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# Practical Guide to SAP® Workflow Agent Determination

- ▶ Fundamentals of SAP Business Workflow agent types and agent determination
- ▶ Agent administration and reporting
- ▶ Example rules defined using responsibilities, ABAP, evaluation paths, organizational data, and BRF+
- ▶ Deep dive workshops exploring rule definition, modeled deadlines, ad hoc agents, and release procedures

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# 3 Workflow rules

A workflow rule is just one of the multiple ways to define an agent, but it deserves its own chapter because there are many ways to define rules. A workflow rule is the most flexible definition type available. Workflow rules are created via transaction PFAC.

Work Item Recipient(s) Definition		
<b>Possible Agent Assignment</b> <b>Defined in Task</b> <ul style="list-style-type: none"> <li>General Task</li> <li>Job</li> <li>Organizational Unit</li> <li>Position</li> <li>Role</li> <li>Task</li> <li>User</li> <li>Work Center</li> </ul>	<b>Responsible Agent Assignment</b> <b>Defined on Workflow Step</b> <ul style="list-style-type: none"> <li>Expression in WF Container</li> <li>Job</li> <li>Organizational Unit</li> <li>Position</li> <li>Role</li> <li><b>1 Rule (Binding with Workflow Container)</b></li> <li>Superior of Workflow Initiator</li> <li>User</li> <li>Work Center</li> <li>Workflow Initiator</li> </ul>	<b>Excluded Agent Assignment</b> <b>Defined on Workflow Step</b> <ul style="list-style-type: none"> <li>Expression in WF Container</li> </ul>
	<b>Default Responsible Agent</b> <b>Defined in Task</b> <ul style="list-style-type: none"> <li><b>2 Rule (Binding with Task Container)</b></li> </ul>	

Miscellaneous Agents		
<b>Default Recipients of Task</b> <ul style="list-style-type: none"> <li>Notification of Completion</li> <li>Notification of Missed Latest Start</li> <li>Notification of Missed Latest End</li> <li>Notification of Missed Requested End</li> <li><b>3 Rule (Binding with Task Container)</b></li> </ul>	<b>Workflow Builder Assignments</b> <ul style="list-style-type: none"> <li>*Workflow Administrator</li> <li>Notification Agent</li> <li>Latest End Notification</li> <li>Latest Start Notification</li> <li>Requested End Notification</li> <li>Expression in WF Container</li> <li>Job</li> <li>Organizational Unit</li> <li>Position</li> <li>Role</li> <li><b>4 Rule (Binding with Workflow Container)</b></li> <li>Superior of Workflow Initiator</li> <li>User</li> <li>Work Center</li> <li>Workflow Initiator</li> </ul>	<b>Workflow Task Possible Agents</b> <b>Assignment made in Workflow Task</b> <ul style="list-style-type: none"> <li>General Task</li> <li>Job</li> <li>Organizational Unit</li> <li>Position</li> <li>Role</li> <li>Task</li> <li>User</li> <li>Work Center</li> </ul>

Figure 3.1: Rule assignment possibilities

Workflow rules are used to determine agents in multiple areas. Figure 3.1 shows all the places where a rule can be assigned. A rule can be used to find the responsible agent(s), both from the task as a default rule

2 and from the workflow where the main agent assignment is made 1. In addition, rules are used to define default notification recipients (completion, missed latest start, etc.) from within the task 3. Rules can be used inside the workflow definition to define the deadline and notification agents 4. Finally, a rule can be used to define a workflow-specific administrator. If a workflow administrator is defined in the workflow, then this will override the system-defined workflow administrator.

There are many types, or categories, of rules that can be defined. This chapter focuses on the categories indicated in Figure 3.2. Some rules can be configured, whereas rules with functions to be executed will require ABAP knowledge.

