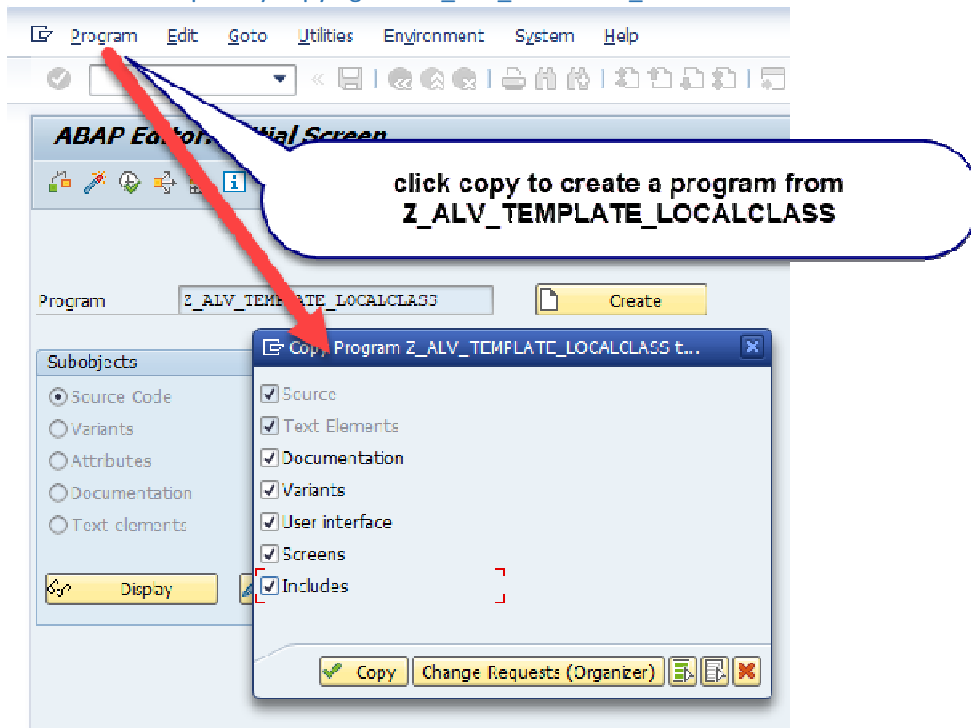


Create an ALV Report in No Time

Wednesday, April 3, 2019 2:56 PM

- Create an ALV report by copying from Z_ALV_TEMPLATE_LOCALCLASS



- MVC design pattern. Search "initialize the alv container and preparing the data " to see how the objects are initialized.
There are two custom abap classes involved, ZCL_DATA (REF_DATA_OBJECT) and ZCL_ALV_SERVICE (DIST_ALV_DISPLAY). ZCL_DATA is the model and ZCL_ALV_SERVICE is the controller. The view is DIST_ALV_DISPLAY, which imports the custom control we created in the Screen 1001.
- Change Report Name.

```
REPORT ZPP_COGI_ALV  
MESSAGE-ID ZALV  
NO STANDARD PAGE HEADING  
LINE-SIZE 276  
LINE-COUNT 65.
```

Please change the report name first if you copy it from template.
- Set all the display title below as you expected.

ALV template title(ALV_TITLE)

Program Attributes

GUI Title

Report Name Here

Carrier ID	Connection ID	Flight Date	Customer ID	Customer Type	Smoker	Currency	Amount
AA	17	07/26/2018	1951	P		USD	359.50
AA	17	07/26/2018	1190	P		EUR	461.00
AA	17	07/26/2018	2642	P		USD	359.50
AA	17	07/26/2018	4416	P		GBP	243.09
AA	17	07/26/2018	3918	P		EUR	391.86
AA	17	07/26/2018	856	P		EUR	461.00
AA	17	07/26/2018	3292	P		USD	359.50
AA	17	07/26/2018	665	P		USD	401.79
AA	17	07/26/2018	4478	P		EUR	437.95
AA	17	07/26/2018	772	P		EUR	461.00
AA	17	07/26/2018	2371	P		GBP	271.68
AA	17	07/26/2018	4096	P		USD	422.94
AA	17	07/26/2018	379	P		USD	422.94
AA	17	07/26/2018	1538	P		USD	359.50
AA	17	07/26/2018	617	P		EUR	437.95
AA	17	07/26/2018	4616	P		USD	380.65
AA	17	07/26/2018	451	P		CHF	685.51
AA	17	07/26/2018	920	P		EUR	391.86
AA	17	07/26/2018	357	P		EUR	414.91
AA	17	07/26/2018	1367	P		GBP	271.68
AA	17	07/26/2018	3325	P		USD	422.94
AA	17	07/26/2018	2466	P		EUR	461.00
AA	17	07/26/2018	3724	P		USD	401.79
AA	17	07/26/2018	3076	P		GBP	285.98
AA	17	07/26/2018	585	P		EUR	414.91
AA	17	07/26/2018	3860	P		USD	401.79
AA	17	07/26/2018	2320	P		EUR	414.91
AA	17	07/26/2018	3656	P		EUR	414.91
AA	17	07/26/2018	3656	P		USD	380.65
AA	17	07/26/2018	577	P		EUR	414.91

