Oracle® Fusion Middleware Online Help for Oracle SOA Suite



14c (14.1.2.0.0) F80348-01 November 2024

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Oracle Fusion Middleware Online Help for Oracle SOA Suite, 14c (14.1.2.0.0)

F80348-01

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Contents

1 SOA Composite Editor Context Sensitive Help Topics

1.1	PII Configuration - Encrypt Request Data or Decrypt Callback Data Dialog	1-1
1.2	Select Fields to Encrypt - Input Dialog or Select Fields to Decrypt - Input Dialog	1-2
1.3	Select Fields to Encrypt - Select CSF Key Value Dialog or Select Fields to Decrypt - Select CSF Key Value Dialog	1-3
1.4	Set the Transaction Property of BPEL Service Dialog	1-3
1.5	JAR Chooser Dialog	1-4
1.6	WSDL Chooser Dialog	1-4
1.7	JNDI Browser Dialog	1-5
1.8	Create Web Service or Update Service or Update Reference Dialog	1-5
1.9	HTTP Binding Wizard - Welcome Page	1-7
1.10	HTTP Binding Wizard - HTTP Binding Configuration Page	1-7
1.11	HTTP Binding Wizard - Messages Page	1-8
1.12	HTTP Binding Wizard - Message Schema Page	1-9
1.13	Create EJB Service Dialog or Update Reference or Update Service Dialog	1-10
1.14	Create Event Definition Dialog	1-11
1.15	Create Event Dialog	1-12
1.16	Business Events Editor	1-12
1.17	Composite Sensors Dialog	1-13
1.18	Create or Edit Composite Sensor Dialog	1-13
1.19	Select XPath Expression Dialog	1-15
1.20	Select Property Dialog	1-15
1.21	Create Direct Binding Dialog	1-16
1.22	Enable Reference Configuration Settings Screen	1-17
1.23	Create Application Wizard - Configure SOA Settings Page	1-17
1.24	Composite Configuration Plan Generator Dialog	1-19
1.25	Composite Configuration Plan Validator Dialog	1-19
1.26	Create ADF-BC Service Dialog or Update Reference or Update Service Dialog	1-20
1.27	Project and Server Configuration Settings Mismatch Dialog	1-21
1.28	Deploy Composite Wizard - Deployment Action Page	1-22
1.29	Deploy Composite Wizard - Deploy Configuration Page	1-22
1.30	Deploy Composite Wizard - Select Server Page	1-24
1.31	Deploy Composite Wizard - SOA Servers Page	1-24
1.32	Deploy Composite Wizard - Shared Metadata Page	1-24



1.33	Deploy Composite Wizard - Summary Page	1-25
1.34	Deploy Composite Wizard - Task Flow Deployment Page	1-25
1.35	Deployment Dialog	1-26
1.36	UDDI Deployment Options	1-26
1.37	Import SOA Composite Wizard - Create Project Page	1-27
1.38	Import SOA Composite Wizard - Import Composite Archive	1-28
1.39	SOA Bundle Deployment Profiles Properties Dialog - Dependencies Tab	1-28
1.40	SOA Bundle Deployment Profiles Properties Dialog - General Tab	1-28
1.41	Project Source Paths: SOA Content Dialog and Customize SOA Content Settings	1-29
1 42	Preferences Dialog - SOA Page	1-29
1 43	Create Spring Dialog	1-30
1 44	Undate Interface Dialog	1-31
1 45	Create SOA Composite Dialog	1-32
1.46	SOA Resource Browser Dialog	1-34
1.47	Localize Files Dialog	1-34
1.48	Create Property Dialog	1-35
1.49	Config Override Properties Dialog	1-36
1.50	Deploy SOA Archive Dialog	1-36
1.51	SAR Deployment Profile Properties Dialog - General Page	1-37
1.52	SOA Composite Editor	1-37
1.53	Binding URLs Dialog	1-39
1.54	Binding URL Tokenization Dialog	1-40
1.55	Token Picker Dialog	1-40
1.56	REST Binding Configuration Wizard	1-41
1.57	REST Operation Binding Dialog	1-43
1.58	Create REST Resource Dialog or Update REST Resource Dialog	1-46
1.59	REST Fault Binding Dialog	1-47
1.60	WADL or Swagger Chooser Dialog	1-47
1.61	Create Oracle Integration Connection Dialog	1-48
1.62	WADL Location Dialog	1-48
1.63	Sample URL Dialog	1-48
1.64	Generate Sample Payload Dialog	1-49
1.65	Rename Service Dialog	1-49
1.66	Rename Reference Dialog	1-49
1.67	Rename Component Dialog	1-50
1.68	Insert Fault Policy Dialog	1-50
1.69	Fault Chooser Dialog	1-51
1.70	Fault Policy Editor	1-51
1.71	Email Properties or JMS Properties Dialog	1-52
1.72	Action Properties Dialog	1-53
1.73	Property Set Properties Dialog	1-55



1.74	Composite Fault Policies Dialog	1-56
1.75	Create SOA Template Wizard - Specify Template Information Page	1-56
1.76	Create SOA Template Wizard - Files to Bundle Page	1-57
1.77	Preferences Dialog - SOA: Templates Dialog	1-57
1.78	Create Component Template Wizard - Specify Template Information	1-58
1.79	Create Custom Activity Template Wizard - Specify Template Information	1-58
1.80	Template Chooser Dialog	1-59
1.81	Create SOA Component from Component Template Dialog or Create Custom Activity from Template Dialog	1-59
1.82	ToDo Tasks Dialog	1-60
1.83	Search By Name Dialog	1-60
1.84	Chooser Dialog - File System Tab	1-60
1.85	Chooser Dialog - SOA MDS Dialog Tab	1-61
1.86	Chooser Dialog - My Catalog Tab	1-61
1.87	Chooser Dialog or Browser Dialog - Application Server Tab	1-62
1.88	Chooser Dialog - UDDI Tab	1-62
1.89	Chooser Dialog - WSIL Tab	1-63
1.90	Chooser Dialog - Project Libraries Tab	1-63
1.91	Variable Usage Search Dialog	1-64

2 Oracle BPEL Process Manager Context Sensitive Help Topics

2.1	Correlation Wizard - Define Correlation Set Page	2-1
2.2	Correlation Wizard - Initiate Settings Page	2-2
2.3	Correlation Wizard - Property Aliases Page	2-2
2.4	Correlation Wizard - Correlated Activities Page	2-3
2.5	Alias Editor Dialog	2-4
2.6	Correlation Wizard - Summary Page	2-4
2.7	Drag and Drop Editor Dialog	2-5
2.8	Activity Correlation Editor Dialog - Initiate Tab	2-6
2.9	Activity Correlation Editor Dialog - Aliases Tab	2-6
2.10	Correlation Search Dialog	2-7
2.11	Published Events Dialog	2-7
2.12	XQuery Dialog - General Tab	2-8
2.13	XQuery Dialog - XQuery Tab	2-8
2.14	Switch Dialog - Condition Branch	2-9
2.15	Translate Dialog - Translation Tab	2-10
2.16	Translate Dialog - General Tab	2-11
2.17	Edit Schedule Job Dialog - General Tab	2-11
2.18	Edit Schedule Job Dialog - Application Properties Tab	2-12
2.19	Edit Schedule Job Dialog - System Properties Tab	2-13
2.20	Enterprise Scheduler Browser Dialog	2-14

2.21	Type Chooser Dialog	2-14
2.22	Switch Dialog - Otherwise Branch	2-15
2.23	Add or Edit Fault Dialog	2-15
2.24	Property Chooser Dialog	2-15
2.25	Property Alias Dialog	2-16
2.26	Partner Links Dialog	2-17
2.27	Configure Service or Adapter Dialog	2-17
2.28	Create Property Dialog	2-18
2.29	Import WSDL File Dialog	2-18
2.30	Oracle BPEL Designer	2-18
2.31	Service Explorer Dialog	2-20
2.32	Expression Builder Dialog	2-20
2.33	Timeout Tab	2-22
2.34	Assertions Tab	2-23
2.35	Annotations Tab	2-24
2.36	Skip Condition Tab	2-25
2.37	Correlations Tab	2-25
2.38	Properties Tab	2-26
2.39	Targets Tab	2-27
2.40	Sources Tab	2-28
2.41	Fault Chooser Dialog	2-28
2.42	Create or Edit Variable Dialog - General Tab	2-29
2.43	Create or Edit Variable Dialog - Initialize Tab	2-30
2.44	Variable Chooser Dialog or Entity Variable Dialog	2-30
2.45	Variable XPath Builder Dialog	2-31
2.46	Create or Edit Correlation Set Dialog	2-31
2.47	Correlation Set Chooser Dialog	2-32
2.48	Correlation Sets Dialog	2-33
2.49	Import Schema Dialog	2-33
2.50	BPEL Type Search Dialog	2-34
2.51	Search BPEL Diagram Dialog	2-34
2.52	Bookmarks Dialog	2-34
2.53	Create or Edit Bookmark Dialog	2-35
2.54	Drill Down Stack Dialog	2-35
2.55	Process Dialog - General Tab	2-36
2.56	Create Correlation Set Property or Property Dialog	2-36
2.57	Create or Edit Message Type Dialog	2-37
2.58	Message Types Dialog	2-37
2.59	Create or Edit Message Part Dialog	2-38
2.60	Create Variable Dialog	2-38
2.61	Properties Dialog	2-39
2.62	Documentation Tab	2-40



2.63	Partner Links Tab	2-40
2.64	Pick Dialog - General Tab	2-41
2.65	Repeat Until Dialog - General Tab	2-41
2.66	For Each Dialog - General Tab	2-42
2.67	For Each Dialog - Counter Values Tab	2-43
2.68	For Each Dialog - Completion Tab	2-44
2.69	FlowN Dialog - General Tab	2-44
2.70	If Dialog - General Tab	2-45
2.71	If Dialog - If Label Branch	2-45
2.72	If Dialog - Else If Label Section	2-46
2.73	Empty Dialog - General Tab	2-46
2.74	Flow Dialog - General Tab	2-46
2.75	Exit Dialog - General Tab	2-47
2.76	CompensateScope Dialog - General Tab	2-48
2.77	Compensate Dialog - General Tab	2-48
2.78	Reply Dialog - General Tab	2-49
2.79	Receive Dialog - General Tab	2-50
2.80	Invoke Dialog - General Tab	2-52
2.81	OnMessage Branch Dialog - General Tab	2-54
2.82	OnEvent Dialog	2-56
2.83	Rethrow Dialog - General Tab	2-58
2.84	Throw Dialog - General Tab	2-58
2.85	Assign Dialog - Copy Rules Tab	2-59
2.86	Assign Dialog - General Tab	2-62
2.87	Scope Dialog - General Tab	2-63
2.88	Rule Dialog - General Tab	2-64
2.89	Scope Dialog - User Documentation Tab	2-64
2.90	Scope Dialog - Variables Tab	2-65
2.91	Catch Dialog - General Tab	2-65
2.92	OnAlarm Branch Dialog - General Tab	2-66
2.93	Edit Note Dialog	2-67
2.94	Image Browser Dialog	2-67
2.95	Specify Key Dialog	2-67
2.96	Create Entity Dialog	2-68
2.97	Remove Entity Dialog	2-68
2.98	Sequence Dialog - General Tab	2-69
2.99	Terminate Dialog - General Tab	2-69
2.100	While Dialog - General Tab	2-70
2.101	Wait Dialog - General Tab	2-70
2.102	Create or Edit Partner Link Dialog - Image Tab	2-71
2.103	Create or Edit Partner Link Dialog - Property Tab	2-72
2.104	Create or Edit Partner Link Dialog - Idempotence Tab	2-72

