

Americas' SAP Users' Group

Tips and Tricks for Workflow Administration Susan Keohan, MIT Lincoln Laboratory Martin Maguth, MaxECM Session ID 82919



May 7 – 9, 2019

About the speakers

Susan Keohan

- SAP Workflow Specialist
- You won't believe I've been working with SAP for 24 years

Martin Maguth

- Managing Partner at MaxECM Solutions LLC and long-time ASUG Volunteer
- Fun fact: Workflow Hacker



Agenda

- 1. Basis and Runtime customizing
- 2. Workflow diagnosis
- 3. Workflow Reports
- 4. Event and traces
- 5. Real Life advice



Key Outcomes/Objectives

- The most important tasks of a workflow administrator
- Key reports available for SAP Workflow reporting
- How to troubleshoot and diagnose errors



What is a Workflow Administrator anyway?

Running SAP workflows without a Workflow Administrator is like running SAP without a Basis team

- Unknown Workflow Administrator



Introduction

Your Workflow Administrator

- Makes sure that your workflow development and runtime environment are properly configured and maintained on an ongoing basis
- Coordinates workflow development and enhancements
- Is the point of contact for your users when workflows are not behaving as expected
- Communicates issues to the basis and/or ABAP team if changes in SAP are necessary



Agenda

- \$1. Basis and Runtime customizing
 - 2. Workflow diagnosis
 - 3. Workflow Reports
 - 4. Event and traces
 - 5. Real Life advice



Basis Customizing (TX SWU3)



No exceptions! Must be complete

Fun Fact: Edit System Workflow Administrator will identify you (or someone else) as the recipient of Workflow error messages



Basis Customizing

- Workflow basis customizing is necessary to configure the SAP workflow engine and its definition and runtime environment
- Use transaction SWU3 to access basis customizing
- Basis customizing is generally a one time setup task
- <u>MUST</u> be completed <u>BEFORE</u> you start developing and running workflows in your SAP system



Runtime Configuration (TX SWPA)

- Workflow runtime should be configured to ensure best possible workflow performance
- Use transaction SWPA to access basis customizing
- Runtime customizing is also generally a one time setup task and manages system data volume and size, template levels, buffering, etc.



Runtime Configuration

《 · · · · · · · · · · · · · · · · ·	
Customizing Workflow Runtime System: Change	
🌮 🖒 Default values	
Execution of workflow instances	
Check logical system	Maintain data limits
Use container condensation	
Maximum subworkflow level	
Maximum node number 10,000	
Wait When Lock Conflict 2	
No. Branches for Roll-Out/-In Display in logs	
Hide agent names	
Inbox	
Secondary Methods Session Is Deleted	
	Configure buffers, if
Container Serialization/Bufferung Container Serialization Using XSLT	
Buffering of Definition Enhancements in Shared Memory	needed
Interval for Updating Shared Objects Buffer (in Minuten)	needed
Office Documents in Workflow	
Expiry Time for Office Documents days	
	2 4
IME ONE PRITY (TOSED)	W SI 2

In general, the defaults you see here are sufficient. If you start to see performance issues, it's worth revisiting this transaction.

K

Agenda

- 1. Basis and Runtime customizing
- 2. Workflow diagnosis
 - 3. Workflow Reports
 - 4. Event and traces
 - 5. Real Life advice



Workflow Diagnosis

- Workflow diagnosis allows you to run most diagnosis and setup steps from one screen for a workflow template
- Use transaction SWUD to access workflow diagnosis
- Transaction allows you to execute troubleshooting for a template based on certain symptoms, e.g. workflow is hanging or not started
- Should be run before a workflow template is activated in SAP production and monitored on an ongoing basis for frequently used workflow templates to detect issues early



Workflow Diagnosis - SWUD

ask typ	pe:	WS						
ask:		9660023	30		🛗 Create	Us	er for New Hires	
Vari	E. Automotic Cur	• i i						
	ify Automatic Cus	-						
	blem: Task not st							
	blem: Workflow is st Environment	nanging				alua	ling parts	
					M 10	CIUC	ing parts	
VV	orkflow Di	agnosis						
-	Task:	WS96600	230]				
	Description:		User for	n Nou	Hirog			
	Description.	Cleate	0561 101	L Mew	niies			
s	T (
_			EMPLCOMM				ZUSERIDCREATED)
	Triggering event		2111 200111					
	Thggening even							
		instances for task						
	Determine							
	Determine Consistency	nstances for task					Including subworkflows	
0	 Determine Consistency Consistency Simulate ev 	instances for task / check for tasks / check for compo					Including subworkflows	
(Determine Consistency Consistency Simulate ev Start task 	nstances for task / check for tasks / check for compo / ent					Including subworkflows Workflow trace	
<	 Determine Consistency Consistency Simulate ev Start task Creace Event 	nstances for task / check for tasks / check for compo rent					_	
	 Determine Consistency Consistency Simulate ev Start task Creace Size Test Method 	nstances for task / check for tasks / check for compo rent nt nd					Workflow trace	
<	 Determine Consistency Consistency Simulate ev Start task Create Street Test Method Switch on co 	nstances for task / check for tasks / check for compo rent nt od ontainer monitor					Workflow trace	
<	 Determine Consistency Consistency Simulate ev Start task Create Sure Test Method Switch on co Display Work 	nstances for task / check for tasks / check for compo rent nt od ontainer monitor	nents				Workflow trace	

Perform specific troubleshooting steps for a template. Use this when a new WF Template goes to Prod!

