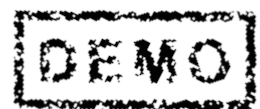


PROGRAMMING IN SAP WITH THE ABAP/4 LANGUAGE



- COMPLETE -



ABAP/4

INDEX

Structure of the SAP tables	pag. 7
Navigation in the SAP tables	pag. 12
Creating a domain	pag. 16
Creation of a Data Type	pag. 22
Creating a custom table	pag. 28
Creating an External Key in a Table	pag. 38
Creating a Search Help in a Table	pag. 42
Creating a Report Program	pag. 49
Declaration of tables and variables in a program	Pag. 57
List of System Variables	pag. 61
Variables: list of the various types	pag. 66
Creating Parameters Selection in a program	pag 69
The Instruction SELECT	pag. 77
The Internal Table and instructions	pag. 96
The Conditions	pag. 106
Cycles	pag. 109
Print to Video of the output data of a program	pag. 112

ABAP/4

INDICE

Loading a File on the SAP Server in ABAP	pag. 119
Reading a File from the SAP Server in ABAP	pag. 124
The Instructions FORM and PERFORM	pag. 128
The Instructions INCLUDE	pag. 131
The Debug	pag. 134
Creating a variant	pag. 145
Creating a ALV programm	pag. 151
Scheduling of a program through Job	pag. 162
Functions and BAPI – Analysis	Pag. 167
Functions and BAPI – Utilization	pag. 178
Creating an Enhancements	pag. 187
Creating a Batch Input	pag 193
Creating a Smartforms – Layout	pag. 213
Creating a Smartforms – Style	pag. 249
Creating a Smartforms – ABAP Programm	pag. 259
Utility: activate the Editor in SAP SmartForms	pag. 266
Creating a Pool Module	pag. 270

ABAP/4

INDEX

Creating a Job	pag. 296
Viewing a Job	pag. 305
Utility: quick loading of a file on the SAP Server	pag. 308
Utility: quick downloading of a file from the SAP Server	pag. 311
Utility: uploading pictures on SAP	pag. 314

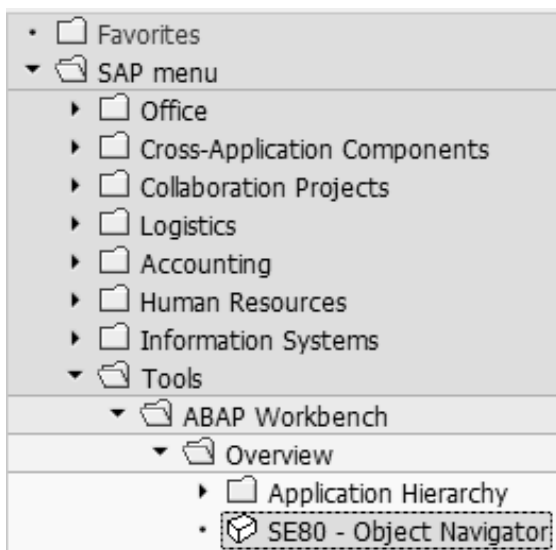
The programming language ABAP / 4

The ABAP / 4 is the programming language, owner of SAP to create and customize the system via custom programs. Basically, the ABAP harnesses the power of the SQL language improved performance (of course if the instructions are well implemented).

In this E-Book are used specific examples for each topic, then starting from SQL SAP (called Open SQL) coming to the Utility more complex, such as Batch Input, SmartForms and Module Pool. The E-Book is designed to be a valuable support during their studies or work activities, and given the variety of available operations in ABAP, schematic examples are provided in the clearest way possible.

MODULE POOL

(TRANSACTION SE80)



Route:

**Menu SAP > Tools > ABAP
Workbench > Summary >
Object Navigator**

Module Pool

The Module Pool can be defined as the evolution of the classic SAP Report program (SE38). In fact, they not only process the input data and provide them as output, but allow sharing between multiple windows of the same and then allow the creation of innovative graphical interfaces.

Every single transaction that is created in SAP using the methodology of the Module Pool.

In this e-book is shown an example of a Module Pool that manages the registration of stamping in a company. It parses the creation of each separate object, but you have to take into account that there may be many variables that can diversify the development of the Module Pool.

