IBM Software Group

IBM WebSphere® Data Interchange V3.3

Error Logging

@business on demand.

© 2007 IBM Corporation

This presentation will review Error Logging.

Agenda

- Describe WDI error and message logs
    - What logs are available
    - What type of information
    - How to use

2

The presentation describes the various logs that WDI uses for error messages and other types of informational messages. For each log, it will discuss the type of information that is written, as well as how to use the log.

Types of WDI logs

- WDI server writes error and informational messages to:
  - ▸ Print file
  - ▸ XML print file
  - ▸ Data Format (fixed-record) print file
  - ▸ Event log
- WDI Client writes error messages to Client Message Log

WDI may write error and informational messages to several different logs, depending on the options you choose. WDI logs include the print file, the XML and fixed-format versions of the print file, and the event log. The print file is always created, unless WDI cannot write to the file. The other server logs are optional. based on options selected in the Application Defaults profile.

The Message Log is only used by WDI Client, and does not contain server messages.

Print file (PRTFILE)

- Print file is the primary log for WDI Server.

- Logical/DD name is PRTFILE

- Free-form text for all error, warning, info messages
  - Unless otherwise suppressed, or certain special cases

- WDI must be able to write to this file

4

The print file is the primary log used by WDI Server. The logical name or DD name for this file is PRTFILE. WDI Server writes free-form text messages for all error, warning, and informational messages to this file, except in certain special cases or unless the specific messages are suppressed. If WDI Server cannot write to this file, it will return an error code and the translation will fail.

Print file example

1Audit Trail Report -DataInterchange Utility- Date: 07/03/15   Time: 10:16:54 Page: 00001

FF0588 Command: PERFORM TRANSFORM WHERE INFILE(edifile) OUTFILE(OUTFILE) SYNTAX(E) CLEARFILE(Y)
       DUPENV(Y) TRACELEVEL(A2) BATCHSET(12345678)
FF0006 Input File: EDIFILE, C:\wdi33\test\x12.dat

   Message: RU0003 Severity: 00
    The best rule match for the document was: map name X12TOXML, sending TP nickname ANY, receiving TP nickname
   ANY, usage indicator P, document 850, dictionary name X12V4R1, syntax edi.
   Message: UT0008 Severity: 00
    Map name being processed: X12TOXML.
   Message: FF0007 Severity: 00
    Data was written to OUTFILE. Message control number or document id was .
   Message: UT0008 Severity: 00
    Map name being processed: &DT_FA997V3R7.
   Message: FF0007 Severity: 00
    Data was written to EDI_OUT. Message control number or document id was 000000035.

FF0006 Output File: OUTFILE, C:\wdi33\test\outfile
FF0006 Output File: EDI_OUT, C:\wdi33\test\edi.out
FF0585 The PERFORM TRANSFORM command completed successfully. Number of messages processed: 1.

5

This is an example of the print file output. It generally includes the PERFORM command that was run, plus any resulting error, warning, and informational messages.

Application Defaults profile settings

- XML print file, Data Format print file are optional

- Controlled by Application Defaults profile settings
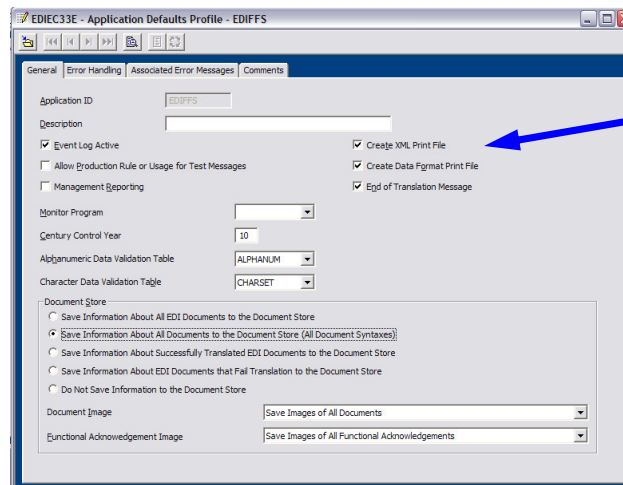
Enable/Disable XML and Data Format Print files

6

The XML print file and Data Format print file are optional. These logs are controlled by settings in the Application Defaults profile. Each can be enabled or disabled independently.