CISUG

Agenda

- 1. Basis and Runtime customizing
- 2. Workflow diagnosis
- **3. Workflow Reports**
 - 4. Event and traces
 - 5. Real Life advice



Workflow Reports

- SWI2_FREQ Work Items per Task
- SWI1 or SWIA more granular, with more Admin options
- SWI2_DIAG Workflows with Errors
- SWI2_ADM1 Work Items Without Agents
- SWI2_ADM2 Work Items with Deleted Users



SWI2_FREQ

Access to Work Item Analysis (SWI2)

Monitoring period				
○ Today				
O Last 7 days	Work items	per task from '01/03/2002' to '03	/15/2019'	
O Last 30 days			preview 🖨	
O Last 365 days				
O Time	Task	Task text	Work Item Type	≈ Numbe
Interval	TS00007986	Requisition release	Dialog Step	60
	TS00007989	Outbound, error handling with IDoc	Dialog Step	904
Wede 2000 10 100	TS00008014	Requisition release refused	Dialog Step	2
Work item type	TS00008018	Requisition released	Dialog Step	28
✓ Dialog	TS00008068	Inbound, error message with IDoc	Dialog Step	1,061
(Sub-)Workflow	TS00008070	Outbound, syntax error in IDoc	Dialog Step	58
Background	TS00008267	Generic decision task	Dialog Step	972
	TS01200196	Approve attendance booking	Dialog Step	3,027
Taal. Chan	TS01200205	Generate object instance using key	Dialog Step	10
Task filter	TS01200211	Book attendance after error	Dialog Step	2,540
Task	TS20000051	BAPI-IDoc inbound error	Dialog Step	33
Task group (T)	TS20000545	PM task: Edit newly-created notification	Dialog Step	1
Task group (TG)	TS20000547	Enter attachment for rejection	Dialog Step	7
Application Componen	TS20000879	Complete the Parked Invoice	Dialog Step	2

No matter which way you use to get there, you'll end up looking at the WF Log

CISUG

SWI2_FREQ

Display work item

🛐 🖾 Mail 📓 Log

Service Name	
Services for Administration	
कि Change Container	Execut
The Lock for Execution	Execut
🕸 Change Work Item Text	Execut
郡 Change Work Item Language	Execut
罷 Change Priority	Execut
罷 Logically Delete	Execut
鄙 Start Execution	Execut
쟁 Complete Manually	Execut
罷 Forward	Execut
髩 Forward to Itself	Execut
罷 Set Enqueue Lock	Execut
罷 Execute Agent Rules	Execut
罷 Execute	Execut
🚯 Change deadlines	Execut
🕄 Start Execution in Browser	Execut

Work item informa	ation		
ID	00000385625		
Title	No global company co	ode is assigned to the company code	L
Processing con	npletion by event		
Status	Ready		
Priority	5 Medium	E	
Deadline Data			
	Creation	Start	
Current	02/23/2006 15:49:1	.9	
Requested			
Latest			
Description			
An error occurred d	luring outbound processing of ar	n IDoc. If you execute	
the work item, the	current status of this IDoc is dis	played.	
-	n additional information regarding		
	error, further processing of the I		

• •

From the Workflow reports, you can perform many administrative actions

CISUG

Workitems without users (TX SWI2 ADM1

Access to Work Item Analysis (SWI2)

👔 🗸 🖬 🕒 😧 😫 🛗 🏭 🗳 🗂 💭 🗶 🛐 🔽 🔞 📑

Access to Work Item Analysis (SWI2)

Ø

🕒 🔁

Ø

Work Items Without Agents (137 Entries)

