



IBM Software Group

IBM WebSphere® Data Interchange V3.3

SAP® Status Reporting



@business on demand.

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This presentation will review the SAP® Status Reporting feature.

Agenda

- SAP Overview
- SAP intermediate document (Idoc) review
- WDI SAP Status Tracking
- References



The presentation will present an SAP overview, review some SAP intermediate document (Idoc) versions, and describe the SAP Status tracking WebSphere Data Interchange provides.

SAP Overview

- SAP - Systems, Applications, and Products in Data Processing
- Company History
 - - 1972 in Mannheim, Germany
- - Original name
 - “Systemanalyse and Programmentwicklung.”
- 5 engineers
- Produce and market standard software for integrated business solutions



SAP is Systems, Applications, and Products in Data processing. The SAP product was developed in Germany with 5 engineers. Their goal was to produce and market standard software for integrated business solution. The Software is Multilingual/Multinational. It evolved from mainframe to business application software solutions. SAP is one of the largest suppliers of business application software in the world.

SAP Overview

- Links all areas of an enterprise
 - - increased efficiency
 - - increased speed and agility
 - - increase in revenue
 - - increased productivity

- www.mysap.com
 - More information on SAP can be found



SAP is a market and technology leader in client/server enterprise application software, providing comprehensive solutions for companies of all sizes and all industry sectors. The combination of SAP R/3 and IBM WebSphere Data Interchange creates a powerful EDI system for your business.

SAP intermediate document

- SAP R/3 Idoc
 - ▶ Intermediate Document
 - ▶ Application data layout (Orders, Invoices, etc.)
- Standard and customizable
- - Idoc Releases (20, 30, 40, etc.)



WebSphere Data Interchange electronically translates EDI data, such as invoices and purchase orders, for trading partner exchange. The WebSphere Data Interchange high performance architecture and unique SAP interface provides superior transaction throughput for EDI subsystems and SAP R/3 solution integration.

SAP R/3 provides an interface which allows the EDI subsystem to report status information for the EDI process. Using the SAP Intermediate Document (IDoc) layout, SAP R/3 generates application data in files which are then sent to the EDI translator using FTP-to-mainframe operations. The EDI translator tracks the status of the SAP document throughout the EDI translation and generates SAP status records.

SAP intermediate document

- SAP R/3 Idoc
 - ▶ EDI_DC Control Record
 - ▶ Name of Record
 - ▶ Client
 - ▶ Document Number
 - ▶ Document Release



WebSphere Data Interchange parses the values for the Client, Document Number, and Document Release from the EDI_DC record to identify the SAP Idoc version and to produce the correct version of the SAP Status record.

SAP intermediate document

```

EDI_DC 80000000000015825331H 30ORDERS011CERTIFPORTLI0000020111
E2EDK01 800000000000158253000001E2EDK01 00000010 DEM 1.00000
E2EDK14 800000000000158253000002E2EDK14 00000020 014001
E2EDK14 800000000000158253000003E2EDK14 00000020 009001
E2EDK14 800000000000158253000004E2EDK14 00000020 013NB
E2EDK14 800000000000158253000005E2EDK14 00000020 011001
E2EDK03 800000000000158253000006E2EDK03 00000020 01219980629
E2EDK03 800000000000158253000007E2EDK03 00000020 01119980629
E2EDKA1 800000000000158253000008E2EDKA1 00000020 AG 10111
E2EDKA1 800000000000158253000009E2EDKA1 00000020 LF 0000020111
E2EDKA1 800000000000158253000010E2EDKA1 00000020 WE 0001

```



This is an example of an SAP Idoc Release 3. The EDI_DC record is the SAP control record. The section underlined is the SAP client, document number, and release. The area in green is where the application begins. The areas in blue are record sequence numbers and the areas in red are the parent sequence numbers.