- REPORT name
- Program Attribute

SAP: Program Attributes ZPP_COGI_ALV Change

Title: Good Issue to Production Order

Original language: EN English

Created: JLU 04/03/2019

Last Changed: JLU 04/03/2019

Status:

Attributes

Type: Executable program

Status: Customer Production Program

Application: Plant maintenance

Authorization Group:

Package: Z_TRANSPORTABLE_OBJ... Dev class for transportable objects

Logical database:

Selection screen:

☐ Editor lock ☒ Fixed point arithmetic

☒ Unicode Checks Active ☐ Start using variant

Save

- GUI Title - ALV template title(ALV_TITLE)

Program: ZPP_COGI_ALV

Object Name: ZPP_COGI_ALV

Change Title

Program: ZPP_COGI_ALV

Title Code: ALV_TITLE

Title: ALV template title(ALV_TITLE)

ALV_TITLE


ALV template title(ALV_TITLE)

- GS TITLE - Report Name Here

```

431 ***** End of ALV Model and Controller classes*****
432
433
434 DATA REF_DATA_OBJECT TYPE REF TO ZCL_DATA.
435 □ ***** ALV related *****
436 L *****TODO: Type the report name here.
437 DATA: GS_TITLE(50) TYPE C VALUE 'Report Name Here'.
438 *-- Layout Structure
439 DATA GS_LAYOUT TYPE LVC_S_LAYO.
440 *-- ALV Service CLASS, display the ALV
441 DATA: DIST_ALV_DISPLAY TYPE REF TO ZCL_ALV_SERVICE.
442 *-- Field Category
443 DATA GT_FIELDCAT TYPE LVC_T_FCAT.
444 *-- File Name
445 DATA: FNAME(128) TYPE C.
446
447
448

```



- Search "TODO: Your own global types and data section ". Prepare data type and data definition, especially the internal table to display. Here it is ITAB_GIITEM, which will be used below to hook up with the GUI container

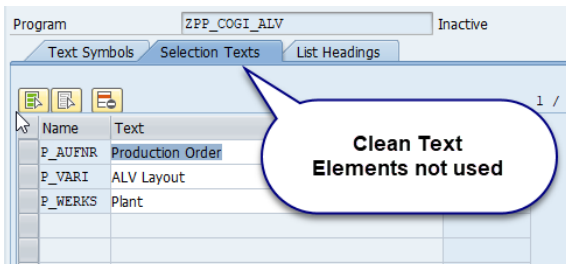
```

*****TODO: Your own global types and data section
□ TYPES: BEGIN OF TY_GIITEM,
    FLAG(1) TYPE C,
    AUFNR LIKE RESB-AUFNR, " Production Order
    MATNR LIKE RESB-MATNR, " Material
    WERKS LIKE RESB-WERKS, " Plant
    LGORT LIKE RESB-LGORT, " Storage Location
    RSNM LIKE RESB-RSNM, " Reservation Quantity
    BDMNG LIKE RESB-BDMNG, " Requirement Quantity
    ENMNG LIKE RESB-ENMNG, " Withdrawn Quantity
    RNMNG LIKE RESB-ENMNG, " Issue Quantity
TYPES: END OF TY_GIITEM.

DATA: ITAB_GIITEM TYPE STANDARD TABLE OF TY_GIITEM,
      WA_GIITEM TYPE TY_GIITEM.
CONSTANTS : C_CHECK(1) VALUE 'X'. " value used to set X for a field