Monitoring period ○ Today

Work Items Without Agents (137 Entries) O Last 7 days

O Last 30 days I I Status Workflow Work Item Type Task Creater Time Work Item text O Last 365 days I I Status Workflow Vork Item Type Task Creation Date Creater Time Work Item text O Time I I Status Workflow Vork Item Type Task Creater Time Work Item text I I I I I I I I I I I I I I I I I I I		/-	<u>a</u> a	⊕ <u>©</u> , 62 %^ @	? 涅 🖻 📥 🛛 🖻		TAAAO				
Class 505 days 729010 READY 729009 Dialog Step TS00008267 02/28/2012 14:46:17 Parked E-Invoice 5100007051 on PO 70 O Time 680053 READY 680047 Dialog Step TS20000545 05/03/2011 14:39:22 Inv Requires aproval/action Image: Interval 1240113 READY 1240112 Dialog Step TS20000545 06/30/2016 08:95:95 Optimization Omospheric Optimization Omospheric Image: Interval Parked E-Invoice 5100007051 on PO 70 Optimization Optip <th< th=""><th></th><th>○ Last 30 days</th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th><th></th></th<>		○ Last 30 days									
O Time 729010 READY 729009 Dalog Step TS0008267 02/28/2012 14:46:17 Parkel E-Invoice S100007051 on PO 700 Image: Control of the term of		O Last 365 days	BW	ID	Status	Workflow	Work Item Type	Task	Creation Date	CreateTime	Work item text
Interval Issue				729010	READY	729009	Dialog Step	TS00008267	02/28/2012	14:46:17	Parked E-Invoice 5100007051 on PO 700
Interval 1240113 READY 1240112 Dalog Step T576907914 07/21/2017 10:45:32 Postprocess business partner 583 1240111 READY 1240110 Dalog Step 07/21/2017 10:45:32 Postprocess business partner 583 1240109 READY 1240106 Dalog Step 07/21/2017 10:45:32 Postprocess business partner 582 Task 1240109 READY 1240106 Dalog Step 07/21/2017 10:43:42 Postprocess business partner 581 Task 1240103 READY 1240106 Dalog Step 07/21/2017 10:34:35 Postprocess business partner 578 Task group (TG) 124003 READY 1240090 Dalog Step 07/21/2017 10:32:25 Postprocess business partner 578 Application Component 1240097 READY 1240098 Dalog Step 07/21/2017 10:25:35 Postprocess business partner 574 07/21/2017 10:25:35 Postprocess business partner 573 07/21/2017 09:36:50 Postprocess business partner 572 07/21/2017 10:25:35 Postp		O Time		680053	READY	680047	Dialog Step		05/03/2011	14:29:22	
Image: 1240113 READY 1240112 Dialog Step T576907914 07/21/2017 10:45:32 Postprocess business partner 583 Image: 1240111 READY 1240110 Dialog Step 07/21/2017 10:45:32 Postprocess business partner 582 Image: 1240101 READY 1240100 Dialog Step 07/21/2017 10:43:42 Postprocess business partner 582 Image: 1240107 READY 1240106 Dialog Step 07/21/2017 10:43:42 Postprocess business partner 582 Image: 1240107 READY 1240106 Dialog Step 07/21/2017 10:38:49 Postprocess business partner 578 Image: 1240107 READY 1240100 Dialog Step 07/21/2017 10:33:39 Postprocess business partner 578 Image: 1240097 READY 1240096 Dialog Step 07/21/2017 10:32:25 Postprocess business partner 578 Image: 1240097 READY 1240096 Dialog Step 07/21/2017 10:32:25 Postprocess business partner 578 Image: 1240097 READY 1240096 Dialog Step 07/21/2017 10:25:35 Postprocess business partner 573 Image: 1240097 READY 1240090 Dialog Step 07/21/2017 10:25:35 Postprocess business partner 573		Interval		1136060	READY	1136058	Dialog Step	TS20000545	06/30/2016	08:59:59	Edit maintenance notification 10009651 /
Task filter 1240109 READY 1240108 Dialog Step Task 1240107 READY 1240106 Dialog Step Task 1240107 READY 1240104 Dialog Step Task 1240103 READY 1240104 Dialog Step Task group (T) 1240101 READY 1240100 Dialog Step Task group (TG) 1240009 READY 1240098 Dialog Step Application Component 1240097 READY 1240099 Dialog Step 1240098 READY 1240098 Dialog Step 07/21/2017 10:32:25 Postprocess business partner 578 7 Dialog Step 07/21/2017 10:32:25 Postprocess business partner 577 07/21/2017 10:32:25 Postprocess business partner 577 07/21/2017 10:29:03 Postprocess business partner 575 07/21/2017 10:29:03 Postprocess business partner 575 07/21/2017 07:36:50 Postprocess business partner 575 07/21/2017 10:29:03 READY 1240098 Dialog Step		o Incervar		1240113	READY	1240112	Dialog Step	TS76907914	07/21/2017	10:45:32	Postprocess business partner 583
Task fitter 1240107 READY 1240106 Dialog Step Task 1240107 READY 1240104 Dialog Step Task group (T) 1240103 READY 1240100 Dialog Step Task group (TG) 1240101 READY 1240098 Dialog Step Application Component 1240097 READY 1240094 Dialog Step 1240093 READY 1240095 Dialog Step 07/21/2017 10:38:49 Postprocess business partner 578 07/21/2017 10:30:39 Postprocess business partner 576 07/21/2017 10:30:39 Postprocess business partner 576 07/21/2017 10:29:03 Postprocess business partner 576 07/21/2017 10:25:35 Postprocess business partner 575 07/21/2017 10:25:35 Postprocess business partner 573 07/21/2017 09:36:50 Postprocess business partner 573 07/21/2017 09:36:50 Postprocess business partner 574 07/21/2017 09:36:50 Postprocess business partner 572 07/21/2017 09:36:50 Postprocess business partner 573 07/21/2017 <t< td=""><td></td><td></td><td></td><td>1240111</td><td>READY</td><td>1240110</td><td>Dialog Step</td><td></td><td>07/21/2017</td><td>10:43:42</td><td>Postprocess business partner 582</td></t<>				1240111	READY	1240110	Dialog Step		07/21/2017	10:43:42	Postprocess business partner 582
Task 124010 RADY 124010 Dialog Step 07/21/2017 10:36:49 Postprocess business partner 579 Task group (T) 1240101 READY 1240100 Dialog Step 07/21/2017 10:32:25 Postprocess business partner 578 Task group (TG) 1240099 READY 1240099 Dialog Step 07/21/2017 10:32:25 Postprocess business partner 578 Application Component 1240097 READY 1240096 Dialog Step 07/21/2017 10:32:39 Postprocess business partner 576 Application Component 1240097 READY 1240096 Dialog Step 07/21/2017 10:27:33 Postprocess business partner 575 07/21/2017 10:29:03 Postprocess business partner 575 07/21/2017 10:27:35 Postprocess business partner 574 07/21/2017 10:25:35 Postprocess business partner 574 07/21/2017 09:36:50 Postprocess business partner 572 07/21/2017 09:36:50 Postprocess business partner 572 07/21/2017 09:36:11 Postprocess business partner 573 07/21/2017 09:36:13 Postprocess business partner 570	1	Task fiter									