2.105	Create or Edit Partner Link Dialog - General Tab	2-73
2.106	Validate Dialog - General Tab	2-74
2.107	Assert Dialog - General Tab	2-75
2.108	Email Dialog - General Tab	2-75
2.109	Email Dialog - Attachments Tab	2-76
2.110	IM Dialog - General Tab	2-77
2.111	SMS Dialog - General Tab	2-77
2.112	Edit Java Embedding Dialog - General Tab	2-78
2.113	Phase Dialog - General Tab	2-78
2.114	Receive Signal Dialog - General Tab	2-80
2.115	Replay Dialog - General Tab	2-80
2.116	Signal Dialog - General Tab	2-81
2.117	Dehydrate Dialog - General Tab	2-82
2.118	XSLT Transform Dialog - Transformation Tab	2-82
2.119	XSLT Transform Dialog - General Tab	2-83
2.120	User Notification Dialog - General Tab	2-83
2.121	User Notification Dialog - Advanced Tab	2-84
2.122	Voice Dialog - General Tab	2-85
2.123	Create BPEL Process Dialog	2-86
2.124	Extension Dialog	2-88
2.125	Literal Dialog	2-89
2.126	Rename Dialog	2-89
2.127	Recast Dialog	2-90
2.128	XML Fragment Dialog	2-90
2.129	Create or Edit Activity Sensor Dialog	2-91
2.130	Activity Browser Dialog	2-92
2.131	Create or Edit Activity Variable Sensor Dialog	2-92
2.132	Sensor Action Chooser Dialog	2-92
2.133	Create or Edit Variable Sensor Dialog	2-93
2.134	Sensor Action Chooser Dialog	2-93
2.135	Create or Edit Variable Sensor Dialog	2-94
2.136	Create Annotation Dialog	2-95
2.137	Variables Dialog	2-95
2.138	Move To Folder Dialog	2-96
2.139	Create Folder Dialog	2-96
2.140	Create or Edit Variable Dialog - General Tab	2-96
2.141	Filter Settings Dialog	2-97
2.142	Property Aliases Dialog	2-98
2.143	Bind Entity Dialog - General Tab	2-98
2.144	Select Role Dialog	2-99
2.145	Information Dialog	2-99
2.146	Pre Assert Dialog or Post Assert Dialog or Assert Dialog	2-100

2.147	Import Schema File Dialog	2-101
2.148	Create or Edit Operation Dialog	2-101
2.149	Create or Edit Fault Sensor Dialog	2-101
2.150	Extensions Dialog	2-102
2.151	Correlation Dialog	2-103
2.152	Create or Edit Sensor Action Dialog	2-103
2.153	Switch Dialog - General Tab	2-105
2.154	Switch Dialog - Otherwise Branch - General Tab	2-105
2.155	Rule Dialog - Dictionary Tab	2-105
2.156	Partner Link Chooser Dialog	2-106
2.157	Adapter Property Value Dialog or To Property Dialog or From Property Dialog	2-106
2.158	Breakpoint Dialog	2-107
2.159	Breakpoints Dialog	2-107
2.160	Preferences Dialog - Oracle BPEL 1.1 or 2.0 Designer Page - Diagram Tab	2-108
2.161	Preferences Dialog - Oracle 1.1 or 2.0 Designer Page - Data Tab	2-109
2.162	Call Activity Dialog - General Tab	2-110
2.163	Create Inline Subprocess Dialog	2-110
2.164	Inline Subprocesses Dialog	2-111
2.165	Value Editor Dialog	2-111
2.166	Create Subprocess Dialog	2-112
2.167	TODO Tasks Dialog	2-112
2.168	Add TODO Task Dialog	2-113
2.169	Dynamic Partner Links Dialog	2-113
2.170	Bind Counter Dialog or Create Counter Dialog	2-113
2.171	Bind Measure Dialog or Bind Dimension Dialog or Create Dimension Dialog	2-114
2.172	SOA Analytics Metrics	2-114
2.173	Composite Analytics Sampling Points for BPEL	2-115
2.174	Interval Start Dialog, Interval End Dialog, Counter Mark Dialog, or Measurement	
	Mark Dialog	2-115
2.175	Catch All Dialog - General Tab	2-116

3 Oracle Human Workflow Context Sensitive Help Topics

З	3.1	Outcomes Dialog	3-1
З	3.2	Human Task Editor - General Page	3-1
Э	3.3	Outcomes Dialog	3-3
З	3.4	Add Custom Outcome Dialog	3-4
Э	3.5	Identity Lookup Dialog	3-4
Э	3.6	Human Task Editor - Data Page	3-6
З	3.7	Add or Edit Task Parameter Dialog	3-6
З	8.8	Add or Edit Mapped Attribute	3-6
З	3.9	Add or Edit Summary Field Dialog	3-7

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3.10	Human Task Editor - Assignment Page	3-7
3.11	Early Completion Dialog	3-8
3.12	Use Advanced Rules Dialog	3-9
3.13	Add Error Assignees Dialog	3-9
3.14	Expiration Assignees Dialog	3-10
3.15	Add Reviewers Dialog	3-11
3.16	Adhoc Routing Dialog	3-12
3.17	Custom List Builders Dialog	3-12
3.18	Human Task Editor - Presentation Page	3-13
3.19	Resource Details Dialog	3-13
3.20	Human Task Editor - Deadlines Page	3-14
3.21	Human Task Editor - Notification Page - General Tab	3-14
3.22	Human Task Editor - Notification Page - Advanced Tab	3-15
3.23	Human Task Editor - Access Page - Content Tab	3-16
3.24	Human Task Editor - Access Page - Actions Tab	3-17
3.25	Signature Policy Details Dialog	3-19
3.26	Configure Restricted Assignment Dialog	3-19
3.27	Human Task Editor - Events Page	3-20
3.28	Edit Participant Type Dialog - Single Page	3-21
3.29	Assignment Pattern Dialog	3-24
3.30	Use External Routing Dialog	3-24
3.31	Edit Participant Type Dialog - FYI Page	3-25
3.32	Edit Participant Type Dialog - Serial Page	3-28
3.33	Edit Participant Type Dialog - Parallel Page	3-30
3.34	Assignment Pattern Dialog - FYI Page	3-33
3.35	Create Human Task Dialog - General Tab	3-34
3.36	Create Human Task Dialog - Advanced Tab	3-35
3.37	Create Human Task Dialog	3-36
3.38	Abrupt Completion Details Dialog	3-37
3.39	Edit Dialog	3-38
3.40	Configure Assignment Dialog - Routing Page	3-38
3.41	Configure Assignment Dialog - Assignment Page	3-39
3.42	Edit Notification Message Dialog	3-40
3.43	Create Human Task Dialog	3-41
3.44	Select an Application Role Dialog	3-41
3.45	Task Parameters Dialog	3-42
3.46	Add Task Parameter Dialog	3-43
3.47	Assignee Validation Browser Dialog	3-43
3.48	Vote Outcome Dialog	3-43
3.49	Custom Form Wizard - Row - Column Page	3-44
3.50	Custom Form Wizard - Body Page	3-45
3.51	Custom Form Wizard - Footer Page	3-45

3.52	Custom Form Wizard - Header Page	3-46
3.53	Custom Form Wizard - Name and Definition Page	3-46
3.54	Custom Form Wizard - Summary Page	3-47
3.55	Edit Summary Field Dialog	3-47

4 Oracle Mediator Context Sensitive Help Topics

4.1	Add Validation Dialog	4-1
4.2	Assign Value Dialog	4-1
4.3	Assign Values Dialog	4-2
4.4	Callback Timeout Transformation Map Dialog	4-2
4.5	Callback Transformation Map Dialog	4-3
4.6	Create Mediator Dialog	4-3
4.7	Create WSDL Dialog	4-5
4.8	Decision Services Browser	4-6
4.9	Create Decision Service Component	4-6
4.10	Define Service Dialog	4-7
4.11	Create Domain Value Map Dialog	4-7
4.12	Event Chooser Dialog	4-7
4.13	Subscribed Events Dialog	4-8
4.14	Event Transformation Map Dialog	4-8
4.15	Fault Transformation Map Dialog	4-9
4.16	Mediator Editor	4-9
4.17	Override Routing Dialog	4-10
4.18	Edit Mediator Override DVM Dialog	4-11
4.19	Edit Mediator Override Row Dialog	4-11
4.20	Refresh WSDL Dialog	4-12
4.21	Reply Transformation Map Dialog	4-12
4.22	Request Transformation Map Dialog	4-13
4.23	Create Transformation Map Dialog	4-13
4.24	Add/Update External Variable Dialog	4-13
4.25	Target Services Dialog	4-14
4.26	Target Type Dialog	4-14
4.27	Request Transformation Map Dialog	4-15
4.28	Update Validation Dialog	4-15
4.29	Validations Dialog	4-15
4.30	Add Message Part Dialog	4-16
4.31	Update Message Part Dialog	4-16
4.32	Add Translation Dialog	4-16
4.33	Assign Source Literal Dialog	4-17
4.34	Choose Target Service Dialog	4-17
4.35	Choose Target Port Dialog	4-18

5 Oracle Business Rules Context Sensitive Help Topics

5.1	Add Source Schema Dialog	5-1
5.2	Edit Value Set Dialog	5-1
5.3	Edit Range Value Set Dialog	5-2
5.4	Value Sets Tab	5-2
5.5	Choose Value Set Type Dialog	5-3
5.6	Create Business Rules Dialog - Advanced	5-3
5.7	Create Business Rules Dialog - General	5-3
5.8	Create Java Fact Dialog	5-4
5.9	Imported Dictionaries	5-5
5.10	Localize Files	5-5
5.11	Create Ruleset Dialog	5-5
5.12	Edit Decision Function Dialog	5-5
5.13	Set Effective Date Dialog	5-7
5.14	Conflict Resolution Dialog	5-7
5.15	Gap Analysis Dialog	5-8
5.16	Rule Sets Page	5-8
5.17	Business Rules Help	5-15
5.18	Dictionary Settings Dialog	5-15
5.19	Edit Java Fact ClassName Dialog	5-16
5.20	Decision Functions Tab	5-16
5.21	Functions Tab	5-17
5.22	Function Test Result Dialog	5-18
5.23	Editor Properties Dialog	5-18
5.24	Facts Tab	5-18
5.25	Globals Tab and Edit Global Name Dialog	5-20
5.26	Expression Builder Dialog	5-21
5.27	Create ADF-BC Fact Dialog	5-22
5.28	Edit RL Fact Name Dialog	5-23
5.29	Create XML Fact Dialog	5-23
5.30	Edit ADF-BC Fact ViewDefinitionName Dialog	5-23
5.31	Edit XML Fact Name Dialog	5-24
5.32	Links Tab	5-25
5.33	Dictionary Finder Cache Dialog	5-25
5.34	Ruleset Page - Modify Action Properties Dialog	5-26
5.35	Action Editor Dialog	5-26
5.36	Create Business Rules Data Control: Data Control Definition	5-27
5.37	Create Business Rules Data Control Wizard: Finish	5-27
5.38	Create Business Rules Data Control Wizard: Data Control Source	5-27



5.39	Create Business Rules Data Control: Data Control Runtime Configuration	5-28
5.40	Create Business Rules Data Control Wizard	5-29
5.41	Services tab	5-29
5.42	Create Decision Service	5-29
5.43	RL Viewer Dialog	5-30
5.44	Test Tab	5-30
5.45	Create Template Dialog	5-31
5.46	Translations Tab	5-31
5.47	Diff Dictionary Dialog	5-32
5.48	Diff Versions Dialog	5-32
5.49	Merge Dictionary Dialog	5-33
5.50	Data Explorer Tab	5-33
5.51	Business Phrases Tab	5-33
5.52	Create Resource Bundle Dialog	5-36
5.53	Decision Fact Map Dialog	5-36
5.54	Create Test Suite Dialog	5-37
5.55	Import From Excel Dialog	5-37
5.56	Export To Excel Dialog	5-38

6 SOA Composite Editor Test Mode Context Sensitive Help Topics

6.1	Event Messages Dialog	6-1
6.2	Create Test Suite Dialog	6-1
6.3	Create Composite Test Dialog	6-2
6.4	Initiate Messages Dialog	6-2
6.5	Create Component Test Dialog	6-2
6.6	Assert Execution Count Dialog	6-3
6.7	Fast Forward Dialog	6-3
6.8	Assert Dialog	6-4
6.9	Activity Test Data Dialog - Fast Forward Tab	6-5
6.10	Activity Test Data Dialog - Asserts Tab	6-5
6.11	Activity Test Data Dialog - Assertion Execution Count Tab	6-6
6.12	Asserts and Emulates Dialog - Asserts Tab	6-6
6.13	Create Assert Dialog	6-7
6.14	Create Emulate Dialog	6-8
6.15	Select Assert Target Dialog	6-9
6.16	Test Mode of SOA Composite Editor	6-10
6.17	Asserts and Emulates Dialog - Emulates Tab	6-11
6.18	Create Composite Test Wizard - Test Name and Suite Page	6-11
6.19	Create Composite Test Wizard - Service and Operation Page	6-12
6.20	Create Composite Test Wizard - Input Message Page	6-12
6.21	Create Composite Test Wizard - Output Message Page	6-13