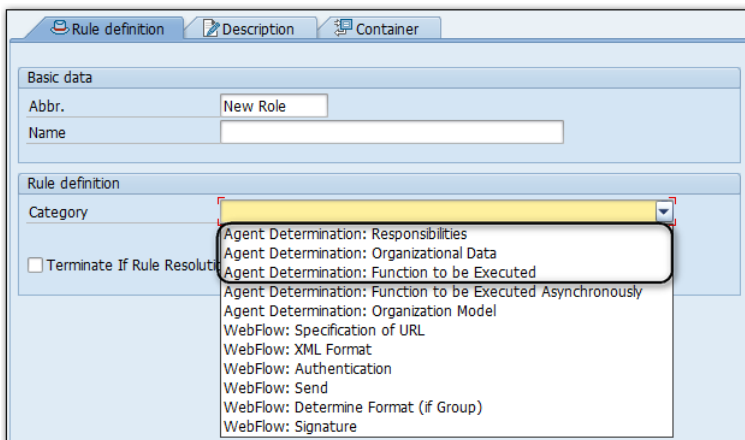


Figure 3.2: Rule categories

One nice thing about a rule is that you can decide to terminate a workflow instance in an error status if no agent is found. See Figure 3.3. This will trigger an email that will be sent to the workflow administrator. The workflow administrator can then correct the agent rules and then re-execute the agent rules for the work item. See Section 6.1.3.

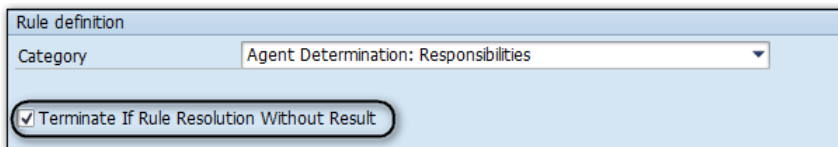


Figure 3.3: Terminate rule if no agent is found

Each rule, with the exception of rules that read organizational data, as shown in Section 3.4, will have a container. There is a CONTAINER tab on the rule definition (see Figure 3.4). The rule container will hold any number of elements that are populated via binding from the workflow container at run time.

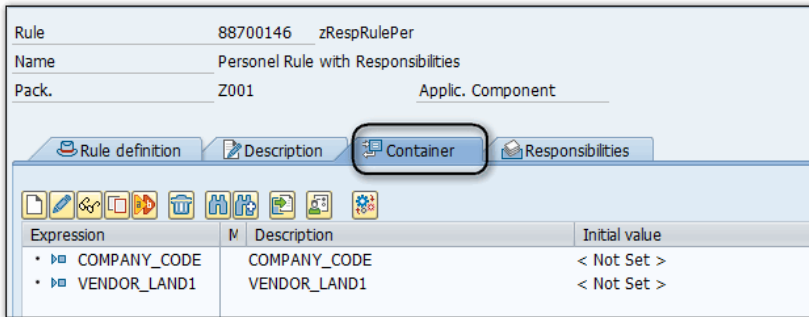


Figure 3.4: Rule container

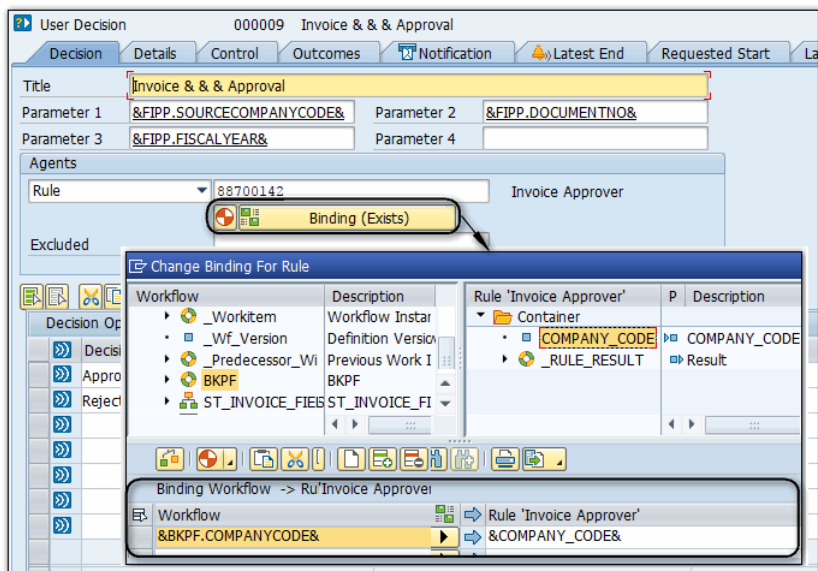


Figure 3.5: Binding from workflow definition to rule container

Figure 3.5 portrays the binding from the workflow definition to the rule container. Container elements can be defined as a class, a BOR object, a DDIC structure, or a DDIC field. They can be defined as single entries

or multiline tables. When defining a container element, you can decide if the element will be mandatory or not. In addition, you will notice that the IMPORT/EXPORT settings are greyed out, meaning they can't be changed. The IMPORT parameter is flagged on and the EXPORT parameter is flagged off. This is because container elements only flow into a workflow rule, they are not returned to the workflow.