Task group (T) 1240103 READY 1240102 Dialog Step Task group (TG) 1240101 READY 1240100 Dialog Step Application Component 1240097 READY 1240096 Dialog Step 1240098 READY 1240096 Dialog Step 07/21/2017 10:32:25 Postprocess business partner 578 07/21/2017 10:30:39 Postprocess business partner 576 07/21/2017 10:29:03 Postprocess business partner 574 07/21/2017 10:29:03 Postprocess business partner 574 07/21/2017 09:39:11 Postprocess business partner 571 07/21/2017 09:39:11 Postprocess business partner 571 07/21/2017 09:39:13 Postprocess business partner 570 07/21/2017 09:30:15 Postprocess business partner 570 07/21/2017 09:30:15 Postprocess											
Task group (1) 1240101 READY 1240100 Dialog Step Task group (TG) 1240099 READY 1240098 Dialog Step Application Component 1240097 READY 1240094 Dialog Step Application Component 1240093 READY 1240094 Dialog Step 1240093 READY 1240094 Dialog Step 07/21/2017 10:29:03 Postprocess business partner 575 07/21/2017 10:29:03 Postprocess business partner 574 07/21/2017 10:25:35 Postprocess business partner 574 1240093 READY 1240099 Dialog Step 07/21/2017 10:25:35 Postprocess business partner 573 1240094 READY 1240099 Dialog Step 07/21/2017 09:36:50 Postprocess business partner 572 1240087 READY 1240088 Dialog Step 07/21/2017 09:33:13 Postprocess business partner 570 1240087 READY 1240086 Dialog Step 07/21/2017 09:33:19 Postprocess business partner 571 07/21/2017 09:30:56 Postprocess business partner 576 07/21/2017 09:33:19 Postproces		Task									
Task group (TG) 1240101 RADY 1240009 Bialog Step Application Component 1240097 READY 1240096 Dialog Step 07/21/2017 10:29:03 Postprocess business partner 576 07/21/2017 10:29:03 Postprocess business partner 575 07/21/2017 10:29:03 Postprocess business partner 575 07/21/2017 10:29:03 Postprocess business partner 574 07/21/2017 10:29:03 Postprocess business partner 573 07/21/2017 10:29:03 Postprocess business partner 574 07/21/2017 09:36:50 Postprocess business partner 572 07/21/2017 09:35:13 Postprocess business partner 570 07/21/2017 09:30:16 Postprocess business partner 570 07/21/2017 09:30:16 Postprocess business partner 576 07/21/2017 09:30:16 Postprocess business partner 570 </td <td></td> <td>Task group (T)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>_</td> <td></td> <td></td> <td></td>		Task group (T)						_			
Application Component 1240097 READY 1240096 Dialog Step 0 1240095 READY 1240096 Dialog Step 07/21/2017 10:27:23 Postprocess business partner 575 0 1240093 READY 1240090 Dialog Step 07/21/2017 10:25:35 Postprocess business partner 574 0 1240093 READY 1240090 Dialog Step 07/21/2017 09:39:11 Postprocess business partner 573 0 1240089 READY 1240080 Dialog Step 07/21/2017 09:36:50 Postprocess business partner 572 0 1240089 READY 1240080 Dialog Step 07/21/2017 09:35:13 Postprocess business partner 571 0 1240087 READY 1240086 Dialog Step 07/21/2017 09:33:19 Postprocess business partner 570 0 1240088 READY 1240088 Dialog Step 07/21/2017 09:30:56 Postprocess business partner 569 0 1240088 READY 1240088 Dialog Step 07/21/2017 09:28:								_			
Application Component 1240095 READY 1240094 Dialog Step 0 1240093 READY 1240092 Dialog Step 07/21/2017 10:25:35 Postprocess business partner 574 0 1240093 READY 1240090 Dialog Step 07/21/2017 09:39:11 Postprocess business partner 573 0 1240089 READY 1240080 Dialog Step 07/21/2017 09:36:50 Postprocess business partner 572 0 1240089 READY 1240086 Dialog Step 07/21/2017 09:35:13 Postprocess business partner 571 0 1240087 READY 1240086 Dialog Step 07/21/2017 09:33:19 Postprocess business partner 570 07/21/2017 09:30:56 Postprocess business partner 569 07/21/2017 09:30:56 Postprocess business partner 569 0 1240081 READY 1240082 Dialog Step 07/21/2017 09:28:27 Postprocess business partner 567 0 1240081 READY 1240080 Dialog Step 07/21/2017 09:26:45 <		Task group (TG)						_			
Image: Construction of the construc		Application Component						_			
Image: 1240091 READY 1240090 Dialog Step Image: 1240089 READY 1240080 Dialog Step Image: 1240087 READY 1240086 Dialog Step Image: 1240087 READY 1240082 Dialog Step Image: 1240087 READY 1240082 Dialog Step Image: 1240087 READY 1240082 Dialog Step Image: 1240087 READY 1240080 Dialog Step		Application component						_			
Image: 1240089 READY 1240088 Dialog Step 07/21/2017 09:35:13 Postprocess business partner 571 Image: 1240087 READY 1240086 Dialog Step 07/21/2017 09:33:19 Postprocess business partner 570 Image: 1240087 READY 1240084 Dialog Step 07/21/2017 09:30:56 Postprocess business partner 569 Image: 1240081 READY 1240082 Dialog Step 07/21/2017 09:28:27 Postprocess business partner 568 Image: 1240081 READY 1240080 Dialog Step 07/21/2017 09:26:45 Postprocess business partner 567 Image: 1240087 READY 1240078 Dialog Step 07/21/2017 09:26:45 Postprocess business partner 567 Image: 1240087 READY 1240078 Dialog Step 07/21/2017 09:26:45 Postprocess business partner 567 Image: 1240079 READY 1240078 Dialog Step 07/21/2017 09:04:47 Postprocess business partner 566								_			
Image: Second								_			
1240085 READY 1240084 Dialog Step 07/21/2017 09:30:56 Postprocess business partner 569 1240083 READY 1240082 Dialog Step 07/21/2017 09:28:27 Postprocess business partner 568 1240081 READY 1240080 Dialog Step 07/21/2017 09:26:45 Postprocess business partner 567 1240079 READY 1240078 Dialog Step 07/21/2017 09:04:47 Postprocess business partner 566											
1240083 READY 1240082 Dialog Step 07/21/2017 09:28:27 Postprocess business partner 568 1240081 READY 1240080 Dialog Step 07/21/2017 09:26:45 Postprocess business partner 567 1240079 READY 1240078 Dialog Step 07/21/2017 09:04:47 Postprocess business partner 566											
1240081 READY 1240080 Dialog Step 07/21/2017 09:26:45 Postprocess business partner 567 1240079 READY 1240078 Dialog Step 07/21/2017 09:04:47 Postprocess business partner 566											
1240079 READY 1240078 Dialog Step 07/21/2017 09:04:47 Postprocess business partner 566											
1240077READY1240076Dialog Step07/21/201709:03:25Postprocess business partner 565											
				1240077	READY	1240076	Dialog Step		07/21/2017	09:03:25	Postprocess business partner 565

