User documentation SAP®

1   Introduction

The development of user documentation and training material is necessary so that (new) users are able to learn the SAP®-system, become aware of their responsibilities and get informed about changes and changed procedures. The lack of quality of user documentation and training material may often be caused by the following:

– Forgotten as project activity
– If not forgotten then poor maintainability, e.g. due to screenshots with outdated explanation "balloons"
– No time available due to meeting deadlines of other project activities and as a consequence no resource availability
– Necessary evil, because experienced functional consultants need to develop basic user documentation and training material from scratch after their configuration activities
– Missing error handling
– Not up to date due to implemented changes (after go-live)

Therefore the user meets problems doing his work. We could consider end users as software testers. Both do not always have the exact knowledge of the implemented functionality of an ICT-system. One big difference between the two groups is that users are working in a Production environment and software testers are working in Test environments. A user easily executes transactions he uses often. On the other hand he processes exceptions less efficiently. Consequently a key-user or functional consultant is often needed when the user documentation is incomplete. A software tester needs detailed information for every transaction, so that he is able to process each test cycle similarly. The test procedures and test scripts must be clear and unambiguous. Keyword technology assists in creating these clear and unambiguous test scripts. It is also very effective in structuring a user's actions in certain situations. This short introduction describes an easy example of keywords.
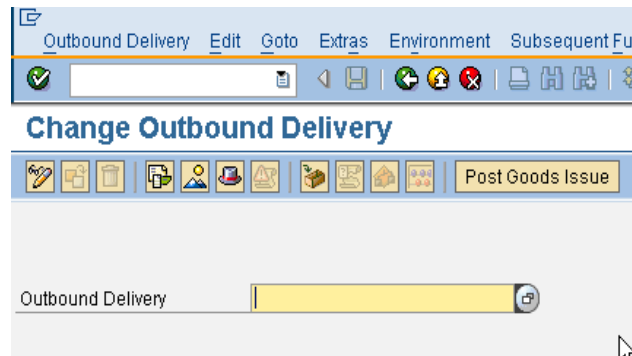
2   SAP keywords

Let's start explaining the keyword principle for SAP! The table below shows the last part of a sales and distribution script. The first part of the sales and distribution script consists of two test cases, "create sales order" and subsequently "create and pick a delivery". They are both omitted here. The table lists the remaining procedure of the "Order to Cash"-scenario a user must follow. Starting at the upper left corner and reading till the end of the line gives the following clarification per row:

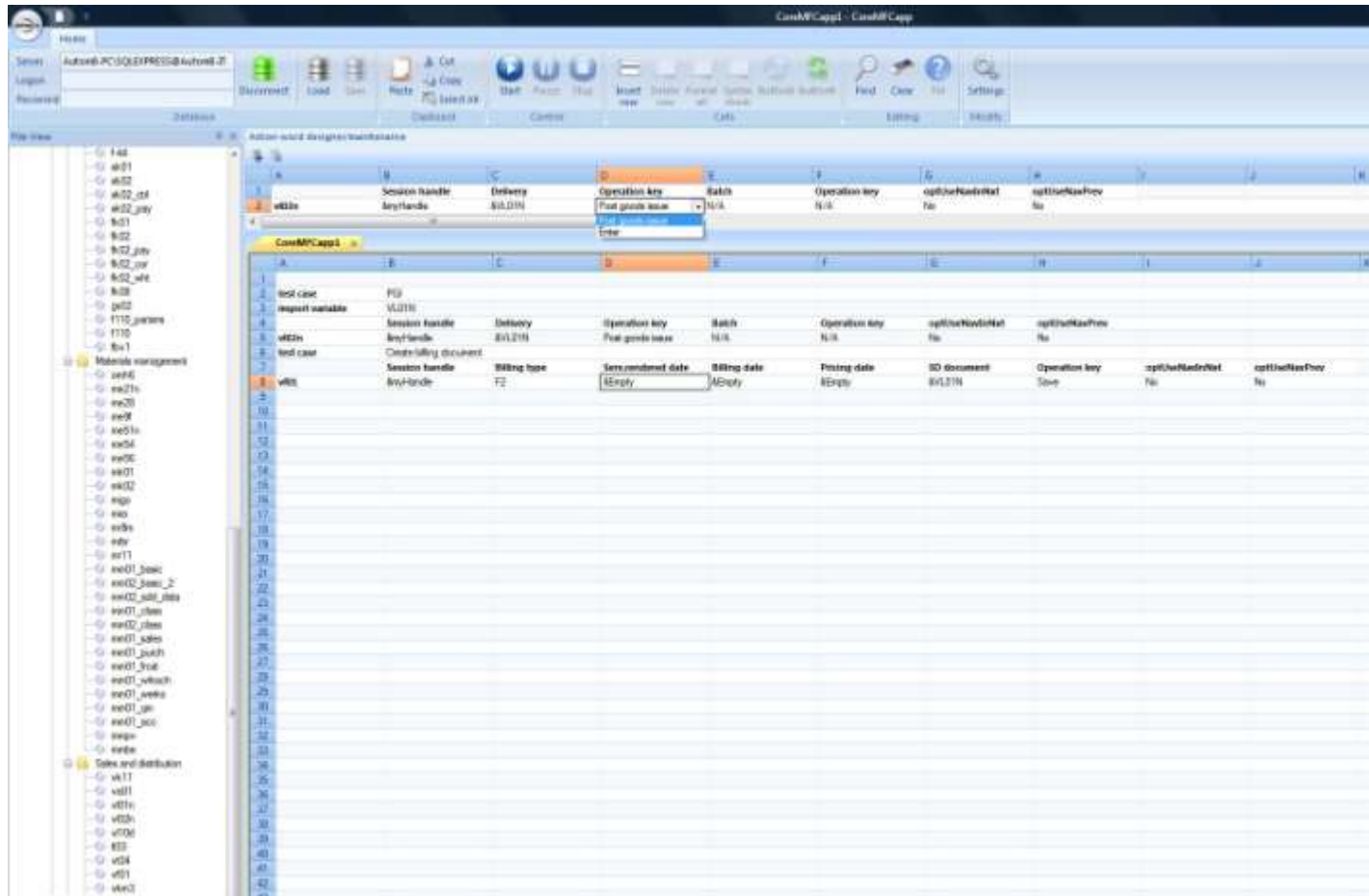| test case	PGI							
import variable	VL01N							
	Session handle	**Outbound delivery**	**Operation key**					
vl02n	&myHandle	&VL01N	Post Goods Issue					
test case	**Create billing document**							
	Session handle	**Billing type**	**Serv.rendered date**	**Billing date**	**Pricing date**	**SD document**	**Operation key**	**Operation key**
vf01	&myHandle	&Empty	N/A	&Date("DDMMYYYY")	N/A	&VL01N	Enter	Save