You may want to capture the selected work item agents in the task container because once the work item is performed, you will only have information on the actual agent. To do this, set binding back to the workflow container. Note, the workflow container will not be populated with the agents. The result will actually end up in the task work item's container. See Figure 3.6 for the binding from the rule.

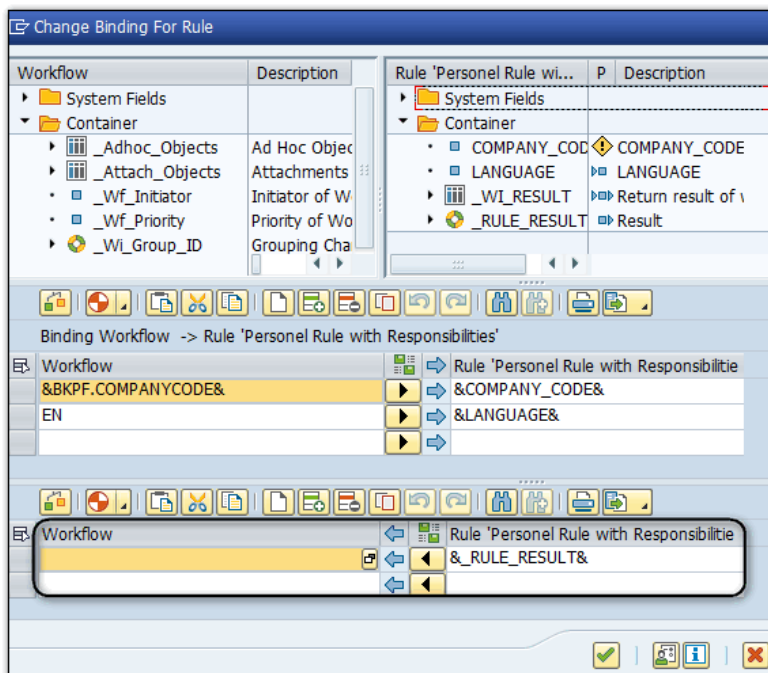


Figure 3.6: Binding from rule back to workflow

The agents returned from the rule will be loaded into a container element with the same name (see Figure 3.7). You can see that it is a single instance of BOR object AAGENT. The BOR object is instantiated with the

first agent, but all agents are available in a table named AGENTS that is an attribute of the AAGENT object.

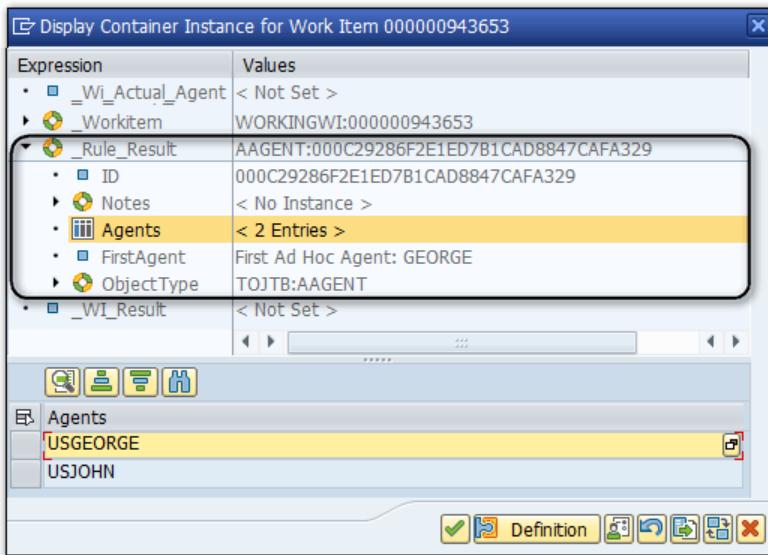


Figure 3.7: Rule result in work item container

### 3.1 Rules with function modules

A rule that executes a function has the most flexibility because the code is constrained only by using the required function module signature. On the other hand, ABAP code is required which will increase the difficulty of maintenance and support.

See Listing 3.1 for the signature for the function module. It shows the required tables and the one exception that is recognized.

```
FUNCTION Zfunction_module_for_rule.
*"-----
*"*"Local Interface:
*" TABLES
*"     ACTOR_TAB STRUCTURE SWHACTOR
*"     AC_CONTAINER STRUCTURE SWCONT
*" EXCEPTIONS
```



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