IBM Software Group

IBM

XML print file

- XML print file is an XML version of the print file

- Logical/DD name is XMLPRNT

- XML format so messages can easily be parsed
  - ▸ Allows additional processing of messages
  - ▸ Used by Common Events Handler Java API

- Includes additional document information
  - ▸ Information about each document processed
  - ▸ Not in regular print file

7

The XML print file is an XML version of the print file. If it is enabled, it is written to the logical file or DD name XMLPRNT.

This file is in XML format so an application can easily parse the messages and do further processing, such as passing them to Tivoli or another monitoring system. The XML format of the print file is used by the Common Events Handler Java API.

The XML print file also contains some additional document information that is not in the regular print file. This can include things like the document store identifier, trading partner, control numbers, and other information to help identify each document that was processed.

XML print file example – message entry

```
<Message>
  <MsgId>UT0008</MsgId>
  <DocId>20070315141704618979</DocId>
  <Severity>00</Severity>
  <Text>Map name being processed: X12TOXML.</Text>
  <InsertData>X12TOXML</InsertData>
</Message>
```

8

This is an example of a message entry from the XML print file. Notice that this message also includes a <DocId> element, which is included if the message is related to a specific document or transaction. This allows you to find the corresponding <Document> entry for this message. If messages are being saved to Document Store, this will also correspond to the Document Id or Transaction Handle in the Document Store.

XML print file example – document entry

```
<DocInfo>
  <DocId>20070315141704618979</DocId>
  <Direction>Input</Direction>
  <Syntax>edi</Syntax>
  <Dictionary>X12V4R1</Dictionary>
  <Document>850</Document>
  <Sndtpnick>TESTSNDR</Sndtpnick>
  <Sndid>TESTSNDR</Sndid>
  <Sndqual>ST</Sndqual>
  <Rcvtpnick>TESTRCVR</Rcvtpnick>
  <Rcvid>TESTRCVR</Rcvid>
  <Rcvqual>BT</Rcvqual>
  <Intctlnum>000000005</Intctlnum>
  <Grpctlnum>000000000</Grpctlnum>
  <Trxctlnum>000001</Trxctlnum>
</DocInfo>
```

This is an example of a document entry from the XML print file. The <DocId> element here corresponds to the <DocId> in the message entries. Some of the elements within <DocInfo> may be empty or omitted if WDI does not have that information at the time the document entry is written.

IBM Software Group

Data Format print file

- Data Format print file is a fixed-record Data Format version of the print file

- Logical/DD name is ADFPRNT

- Fixed format also allows messages to be parsed
    - May be easier for COBOL program to process

- Includes document id, but does NOT include additional document entries that are in the XML print file

The Data Format print file is a fixed-record Data Format version of the print file. If it is enabled, it is written to the logical file or DD name ADFPRNT.

This file is in fixed-record format, which may be easier for a COBOL or other legacy-type application to process.

The Data Format print file includes the document id with the message entries, but does NOT contain the additional document entries that are in the XML print file.

XML print file example – message entry

```
MYUT000800200703151417046189790l

TY 035Map name being processed: X12TOXML.

I   008X12TOXML
```

Error Logging

This is an example of a message entry from the Data Format print file.

Event Log

- Event Log is a database table for messages
    - Table name is EDIELOG
    - Provides persistent storage for messages

- Usually only error messages are written
    - Not warnings or informational messages
    - Special case for end of translation message

- Optional – controlled by Application Defaults profile

12

© 2007 IBM Corporation

The Event Log is a database table, EDIELOG, which WDI can use to save messages. Unlike messages that are written to a file, these messages will not get overwritten each time the file is reused.

Normally, only error messages are written – not warning or informational messages. One exception is the special "End of translation" informational message.

The Event Log is optional. You can enable it or disable it by setting the option in the Application Defaults profile. Because event logging requires additional database writes, there may be some performance impacts when running with the Event Log enabled.