Select step and perform user determination, forward, etc.



"Just do it" – Execute items without check

- Workflows can get "stuck" when no agent can be determined or when the selected agent is not available to execute the item
- Use transaction SWIA to access and execute the work items without agent check
- This transaction can be used by administrators to continue with a workflow that has been put on hold and cannot continue; the administrator can access and execute a work item even if he/she is not the selected agent for the step



"Just do it" – Execute items without check (TX SWIA)

☞ <u>P</u> rogram <u>E</u> dit <u>G</u> oto	System <u>H</u> elp							
Ø	▾ ◁ 📕 ☎ ፡፡ 🚱 🗧)	🐹 🗾 😰 📑					
Process Work Item	As Administrator		🖙 <u>L</u> ist <u>E</u> dit	<u>G</u> oto <u>S</u> ettings S <u>y</u>	stem <u>H</u> elp			
ا⊈			Ø		🗏 😋 🚱 隆 🗎	ا 🚱 🕺 🛱 🗘 🗶 👷 🗾 🗐 🖫		
Selection Using Work Item ID			Process W	ork Item As Adı	ministrator			
Identification		to	T 🛛 🕒 🕴	🚰 🕒 Without Chec	k 🔞 Replace Manuali	y Complete Manualy & 📓 🐉 🖒) A 7 7 III 4 *	
Selection Using Work Item Pro	perties							
Туре		to	Process \	Work Item As A	dministrator			
Status		to	I I	D Work Item Type	Language	Work item text		
Priority		to	96549	3 Dialog Step	English	Get details from previous status records with		
Deadline Status		to		2 Wait Step	English	Waiting for event 'REJECTED' of object typ		
Task		to		1 Wait Step	English	Waiting for event 'APPROVED' of object ty	/pe '/NRK/APAY'	
Task Group		\$		0 Dialog Step	English	APay - Verify accounting document		
				5 Wait Step	English	Waiting for event 'REJECTED' of object typ		
Colorting Using Time Desired				4 Wait Step	English	Waiting for event 'APPROVED' of object to		
Selection Using Time Period				3 Dialog Step	English	APay - Verify accounting document		
Creation Date	09/04/2014	to		0 Wait Step	English	Waiting for event 'REJECTED' of object		
Creation Time	19:42:18	to 23:59:59		9 Wait Step	English	Waiting for event 'APPROVED' of object	Execut	e items as al
				8 Dialog Step	English	APay - Verify accounting document		
Output Options (+Version, +A	dministrator)			4 Wait Step	English	Waiting for event 'REJECTED' of object		
Switch On	·			3 Wait Step	English	Waiting for event 'APPROVED' of object	admi	nistrator or
				2 Dialog Step	English	APay - Verify accounting document		
			96541	9 Dialog Step	English	Change/Park Posted Document 190000		
				5 Dialog Step	English	Change/Park Posted Document 190000	comple	ete manuall
4 F			96536	0 Dialog Step	English	Release amount 1900000469		
		SAP	96535	8 Wait Step	English	Waiting for event 'COMPLETED' of object		

