
DATATYPE1	Target Docum...	00000000000001	DATATEST1	DATATYPE1	1/17/2007	9:08:14 AM	Not
MANUFACTURER	Target Docum...	00000000000017	D53T D53TSA2	D53T D53TSA2	1/30/2007	9:28:27 AM	Not
MANUFACTURER	Target Docum...	00000000000016	D53T D53TSA2	D53T D53TSA2	1/30/2007	9:12:29 AM	Not
MANUFACTURER	Target Docum...	00000000000015	D53T D53TSA2	D53T D53TSA2	1/30/2007	9:12:28 AM	Not
MANUFACTURER	Target Docum...	00000000000014	D53T D53TSA2	D53T D53TSA2	1/30/2007	9:12:27 AM	Not
MANUFACTURER	Target Docum...	00000000000013	D53T D53TSA2	D53T D53TSA2	1/30/2007	9:12:27 AM	Not
MANUFACTURER	Target Docum...	00000000000012	D53T D53TSA2	D53T D53TSA2	1/30/2007	9:12:25 AM	Not
MANUFACTURER	Target Docum...	00000000000011	D53T D53TSA2	D53T D53TSA2	1/30/2007	9:12:25 AM	Not
MANUFACTURER	Target Docum...	00000000000010	D53T D53TSA2	D53T D53TSA2	1/30/2007	9:12:23 AM	Not
MANUFACTURER	Target Docum...	00000000000009	D53T D53TSA2	D53T D53TSA2	1/30/2007	9:12:23 AM	Not

When Document Store is first invoked, it will attempt to present the list of objects that you had displayed the last time you left Document Store. For example, if the last time you closed Document Store, you had XML Documents displayed, that is the query that would be presented when you next opened Document Store. The seven tabs are all present, but the one that presented the query would have focus. The tabs are: Transactions, Enveloped Transactions, Groups, Interchanges, Data Format Documents, XML Documents, and Submissions.

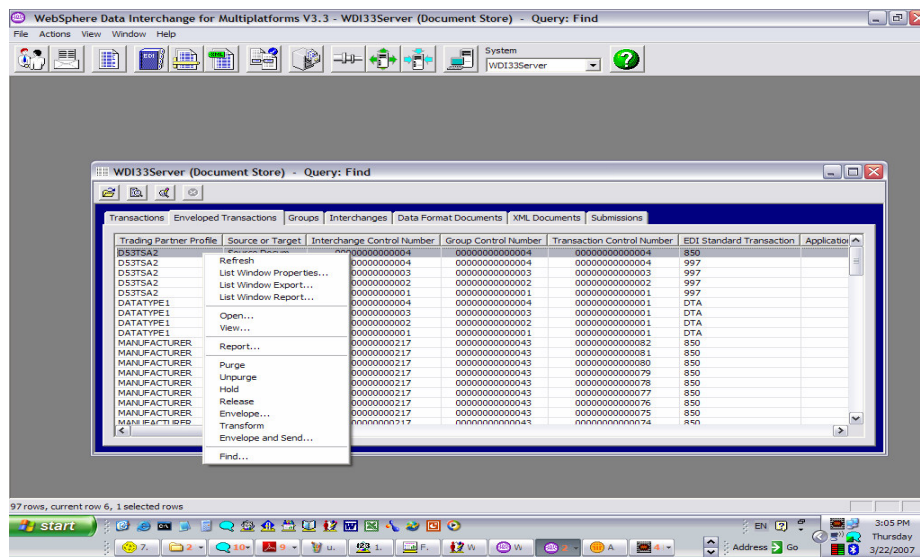
WebSphere Data Interchange Client

- Transactions
- Enveloped Transactions
- Groups
- Interchanges
- Data Format Documents
- XML Documents
- Submissions



The *Transactions tab* displays a list of all the transactions in the database, regardless of whether they have been enveloped. The *Enveloped Transactions tab* displays enveloped transactions with the associated envelope header information. The *Groups tab* displays groups by Trading Partner profile, source or target status, interchange control number, group control number. It also includes the interchange control numbers so that you can view details related to the network and functional acknowledgment of each transaction. The *Interchanges tab* displays Trading Partner profile, source or target status, interchange control number, group control number, duplicate interchanges, and network information. The *Data Format Documents tab* displays a list of data format documents residing in the documents table. The *XML Documents* displays a list of XML documents residing in the documents table. The *Submissions tab* displays a list of the jobs submitted for processing.