Application Defaults profile – Event Log

- Event Log, end of translation message are optional

- Controlled by Application Defaults profile settings

Enable/Disable
Event Log

Enable/Disable
End of
Translation
Message

Error Logging

13

© 2007 IBM Corporation
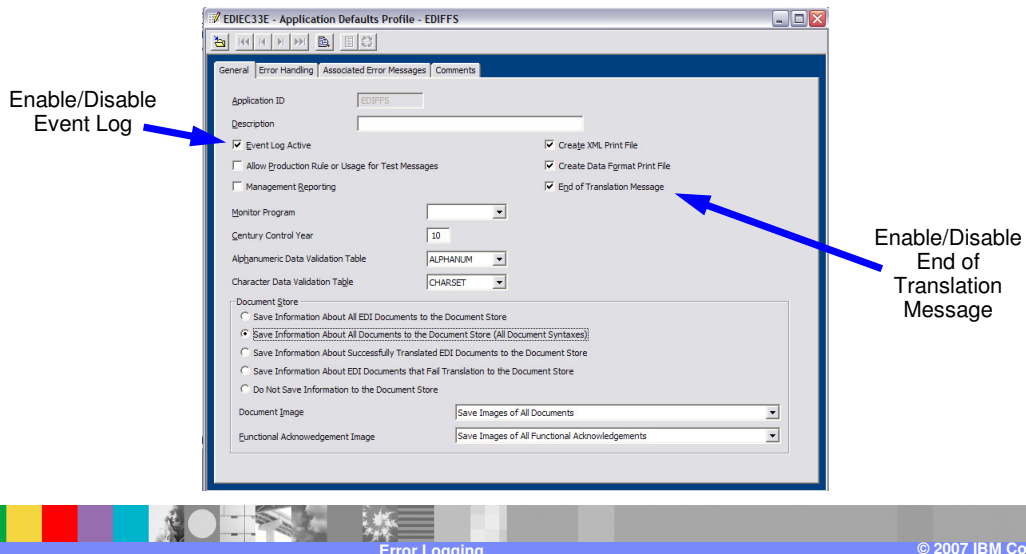
To enable the Event Log, edit the Application Defaults profile and check the "Event Log Active" box. To disable the Event Log, clear this box.

Similarly, you can enable or disable the "end of translation" message. If this is enabled and the Event Log is active, a special informational message is written to the event log at the end of each translation. This message includes the final return code and input file information. This provides a persistent record of each translation that occurred.

Viewing Event Log using WDI Client

- View the Event Log using WDI Client
    - Use the View -> Event Log… option

14

© 2007 IBM Corporation
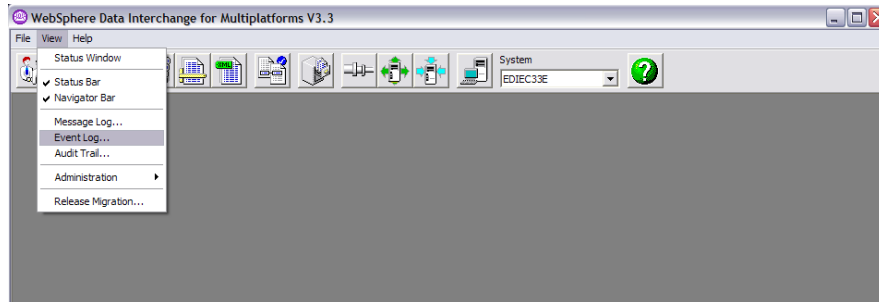
You can view the Event Log using WDI Client by clicking "View", then "Event Log".

Viewing Event Log – selection criteria
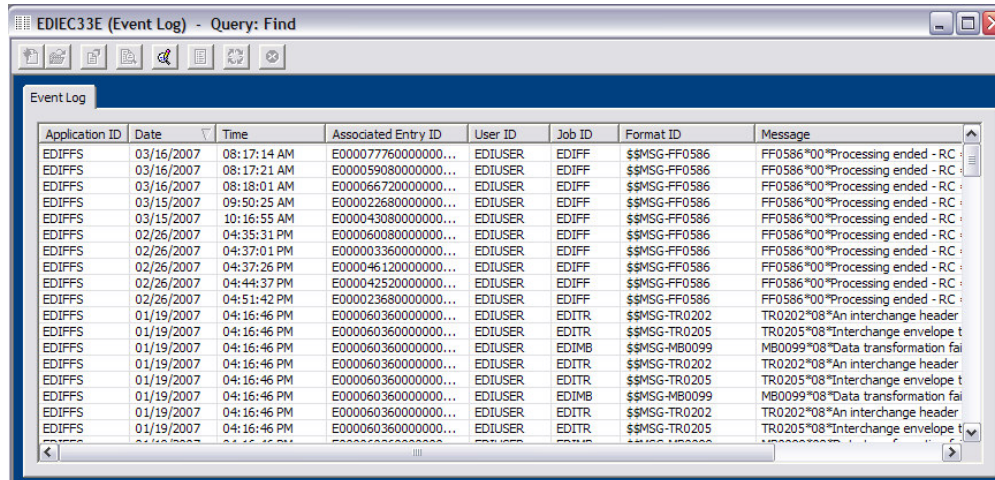
- You can specify selection criteria if you want to limit the number of entries displayed.
  - To see all entries, just use the defaults.
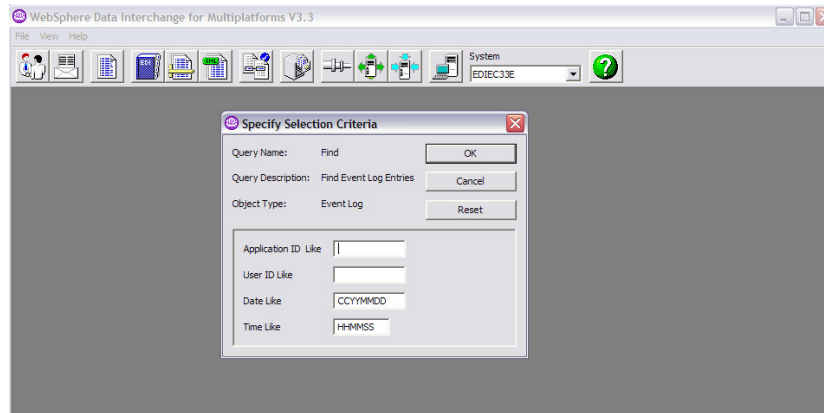
You can specify selection criteria if you want to limit the number of entries that are displayed, for example you only want to see entries from today. Just use the defaults if you want to see all event log entries.