6.22	Specify Test Server Dialog	6-14
6.23	Test Run Dialog	6-14
6.24	Test Results Editor	6-14
6.25	Query Test Runs Dialog	6-16
6.26	Assertion XML Dialog	6-17
6.27	Trigger onAlarm Dialog	6-17
6.28	Activity Test Data Dialog - Trigger OnAlarms Tab	6-17

7 Oracle Business Activity Monitoring Context Sensitive Help Topics

7.1	Adapter Configuration Wizard - JNDI Name Page	7-1
7.2	Snapshot Dialog	7-1
7.3	Adapter Configuration Wizard - Data Object Operation and Keys Page	7-2
7.4	Create or Edit Oracle BAM Data Control Wizard - Aggregates Page	7-2
7.5	Create or Edit Oracle BAM Data Control Wizard - Calculated Fields Page	7-3
7.6	Create or Edit Oracle BAM Data Control Wizard - Filters Page	7-3
7.7	Create or Edit Oracle BAM Data Control Wizard - Groups Page	7-4
7.8	Metric Dialog	7-4
7.9	Create or Edit Oracle BAM Data Control Wizard - Name Page	7-5
7.10	Create or Edit Oracle BAM Data Control Wizard - Parameters Page	7-5
7.11	Evaluation Event Chooser Dialog	7-6
7.12	Create or Edit Oracle BAM Data Control Wizard - Record Fields Page	7-7
7.13	BAM Data Object Chooser Dialog	7-7
7.14	BAM Connection Wizard or BAM Connection Properties Dialog - Connection Page	7-8
7.15	BAM Connection Wizard or Edit Oracle BAM Connection Properties Dialog - Name Page	7-8
7.16	BAM Connection Wizard or BAM Connection Properties Dialog - Test Connection Page	7-9
7.17	BAM Connection Wizard	7-10
7.18	Create or Edit Sensor Action Dialog	7-11
7.19	BPEL Process Dialog	7-12
7.20	Monitoring Configuration Dialog	7-13
7.21	Business Indicator Dialog	7-13
7.22	Business Indicators Dialog	7-14
7.23	Select Business Indicators Dialog	7-14
7.24	Counter Dialog	7-15
7.25	Counters Dialog	7-15
7.26	Select Counters Dialog	7-16
7.27	Interval Dialog	7-16
7.28	Intervals Dialog	7-16



8 Oracle B2B Context Sensitive Help Topics

8.1	B2B Configuration Wizard - Welcome Page	8-1
8.2	B2B Configuration Wizard - Service Name Page	8-1
8.3	B2B Configuration Wizard - B2B Integration Type Page	8-1
8.4	B2B Configuration Wizard - Application Server Connection Page	8-2
8.5	B2B Configuration Wizard - Operation Page	8-2
8.6	B2B Configuration Wizard - Specify Document Definition Handling Page - Basic Tab	8-3
8.7	B2B Configuration Wizard - Specify Document Definition Page	8-3
8.8	B2B Configuration Wizard - Specify Root Element Page	8-3
8.9	B2B Configuration Wizard - Finish Page	8-3
8.10	B2B Configuration Wizard - Specify Document Definition Handling Page - Advanced	
	Tab	8-4
8.11	B2B Configuration Wizard - JMS Provider Page	8-4
8.12	B2B Configuration Wizard - Service Connection Page	8-5
8.13	B2B Configuration Wizard - Produce Operation Parameters Page	8-5
8.14	B2B Configuration Wizard - Operation Parameters - Select Destination Page	8-6
8.15	B2B Configuration Wizard - Consume Operation Parameters Page	8-7
8.16	B2B Configuration Wizard - Third Party JMS Connection Page	8-8
8.17	B2B Configuration Wizard - JMS Connection Page	8-8
8.18	B2B Configuration Wizard - Service Connection Page	8-8
8.19	B2B Configuration Wizard - Queue Name Page	8-9
8.20	B2B Configuration Wizard - Queue Parameters Page	8-9

9 Oracle B2B for Healthcare Context Sensitive Help Topics

9.1	Healthcare Configuration Wizard - Welcome Page	9-1
9.2	Healthcare Configuration Wizard - Service Name Page	9-1
9.3	Healthcare Configuration Wizard - Healthcare Integration Type Page	9-1
9.4	Healthcare Configuration Wizard - Application Server Connection Page	9-2
9.5	Healthcare Configuration Wizard - Operation Page	9-2
9.6	Healthcare Configuration Wizard - Document Definition Handling Page - Basic Tab	9-3
9.7	Healthcare Configuration Wizard - Specify Document Definition Page	9-3
9.8	Healthcare Configuration Wizard - Document Definition Handling Page - Advanced	
	Tab	9-3
9.9	Healthcare Configuration Wizard - JMS Provider Page	9-4
9.10	Healthcare Configuration Wizard - Service Connection Page	9-4
9.11	Healthcare Configuration Wizard - Produce Operation Parameters Page	9-5
9.12	Healthcare Configuration Wizard - Operation Parameters - Select Destination Page	9-6
9.13	Healthcare Configuration Wizard - Consume Operation Parameters Page	9-6
9.14	Healthcare Configuration Wizard - Finish Page	9-7
9.15	Healthcare Configuration Wizard - Specify Root Element Page	9-8
9.16	Healthcare Configuration Wizard - Root Element Page	9-8





1

SOA Composite Editor Context Sensitive Help Topics

1.1 PII Configuration - Encrypt Request Data or Decrypt Callback Data Dialog

Use to encrypt fields of a message to protect sensitive data or decrypt fields of a callback message to protect sensitive data.

The PII Configuration dialog is arranged in the following sections:

- Encrypt Request Dialog
- Decrypt Callback Dialog

Encrypt Request Dialog

The Encrypt Request dialog enables you to encrypt fields of a message to protect sensitive data (known as personally identifiable information (PII)) flowing in web services and JCA adapters in Oracle SOA Suite and Oracle Service Bus.

The message fields are encrypted when entering the SOA composite application and decrypted when exiting the SOA composite application.

Encryption obfuscates selected fields (for example, SSNs) to prevent this data from appearing in administration consoles in clear text.

Element	Description
Personally Identifiable Information	Displays the oracle/pii_security_policy . This policy secures the PII using encryption. The PII is identified through the XPath expression configuration or annotations in the schema. The key used for encryption and decryption is based on the password obtained from the configured Credential Store Framework (CSF) key. This policy is applied only on Oracle SOA Suite and Oracle Service Bus.
Show Details icon	Click to display details about the oracle/pii_security_policy.
Add MTOM Policy icon	Click to add the oracle/pii_security_policy . This icon is only enabled if the default policy has been removed.
Edit PII Properties icon	Click to select the fields of the request message to encrypt.
Remove Selected Policy icon	Click to remove the oracle/pii_security_policy .
Enable Selected Policies icon	Click to enable the oracle/pii_security_policy .
Disable Selected Policies icon	Click to disable the oracle/pii_security_policy .



Decrypt Callback Dialog

The Decrypt Callback dialog enables you to decrypt fields of a callback message to protect sensitive data (known as personally identifiable information (PII)) flowing in web services and JCA adapters in Oracle SOA Suite and Oracle Service Bus.

The message fields are encrypted when entering the SOA composite application in a service binding component and decrypted when exiting the SOA composite application in a reference binding component. Messages outside the composite can be protected with other message protection policies (WS-Security/SSL).

This feature provides for the obfuscation of certain fields (for example, SSNs) to prevent this data from appearing in administration consoles in clear text.

Element	Description
Personally Identifiable Information	Displays the oracle/pii_security_policy . This policy secures the PII using encryption. The PII is identified through the XPath expression configuration or annotations in the schema. The key used for encryption and decryption is based on the password obtained from the configured Credential Store Framework (CSF) key. This policy is applied only on Oracle SOA Suite and Oracle Service Bus.
Show Details icon	Click to display details about the oracle/pii_security_policy.
Add MTOM Policy icon	Click to add the oracle/pii_security_policy . This icon is only enabled if the default policy has been removed.
Edit PII Properties icon	Click to select the fields of the request message to encrypt.
Remove Selected Policy icon	Click to remove the oracle/pii_security_policy .
Enable Selected Policies icon	Click to enable the oracle/pii_security_policy .
Disable Selected Policies icon	Click to disable the oracle/pii_security_policy .

Related Topics

Encrypting and Decrypting Specific Fields of Messages in *Developing SOA Applications with Oracle SOA Suite*

1.2 Select Fields to Encrypt - Input Dialog or Select Fields to Decrypt - Input Dialog

Use to select the fields to encrypt or decrypt.

This dialog is arranged in the following sections:

- Select Fields to Encrypt Dialog
- Select Fields to Decrypt Dialog

Select Fields to Encrypt Dialog

Use to create an XPath expression that identifies the fields of the request message to encrypt.

Encryption obfuscates selected fields (for example, SSNs) to prevent this data from appearing in administration consoles in clear text.



Element	Description
XPath Expressions table	Displays the XPath expressions.
Add	Click to invoke the Expression Builder dialog for creating an XPath expression that identifies the fields to encrypt (for example, a credit card number or driver's license number).
Edit	Click to edit the selected XPath expression.
Delete	Click to delete the selected XPath expression.

Select Fields to Decrypt Dialog

Use to select the fields of the request message to decrypt.

Element	Description
XPath Expressions table	Displays the XPath expressions.
Add	Click to invoke the Expression Builder dialog for selecting the fields to decrypt (for example, a credit card number or driver's license field).
Edit	Click to edit the selected XPath expression.
Delete	Click to delete the selected XPath expression.

Related Topics

Encrypting and Decrypting Specific Fields of Messages in *Developing SOA Applications with Oracle SOA Suite*

1.3 Select Fields to Encrypt - Select CSF Key Value Dialog or Select Fields to Decrypt - Select CSF Key Value Dialog

Use to select the credential store framework (CSF) key to use.

The credential store is used for the secure storage of credential keys.

Element	Description
CSF Key Values table	Select the CSF key to use.
Add Credentials icon	Click to add username, password, and key credentials.

Related Topics

Encrypting and Decrypting Specific Fields of Messages in *Developing SOA Applications with Oracle SOA Suite*

1.4 Set the Transaction Property of BPEL Service Dialog

Use to set the persistence policy of the process in the delivery layer.



This list enables you to specify a value for the <code>oneWayDeliveryPolicy</code> deployment descriptor property. This field is displayed if you select an asynchronous or one-way BPEL process in the **Template** list.

Element	Description
Transaction	Set the transaction behavior of the BPEL instance for initiating calls.
	• requiresNew : A new transaction is created for the execution, and the existing transaction (if there is one) is suspended. This behavior is true for both request/response (initiating) environments and one-way, initiating environments in which the Delivery list value (oneWayDeliveryPolicy property) is set to sync .
	 required: In request/response (initiating) environments, this setting joins a caller's transaction (if there is one) or creates a new transaction (if there is no transaction). In one-way, initiating environments in which the Delivery list value (oneWayDeliveryPolicy property) is set to sync, the invoke message is processed using the same thread in the same transaction notSupported: Business process activities are executed without any transaction.
Delivery	Set the persistence policy of the process in the delivery layer:
	 async.persist: Messages into the system are saved in the delivery store before being picked up by the service engine.
	• async.cache : Messages into the system are saved in memory before being picked up by the service engine.
	• sync : The instance-initiating message is not temporarily saved in the delivery layer. The service engine uses the save thread to initiate the message.

Related Topics

Deployment Descriptor Properties in Developing SOA Applications with Oracle SOA Suite

1.5 JAR Chooser Dialog

Use to choose the JAR file for the Enterprise JavaBeans service.

Element	Description
Location	Select the directory location of the JAR file.
File Name	Displays the selected file name.
File Type	Displays the selected file type (for example, .jar).
Selection	Displays the complete path to the selected JAR file.

Related Topics

Integrating Enterprise JavaBeans with SOA Composite Applications in *Developing SOA* Applications with Oracle SOA Suite

1.6 WSDL Chooser Dialog

Use to select the WSDL file to use with the Enterprise JavaBeans service.