```

- Finish the select screen and clean the Text elements



- Search "TODO: prepare the model data here. " and prepare the data to display.
- Search "TODO: Delete the code below ". This code is only for demo alv template.
- Search "TODO: Prepare ALV Field Category " and set field category for fields to display in ALV grid.

```

319  ****TODO: Prepare ALV Field Category (column name, type etc)
320  METHOD GET_FIELDCAT.
321      DATA WA_PT_FCAT TYPE LVC_S_FCAT.
322      CLEAR WA_PT_FCAT.
323      WA_PT_FCAT-FIELDNAME = 'CHECKBOX'.
324      WA_PT_FCAT-CHECKBOX = 'X'.
325      WA_PT_FCAT-EDIT = 'X'.
326      WA_PT_FCAT-COLTEXT = 'Select'.
327      WA_PT_FCAT-SELTEXT = 'Select A Row'.
328      APPEND WA_PT_FCAT TO PT_FIELDCAT.
329
330      CLEAR WA_PT_FCAT.
331      WA_PT_FCAT-FIELDNAME = 'MATNR'.
332      WA_PT_FCAT-REF_TABLE = 'ITAB_GIITEMS'.
333      WA_PT_FCAT-REF_FIELD = 'MATNR'.
334      WA_PT_FCAT-OUTPUTLEN = '18'.
335      WA_PT_FCAT-JUST = 'L'.
336      WA_PT_FCAT-COLTEXT = 'Material'.
337      WA_PT_FCAT-SELTEXT = 'Material'.
338      APPEND WA_PT_FCAT TO PT_FIELDCAT.
339

```

- ALV output or Download. Search "ALV output or Background job download."
This template provide code sample for either ALV output or file download. Comment out DOWNLOAD_OUTPUT if no needed, both DOWNLOAD_OUTPUT, DOWNLOAD_HEADER and DOWNLOAD_DETAIL forms and the form call.

```

* ALV output or Background job download.
* IF RB_SCRN = 'X'.
    PERFORM ALV_OUTPUT.
* ELSE.
    PERFORM DOWNLOAD_OUTPUT.
* ENDIF.

```

- Search "TODO: set your table ". Link your table to the view

```

MODULE STATUS_1001 OUTPUT.
    SET PF-STATUS 'ALV'. "Defined in the GUI Status folder
    SET TITLEBAR 'ALV TITLE'. "Defined in the GUI Title folder
    ****TODO: set your table
    * Display it
    CALL METHOD DIST_ALV_DISPLAY->DISPLAY_ALV
        CHANGING
            GT_FIELDCAT = GT_FIELDCAT
            GS_LAYOUT = GS_LAYOUT
            GS_TAB = ITAB_GIITEM[]
            GS_VARIANT = P_VARI.
    " STATUS 1001 OUTPUT
ENDMODULE.

```

Your internal table variable

- Add Buttons to the Application Tab.