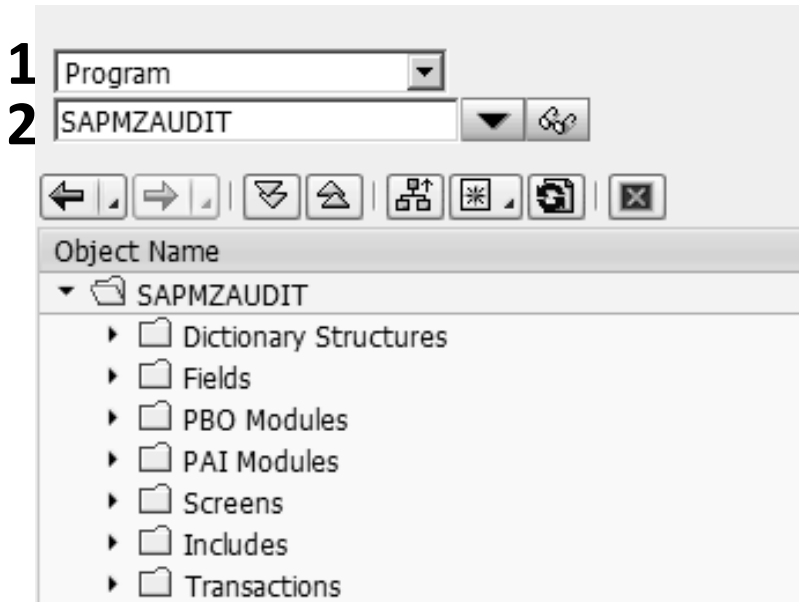
The logic flow in the creation of Module Pool is as follows:

- 1 - Creation of the Program;
- 2 - Create the Transaction launch;
- 3 - Creation and construction of the screen;
- 4 - Creating Includes;
- 5 - Creating navigation between screens;
- 6 - Management of the function codes in the events Process After Input;
- 7 - Activation
- 8 - Final result

Module Pool

CREATION OF THE PROGRAM MODULE POOL

In transaction SE80, make sure your system is set to "Program" (1) and enter the name of the Module Pool. While the programs report beginning with the letter "Z", they begin with "SAPMZ" (2).



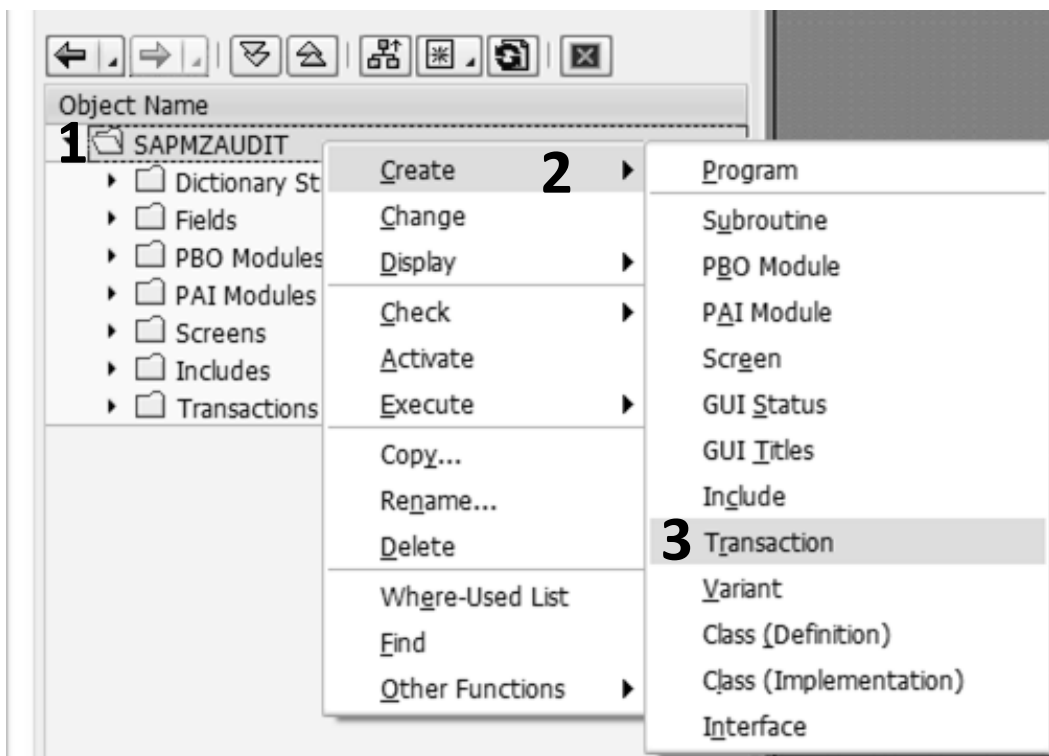
Will initially be introduced only the folder "Includes".