You can also define your own Event Log queries using the WDI Client query editor.

Sample Event Log list
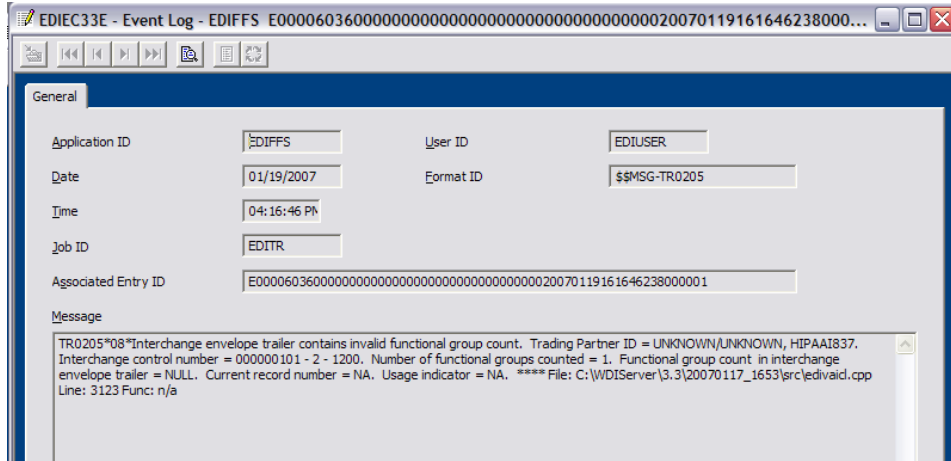
Once you enter your selection criteria, a list of Event Log entries is displayed.

Sample Event Log detail

You can select entries from the list window to see more detail for a specific Event Log entry.

Removing Event Log entries

- To remove Event Log entries from database use REMOVE LOG ENTRIES server command

PERFORM REMOVE LOG ENTRIES WHERE
    APPLID(EDIFFS) LOGDATE(07/03/01) TO(07/03/15)

To remove Event Log entries from the database, you use the REMOVE LOG ENTRIES server command. You cannot delete Event Log entries using WDI Client.

This is an example of REMOVE LOG ENTRIES command, which would remove entries from March 1 to 15, 2007. The "Utility Commands and File Formats Reference" includes more information about the keywords for this command.

WDI Client Message Log

- WDI Client has its own Message Log

- Used for significant Client error messages and information
  - ▶ Example: Error reading or updating database

- Can be enabled or disabled

- Does not contain any server messages

19

WDI Client has its own Message Log that it uses to record significant Client error messages and information.   For example, if there is an error reading or updating the database, it might write an error to the Message Log.

The Message Log can be enabled or disabled, and does not contain any server messages.