SAP

CISUG

4 //

Agenda

- 1. Basis and Runtime customizing
- 2. Workflow diagnosis
- 3. Workflow Reports
- 4. Event and traces
 - 5. Real Life advice



Event Trace – What's going on?



https://www.youtube.com/watch?v=HkA3UtBj4M



"What's going on?" – Event trace

- If a task or template is supposed to be triggered or terminated by an event, the failure of the event will result in incorrect or no processing of the task
- This can be a result of the event not being raised or a failure in the event processing, such as bindings, check functions, incorrect linkage, etc
- The event trace is a technical tool that gives you details about the processing of the event, publishing, and receivers



Event Trace: What's going on?

- Use transaction SWELS to start and stop the event trace
- Use transaction SWEL to access the event trace
- Remember to <u>turn on the trace only when</u>
 <u>needed</u> and to turn it off after usage
- Use SWEQADM to access event queue, if active



"What's going on?" – Event trace

Display Eve	vent Trace				
Ð					
Event Data					
Event ID		to	•		
'Creator' object	t type	to	•		
'Creator' object	t instance	to	*		
Event Program creatin		to to	*		
Creator (User					-
Created From	Display Event Trace				
Created Until	🛐 🕄 🗟 🗟 🗊 Delete Event Trac	e 🖽 🖽 🖼			Drill into the overtlag
Receiver Data					Drill into the event log
	Object Type	Event	Receiver Type	Infor Handler/Action	for monore details
Receiver Insta	BUS2007	CREATED	WS96600218	Check FM with exception	for more details
Receiver FM	BUS2038	CLOSED	WS96600226	SWW_WI_CREATE_VIA_EVENT_IBF	
Receiver Type Check FM	Z_WORKLOG	CREATED	WS96600210	SWW_WI_CREATE_VIA_EVENT_IBF	
	BUS2038	CLOSED	WS96600226	SWW_WI_CREATE_VIA_EVENT_IBF	
	BUS2007	CREATED	WS96600218	Check FM with exception	
With and wi Only events	BUS2038	CLOSED	WS96600226	SWW_WI_CREATE_VIA_EVENT_IBF	
O Only events	BUS2007	CREATED	WS96600218	SWW_WI_CREATE_VIA_EVENT_IBF	
- /	BUS2038	CLOSED	WS96600226	SWW_WI_CREATE_VIA_EVENT_IBF	
Error Status	BUS2007	CREATED	WS96600218	SWW_WI_CREATE_VIA_EVENT_IBF	
☑ Only linkage	BUS2038	CLOSED	WS96600226	SWW_WI_CREATE_VIA_EVENT_IBF	
	BUS2007	CREATED	WS96600218	SWW_WI_CREATE_VIA_EVENT_IBF	
	BUS2038	CLOSED	WS96600226	SWW_WI_CREATE_VIA_EVENT_IBF	
	BUS2038	CLOSED	WS96600226	SWW_WI_CREATE_VIA_EVENT_IBF	
	BUS2038	CLOSED	WS96600226	SWW_WI_CREATE_VIA_EVENT_IBF	
	BUS2012	CHANGED	SUBSCRIBE	Check FM with exception	
	FREBUS2012	CHANGED	SUBSCRIBE	Check FM with exception	
	BU\$2012	CHANGED	SUBSCRIBE	Check EM with excention	

CISUG

"What's going on?" – SWEQADM

Event Queue Administration										
🛐 🎰 🗠 🗠 🖶 🗎 Brow	Image: A state of the state									
	🙏 Overview 🖉 Basic data 🛛 Activation 🖉 Background job 🛛 Event delivery 🖉 Linkages with errors									
🕺 Overview 🧹 🗷 Basic dat	a Activation	Backgr	ound	job	EV	ent delivery 🗸 I	inkages wit	th errors		
	Event Queu	o Admin	ietra	tion						
Status of event queue								1		
Event queue switched on		🖶 🗎 Brow	ser	🗇 Del	lete ev	vents ») Event tr	ace 🕒 🙂 Swite	ch off trac	e	
Background job is active	& Overview	🕒 Basic dat	a A	ctivatio	n	Background job	Event delivery	Linkage	s with errors	
Delete events										
	List of Linkages	with Errors								
Used for 9 Event linkages	Obj. type	Event	Linka_	Activ	Num	Receiver	Function M	1odule/Met	hod	
	BUS1001006	TRANSFE		\	3	WS98800042	SWW_WI_	CREATE	VIA_EVENT	
Key figures	BUS1065	ZMAINTA	Û	Î	2	WS98800084	SWW_WI_	CREATE	VIA_EVENT	
Maximum of 180 events r	PERSDATA	DELETED		♦	10	WS98800104	SWW_WI_	CREATE	VIA_EVENT	
	BUS1065	ZEXTERN			1	WS98800093	SWW_WI_	CREATE	VIA_EVENT	
	PERSDATINT	ZDATECH			6	WS98800090	SWW_WI_	CREATE	VIA_EVENT	
	BUS2054	CREATED			12	WS 98800008	SWW_WI_	CREATE	VIA_EVENT	
	LIKP	CREATED		♦	1	WS98800048	SWW_WI_	CREATE	VIA_EVENT	
	BUS2002	RELEASED		♦	1	WS98800118	SWW_WI_	CREATE	VIA_EVENT	
	BUS2081	PARKED			1	WS96600193	SWW_WI_	CREATE	VIA_EVENT_IBF	
	BUS1011	DELETIO			1	WS96600208	SWW_WI_	CREATE	VIA_EVENT_IBF	
	LIKP	SHIPORD			2	WS96600200	SWW_WI_	CREATE	VIA_EVENT	
	BUS2054	BUDGETC.		\	3	WS96600167	SWW_WI_	CREATE	VIA_EVENT	
	BUS2081	BLOCKED		\diamond	1	WS96600180	SWW_WI_	CREATE	VIA_EVENT	
	✓ Only deliver one					Deliver	Again	Û	Delete Events	
	Immediate delive	· ·								
	O Delivery by ever	nt queue								
1										