Module Pool

CREATING THE TRANSACTION OF LAUNCH

From the Transaction SE80 Module Pool executable is in Test mode to make it executable by anyone must create an ad hoc transaction that is automatically linked to the procedure.

- 1 - Right-click on the name of the program.
- 2 - Move the cursor to "Create".
- 3 - Select "Transaction".



Module Pool

We analyze the following fields:

- 1 - Transaction Text: is the text that appears on the header in the SAP screen.
- 2 - Program: is usually entered automatically.
- 3 - Number Dynpro: number of primary launch window (It is usually placed automatically).
- 4 - Compatibility GUI allows you to define what versions of the GUI must run the transaction (Web GUI, Gui Java or classic Windows GUI).

Transaction code: Z410D_DISPLAY_SBOOK
Package: &TMP

Transaction text: 1 Anzeige Buchungsinformationen
Program: 2 SAPMZ410D_DISPLAY_SBOOK
Screen number: 3 100
Authorization object: Values

Maintenance of standard transaction variant allowed

Classification

Transaction classification

Professional User Transaction
 Easy Web Transaction Service
 Pervasive enabled

GUI support

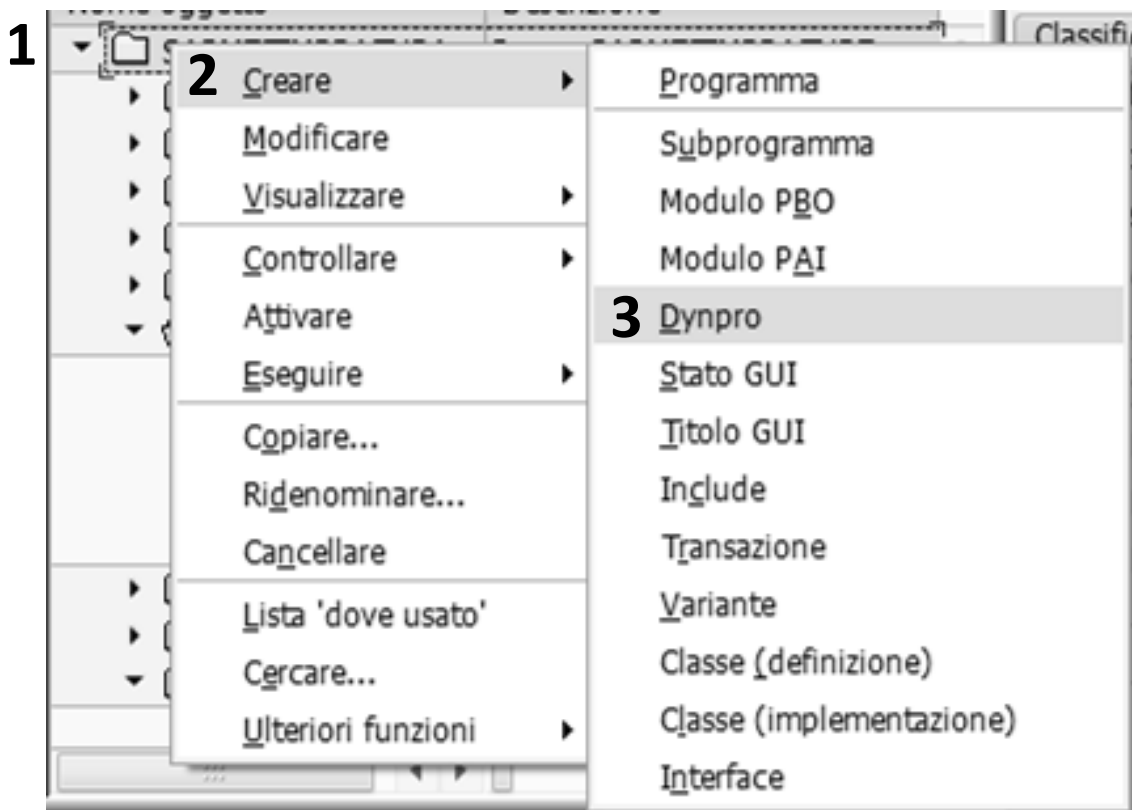
SAPGUI for HTML
 SAPGUI for Java 4
 SAPGUI for Windows

Module Pool

BUILDING AND CONSTRUCTION OF THE SCREEN

In a Module Pool, depending on your needs, there may be multiple screens. They are called Dynpro and have an identification number. Within each of them you can build graphically screen pairing with is either purely graphic elements table fields, variables, etc. ..