Element	Description
Create New Connection	Click to create a new application server connection.
Edit Connection	Click to edit a selected application server connection.
Refresh	Click to refresh.
IntegratedWebLogi cServer	Select the server to use.
SOA Server	Select the server to use.

Integrating Enterprise JavaBeans with SOA Composite Applications in *Developing SOA* Applications with Oracle SOA Suite

1.7 JNDI Browser Dialog

Use to browse for JNDI connections.

Element	Description
Create New Connection	Click to create a new application server connection.
Edit Connection	Click to edit a selected application server connection.
Refresh	Click to refresh.
IntegratedWebLogi cServer	Select the server to use.
SOA Server	Select the server to use.

Related Topics

Integrating Enterprise JavaBeans with SOA Composite Applications in *Developing SOA* Applications with Oracle SOA Suite

1.8 Create Web Service or Update Service or Update Reference Dialog

Use to create a simple object access protocol (SOAP) web service binding component for message delivery.

You can also select the level of support for WS-Coordination and WS-Atomic (WS-AT) transactions. WS-AT provides transaction interoperability between Oracle WebLogic Server and other external transaction processing systems.

Binding components such as web services make service-oriented architecture (SOA) applications accessible to the outside world. More

Element	Description
Name	Enter a name or accept the default name of Servicenumber. This becomes the name for this service in the SOA Composite Editor.



Element	Description
Туре	Select the direction in which you want the SOAP web service to operate. This field is only displayed when creating a new SOAP web service.
	• Service: Creates an inbound SOAP service in the Exposed Services (left) swimlane that provides the outside world with an entry point to the SOA composite application. This direction is selected by default if you dropped the web service into the Exposed Services swimlane. More
	 Reference: Creates an outbound SOAP web service in the External References (right) swimlane that enables messages to be sent from the SOA composite application to external partners in the outside world. This direction is selected by default if you dropped the web service into the External References swimlane. More
WSDL URL	Select the Web Services Description Language (WSDL) file to use with this web service. This file describes the capabilities of the service that provides an entry point into a SOA composite application or a reference point from a SOA composite application. A service or reference is defined by a port type and optionally a callback port type. The WSDL file can define more capabilities (port types) of the target web service, but a service only uses the one defined by the port type.
	Note : Do not manually update the WSDL location in your file in Source View. This action is not supported. Only updates made in Design View are supported.
Find existing WSDLs icon	Click to select an existing WSDL file.
Generate WSDL from schemas icon	Click to create a WSDL file from a schema. This option is only available for services (and not for references).
Port Type	Select the port type or use the automatically specified value.
Callback Port Type	Select the callback port type for asynchronous processes.
copy wsdl and its dependent artifacts	Select this checkbox to copy a remote WSDL and its dependent artifacts into the project.
into the project	Note : Oracle recommends that you select this checkbox only for situations such as offline designing. This is because maintaining a copy of a remote WSDL may result in synchronization issues if the remote WSDL is updated.
Transaction Participation	Select the level of support for WS-Coordination and WS-AT transactions. WS-AT provides transaction interoperability between Oracle WebLogic Server and other external transaction processing systems, such as WebSphere, JBoss, Microsoft .NET, and so on. If you dragged the web service to the Exposed Services swimlane, this enables external transaction managers to coordinate resources hosted on Oracle WebLogic Server over WS-AT. If you dragged the web service to the External References swimlane, this enables Oracle WebLogic Server transactions to coordinate resources hosted in external environments over WS-AT.
	Never: No transaction context is imported (for services) or exported (for references)
	 Supports: If a transaction exists, a transaction context is imported (for services) or exported (for references). This information is added to the composite.xml file.
	• Mandatory : A transaction context is imported (for services) or exported (for references). This information is added to the composite.xml file. For exports, a web service exception message is thrown if there is no active transaction. For imports, a fault is returned to the client if there is no transaction context in the request
	 WSDLDriven: This property only displays if you create the web service as a reference binding component in the External References swimlane. This is the default value.

Element	Description
Version (for Web Services only)	Displays the WS-AT supported version (1.0, 1,1, 1,2, or default). By default, this list is only enabled if you selected Supports or Mandatory from the Transaction Participation list. The version sent by the requesting message is used.

What Happens When You Create a SOA Application and Project in *Developing SOA Applications with Oracle SOA Suite*

WS-Atomic Transaction Support in Developing SOA Applications with Oracle SOA Suite

Legacy Adapters in Understanding Technology Adapters

Packaged-Application Adapters in Understanding Technology Adapters

1.9 HTTP Binding Wizard - Welcome Page

Use this wizard to create an HTTP binding service.

This service enables you to integrate SOA composite applications with HTTP binding. This enables you to invoke SOA composite applications through HTTP POST and GET operations, and invoke HTTP endpoints through HTTP POST and GET operations.

Element	Description
Welcome page	Use this wizard to create an HTTP binding service.

Related Topics

HTTP Binding Service in Developing SOA Applications with Oracle SOA Suite

1.10 HTTP Binding Wizard - HTTP Binding Configuration Page

Use to create an HTTP binding service.

At runtime, the concrete WSDL is generated with an HTTP binding and a SOAP binding; this is because the SOAP endpoint is used to provide HTTP support.

Notes: Note the following details about using HTTP binding in a SOA composite application:

- The use of HTTP headers is not supported (that is, you cannot access HTTP headers in the composite and set them in the composite).
- An outbound HTTP binding reference supports only XML as a response from an external HTTP endpoint. The response should contain the correct XML part name as per the outbound expectation.
- You cannot change the **httpBinding** property for the HTTP binding component during runtime in Oracle Enterprise Manager Fusion Middleware Control.
- If you want to enable basic authentication for inbound HTTP binding, you must attach a security policy. Inbound HTTP binding can also be used without enabling basic authentication.
 - 1. Right-click the created HTTP binding service in the **Exposed Services** swimlane and select **Configure WS Policies**.



- 2. In the Configure SOA WS Policies dialog, click the Add icon in the Security section.
- 3. Select the oracle/wss_http_token_service_policy policy, and click OK.
- 4. In the Configure SOA WS Policies dialog, click **OK**.

Element	Description
Туре	Configure an inbound or outbound HTTP binding service.
	• Service: Creates an inbound HTTP binding service in the Exposed Services (left) swimlane that provides the outside world with an entry point to the SOA composite application. This direction is selected by default if you dragged the HTTP binding service into the Exposed Services swimlane. More
	• Reference : Creates an outbound HTTP binding reference in the External References (right) swimlane that enables messages to be sent from the SOA composite application to external partners in the outside world. This direction is selected by default if you dragged the HTTP binding service into the External References swimlane. References support only the request-response pattern, and the external HTTP endpoint is expected to respond with XML. More
Operation Type	Select the type of operation to perform:
One-way	Select to create a one-way operation that sends or receives messages to and from an HTTP(S) endpoint.
Request- Response	Select to create a synchronous request-response operation that sends and receives input and output messages to and from an HTTP(S) endpoint.
Operation Name	Displays the operation name. If the operation type is one-way, the default name is Send . If the operation type is a request-response, the default name is Request-Response . You can override the default operation name by specifying a name.
Verb	Select the request method to be performed on the identified resource.
	• GET : Retrieves data.
	• POST : Submits data to be processed to the identified resource.
Payload Type	Select a payload type for HTTP POST request methods. For HTTP GET request methods, the payload type is URL-encoded and cannot be changed.
	• url-encoded : Provides support for a URL-encoded payload (ampersand- separated name-value pairs) that uses the following format:
	<mime:context type="application/x-www-form-urlencoded"></mime:context>
	The provider converts the parameters to an XML format with the parameter name as the element tag and its content as the value.
	• xml : Provides support for an XML payload that uses the following format:
	<mime:context type="text/xml"></mime:context>
Endpoint	Specify the endpoint URL.
	This field displays if you dragged the HTTP binding service into the External References swimlane and are configuring either an HTTP GET or POST request method.

HTTP Binding Service in Developing SOA Applications with Oracle SOA Suite

1.11 HTTP Binding Wizard - Messages Page

Use to specify the elements for the HTTP binding request schema.

Use to specify the schema file that defines the HTTP message payload.



Description
Specify the request message schema file that defines the message.
Click Browse to select an existing schema file or click the Define Schema for HTTP Binding icon to specify new elements for the HTTP binding request schema.
Displays the schema element based on your selection in the URL field (for example, PurchaseOrder). Any additional schema elements of the selected schema file also appear in this list.
Specify the response message schema file that defines the message. This section only appears if you selected Request-Response on the HTTP Binding Wizard - HTTP Binding Configuration page.
Click Browse to select an existing schema file. When browsing for a schema file for a URL-encoded request message, ensure that the selected schema has elements of simple data types. Complex types are not supported.
Displays the schema element based on your selection in the URL field (for example, PurchaseOrder). Any additional schema elements of the selected schema file also appear in this list.

HTTP Binding Service in Developing SOA Applications with Oracle SOA Suite

1.12 HTTP Binding Wizard - Message Schema Page

Use to specify the elements for the HTTP binding request schema.

Element	Description
Namespace	Displays the default namespace path. Accept this value or enter a different namespace path.
Root Element	Displays the default root element of root. Accept this value or enter a different value.
Parameters	Click a specific field to specify the elements for the HTTP binding request schema. Only elements of simple data types can be added as parameters. To add a row, click the Add icon. To delete a selected row, click the Delete icon.
Name	Accept the default name or click the field to enter a different name.
Туре	Accept the default type or click the field to display a list of data types to select (string , integer , date , and so on).
Min Occurs	Select either 1 (the default) or click the field to display a list for selecting 0.
Max Occurs	Select either 1 (the default) or click the field to display a list for selecting unbounded .
Schema File	Displays the schema file name in which to create the HTTP binding request schema contents. The name that displays is based on the service name you entered in the HTTP Binding Wizard - Service Name page.

Related Topics

HTTP Binding Service in Developing SOA Applications with Oracle SOA Suite



1.13 Create EJB Service Dialog or Update Reference or Update Service Dialog

Use to integrate Enterprise JavaBeans with SOA composite applications.

Integration is achieved through use of service data object (SDO) parameters or Java interfaces. Integration with SDO-based EJBs uses a Web Services Description Language (WSDL) file to define the interface. Integration with Java interfaces does not use a WSDL file to define the interface.

SDOs enable you to modify business data regardless of how it is physically accessed. Knowledge is not required about how to access a particular back-end data source to use SDO in a SOA composite application. Consequently, you can use static or dynamic programming styles and obtain connected and disconnected access.

EJBs are server-side domain objects that fit into a standard component-based architecture for building enterprise applications with Java. These objects become distributed, transactional, and secure components.

Oracle SOA Suite interfaces are described by the WSDL file. EJB interfaces are described by Java interfaces. Invocations between the two are made possible in Oracle SOA Suite by an EJB Java interface that corresponds to an Oracle SOA Suite WSDL interface.

Through this interface, Oracle SOA Suite provides support for the following:

- Invoking EJBs with SDO parameters through an EJB reference
- Invoking an EJB service through EJBs with SDO parameters

Integration of Enterprise JavaBeans with Oracle SOA Suite through Java interfaces eliminates the need for WSDL file definitions. This type of integration provides support for the following objects:

- Native Java objects
- Java Architecture for XML Binding (JAXB)

Element	Description
Name	Accept the default value of Servicenumber or enter a different name.
Туре	Select the direction in which you want the EJB service to operate.
	• Service: Creates an EJB service in the Exposed Services (left) swimlane that provides the outside world with an entry point to the SOA composite application. This direction is selected by default if you dropped the EJB service into the Exposed Services swimlane. More
	• Reference : Creates an EJB service in the External References (right) swimlane that enables messages to be sent from the SOA application to external partners in the outside world. This direction is selected by default if you dropped the EJB service into the External References swimlane. More
Version	Select the version of EJB to support: EJB2 or EJB3 (the default selection).
	Note: This field only displays if you dragged the EJB Service icon into the External References swimlane.
Interface	Select the interface.
JAVA	Select to create a Java interface-based Enterprise JavaBeans integration with SOA composite applications (does not use a WSDL file to define the interface).