Message Log configuration

- Update Configuration Database options to enable or disable the Message Log
  - ▸ Can also configure automatic deletion of entries
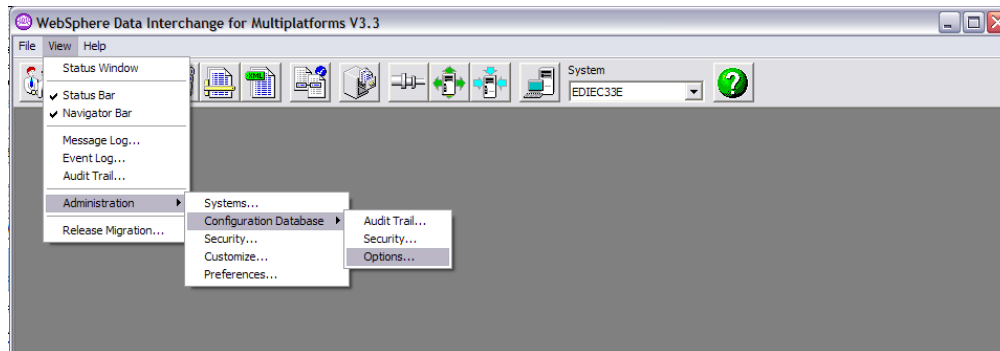
To enable or disable message logging, update the Configuration database options.

Configuration database – Message Log options

Enable/Disable
Message Log

Message Log
retention

21

© 2007 IBM Corporation
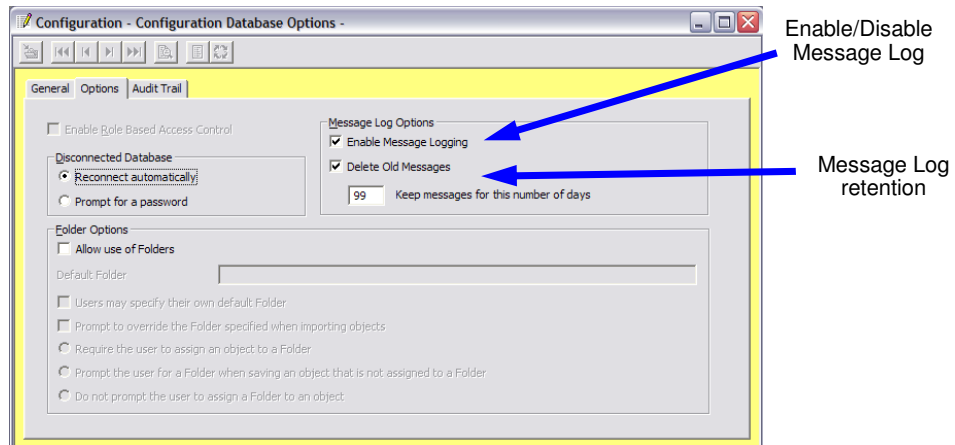
In addition to enabling or disabling the Message Log, you can also specify whether Message log entries should be automatically deleted, and how long they should be kept.

Viewing Message Log

- View the Message Log
  - ▶ Use the View -> Message Log… option

WebSphere Data Interchange for Multiplatforms V3.3

File | View | Help

- Status Window
- ✔ Status Bar
- ✔ Navigator Bar
- Message Log…
- Event Log…
- Audit Trail…
- Administration ▶
- Release Migration…

System
EDIEC33E

Error Logging

22

© 2007 IBM Corporation
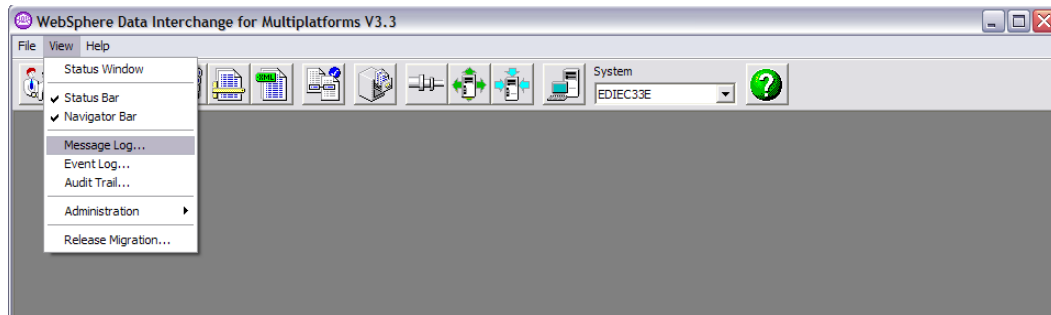
You can view the Message Log by clicking "View", then "Message Log".

Sample Message Log list

This shows the list of all messages in the Message Log.