- 1 - Right-click on the name of the program.
- 2 - Move the cursor to "Create".
- 3 - Select "Dynpro".



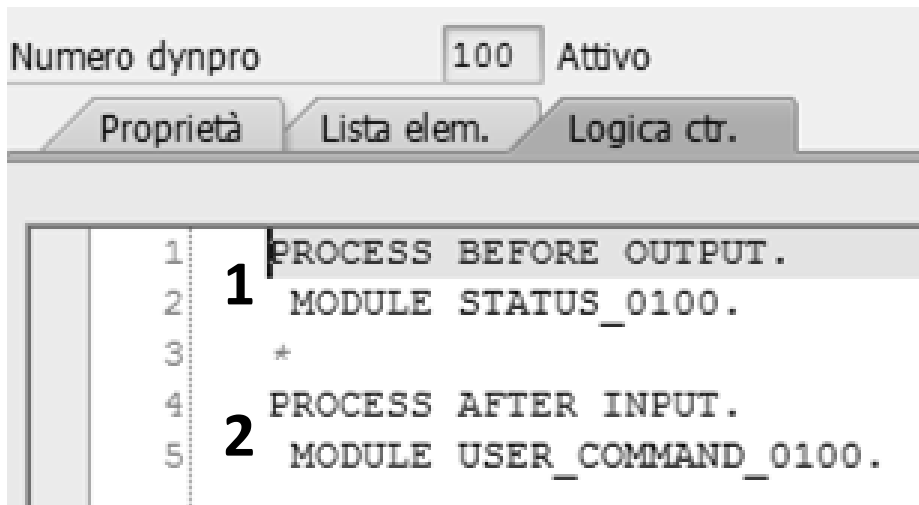
Module Pool

Once created Dynpro, it is essential uncomment the items in the "Logic ctr.". The activation of the same will implement two folders in the structure of Module Pool: "The module PBO" and "PAI module."

PBO module: here you have all the ABAP procedures that allow the loading of data as soon as it is launched Dynpro.

PAI module: here you have all the procedures that allow Dynpro ABAP to send data to a second window. Also, here are set all the functions of the buttons created.

The settings for the two modules are settable by double clicking on the object. The details are discussed later when displaying folders "module PBO" and "PAI module."



The screenshot shows the SAP Dynpro Logic Controller editor. At the top, there is a field for "Numero dynpro" with the value "100" and a checkbox labeled "Attivo". Below this are three tabs: "Proprietà", "Lista elem.", and "Logica ctr.". The "Logica ctr." tab is selected, displaying the following ABAP code:

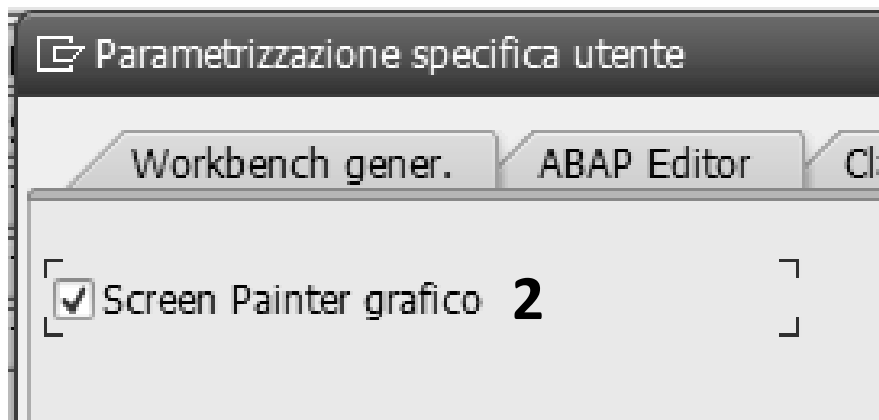
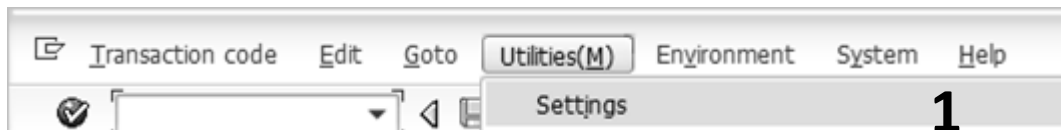
```
1 | PROCESS BEFORE OUTPUT.  
2 | 1  MODULE STATUS_0100.  
3 | *  
4 | PROCESS AFTER INPUT.  
5 | 2  MODULE USER_COMMAND_0100.
```

Module Pool

In addition to having its own logic, each also has its Dynpro Layout. It is defined through a tool called Screen Painter executable by hitting the "Layout".