Element	Description
WSDL	Select to create an SDO-based Enterprise JavaBeans integration with SOA composite applications (uses a WSDL file to define the interface).
JNDI Name	Enter the JNDI name. This field only displays if you selected the following:
	The JAVA radio button in the Interface section.
	• The WSDL radio button in the Interface section, and the EJB service is being created as a reference binding component in the External References swimlane.
JAR File	Click the Search icon to select the EJB JAR file. The JAR file must include the interface class and any supporting classes.
	Note : If you select a JAR file outside of the current project, Oracle JDeveloper creates a copy of the JAR file in the <code>SCA-INF/lib</code> directory of the current project. When prompted, click OK to accept.
JAVA Interface	Click the Browse icon to invoke the Class Browser dialog for selecting the fully qualified Java class name of the previously created Enterprise JavaBeans interface. This class must exist in the selected JAR file. If a JAR file is not specified, it is assumed that the class is in the /SCA-INF/classes subdirectory of the current project directory.
	If you have a new JAR file, you must add it to the project by selecting Project Properties > Libraries and Classpath > Add JAR/Directory from the Application main menu. This enables the JAR file to display in the Class Browser.
WSDL URL	Note : Ensure that have already created the annotations for the EJB interface before generating the WSDL file.
	Select the Web Services Description Language (WSDL) file to use. This field only displays if you selected the WSDL radio button in the Interface section. This file describes the capabilities of the service that provides an entry point into a SOA application or a reference point from a SOA application. The WSDL file provides a standard contract language and is central for understanding the capabilities of a service.
	Note : Do not manually update the WSDL location in your file in Source View. This action is not supported. Only updates made in Design View are supported.
Find existing WSDLs icon	Click to select an existing WSDL file.
Generate WSDL from Java Interface Class icon	Click to generate a WSDL file from a Java interface class that represents the EJB interface. If no JAR is specified, then classes in $SCA-INF/classes$ are used.
Port Type	Select the port type or use the automatically specified value. This field only displays if you selected the WSDL radio button in the Interface section.
Callback Port Type	Select the callback port type for asynchronous processes. This field only displays if you selected the WSDL radio button in the Interface section.

Integrating Enterprise JavaBeans with SOA Composite Applications in *Developing SOA* Applications with Oracle SOA Suite

1.14 Create Event Definition Dialog

Use to create a business event definition. You can publish and subscribe to business events in a service-oriented architecture (SOA) application. Business events consist of message data sent as the result of an occurrence in a business environment. For example, in a loan flow scenario, a BPEL process executing a loan process can raise a loan-completed business

event at the completion of the process. When a business event is published, other components can subscribe to it. More

When event definition creation is complete, the Events Editor appears. This editor enables you to add a business event payload to the business event. Business event definition details are saved in the *event_definition_name.edl* file.

Element	Description
Name	Enter a name or accept the default name of EventDefinitionnumber. The name you enter here becomes the EDL file name in the Applications window.
	Note : Do not enter a forward slash (/) as the event name. This creates an event definition file consisting of only an extension for a name (.edl).
Directory	Displays the directory path in which to create the event definition file.
Namespace	Displays the namespace for the business event.
	Subscriptions can be based on only the namespace.
Events	Displays the business events available for selection. The rows in the table can be sorted by clicking a header. The header has a small arrow icon that shows which column has been sorted on and the direction of the sort.
Add icon	Click to add a business event. When complete, the business event displays in the Events table.
Edit icon	Click to edit a selected business event.
Delete icon	Click to delete a selected business event.
Refresh icon	Click to refresh the display of business events.

Related Topics

Using Business Events and the Event Delivery Network in *Developing SOA Applications with Oracle SOA Suite*

1.15 Create Event Dialog

Use to add an event payload to the business event.

When complete, you can subscribe to this business event in an Oracle Mediator service component or BPEL process service component of the service-oriented architecture (SOA) composite application.

Element	Description
Name	Enter a name or accept the default name of Eventnumber.
Туре	Click the Search icon to select the event payload (typically, an XSD file).

Related Topics

Using Business Events and the Event Delivery Network in *Developing SOA Applications with Oracle SOA Suite*

1.16 Business Events Editor

The Business Events Editor enables you to define business events.



Business events consist of message data sent as the result of an occurrence in a business environment. When a business event is published, other service components can subscribe to it. The events you define are saved in the *event_definition_name.edl* file in the Applications window.

Element	Description
Events	Displays the business event name and type in the SOA composite application.
Add icon	Click to add a business event to the SOA composite application. When complete, the business event displays in the Events table.
Edit icon	Click to edit a selected business event.
Delete icon	Click to delete a selected business event.

Related Topics

Using Business Events and the Event Delivery Network in *Developing SOA Applications with Oracle SOA Suite*

1.17 Composite Sensors Dialog

Use to manage (create, update, and delete) composite sensors in a service or reference binding component or a service component that has subscribed to an event.

Composite sensors provide a method for implementing trackable fields on messages. This enables you to monitor incoming and outgoing messages during runtime.

During runtime, composite sensor data is persisted in the database. You can specify composite sensor details in the search utility of the Flow Instances page of a SOA composite application in Oracle Enterprise Manager Fusion Middleware Control. This enables you to locate a particular instance. You can also view composite sensor information in the flow trace of a SOA composite application.

Element	Description
Add icon	Click the Add icon to add a composite sensor. To enable this icon for the first time, select the appropriate service, reference, or event.
Edit icon	Click to edit a selected composite sensor.
Delete icon	Click to delete a selected composite sensor.
Composite Sensors	Expand the tree to display the existing composite sensors. If you access this dialog by right-clicking a service or reference or a service component that has subscribed to an event, only composite sensors created for that particular service or reference or service component are displayed. If you access this dialog by clicking the Composite Sensors icon above the SOA Composite Editor, all the composite sensors created for all services and references and service components in this SOA composite application are displayed.

Related Topics

Defining Composite Sensors in Developing SOA Applications with Oracle SOA Suite

1.18 Create or Edit Composite Sensor Dialog

Use to create a composite sensor for tracking in your service or reference binding component or service component that has subscribed to an event.



Note: You cannot create composite sensors for service components that have published events.

Composite sensors provide a method for implementing trackable fields on messages. This enables you to monitor incoming and outgoing messages during runtime.

Element	Description
Name	Enter a name for the composite sensor. You must enter a name to enable the Edit icon of the Expression field. The name must be unique across all sensors for a given composite application. When you enter a name already in use, a red underline appears, and the tooltip displays Duplicate name.
Service Configuration or Reference Configuration	This section provides details about the service or reference in which the composite sensor is being created. Depending on the selection of the starting point (either service or reference), this section name displays as Service Configuration or Reference Configuration , and the first field within this section is named Service or Reference .
Service	Displays the name of the service. This field only displays if you are creating a composite sensor for a service binding component. This field cannot be edited.
Reference	Displays the name of the reference. This field only displays if you are creating a composite sensor for a reference binding component. This field cannot be edited.
Operation	Select the operation for the port type of the service or reference.
Event Configuration	This section provides details about the service component in which the composite sensor is being created. You can create multiple composite sensors per event. For example, an event payload can include both an SSN and a name. However, you cannot create composite sensors based on event headers. Only composite sensors based on payloads are allowed.
Event	Displays the name of the service component. This field is only displayed if you are creating a composite sensor for a service component. This field cannot be edited.
Event Type	Displays the Subscribe event type. This field cannot be edited. The publish event type is not supported.
Expression	Click the Edit icon to invoke a dropdown list for selecting the type of expression to create. You must first enter a name in the Name field to enable the Edit icon.
	 Variables: Select to create an XPath expression value for a variable. Expression: Select to invoke the Expression Builder dialog for creating an expression. This action always captures values as strings.
	 Properties: Select to create an expression value for a normalized message header property. These are the same properties that display under the Properties tab of the invoke activity, receive activity, reply activity, and OnMessage branch of a pick or scope activity.
Filter	Click the Edit icon to invoke the Expression Builder dialog to create a filter expression. You must first create an expression in the Expression field to enable this icon.
	For example, you may create a filter for tracking purchase order amounts over 10,000.
	<pre>\$in.inDict/tns:inDict/ns2:KeyValueOfstringstring/ns2:Value > 10000.00</pre>

Element	Description
Composite Sensor Actions	Displays the supported sensor actions. This feature enables you to store runtime sensor data. You can select both Enterprise Manager and either JMS Queue or JMS Topic .
	 Enterprise Manager: (the default selection) Select to make runtime sensor data searchable in the Flow Instances tab of a SOA composite application in Oracle Enterprise Manager Fusion Middleware Control. This selection is the same as the DBSensorAction selection of previous releases. JMS Queue: Select to store composite sensor data (XML payload) in a JMS
	 JMS Topic: Select to store composite sensor data (XML payload) in a SMS topic. You must specify the JMS connection factory and queue name. JMS Topic: Select to store composite sensor data (XML payload) in a JMS topic. You must specify the JMS connection factory and topic name.
	Note : When Enterprise Manager is selected, sensor data is sent to the trackable fields tables. When it is not selected, data is not sent. However, in both cases, Oracle Enterprise Manager Fusion Middleware Control still displays the fields that enable you to search for composite instances based on that sensor.
	Note : The JMS Queue and JMS Topic selections enable the composite sensor data (XML payload) to be used by other consumers, including Oracle Business Activity Monitoring and Oracle Event Processing. Both selections use the native JMS support provided with Oracle WebLogic Server, and not the Oracle SOA Suite JMS adapter. You can view JMS messages in the Oracle WebLogic Server Administration Console.

Defining Composite Sensors in Developing SOA Applications with Oracle SOA Suite

1.19 Select XPath Expression Dialog

Use to select an element for tracking.

Element	Description
Variables	Expand the navigational tree to select an element. For example, the following selection tracks an order ID: in > payload > client:process > client:orderID .
Expression	Displays the expression as you select it in the navigational tree. For example, the expression for selecting the order ID in the Variables field displays as follows in this field: \$in.payload/client:process/client:orderID .

Related Topics

Defining Composite Sensors in Developing SOA Applications with Oracle SOA Suite

1.20 Select Property Dialog

Use to select a normalized message header property for tracking.

These are the same properties that display under the **Properties** tab of the invoke activity, receive activity, reply activity, and OnMessage branch of a pick or scope activity.

Element	Description		
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Selected Operation Displays the operation for the port type of the service or reference.



Element	Description
Select Message Type	Select the message type (for example, \$in for input variable or \$out for output variable).
Select Property From List	Select the property to track from the list.
Selected Property	Displays a combination of the selected message type and the message property.

Defining Composite Sensors in Developing SOA Applications with Oracle SOA Suite

Propagating Normalized Message Properties Through Message Headers in *Developing SOA* Applications with Oracle SOA Suite

1.21 Create Direct Binding Dialog

Use with the Direct Binding API to invoke a SOA composite application and exchange messages over a remote method invocation (RMI). This option supports the propagation of both identities and transactions across JVMs and uses the T3 optimized path. Both synchronous and asynchronous invocation patterns are supported.

Element	Description	
Name	Enter a name or accept the default name of Servicenumber. This becomes the name for this service in the SOA Composite Editor.	
Туре	Select the direction in which you want the direct binding to operate.	
	• Service: Creates an inbound direct binding in the Exposed Services (left) swimlane that provides the Direct Binding API with an entry point to the SOA composite application. This direction is selected by default if you dropped the direct binding service into the Exposed Services swimlane. More	
	• Reference : Creates an outbound direct binding in the External References (right) swimlane that provides the Direct Binding API with an output point from the SOA composite application.	
Reference Target	Select the reference target where you want the direct binding to operate:	
	• Oracle SOA Composite : Creates a direct binding with Oracle SOA Composite as a reference target.	
	• Oracle Service Bus : Creates a direct binding with Oracle Service Bus as a reference target.	
WSDL URL	Select the Web Services Description Language (WSDL) file to use with this web service. This file describes the capabilities of the service that provides an entry point into a SOA composite application. A service is defined by a port type and optionally a callback port type. The WSDL file can define more capabilities (port types) of the target web service, but a service only uses the one defined by the port type. The WSDL can be abstract or concrete.	
	Note : Do not manually update the WSDL location in your file in Source View. This action is not supported. Only updates made in Design View are supported.	
Find existing WSDLs icon	Click to select an existing WSDL file.	
Generate WSDL from schemas icon	Click to create a WSDL file from a schema. This field is displayed if Service is selected from the Type menu.	
Port Type	Select the port type or use the automatically specified value.	
Callback Port Type	Select the callback port type for asynchronous processes.	

