

Tab 1

--> <https://chatgpt.com/c/68260816-0bf0-8011-93ae-425472c17194>.

1.Field catlog -> table define the columns properties of a output like width ,zebra_pattern, fname on the output ..etc -> slis_t_fieldcat_alv.

hotspot -> used in both FM and OO based ALV.

Edit -> make ALV fields editable.

2.Slis(Used in FM based ALV) -> Structure used in ALV FM ->(SLIS_SELFIELD) : captures user actions like store the clicked fname and fvalue ,index.

3.Edit -> OO ALV ->field CatLog edit ='X'

4.Refresh -> slis_selfield -> refresh field = 'X'.

5.Hotspot -> make the field clickable -> fieldcatlog.

6.OO ALV -> CL_GUI_ALV_Grid -> for displaying the ALV in a container on a screen.

7.FM ALV -> REUSE_ALV_Grid/list/hieriechal_DISPLAY.

Script:

RSTXPDFT4 - script to pdf.

RSTXSCRIP - backup script - import from one client to another through TR.

RSTXTRAN - Transport std text.

Main window - display continuous text - For repeating or overflow content, use the **MAIN** window instead - only 1 per page.

Variable window - display text based on fixed ht and width - **variable windows are used to display text that fits within their defined size**. If the text is too long, it gets **truncated** - many per page.

Constant window - display static text - same content in every page

Smartforms :

11.Smartstyles -> format the styles,layout of the text elements - can be used in multiple smarforms.

12.background picture tab.

13.FB_migrate_form - Sript to smartform.

14.Folder - page break prevents in the smartform.

15.SSF_Function_module_name

16.

Conversion:

17.Error handling in call transaction - using Format_message FM.

18.

Enhancment:

Userexit:

Implemented as subroutines.
SD module.

Customer Exit :

implemented as FM
Available on all modules
Create -> CMOD.
Find the exit -> SMOD / pass the pkg name of the tcode in SE84.
Types:Menu exit , Screen exit and field exit.

implement this only once

BADI:

Implemented as OOABAP.
Multiple implementation.
SE18 -> create/Class definintion
SE19 -> Class implementation.

Find -> SE24-CL_EXITHANDLER-GET_Instance(method)

Provide search help to the i/p field -> FM F4IF_int_table_value_request(prog_level) ; Using a Data Element with Search Help.

Dropdown - FM VRM_set_values

CL_SALV_Table -> oo based alv approach

JDBG - debug bg job

ST05 (SQL Trace) and SE30 (Runtime Analysis).

sT12 - run time erro

Migration : (ECC to HANA)

Migrating material master data (MATNR) from SAP ECC to SAP S/4HANA involves adapting to the **40-character material number format in S/4HANA**, which differs from the **18-character format in ECC**. This change impacts various aspects of data migration, including the handling of change documents and other related data.

Simple Explanation:

If you use **FOR ALL ENTRIES IN** with an **empty internal table**:



SAP ignores the **WHERE** condition



It will **select all records** from the database table

This can cause:

- **Performance issues**
- **Unwanted data load**
- **Slow program**

Example:

abap

CopyEdit

```
DATA: lt_ids TYPE TABLE OF mara-matnr,  
      lt_data TYPE TABLE OF mara.
```

" lt_ids is empty

```
SELECT * FROM mara INTO TABLE lt_data  
  FOR ALL ENTRIES IN lt_ids  
  WHERE matnr = lt_ids-table_line.
```

Here, it will fetch **all records from MARA**, even though we wanted only selected ones.

Correct Way:

IF lt_ids IS NOT INITIAL.

```
  SELECT * FROM mara INTO TABLE lt_data  
    FOR ALL ENTRIES IN lt_ids  
    WHERE matnr = lt_ids-table_line.  
ENDIF.
```



Always check IF lt_ids IS NOT INITIAL



Don't skip the check, or it may load the **entire table** by mistake

TMG Events - used to validate the entries maintained or adding in the TMG.

BAPI -> add new fields- used BAPI extension concept.

Idoc related

The following are the status codes for an Idoc to be in, since its creation.

0-49 indicates an Outbound idoc and 50-75 as Inbound one.