WebSphere Data Interchange Client



You can perform a variety of tasks from within the Document Store functional area of the WebSphere Data Interchange Client. You use the Actions menu to perform these actions on selected objects in displayed lists in the Document Store.

Document Identification

- Documents are identified by THANDLEs.
 - ▶ WDI timestamp
- Images must be interpreted according to the corresponding code page
 - ▶ images are considered “binary” even though most will probably still be plain old ASCII or EBCDIC.



Documents are identified by THANDLEs. At a minimum, this gives you a unique identifier and a timestamp. Beyond that, advanced users working at the SQL level can use THANDLEs to join up the various tables.

All image records must be interpreted according to the corresponding code page. The client handles this for you. If you're rolling your own SQL, you're on your own.

The code page requirement also applies to EDI headers and trailers...not just transaction and document images. Again, the client is your friend.

In general, the client is the place to start. The detailed views available by double-clicking a transaction or document reveal lots of useful information. In general, you should be able to copy and paste this information, which cuts down the need to do screen prints.

Remote command execution

- Document Store
- Service Profile
- Server Command



The client has the ability to allow users to submit various PERFORM commands to the WebSphere Data Interchange Server. Submitting PERFORM commands can be accomplished in several ways. You can invoke various actions on a document in the Document Store. Many of these actions generate and submit a PERFORM command to the WebSphere Data Interchange Server. You may submit a PERFORM command to the WebSphere Data Interchange Server using a Service profile. You can submit a PERFORM command to the WebSphere Data Interchange Server using a Server Command object.

Remote command execution

- Remote submission performance may suffer for large lists.
- Remote submission issues – first verify that remote submission is working, no security or path issues are blocking execution of commands in general.
- Anything that can be submitted remotely can also be run from batch.
- A remote submission which abends will never appear to terminate. You'll need to check the host to tell this from a long-running submission.



Remote command execution makes it much easier to work with document store. Remote submission eliminates the need to code PERFORM commands to access many common functions. Remote submission is probably best suited to relatively short lists of transactions or documents. For example, purging thousands of transactions via remote submission will result in much worse performance than a PEFORM PURGE that specifies a range of transactions. In the remote submission version, a separate SELECT is issued for each transaction. In most cases, a manual PEFORM PURGE would specify a range which would cause only one select – the selected rows would be filtered by the program, and updated in a single unit of work.

When dealing with exception cases however, remote submission is the way to go. It's also possible that existing commands could be refined to work better with remote submission, but this would be a future corrective service item.

Remote submission relies on DB2 to actually run the PERFORM command. The DB2 setup can be a bit touchy, especially on zOS. It's a good idea to verify that remote submission is actually working in general before trying to track down a remote submission problem involving document store.

If remote submission seems to be working, try submitting the same PERFORM command from batch on the host system. As noted elsewhere, the THANDF logical file can be replaced by a plain old sequential file (DSORG=PS or the equivalent.)

If a remote submission causes an abend on the server side, the result is that the submission will never appear to terminate. In some cases, it may be hard to tell this condition from a long-running command, such as one which involves thousands of handles in the THANDF file. Check DB2 on the host system to see if a command is still running. On Windows, you should be able to see activity in the task manager. On z/OS, from SDSF, DA OSTC may show a DB2 started task drawing a large CPU %. In SDSF, you would probably want to issue a prefix command specifying the name of the DB2 subsystem, for example PREFIX DB98*.

Document Life

- PERFORM REMOVE TRANSACTIONS
- Remove documents marked for purge
 - ▶ Automatic or manual



Document information remains in the Document Store until it is explicitly removed with the WebSphere Data Interchange PERFORM REMOVE TRANSACTIONS command. Only documents marked for purge in the Transaction Store will be deleted by the PERFORM REMOVE TRANSACTIONS command. Document information will be marked for purge automatically when they expire or can be marked for purge manually using the WebSphere Data Interchange Client.

Reference

- WDI V3.3 Programmer's Reference Guide
- WDI V3.3 User's Guide



More information can be found in the WDI Version 3.3 Programmer's Reference Guide and User's Guide.

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