SAP intermediate document

```

EDI_DC40 500000000000015239940A 3013 ORDERS01
E2EDK01003 50000000000001523990000100000001 DEM 1.00000 ZB01
E2EDK14 5000000000000152399000002000000020141000
E2EDK14 5000000000000152399000003000000020009001
E2EDK14 500000000000015239900000400000002013NB
E2EDK14 5000000000000152399000005000000020111000
E2EDK03 50000000000001523990000060000000201219980617
E2EDK03 50000000000001523990000070000000201119980617
E2EDKA1002 500000000000015239900000800000002AG IDOC-KU-01
E2EDKA1002 500000000000015239900000900000002WE 1100
E2EDK02 5000000000000152399000010000000020014500005026
E2EDK17 500000000000015239900001100000002001CIFGüterbahnhof
E2EDK18 50000000000001523990000120000000200114 3.000
  
```



This is an example of an SAP Idoc Release 4. The EDI_DC record is the SAP control record. The section underlined is the SAP client, document number, and release. The area in green shows the differences between Idoc Release 3 and Release 4. The areas in blue are record sequence numbers and the areas in red are the parent sequence numbers.

SAP intermediate document

SAP Status Release 3

EDI_DS 8000000000001582531998072216323810
0000000000004400000000000044000000000005419980722163237550000



COL 270

SAP Status Release 4

EDI_DS 8000000000001582531998072216323810

EDI_DS40A 5000000000001523991998102815241210

000000000023000000000000230000000000024119981028152412470000



COL 451



This is an example of an SAP Idoc Status Record Release 3 and Release 4. The EDI_DS record is the SAP status record. The release 4 status record is longer than the release 3 status record and contains more fields. The Document Release from the EDI_DC record is used to identify the SAP Idoc version and to produce the correct version of the SAP Status record. WebSphere Data Interchange supports the SAP status EDI_DS record at Idoc releases 2, 3, and 4.

SAP Status Reporting

- Status Tracking
 - ▶ EDI target document
 - Translation to EDI target
 - Envelope EDI data
 - Send EDI data
 - ▶ EDI source document
 - Functional Acknowledgement only
 - ▶ PERFORM..... SAPUPDT(Y)



SAP status tracking is only supported with the WebSphere Data Interchange Utility. You can capture SAP status information during different phases of the Electronic Data Interchange (EDI) process by specifying the keyword SAPUPDT on the WebSphere Data Interchange Utility PERFORM commands. WDI will generate the initial record using the client, document number, and document release from the EDI_DC record. As the EDI target message is translated, enveloped, and sent the EDI control numbers are added to the status record along with the current status. The status record is saved in a WDI database table. For EDI source documents, the functional acknowledgement messages are used to do reconciliation on the original outbound EDI target message. The functional acknowledgement messages are also used to update the SAP status to reflect the receipt of the acknowledgement.

SAP Status Reporting

- PERFORM SAP STATUS EXTRACT WHERE OUTFILE()
OUTTYPE() CLIENT() SAPSTAT() TO() DAYS() TO()
- PERFORM SAP STATUS REMOVE WHERE
SAPSTAT(16) TO(19) EXTRACTED(Y)



PERFORM commands allow you to extract or remove the SAP status records from the database based on selection criteria, and write them in SAP EDI_DS record format to a sequential file for transfer to the SAP system.

SAP Status Reporting

- PERFORM TRANSFORM..... WHERE SAPFILE(OUTFILE) SAPTYPE()

- PERFORM TRANSLATE WHERE OUTFILE(OUTFILE) OUTTYPE()
- PERFORM DEENVELOPE... WHERE OUTFILE(OUTFILE) OUTTYPE()



With data transformation processing and the TRANSFORM command you can specify the SAPFILE and SAPTYPE keywords to automatically extract the SAP Status and write the EDI_DS records to this file. With the Send and Receive processing the OUTFILE and OUTTYPE keywords are used to perform the automatic extract.

SAP Status Reporting

- Mapping Properties
 - ▶ &THANDLE – Send/Receive map
 - ▶ THANDLE – Data Transformation (DT) map

- Mapping Special variable
 - ▶ DISAPSEQ – Send/Receive map



To assist in mapping the Idoc, a mapping literal keyword &THANDLE for send/receive maps and the source document property THANDLE for Data Transformation maps are provided to enable mapping of the WebSphere Data Interchange archive key to the SAP Idoc for inbound processing. The special variable DISAPSEQ can be used to save the SAP Idoc record sequence number on the first error encountered during outbound processing. The sequence number can be provided through the application or using the WebSphere Data Interchange accumulators. Variable DISAPSEQ is captured in the SAP status record to indicate the first record in error. This variable is not supported for data transformation processing.

References

- More information can be found in the WebSphere Data Interchange V3.3 Programmer's Reference Guide.



More information can be found in the WebSphere Data Interchange Version 3.3 Programmer's Reference Guide.

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