You have the ability to re-deliver any events stored in the event queue

OSUG

Agenda

- 1. Basis and Runtime customizing
- 2. Workflow diagnosis
- 3. Workflow Reports
- 4. Event and traces
- 🗱 5. Real Life advice



Real life advice

- Spending time getting to know the Workflows in the development process will be invaluable
- The majority of issues will be with Agent Determination (make sure your WF Developer uses 'Terminate if no agent found' or some such logic



Scenario 1 - Where's my approval

- Whenever possible, get the document/object/cart number!
- Run your favorite WF report Drill in to see multiple instances of the WF, identify the one in question
- Someone may have reserved the task (or already executed it)
- WF has not yet reached their level of approval



[•] Check to see if user is logged on to the correct system, because, hey, it happens

Scenario 1 - Where's my approval

 … Here's where your in depth knowledge of HOW a workflow finds an approver will come in handy. You may need to know about Agent Resolution, HR Org structures, Rules and Responsibilities.









Scenario 2 - Why did or So-and-So get this?

- You can view what is in a user's inbox with transaction SWI5
 - Was it forwarded to them?
- Check Substitutions (table HRUS_D2)
 - Are they a substitute for the actual agent?



Scenario 3 – It's dead, Jim

A user may call and say 'The workflow for XXX isn't flowing"

SWI2_DIAG will show you any workflows that have gone into error.

Diagnosis	of workflows with errors	
🔞 🎤 Restart v	vorkflow 🗳 🖉 🚰 🐺 🖬 🖌 🕨 🖼 🖽 🖬	3
Errors over	all: 1,029	
Serror c	ause	Number
	ID Type Work item text	CreateDate CreateTime
D Agents		101
🕒 Binding	from workflow to work item	14
1 Misc		915



K.

Scenario 3 – It's dead, Jim

Diagnosis of workflo	ws with e	rrors							
😰 🎤 Restart workflow 🗟 🖉 🕻	1 A 7 7 I								
Errors overall:	Workflow	w Log (View \	With Techn		s) ▶ ▶ Ⅲ ⊞ ª Choose 🖷 Save 🗷				
✓ Error cause ID Type We	Workflow Workflow in	Workflow instance Workflow for CS release of purchase order 0003003148							
 Agents Binding from workflo 	Instance number 000000312467 Start date 11/04/2004 Started by Workflow System RD1 210 Start time 10:16:20 Current status Error View: Workflow chronicle View: Workflow chronicle Started by								
A Misc	✓ Error Error Error (1) (2) (2) (2) (3) (2) (4) (2) (5)	C Error Diagnosis fr Workflow W Problems of Resolution Workflow W	Norkflow for Netermining a n of rule ACS	release of agents for s 98800014 for	purchase order no. 000000312467 step 0000000124 of WS98800043 r task TS98800164: no agent found purchase order no. 000000312467				
			312473 312475	644 513 463 549	Set screen mode for PO approval Set PO Approval WI Text Elements Check for Rejection Check Release Type Beginning of Fork Purchase Order Approval	Screen Mode Set PO WI Text Elements Set Not Rejected Other Release PO Reviewed			



Scenario 3 - It's dead, Jim

- Check for Short Dumps
- Check for RFC calls
- If dialog task, check for Agent Resolution





Daily checklist

- SWI2_DIAG All WFs in error
- SM58 failed RFC calls
- ST22 Short Dumps



Take the Session Survey.

We want to hear from you! Be sure to complete the session evaluation on the SAPPHIRE NOW and ASUG Annual Conference mobile app.



asug

Presentation Materials

Access the slides from 2019 ASUG Annual Conference here: http://info.asug.com/2019-ac-slides





For questions after this session, contact us at [email] and [email].