Element	Description
Reference Binding Details	The following reference binding details get populated automatically.
	• Address: The Address field is automatically populated when the WSDL is concrete and it has at least one binding that is direct.
	• Provider URL : The Provider URL field is automatically populated when the WSDL is concrete and it has at least one binding that is direct.
Use local JNDI Provider	Select to use the local JNDI provider.
copy wsdl and its dependent artifacts into the project	Select this checkbox to copy a remote WSDL and its dependent artifacts into the project.
	Note : Oracle recommends that you select this checkbox only for situations such as offline designing. This is because maintaining a copy of a remote WSDL may result in synchronization issues if the remote WSDL is updated.

What Happens When You Create a SOA Application and Project in *Developing SOA Applications with Oracle SOA Suite*

Using Direct Binding to Invoke Composite Services in *Developing SOA Applications with Oracle SOA Suite*

1.22 Enable Reference Configuration Settings Screen

Beginning with Release 12c (12.2.1.4), you can create either a Reference Configuration domain or a Classic domain on the Templates screen in the Configuration Wizard during installation. A Reference Configuration domain guards servers from running into out-of-memory, stuck threads, endpoint connectivity, and database issues. A Reference Configuration domain supports SOA, OSB, SOA + OSB, and B2B topologies.

Select **Enable Reference Configuration settings in adapters** to open the Adapter Configuration Wizard, which displays the JCA Endpoint Properties screen for the adapter with preloaded recommended property values. You can modify these properties directly in the Adapter Configuration Wizard for projects newly created in Release 12*c* (12.2.1.4).

Related Topics

Selecting the Configuration Template in Installing and Configuring Oracle SOA Suite and Business Process Management or Installing and Configuring Oracle Service Bus

Configuring a Reference Configuration Domain in Administering Oracle SOA Suite and Oracle Business Process Management Suite or Administering Oracle Service Bus.

Developing Projects in Reference Configuration ModeDeveloping SOA Applications with Oracle SOA Suite or Developing Services with Oracle Service Bus.

JCA Endpoint Properties in the Adapter Configuration Wizard in Understanding Technology Adapters

1.23 Create Application Wizard - Configure SOA Settings Page

Use to select the service component to include in the creation of the service-oriented architecture (SOA) project of the composite application. Additional service components can be added after creation.



A SOA project can consist of multiple BPEL process, human task, business rule, spring context, and Oracle Mediator service components, and subprocesses. These components are integrated together into an application and communicate with the outside world through binding components such as simple object access protocol (SOAP) web services, HTTP binding, direct binding, REST binding, Oracle Application Development Framework (ADF) Business Components, Java EE Connector Architecture (JCA) adapters, Oracle B2B, and Enterprise JavaBeans (EJBs).

You can also create a SOA composite application from a template. A template is a reusable part of a SOA project for bootstrapping new projects.

After creation, the SOA Composite Editor appears. The composite.xml file is displayed in the editor. This file describes details about the SOA application that you design. You drag service components and binding components (such as web services and adapters) into the SOA Composite Editor from the Components window. More

Element	Description
Composite Name	Enter the SOA composite name, which defaults to the SOA project name. The project consists of services, references, and service components, the details of which are described in the composite.xml file.
Standard Composite	Select the type of template for the SOA project. You then design your SOA composite application in further detail by adding additional components and adapters. This is the default selection.
Empty Composite	Creates an empty SOA composite application. This type is selected by default.
Composite With Human Task	Automatically opens the Create Human Task dialog to guide you through creation of an initial human task service component. A human task component enables you to model a workflow that describes the tasks for users or groups to perform as part of an end-to-end business process flow. The tasks are accessed through Oracle BPM Worklist during process runtime.
Composite With BPEL Process	Automatically opens the Create BPEL Process dialog to guide you through creation of an initial BPEL process. A BPEL process enables you to design a business process that integrates a series of business activities and services into an end-to-end process flow.
Composite With Subprocess	Automatically creates a SOA composite application with a subprocess. A subprocess is a fragment of BPEL code that can be reused within a particular processor by separate processes.
Composite With Spring Context	Automatically opens the Create Spring dialog to guide you through creation of a spring context service component. A spring context service component enables you to integrate components that use Java interfaces instead of WSDL files into SOA composite applications. You can also integrate components that use Java interfaces with components that use WSDL files in the same SOA composite application.
Composite With Business Rule	Automatically opens the Create Business Rules dialog to guide you through creation of an initial business rule service component. A business rule enables you to design a business decision based on rules.
Composite With Mediator	Automatically opens the Create Mediator dialog to guide you through creation of an initial Oracle Mediator service component. Oracle Mediator enables you to route events (messages) between different components.
SOA Template	Select to display the list of available custom SOA templates.
	A template is a reusable part of a SOA project that you can use to bootstrap new projects. A template can contain a SOA composite application, a service component, and part of a BPEL process and related additional resources, such as XML schemas or WSDLs. More

Element	Description
Customizable	Select this checkbox to create a composite that you want to make customizable by others. For example, you create a base composite and deliver it to another applications team that imports it into a SOA project and customizes it for a certain industry (for example, telecommunications). The tailored solution is then sold to a telecommunications customer that further customizes the composite for their specific geographic business needs. Essentially, there is a base composite and several layers of customized composites. At a later time in the composite life cycle, you may deliver the next version of the base composite, which triggers an upgrade cycle for the other applications team and the customer.
	Note : To use this feature, ensure that you start Oracle JDeveloper in the Default Role mode.

What Happens When You Create a SOA Application and Project in *Developing SOA Applications with Oracle SOA Suite*

Oracle SOA Suite Templates and Reusable Subprocesses in *Developing SOA Applications* with Oracle SOA Suite

Customizing SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

1.24 Composite Configuration Plan Generator Dialog

Use to generate a configuration plan.

A configuration plan enables you to define the URLs and property values to use for development, test, and production environments. During application deployment, the configuration plan is used to search for files in the SOA composite application JAR or ZIP file and replace them with files that include the URLs and property values appropriate to the next environment. This prevents you from having to manually change these values when moving between different environments.

Element	Description
Specify the file name (.xml) for the configuration plan	Enter a specific name or accept the default name for the configuration plan. The plan is generated in the directory of the SOA project and packaged with the SOA composite application JAR or ZIP file if you select to include it in the Deploy Composite Wizard - Deploy Configuration page.
	Note : During deployment, you can specify a different configuration plan to use when prompted in the Deploy Composite Wizard - Deploy Configuration page.
Overwrite existing file	Click to overwrite an existing configuration plan file with a new plan of the same name in the project directory.

Related Topics

Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA* Suite

1.25 Composite Configuration Plan Validator Dialog

Use to select the configuration plan to validate.



Element	Description
Select the SOA composite configuration plan from the list	Select the configuration plan to validate. This list is empty if you have not yet generated a plan in the Composite Configuration Plan Generator dialog.
A validation report will be generated in the following file	Displays the directory in which a report describing validation results is created. The report lists all search and replacement commands to perform during SOA composite application deployment.

Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

1.26 Create ADF-BC Service Dialog or Update Reference or Update Service Dialog

Use to create an Oracle Application Development Framework (ADF) Business Component for message delivery.

The Oracle ADF Business Component service is used for connecting Oracle ADF applications using service data object (SDO) data formats with the SOA composite application. SDOs simplify the representation of associated data in SOA composite applications.

Element	Description
Name	Enter a name or accept the default name of Servicenumber. This becomes the name for this service in the SOA Composite Editor.
Туре	Select the direction in which you want the SDO service to operate.
	• Service: Creates an inbound SDO service in the Exposed Services (left) swimlane that provides the outside world with an entry point to the SOA application. This direction is selected by default if you dropped the SDO service into the Exposed Services swimlane. More
	• Reference : Creates an outbound SDO service in the External References (right) swimlane that enables messages to be sent from the SOA application to external partners in the outside world. This direction is selected by default if you dropped the SDO service into the External References swimlane. More
WSDL URL	Select the Web Services Description Language (WSDL) file to use with this SDO service. This file describes the capabilities of the service that provides an entry point into a SOA application or a reference point from a SOA application. The WSDL file provides a standard contract language and is central for understanding the capabilities of a service.
	Note : Do not manually update the WSDL location in your file in Source View. This action is not supported. Only updates made in Design View are supported.
Find existing WSDLs icon	Click to select an existing WSDL file.
Generate WSDL from schemas icon	Click to create a WSDL file from a schema.
Port Type	Select the port type or use the automatically specified value.
Callback Port Type	Select the callback port type for asynchronous processes.


Element	Description
Registry	Enter the ADF-BC application name appended with _JBOServiceRegistry. For example, if the ADF BC application to invoke is named hrApp, then enter hrApp_JBOServiceRegistry.
	The application name to enter is displayed in the Application name field of the Edit EAR Deployment Profile Properties dialog in Oracle JDeveloper. This dialog can be accessed from the Application menu of the application by selecting Application Properties > Deployment > Edit .
	This field is used only when an Oracle ADF Business Component is being called. For this reason, this field only appears if you select Reference in the Type list.
	Before you can deploy an ADF Business Components service and invoke the service from a BPEL process in a SOA composite application, the ADF Business Components service has to be registered in the composite:
	1. Edit the weblogic-application.xml file to configure the WebLogic application deployment listener to invoke the ServiceRegistry logic.
	2. In the Registry field, use <i>applicationName_JBOServiceRegistry</i> as the registry name (as described above).
copy wsdl and its dependent artifacts into the project	Select this checkbox to copy a remote WSDL and its dependent artifacts into the project.
	Note : Oracle recommends that you select this checkbox only for situations such as offline designing. This is because maintaining a copy of a remote WSDL may result in synchronization issues if the remote WSDL is updated.

What Happens When You Create a SOA Application and Project in *Developing SOA Applications with Oracle SOA Suite*

1.27 Project and Server Configuration Settings Mismatch Dialog

This dialog notifies you of a mismatch between the SOA or Service Bus project mode and the server domain.

If the server is in a Classic domain, contact your server administrator to move the server into a Reference Configuration domain. Similarly, if the server is in a Reference Configuration domain, enable the Reference Configuration settings for your project in JDeveloper:

- From the File menu, select Tools, then Preferences
- Select Reference Configuration Settings, then Enable Reference Configuration settings in adapters.

You can click **OK** and deploy the project even when there is a configuration mismatch. Deployment will proceed as normal and any Reference Configuration properties set in adapters will be ignored by the domain.

Note:

The integrated WebLogic server in JDeveloper does not support a Reference Configuration domain. Any Oracle JCA Adapter application that is developed using a Reference Configuration domain cannot be deployed in the integrated WebLogic server in JDeveloper.



Selecting the Configuration Template in Installing and Configuring Oracle SOA Suite and Business Process Management or Installing and Configuring Oracle Service Bus

Configuring a Reference Configuration Domain in Administering Oracle SOA Suite and Oracle Business Process Management Suite or Developing Services with Oracle Service Bus.

Developing SOA Composite Applications in Reference Configuration Mode in *Developing SOA Applications with Oracle SOA Suite*

Developing Service Bus Applications in Reference Configuration Mode in *Developing Services* with Oracle Service Bus.

JCA Endpoint Properties in the Adapter Configuration Wizard in Understanding Technology Adapters

1.28 Deploy Composite Wizard - Deployment Action Page

Use to select a deployment action to perform.

Element	Description
Select a deployment action from the list below	Select one of the following options. A description for the selected option displays at the bottom of the dialog.
Deploy to Application Server	Deploys the project to an application server configured with the SOA Infrastructure. A subsequent page of this wizard enables you to create this connection.
Generate SAR File	Deploys the project to a SOA archive (SAR) file. A SAR file is a special JAR file that requires a prefix of sca_ (for example, sca_OrderBookingComposite_rev1.0.jar). This creates a JAR file of the project artifacts, but does not deploy the project to an application server.

Related Topics

Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA* Suite

1.29 Deploy Composite Wizard - Deploy Configuration Page

Use to deploy SOA composite applications to the server.

This page shows one or more tabs, each representing one composite. If the deployment profile is a SAR profile, it shows only one tab for the current composite. If the deployment profile is a SOA bundle profile, it shows one or more tabs for each SAR profile included in the SOA bundle.