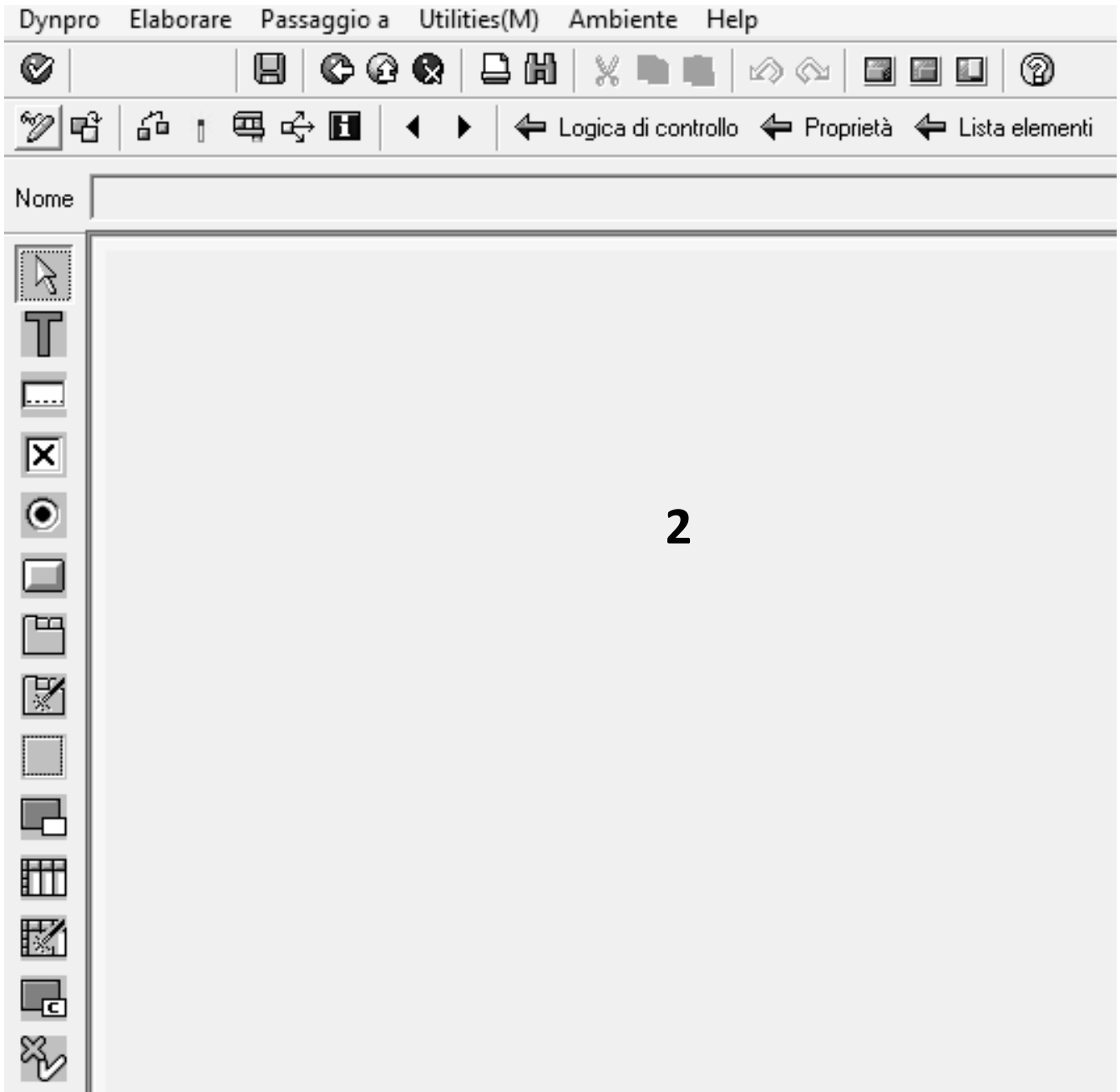


There are two versions of the Screen Painter: a graphical one and a text. That graphic is certainly the most advanced and intuitive. If it is not active in the SAP system in use, just click on "Utilities" - "Parameter" (1) and select "Screen Painter Chart" (2).



Module Pool

In the Screen Painter, you are in the left column the various graphic elements (1) and the center of the actual editor (2).



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