Sample Message Log detail

Configuration - Message Log - 03/16/2007 11:11:09 AM

General

User ID	admin	Message ID	12168
Date and Time	03/16/2007 11:11:09 AM	Module	Edidb.cpp
		Line Number	383

Message

12168 - A database error occurred. ODBC return code is: -1. Description: SQL30082N Attempt to establish connection failed with security reason "3" ("PASSWORD MISSING"). SQLSTATE=08001
Driver's SQLSetConnectAttr failed. Internal Codes: State:08001,Native:-30082,Origin:[IBM] [CLI Driver]State:IM006,Native:0,Origin:[Microsoft] [ODBC Driver Manager].

Error Logging

24

© 2007 IBM Corporation

Just like with the Event Log entries, you can select entries from the Message Log list window to see more detail for a specific Message Log entry.

Summary

- Server log files
  - ▸ Print file
  - ▸ XML print file
  - ▸ Data Format print file
- Server Event Log
- Client Message Log

In summary, we described the various types of logs that WDI keeps.

The Server can log messages to several different files – the free-format print file, plus the XML and Data Format versions of the print file. The server can also write messages to a persistent Event Log table in the database.

The Message Log is used by the WDI Client to record significant Client errors, such as database errors.

IBM Software Group

Template Revision: 04/25/2006 11:09 AM

Trademarks, copyrights, and disclaimers

The following terms are trademarks or registered trademarks of International Business Machines Corporation in the United States, other countries, or both:

IBM	CICS	IMS	WMQ	Tivoli
IBM(logo)	Cloudscape	Informix	OS/390	WebSphere
e(logo)business	DB2	iSeries	OS/400	xSeries
AIX	DB2 Universal Database	Lotus	pSeries	zSeries

Java and all Java-based trademarks are trademarks of Sun Microsystems, Inc. in the United States, other countries, or both.

Microsoft, Windows, Windows NT, and the Windows logo are registered trademarks of Microsoft Corporation in the United States, other countries, or both.

Intel, ActionMedia, LANDesk, MMX, Pentium and ProShare are trademarks of Intel Corporation in the United States, other countries, or both.

UNIX is a registered trademark of The Open Group in the United States and other countries.

Linux is a registered trademark of Linus Torvalds.

Other company, product and service names may be trademarks or service marks of others.

Product data has been reviewed for accuracy as of the date of initial publication. Product data is subject to change without notice. This document could include technical inaccuracies or typographical errors. IBM may make improvements and/or changes in the product(s) and/or program(s) described herein at any time without notice. Any statements regarding IBM's future direction and intent are subject to change or withdrawal without notice, and represent goals and objectives only. References in this document to IBM products, programs, or services does not imply that IBM intends to make such products, programs or services available in all countries in which IBM operates or does business. Any reference to an IBM Program Product in this document is not intended to state or imply that only that program product may be used. Any functionally equivalent program, that does not infringe IBM's intellectual property rights, may be used instead.

Information is provided "AS IS" without warranty of any kind. THE INFORMATION PROVIDED IN THIS DOCUMENT IS DISTRIBUTED "AS IS" WITHOUT ANY WARRANTY, EITHER EXPRESS OR IMPLIED. IBM EXPRESSLY DISCLAIMS ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE OR NONINFRINGEMENT. IBM shall have no responsibility to update this information. IBM products are warranted, if at all, according to the terms and conditions of the agreements (e.g., IBM Customer Agreement, Statement of Limited Warranty, International Program License Agreement, etc.) under which they are provided. Information concerning non-IBM products was obtained from the suppliers of those products, their published announcements or other publicly available sources. IBM has not tested those products in connection with this publication and cannot confirm the accuracy of performance, compatibility or any other claims related to non-IBM products. IBM makes no representations or warranties, express or implied, regarding non-IBM products and services.

The provision of the information contained herein is not intended to, and does not, grant any right or license under any IBM patents or copyrights. Inquiries regarding patent or copyright licenses should be made, in writing, to:

IBM Director of Licensing
IBM Corporation
North Castle Drive
Armonk, NY 10504-1785
U.S.A.

Performance is based on measurements and projections using standard IBM benchmarks in a controlled environment. All customer examples described are presented as illustrations of how those customers have used IBM products and the results they may have achieved. The actual throughput or performance that any user will experience will vary depending upon considerations such as the amount of multiprogramming in the user's job stream, the I/O configuration, the storage configuration, and the workload processed. Therefore, no assurance can be given that an individual user will achieve throughput or performance improvements equivalent to the ratios stated here.

© Copyright International Business Machines Corporation 2006. All rights reserved.

Note to U.S. Government Users - Documentation related to restricted rights-Use, duplication or disclosure is subject to restrictions set forth in GSA ADP Schedule Contract and IBM Corp.

26

Error Logging

© 2007 IBM Corporation