Element	Description
Composite Revision ID	Displays details about the revision ID of the SOA composite application.
Project	Displays the SOA project name. This field cannot be edited.
Current Revision ID	Displays the current revision ID of the SOA composite application. This field cannot be edited.



Element	Description
New Revision ID	Displays the current revision ID value by default. Use this field to specify a new value or continue to use the current value. This revision ID becomes the value for the \${composite.revision_id} variable in the application name. For example, if you enter 2.0 as the new revision ID for a composite named OrderBooking, \$ {composite.revision_id} is replaced with _rev2.0 (sca_OrderBooking_rev2.0.jar).
SOA Configuration	Expand to display a list of available configuration plans.
Plan	A configuration plan enables you to define the URLs and property values to use for development, test, and production environments. During process deployment, the configuration plan is used to search the SOA project for values that must be replaced to adapt the project to the next target environment.
Do not attach	Select if you do not want to attach a configuration plan to the application. This is the default selection.
Configuration_Plan .xml	Select the specific plan. A configuration plan must already exist in the SOA project for this selection to be available.
BPEL Monitor	Expand to specify whether to ignore or display BPEL Monitor deployment errors.
Ignore BPEL Monitor deployment errors	Deselect this checkbox to display BPEL Monitor deployment errors. This checkbox corresponds to the ignoreErrors property in the monitor.config BPEL project file. This file defines runtime and deployment properties needed to connect with Oracle BAM Server to create the Oracle BAM data objects and dashboards. If Oracle BAM Server is unreachable, and ignoreErrors is set to true, deployment of the composite does not stop. If set to false and Oracle BAM Server is unavailable, deployment fails.
	Note : This checkbox only appears if there is at least one .monitor file in the application.
Mark composite revision as default	Select to make this the default revision of the SOA composite application. This revision is instantiated when a new request comes in. This checkbox only displays if a current revision already exists for this composite and you selected Deploy to Application Server on the Deployment Action page.
Overwrite any existing	Select to overwrite any existing composites with the same revision ID. The consequences of this action are as follows:
composites with the same revision	• A new revision of the currently deployed SOA composite application is redeployed (for example, old version 1.0 is redeployed as new version 1.0).
D	 The older, currently-deployed version of this revision is removed (overwritten). If the older, currently-deployed version of this revision has running instances, the state of those instances is changed to aborted
	This checkbox only displays if a current revision already exists for this composite and you selected Deploy to Application Server on the Deployment Action page.
Keep running instances on redeploy	Select to enable existing instances of the overwritten revision to continue running instead of being aborted. These instances run side by side with any new instances that you create with the new revision of the SOA composite application.
Force deployment of incompatible processes	If Keep running instances on redeploy is checked, this option is displayed. Select this checkbox to force deployment of incompatible BPM processes. When a composite with BPM processes is overwritten, the system checks to see if the BPM processes being overwritten are compatible with the processes being deployed. If they are compatible, running instances of these processes are not marked as stale and deployment is successful. If they are incompatible, deployment fails unless you select this checkbox.
Use the following	Click Browse to select the same configuration plan to use for all applications.
SOA configuration plan for all composites	If you specify a configuration plan, it ignores all configuration plans listed in the composite tabs and uses this plan for all composites.



Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

1.30 Deploy Composite Wizard - Select Server Page

Use to select a server to which to deploy the SOA composite application.

Element	Description
Application Servers	Select the individual target server. The server can be an administration server, managed server, or cluster on which Oracle SOA Suite is configured. You cannot select to deploy to an individual server in a cluster; you must select to deploy to the cluster that includes all the servers.
Add icon	Click to create an application server connection.
Overwrite modules of the same name	Select to overwrite (or redeploy) the module if it already exists on the server.

Related Topics

Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA* Suite

1.31 Deploy Composite Wizard - SOA Servers Page

Use to select the target SOA servers and partition in which you want to deploy the archive.

If there are multiple servers or cluster nodes, select to deploy to one or more servers or nodes.

Select the partition in which to deploy this archive. If the server contains no partitions, you cannot deploy this archive. Also, if the server is not in a running state (as displayed in the **Status** column), you cannot deploy this archive. By default, a partition named default is automatically included with Oracle SOA Suite.

If an error occurred when attempting to connect to the selected application server, an error message is displayed. Click the **Details** button for information.

Element	Description
SOA Server	Select the target SOA server in which you want to deploy the archive.
Partition	Select the target partition in which you want to deploy the archive.
Status	Displays the status of the server (for example, running).
Server URL	Displays the URL of the server.

Related Topics

Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

1.32 Deploy Composite Wizard - Shared Metadata Page

Use to select entire folders or individual files to deploy as shared data.



This page is only displayed if the wizard detects that your project profile includes shared data. If you select shared data, when the Deploy Composite wizard completes, a ZIP file is created and deployed that consists of two JAR files:

- SOA composite application JAR file
- Shared data JAR file

If you do not select any folders or files, shared data is not deployed in the project profile.

Element	Description
Select documents to export	Select the folders or individual files to deploy as shared data.

Related Topics

Managing Data with the SOA Design-Time MDS Repository in *Developing SOA Applications* with Oracle SOA Suite

1.33 Deploy Composite Wizard - Summary Page

Use to view details about your selections, including the directory path to the JAR file.

This page also displays a task flow application deployment summary if task flows were selected to deploy with this SOA application.

Element	Description
Deployment Summary	View details about your selections, including the directory path to the JAR file.

Related Topics

Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

1.34 Deploy Composite Wizard - Task Flow Deployment Page

Use to create or configure an Enterprise Resource Archive (EAR) file for task flow forms of human tasks included in the SOA composite application. The EAR file consists of the Web Resource Archive (WAR) profile selected in the **Deployable Task Flow Projects** table of this page. This table groups task flow project WAR profiles for the respective human tasks based on the SOA composite application to which they belong.

This page is only displayed if task flow projects are defined for the human task in the SOA composite application that is being deployed.

Element	Description
Application Name	Select the EAR file to include in the deployment. This list displays all available EAR profiles in the current Oracle JDeveloper application. These EAR profiles are used as a template to create a new EAR profile to deploy based on the WAR profiles selected in the Deployable Task Flow Projects table. You can also enter any EAR profile name to deploy.



Element	Description
Deploy to a specific composite revision & partition	Select to append the revision number of the composite to the EAR file name. If selected, this check box includes the composite revision in the EAR name, WAR profile, and context root. This enables you to deploy an application specific to a composite revision.
Add generated profiles to application	Select to add the generated EAR profile to the current SOA composite application's EAR deployment profile list. The application may have to be saved to persist the generated EAR profile. Once the deployment profile is available, you can deploy the EAR profile by selecting Application > Deploy . This enables you to avoid using the SOA deployment wizard, if only task flow application deployment is necessary
Overwrite Existing Application	Select to overwrite the existing version of the EAR file on the server.
Deployable Task Flow Projects	Select the task flow project WAR profiles to include in the EAR file. The task flow project WAR profiles are grouped as per the composites that include the human task related to the task flow project. The context root of the WAR changes if the Append composite revision to name check box is selected.
	Note: If you do not select a WAR profile, no task flows are deployed.
Projects	Select from the list of deployable task flow projects or select the Projects checkbox to choose all available task flows. The task flows that display are based on the composites included in the SOA project or bundle selected for deployment.
WAR Profiles	Select the task flow project WAR files. Only the most recently created or modified task flow of the human task is available for selection.
App Context Root	Displays the application context root directory based on your selection for the WAR profile.

Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

1.35 Deployment Dialog

Use to overwrite any existing SOA composite application that has the same revision ID. If a SOA composite application with the same revision ID exists on the server, then deployment fails.

Element	Description
Overwrite any existing composites with the same revision ID	Select to overwrite any existing SOA composite application that has the same revision ID.

Related Topics

Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA* Suite

1.36 UDDI Deployment Options

Use to dynamically resolve the SOAP endpoint location or WSDL location at runtime.

Note: To dynamically resolve a location, you must first create a UDDI connection. To create a connection, select **File** > **New** > **Application** > **Connections** > **UDDI Registry Connection**.

Element	Description
Dynamically resolve the SOAP endpoint location at runtime	Select to enable an administrator to change the service's SOAP endpoint location used at runtime in the Oracle Service Registry Administration Console. An oracle.soa.uddi.serviceKey WS binding property is added to the composite reference.
Dynamically resolve the concrete WSDL location at runtime	Select to enable an administrator to change the service's WSDL endpoint location used in the design time and runtime environments in the Oracle Service Registry Administration Console. A URL of orauddi:/uddi_service_key instead of a URL (such as a HTTP URL) is used in the WSDL location fields of the composite reference.

Related Topics

Publishing and Browsing the Oracle Service Registry in *Developing SOA Applications with Oracle SOA Suite*

1.37 Import SOA Composite Wizard - Create Project Page

Use to create a SOA project from an existing SOA archive.

This enables you to use existing SOA archives as templates for new projects. For example, assume you first design and deploy a large and complicated project in a SOA composite application. You then need to design a second project that is very similar, but not quite the same, as the previous project. Instead of designing the second project completely from scratch, you can create a project from an existing SOA archive. This creates the same project as the first one in the Applications window. You can then modify the second project, as necessary.

This page is displayed if you select an application from the **Application** dropdown list, and then select **File** > **Import** > **SOA Archive Into SOA Project**. If you select an existing project into which to import a composite archive in the Applications window, then select **File** > **Import** > **SOA Archive Into SOA Project**, only the second page of this wizard (the Import Composite Archive page) is displayed.

Element	Description
Project Name	Enter a name or accept the default name of Projectnumber. The project name must be unique across SOA composite applications. This is because the uniqueness of a composite is determined by its project name. For example, do not perform the following actions:
	• Create an application named Application1 with a SOA project named Project1.
	• Create an application named Application2 with a SOA project named Project1.
	During deployment, the second deployed project (composite) overwrites the first deployed project (composite).
Directory Name	Displays the directory path to the SOA composite.

Related Topics

Managing Service and Reference Binding Components in Administering Oracle SOA Suite and Oracle Business Process Management Suite



1.38 Import SOA Composite Wizard - Import Composite Archive

Element	Description
Composite Archive	Click Browse to select the archive JAR file of the SOA composite.
Composite Name	Displays the SOA composite name.
Import For Customization	Select this checkbox to import a composite that you want to customize for your business needs. For example, a core applications development team builds a base composite. You then import this composite and customize it for a certain industry (for example, telecommunications). The tailored solution is then sold to a customer that further customizes the process for their specific geographic business needs. Essentially, there is a base composite and several layers of customized composites. At a later time in the process life cycle, the core applications development team delivers the next version of the base composite, which triggers an upgrade cycle for your applications team and the customer.
	Note : To import a composite, ensure that you start Oracle JDeveloper in the Default Role mode.

Use to select the archive JAR file of the SOA composite to import.

Related Topics

Customizing SOA Composite Applications in *Developing SOA Applications with Oracle SOA* Suite

1.39 SOA Bundle Deployment Profiles Properties Dialog -Dependencies Tab

Use to select the JAR file and SOA-SAR profiles for the SOA bundle.

A SAR is a SOA archive file.

Element	Description
Java EE Modules	Use to select the JAR file and SOA-SAR profiles.

Related Topics

Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

1.40 SOA Bundle Deployment Profiles Properties Dialog -General Tab

Use to view the path to the ZIP file of the SOA bundle to deploy.

Element	Description
ZIP File	Displays the path to the ZIP file of the SOA bundle to deploy.



Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

1.41 Project Source Paths: SOA Content Dialog and Customize SOA Content Settings Dialog

Use to change the SOA project directory.

Changing the SOA project directory does not cause project files to be saved in a different directory. All project files are still saved in the original directory location. The change occurs with how SOA project files display in the Applications window.

Element	Description
Use Custom Settings	Select to change the SOA project directory. If you select this option and click Customize Settings to change this directory in the Customize SOA Content Settings dialog, the current project files are no longer visible in the Applications window for the current session of Oracle JDeveloper. When you exit Oracle JDeveloper, the settings revert and the project files display again in the Applications window.
Customize Settings	Click to change the directory path location for SOA project files.
Use Project Settings	Select to use the default SOA project directory in which to save files. This is the default selection.
SOA Directory Name	Displays the current directory path for the SOA project. If you click Browse to change this directory, the current project files are no longer visible in the Applications window.