The Outbound status as follows:

00 Not used, only R/2

01 IDoc generated

02 Error passing data to port

03 Data passed to port OK

04 Error within control information of EDI subsystem

05 Error during translation

06 Translation OK

07 Error during syntax check

08 Syntax check OK

09 Error during interchange handling

10 Interchange handling OK

11 Error during dispatch

12 Dispatch OK

- 13 Retransmission OK
- 14 Interchange Acknowledgement positive
- 15 Interchange Acknowledgement negative
- 16 Functional Acknowledgement positive
- 17 Functional Acknowledgement negative
- 18 Triggering EDI subsystem OK
- 19 Data transfer for test OK
- 20 Error triggering EDI subsystem
- 21 Error passing data for test
- 22 Dispatch OK, acknowledgement still due
- 23 Error during retransmission
- 24 Control information of EDI subsystem OK
- 25 Processing despite syntax error (outbound)
- 26 Error during syntax check of IDoc (outbound)
- 27 Error in dispatch level (ALE service)
- 28 Not used

29 Error in ALE service

30 IDoc ready for dispatch (ALE service)

31 Error - no further processing

32 IDoc was edited

33 Original of an IDoc which was edited

34 Error in control record of IDoc

35 IDoc reloaded from archive

36 Electronic signature not performed (timeout)

37 IDoc added incorrectly

38 IDoc archived

39 IDoc is in the target system (ALE service)

40 Application document not created in target system

41 Application document created in target system

42 IDoc was created by test transaction

Inbound status of an Idoc:

50 IDoc added

51 Application document not posted

52 Application document not fully posted

53 Application document posted

54 Error during formal application check

55 Formal application check OK

56 IDoc with errors added

57 Test IDoc: Error during application check

58 IDoc copy from R/2 connection

59 Not used

60 Error during syntax check of IDoc (inbound)

61 Processing despite syntax error (inbound)

62 IDoc passed to application

63 Error passing IDoc to application

64 IDoc ready to be transferred to application

65 Error in ALE service

66 IDoc is waiting for predecessor IDoc (serialization)

67 Not used

68 Error - no further processing

69 IDoc was edited

70 Original of an IDoc which was edited

71 IDoc reloaded from archive

72 Not used, only R/2

73 IDoc archived

74 IDoc was created by test transaction

75 IDoc is in inbound queue.

(Outbound & Inbound)

Simple IDoc Issue Example: Special Character Problem

Scenario:

We were sending a sales order IDoc (**ORDERS05**) to a customer's system. The material description had a German word – "**maßgefertigt**" (custom-made).

Problem:

The customer received the word as "**ma?gefertigt**" or wrong characters. Their system couldn't read the special letter **ß**.

Reason:

SAP was sending the IDoc in **UTF-8 format**, but the customer system expected **ISO-8859-1**. Due to this **encoding mismatch**, the special character didn't display properly.

Solution:

We updated the **port setting in WE21** to use the correct **code page (ISO-8859-1)**, and then reprocessed the IDoc using **BD87**. The issue got fixed, and the customer received the correct text.

Inbound - different plant and wrong location sent from 3rd sys to sap or some mandatory fields missing.

Business Process	Message Type	Basic Type
Sales Order	ORDERS	ORDERS05
Material Master	MATMAS	MATMAS05
Invoice	INVOIC	INVOIC02
Delivery	DELVRV	DELVRV03

IDoc Monitoring & Display

TCode	Description
WE02	Display IDoc (standard monitor)

WE05 IDoc List – Extended version of WE02

WE09 Search IDoc content (by value)

BD87 Reprocess Inbound IDocs

WE19 Test tool for IDocs (simulate inbound/outbound)

IDoc Configuration & Setup

TCode	Description
WE20	Maintain Partner Profiles
WE21	Maintain Ports (file, RFC, etc.)
WE31	Create/Edit IDoc Segments
WE30	Create/Edit IDoc Types (Basic/Extension)
WE81	Maintain Message Types
WE82	Assign Message Type to Basic Type

WE42 Assign Process Code

IDoc Distribution (ALE)

TCode	Description
BD64	Maintain Distribution Model
BD82	Generate Partner Profiles from Model
BD87	Reprocess IDocs
BD73	Reorganize IDocs

Testing & Debugging

TCode	Description
WE19	Test Tool for IDoc Processing
WE02	View IDoc Details
BD87	Reprocess IDocs with debugging option

SM58 Check transactional RFC (TRFC) errors

ST22 Dump Analysis if IDoc fails in runtime

SLG1 Application log (for troubleshooting)



Status Tracking & Logs

TCode	Description
-------	-------------

WE07	IDoc Statistics
-------------	-----------------

WE02	Check status codes of IDoc (51, 53)
-------------	-------------------------------------

WE04	IDoc Overview
-------------	---------------

WE60	Documentation for IDoc Types
-------------	------------------------------



Common IDoc Status Codes

Status Code	Meaning
-------------	---------

- 01 IDoc created
- 03 IDoc sent to the port
- 12 IDoc passed to application
- 53 Application document posted successfully
- 64 IDoc ready to be processed (inbound)
- 51 Error in application document

Tab 3

1.<https://answers.sap.com/questions/5613673/different-transaction-codes-useful-for-performance.html>

2.<https://www.testingbrain.com/sap/abap-tutorial/abap-transaction-codes-list.html>