i)   A standard keyword "test case". The "test case" description parameter has the value "PGI." This is the description of the SAP process that is covered in the test case: Post Goods Issue for a delivery

ii) A standard keyword "import variable". The "import variable" name parameter is "VL01N." This is the a priori unknown delivery number generated by the SAP-system in the test case "create and pick a delivery". Its value is used in the next keywords "vl02n" and "vf01"

iii) A comment line at the third row. A comment line has a blank cell in the first column, the keyword column. In this case the comment line describes the three parameters of the next keyword "vl02n": "Session handle", "Outbound Delivery" and "Operation key" in the second, third and fourth column respectively

iv) The keyword "vl02n" specified by a test analyst. The keyword is called "vl02n", because it corresponds to the (technical) SAP transaction name: "Change outbound delivery". From now on all SAP-related keywords correspond to the technical SAP transaction name. The user must start up transaction "vl02n" in SAP. The variable parameter session handle is a "pro forma" parameter in a manual test but in an automated test it represents the name of the SAP system, the SAP client number, user name and his password. This variable is very useful in security testing with an automated tool or the testing of Workflow. The second parameter is the variable outbound delivery number, imported under *ii)*. The figure shows that the "Outbound Delivery" field is the only field at the first screen when starting transaction "vl02n". After entering the delivery number in SAP the user must press the key/button "Post Goods Issue", the third parameter of the keyword

v) A standard keyword "test case". The "test case" description parameter has the value "Create billing document." This is the description of the subsequent SAP process that is covered in the next keyword

vi) Again a comment line describing the parameters of the next keyword "vf01". The number of parameters of "vf01" is larger than the number of parameters of "vl02n", because a user can enter more fields in the transaction "vf01"

vii) The keyword "vf01" specified by a test analyst. The unambiguous instruction/procedure becomes evident by the values of some parameters in this keyword. The values &Empty, N/A and &Date("DDMMYYYY",14,0,0) tell the user explicitly what to do! The first value tells the user that he must empty an already populated field or leave it empty. The second one, N/A, tells the user to skip/ignore the field (and keep the value). The third value prescribes an eventual date calculation, which must be entered in SAP in accordance with the prescribed data format. After the field manipulations the user creates the invoice by following the operation key parameter instructions

If users are willing to understand this notation of user documentation and functional consultants and test analysts are willing to develop and generate user documentation then it saves a lot of time in respect of developing standards and template documents for each project activity separately, because the standard is already developed in the central test application of Autom8-IT. Autom8-IT has also developed a large set of more than 300 portable SAP keywords. The window in the figure at the next page is a screenshot of the Autom8-IT test application. It consists of three panes / subscreens:

i) the upper pane is the keyword editor. This two rows grid structure facilitates the design and maintenance of keywords. More than one (test) value of a parameter can be pre-defined by using combo boxes; see cell D2. The button ⊞ starts a dialog whether a keyword needs to be inserted or updated in the keyword tree including all its parameters (and pre-defined parameter values). In case of an insert the keyword can be assigned to a node/category in the tree.

ii) the left hand side pane lists the keyword category tree; at the bottom the Sales and distribution node lists the keywords vl02n, vf01, va01, etc. of the previous section.

iii) the remaining pane is the test script editor. With drag & drop of keywords from the tree onto the test script editor the first table of section 2 can be generated in less than a minute.

3   Documentation in multiple languages

Users and software testers do not always speak more languages than their mother tongue, although English is becoming more and more standard. SAP has the option of installing more than one language and users in a global system can log on in their native language. Autom8-IT offers the possibility of documenting user documentation and of developing test scripts in the languages SAP supports, so that e.g. users in the United Kingdom who log on in English and users in Germany who log on in German more or less follow the same procedures, which are documented in different languages. Of course both the English and the German keywords correspond to the same transaction testing program, because the keyword corresponds to the technical SAP transaction name.