2 < 🏠 SAP		Workf	low Administration	on (87 entries) V Search
Refresh Display Work Item Res	start Workflow	Cancel Workflow	More 🗸	∇
Top Task Name	Status	Creation Date	Creation Time	Work item text
General Journal Entry Verification	In Process	04/24/2019	08:07:29	General Journal Entry Verification
General Journal Entry Verification	In Process		08:02:42	General Journal Entry Verification
Workflow for Purchase Order	In Process	04/17/2019	11:31:18	Approval of Purchase Order 4500006474
Workflow for Purchase Order	In Process		11:04:49	Approval of Purchase Order 4500006473
Workflow for Purchase Order	In Process		11:02:37	Approval of Purchase Order 4500006472
Workflow for Purchase Order	In Process		11:02:00	Approval of Purchase Order 4500006471
Workflow for Purchase Order	In Process		10:50:56	Approval of Purchase Order 4500006470
Workflow for Purchase Order	In Process		10:22:49	Approval of Purchase Order 4500006469
Workflow for Purchase Order	In Process		10:20:15	Approval of Purchase Order 4500006468
Workflow for Purchase Order	In Process		10:15:54	Approval of Purchase Order 4500006467
Workflow for Purchase Order	In Process		08:39:58	Approval of Purchase Order 4500006466
Workflow for Purchase Order	In Process		08:17:55	Approval of Purchase Order 4500006465
Workflow for Purchase Order	In Process		07:41:57	Approval of Purchase Order 4500006464
Workflow for Purchase Order	In Process		07:32:52	Approval of Purchase Order 4500006463

CISUG

8 < 🏠	SAP		Application	Logs 🧹	∨ Search		Q © 0	E
Standard 🗸							Hide Filter Bar Filters (2) Go
Severity:		ate From-To: 4/24/2019 - 04/24/2 🛅	Category: ■/WF/JOBS ⊗	Subcategory:	6	External Reference:	Ъ	
Application Logs (461) St	tandard 🗸			Search		۵ 🕲	Ē ~
Severity	Items	Category Description		Subcategory De	escription	Creation Date \equiv	Created By	
✓ Success	2			Execute System	Actions	04/24/2019, 12:05	SAP System Processing	>
✓ Success	2			Repeat Work Ite	em Actions	04/24/2019, 12:05	SAP System Processing	>
(!) Error	3			Repeat Tempora	ary Errors	04/24/2019, 12:05	SAP System Processing	>
(!) Error	3			Repeat Tempora	ary Errors	04/24/2019, 12:03	SAP System Processing	>
✓ Success	3			Execute Work It	em Actions	04/24/2019, 12:03	SAP System Processing	>
(!) Error	3			Repeat Tempora	ary Errors	04/24/2019, 12:02	SAP System Processing	>
(!) Error	3			Repeat Tempora	ary Errors	04/24/2019, 12:01	SAP System Processing	>
✓ Success	3			Execute Work It	em Actions	04/24/2019, 11:59	SAP System Processing	>



8 K SAP	Work Iter	ns without Agents	 ✓ Search 	9 © E
Save as Variant	More ~			Exit
Monitoring period				
	Today: 🔘			
	Last 7 days: 🔘			
	Last 30 days: 💽			
	Last 365 days: 🔘			
	Time: O on:			
	Interval: O From:	To:		
Task filter				
	Top Level Task:			
			_	
				Execute



8 < 🏠 SAP					Work Items without Agents (24 entries)	All	✓ Search	
Refresh Display Work Item Exe	cute Agent Rules	Forward Work	Item More 🗸					
Top Task Name	Work Item ID	Status	Creation Date	 Creation Time 	 Work item text 	Priority	Top Level Work	Task text
Financial Closing Task	40503	Ready	01/14/2019	05:30:19	Depreciation Posting Run (4227)	1 Highest	40501	Financial Closing Task
INVOIC input error FI	141051	Ready	04/03/2019	09:06:31	Enter an account determination group.	5 Medium	141051	INVOIC input error FI
	126849	Ready	03/14/2019	10:31:02	Enter an account determination group.	5 Medium	126849	INVOIC input error FI
	110781	Ready	02/22/2019	08:31:37	Enter an account determination group.	5 Medium	110781	INVOIC input error FI
	111286	Ready		08:19:56	Enter an account determination group.	5 Medium	111286	INVOIC input error FI
	109874	Ready		06:13:42	Enter an account determination group.	5 Medium	109874	INVOIC input error FI
	109867	Ready		06:06:36	Enter an account determination group.	5 Medium	109867	INVOIC input error FI
	93741	Ready	02/11/2019	03:17:08	Account 59900000 requires an assignment to a CO object	5 Medium	93741	INVOIC input error FI
Release the Work Item	109880	Ready	02/22/2019	06:33:08	Release 1834	5 Medium	109875	Release the Work Item
	110558	Ready		02:42:54	Release 1833	5 Medium	110553	Release the Work Item
	109731	Ready		02:25:04	Release 1832	5 Medium	109726	Release the Work Item
Verify General Journal Entry	115769	Ready	03/07/2019	07:54:35	Verify General Journal Entry 100002816 1010 2019	5 Medium	115767	Verify General Journal Entr
	115766	Ready		07:52:51	Verify General Journal Entry 100002815 1010 2019	5 Medium	115764	Verify General Journal Entr
	115763	Ready		07:48:14	Verify General Journal Entry 100002814 1010 2019	5 Medium	115761	Verify General Journal Entry



Let's Be Social.

Stay connected. Share your SAP experiences anytime, anywhere. Join the ASUG conversation on social media: **@ASUG365 #ASUG**