Add Item into GUI Status ALV.

```

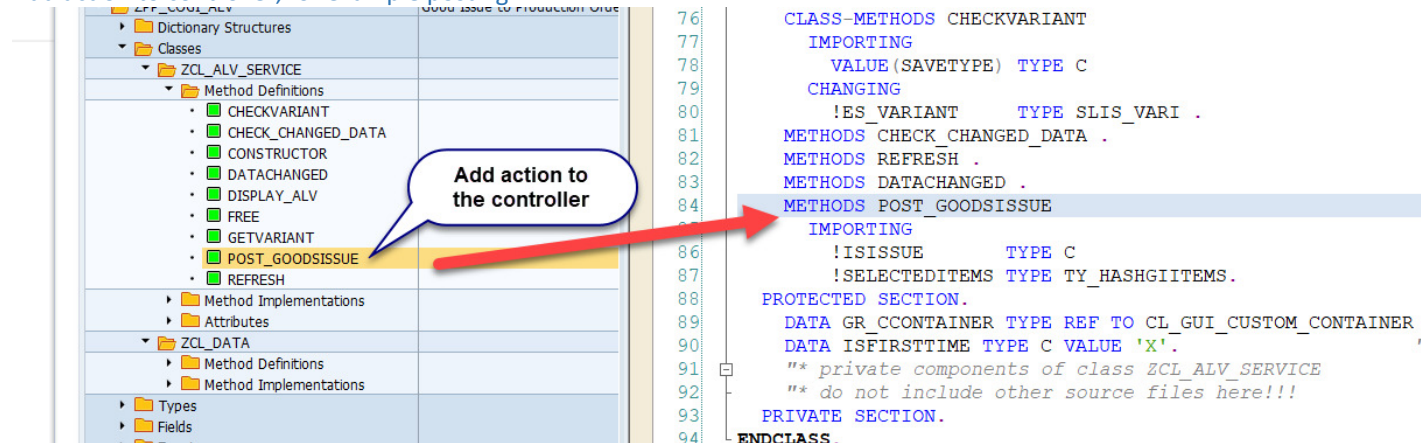
Add code to "MODULE USER_COMMAND_1001 INPUT."
MODULE USER_COMMAND_1001 INPUT.
CASE SY-UCOMM.
  WHEN '%ISU'. " Issue Goods
    REFRESH: ITAB_SELECTEDGIITEM.
*** Get input
    CALL METHOD DIST_ALV_DISPLAY->CHECK_CHANGED_DATA.

    CALL METHOD REF_DATA_OBJECT->GETSELECTED
      EXPORTING
        ITEMS = ITAB_GIITEM
      IMPORTING
        SELECTEDITEMS = ITAB_SELECTEDGIITEM.
    IF LINES( ITAB_SELECTEDGIITEM ) > 0.
      CALL METHOD DIST_ALV_DISPLAY->POST_GOODSISUE
      EXPORTING
        ISSUUE = 'X'
        SELECTEDITEMS = ITAB_SELECTEDGIITEM.
      CALL METHOD REF_DATA_OBJECT->GET_DATA.
    ENDIF.
  WHEN '%USU'. " Goods Withdraw
    REFRESH: ITAB_SELECTEDGIITEM.
*** Get Input
    CALL METHOD DIST_ALV_DISPLAY->CHECK_CHANGED_DATA.

    CALL METHOD REF_DATA_OBJECT->GETSELECTED
      EXPORTING
        ITEMS = ITAB_GIITEM
      IMPORTING
        SELECTEDITEMS = ITAB_SELECTEDGIITEM.
    IF LINES( ITAB_SELECTEDGIITEM ) > 0.
      CALL METHOD DIST_ALV_DISPLAY->POST_GOODSISUE
      EXPORTING
        ISSUUE = ''
        SELECTEDITEMS = ITAB_SELECTEDGIITEM.
      CALL METHOD REF_DATA_OBJECT->GET_DATA.
    ENDIF.
  WHEN 'BACK' OR 'EXIT' OR 'RETURN' OR 'CANCEL' OR '&F03' OR '&F12' OR
    '&F15'.
    LEAVE TO SCREEN '0'.
    CALL METHOD DIST_ALV_DISPLAY->FREE.
  WHEN 'DISPLAY'.
    LEAVE TO SCREEN 1001.
ENDCASE.
ENDMODULE. " USER_COMMAND_1001 INPUT

```

- Add action to controller, for example posting.



The screenshot shows the SAP ABAP IDE interface. On the left, the 'Dictionary Structures' pane displays the class hierarchy for 'ZCL_ALV_SERVICE'. Under 'Method Definitions', the 'POST_GOODSISUE' method is highlighted. A red arrow points from this method to its implementation in the source code on the right. A speech bubble with the text 'Add action to the controller' points to the 'POST_GOODSISUE' method in the list.

```

76 CLASS-METHODS CHECKVARIANT
77   IMPORTING
78     VALUE(SAVETYPE) TYPE C
79   CHANGING
80     !ES_VARIANT      TYPE SLIS_VARI .
81   METHODS CHECK_CHANGED_DATA .
82   METHODS REFRESH .
83   METHODS DATACHANGED .
84   METHODS POST_GOODSISUE
85     IMPORTING
86       !ISSUUE          TYPE C
87       !SELECTEDITEMS TYPE TY_HASHGIITEMS.
88   PROTECTED SECTION.
89   DATA GR_CCONTAINER TYPE REF TO CL_GUI_CUSTOM_CONTAINER
90   DATA ISFIRSTTIME TYPE C VALUE 'X'.
91   "** private components of class ZCL_ALV_SERVICE
92   "** do not include other source files here!!!
93   PRIVATE SECTION.
94   ENDClass.

```