Related Topics

Getting Started with Developing SOA Composite Applications in *Developing SOA Applications* with Oracle SOA Suite

1.42 Preferences Dialog - SOA Page

Use to disable expression validation in the XPath expression builder and to add user-defined XPath functions.

By default, XPath expressions are validated as you create them with the XPath Building Assistant. You can disable validation to improve performance during XPath expression creation. Once expression validation is disabled, no underlines display to indicate possible errors or warnings for the XPath expression.

You can also add user-defined XPath extension functions for the following:

- XSLT Mapper
- Oracle Mediator
- Oracle BPEL Process Manager
- Human workflow
- Common functions used by all components



Element	Description
Test Server Host	Specify the test server to use for debugging SOA composite applications or automating testing of SOA composite applications in Oracle JDeveloper.
Ask test server every time	Select if you want to be prompted for the test server every time you start to debug or test SOA composite applications in Oracle JDeveloper.
Test Timeout (seconds)	Specify the time in seconds for connecting to the server before timing out.
Validate Expression	Deselect this checkbox to disable XPath validation.
User Defined Function JAR Files (Need restart)	Select to add or remove a JAR file. The JAR file contains the XML extension function configuration file (with the user-defined XPath functions) and the compiled classes. Within the JAR file, the configuration file must be located in the META-INF directory. You must restart Oracle JDeveloper for these changes to take effect.
Add	Click to select the JAR file.
Remove	Click to remove a selected JAR file.

XPath Extension Functions in Developing SOA Applications with Oracle SOA Suite

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Debugging and Auditing SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

1.43 Create Spring Dialog

Use to create a spring service component in a SOA composite application.

This enables you to integrate components that use Java interfaces instead of WSDL files into SOA composite applications. You can also integrate components that use Java interfaces with components that use WSDL files in the same SOA composite application. For example, you can wire (connect) the following components:

- An Enterprise JavaBeans service or spring service component to a component that does not support Java interfaces such as Oracle Mediator or Oracle BPEL Process Manager.
- A component that uses WSDL files such as Oracle Mediator or Oracle BPEL Process Manager to a component that does not support WSDL files, such as a spring service component.

Oracle SOA Suite uses the spring framework functionality provided by the WebLogic Service Component Architecture (SCA) of Oracle WebLogic Server.

Element	Description
Name	Enter a spring context name or accept the default name of Springnumber. This name is also automatically added to the Create New Context field.
Create New Context	Displays the name you entered in the Name field.
Context Directory	Displays the directory in which to create the spring context file. When complete, a Spring folder is displayed in the Applications window.



Element	Description
Use Existing Context	Click the Browse icon to select an existing spring context file. For example, you may want to import a spring context that was created in Oracle JDeveloper, but outside of Oracle SOA Suite.

Integrating the Spring Framework in SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Integrating Enterprise JavaBeans with SOA Composite Applications in *Developing SOA* Applications with Oracle SOA Suite

1.44 Update Interface Dialog

Use to view all schemas used by the interface's Web Services Description Language (WSDL) file and to choose a new message schema for a selected message part.

Note the following details:

- Several operations (or an input and an output) can use the same WSDL message. In this case, the same message is seen in multiple rows of the table in this dialog. If you update the schema in one row, the change also appears in the other rows.
- Since multiple interfaces can be defined by the same WSDL, the modification to one interaction (WSDL) also modifies the other interfaces.
- When an interface is wired to another interface, changing one interface does not necessarily change the other interface. If they both use the same WSDL (which is common), then updating one interface automatically updates the other WSDL. However, if the wired interfaces use different but compatible WSDLs, then updating one interface does not update the other interface. This may result in a wire between incompatible interfaces. You must then fix the interface on the other side of the wire.
- When the schema used by an interface is changed, it may invalidate previously configured features within a component that depends on the schema. For example, a transformation step in a BPEL process or Oracle Mediator service component may be invalid because it is using a transformation map created for the old schema.

Element	Description
Component	Displays the service component name. This field does not appear if a service or reference is selected.
Service	Displays the service of this interface (for example, client).
WSDL URL	Displays the current WSDL of this interface
Port Type	Displays details about the port type of the interface.
	Use one of the following methods to select the message schema to update:
	Double-click the message schema row.
	 Select a row and click the Update icon in the upper right corner above the table



Element	Description
Callback Port Type	Displays details about the callback port type of the interface. If the interface does not include a callback, this table does not appear.
	Use one of the following methods to select the message schema to update:
	 Double-click the message schema row. Select a row and click the Update icon in the upper right corner above the table.
Show Details	Click to display the complete message, QName, and schema location paths.
Create Composite Service with SOAP bindings	Displays if the interface belongs to a component's service. This checkbox is similar in functionality to the option on the service component creation dialogs (such as on the Create BPEL Process dialog). If you select it and click OK , a service and wire are automatically generated. If it is already checked (that is, the service already exists) and you deselect it and click OK , the service and wire are deleted.

What Happens When You Create a SOA Application and Project in *Developing SOA* Applications with Oracle SOA Suite

1.45 Create SOA Composite Dialog

Use to create a service-oriented architecture (SOA) composite application for your SOA project.

After creation, the SOA Composite Editor appears and the composite.xml file name displays above the designer. This file contains details about the SOA application that you design. You drag service components and binding components (such as web services and adapters) into the SOA Composite Editor from the Components window. More

A SOA project can consist of multiple BPEL processes, human tasks, business rules, spring contexts, and Oracle Mediators. These components are integrated together into one application and communicate with the outside world through service and reference binding components such as simple object access protocol (SOAP) web services, service data object (SDO) services, Java EE Connector Architecture (JCA) adapters, and Oracle B2B.

Element	Description
Composite Name	Enter the SOA composite name, which defaults to the SOA project name. The project consists of services, references, and service components, the details of which are described in the composite.xml file.
Standard Composite	Select the type of template for the SOA project. You then design your SOA composite application in further detail by adding additional components and adapters.
Empty Composite	Creates an empty SOA composite application. This type is selected by default.
Composite With Human Task	Automatically opens the Create Human Task dialog to guide you through creation of an initial human task service component. A human task component enables you to model a workflow that describes the tasks for users or groups to perform as part of an end-to-end business process flow. The tasks are accessed through Oracle BPM Worklist during process runtime.
Composite With BPEL Process	Automatically opens the Create BPEL Process dialog to guide you through creation of an initial BPEL process. A BPEL process enables you to design a business process that integrates a series of business activities and services into an end-to-end process flow.

Element	Description
Composite With Subprocess	Automatically creates a SOA composite application with a subprocess. A subprocess is a fragment of BPEL code that can be reused within a particular processor by separate processes.
Composite With Spring Context	Automatically opens the Create Spring dialog to guide you through creation of a spring context service component. A spring context service component enables you to integrate components that use Java interfaces instead of WSDL files into SOA composite applications. You can also integrate components that use Java interfaces with components that use WSDL files in the same SOA composite application.
Composite With Business Rule	Automatically opens the Create Business Rules dialog to guide you through creation of an initial business rule service component. A business rule enables you to design a business decision based on rules.
Composite With Mediator	Automatically opens the Create Mediator dialog to guide you through creation of an initial Oracle Mediator service component. Oracle Mediator enables you to route events (messages) between different components.
SOA Template	Select to display the list of available custom SOA templates.
	A template is a reusable part of a SOA project that you can use to bootstrap new projects. A template can contain a SOA composite application, a service component, and part of a BPEL process and related additional resources, such as XML schemas or WSDLs. More
Customizable	Select this checkbox to create a composite that you want to make customizable by others. For example, you create a base composite and deliver it to another applications team that imports it into a SOA project and customizes it for a certain industry (for example, telecommunications). The tailored solution is then sold to a telecommunications customer that further customizes the composite for their specific geographic business needs. Essentially, there is a base composite life cycle, you may deliver the next version of the base composite, which triggers an upgrade cycle for the other applications team and the customer.

What Happens When You Create a SOA Application and Project in *Developing SOA Applications with Oracle SOA Suite*

Customizing SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Using the BPEL Process Service Component in *Developing SOA Applications with Oracle SOA Suite*

Using the Oracle Mediator Service Component in *Developing SOA Applications with Oracle SOA Suite*

Using the Business Rules Service Component in *Developing SOA Applications with Oracle SOA Suite*

Using the Human Workflow Service Component in *Developing SOA Applications with Oracle SOA Suite*

Integrating the Spring Framework in SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*



1.46 SOA Resource Browser Dialog

Use to choose the type of resource required for the service or component you selected (for example, a Web Services Description Language (WSDL) file for a simple object access protocol (SOAP) web service, an event definition file for an Oracle Mediator service component, a dictionary for a business rule component, and so on).

Select the method for choosing the resource from the list at the top.

Element	Description
File System	Enables you to select the required resource from the file system. This option is selected by default.
Resource Palette	Enables you to select the required resource from the applications and service- oriented architecture (SOA) projects already saved in the metadata service (MDS) repository. Application server and SOA-MDS connections display in the Resource Palette. MDS stores descriptions of available resources. You can create connections to both file-based and database-based MDS repositories and then browse for and select resources. When you select a resource from a file-based MDS repository, the appropriate wiring configuration is automatically performed.
	SOA composite applications, Enterprise Repository, and Universal Description, Discovery, and Integration (UDDI) registry business services also display as resources for selection. This enables you to invoke other SOA composite applications from your current application. Expand and select the service asset from the Oracle Enterprise Repository or UDDI Registry IDE connections to integrate it as an external reference in the SOA composite application.
	Business services are only available for selection as external references (the right swimlane), and not as exposed services. You must first create a connection with the Create UDDI Registry Connection wizard to browse for and select business services.
Application	Enables you to select the resources of other applications.

Related Topics

How to Define the Interface (WSDL) for a Web Service in *Developing SOA Applications with Oracle SOA Suite*

1.47 Localize Files Dialog

Use to copy the following types of files:

The artifact file and any dependent artifact files that it imports into the current project. This dialog appears when you select an artifact file (for example, an EDL, XSD, WSDL, or XSL file) from the local file system that is not under the current project directory. For example, this dialog appears if you create a BPEL service component using the **Base on a WSDL** option and use the WSDL Chooser dialog to select a WSDL from a different project.

If you click **Cancel** in this dialog, the artifact files are not copied and the URL of the original artifact is returned to the client dialog or editor. Most clients continue to use this URL. This is because it is valid for the design time environment to reference this URL even though the artifact is not deployed and cannot be used at runtime.

• The remote WSDL and its dependent artifacts into the project. This dialog appears when you select the **copy wsdl and its dependent artifacts into the project** checkbox on the Create Web Service dialog, Create Direct Binding Service dialog, or Create ADF BC



Service dialog, and select WSDLs with an oramds URL in the WSDL Chooser dialog, or manually enter a remote (HTTP) URL.

If you click **Cancel** in this dialog, the copy of the WSDL file is cancelled, but the external reference is still created with the original URL.

Element	Description
Copy Options	This section provides the following copy options.
Maintain original directory structure for imported files	Select this checkbox to leave the imported files unchanged and to recreate the relative directory structure to the imported artifact files. For example, imported and included files that have URIs relative to the copied file are placed in the original directory structure when copied. If you do not select this checkbox, the files are copied to the standard SOA directories (for example, .xsd for XSD files, .xsl for XSL files, and the project directory for WSDL and EDL files). The imported files are automatically modified to reflect this change. This checkbox is selected by default. This option is the default for this dialog when the copy wsdl and its dependent
	artifacts into the project checkbox is selected on the Create Web Service dialog.
Rename duplicate files	Select this checkbox to rename duplicate files. For example, if you select this option and the artifact files already exist in the current project, the copied artifact files are renamed with _1 on the end (for example, $Mediator1_1.wsdl$) and the imported files are automatically updated. Otherwise, the copied file overlays the existing file. This checkbox is selected by default.
Localize external references	Select this option to localize external references. This checkbox only displays if an artifact file has an import that references a remote artifact. Imported and included files that have absolute URIs are also localized. This checkbox is selected by default.
The following files will be created in directory path	Displays all files to be copied. If a WSDL or XSD is highly nested (for example, it imports many other WSDL or XSD files), many files can display in this window.

Related Topics

Getting Started with Developing SOA Composite Applications in *Developing SOA Applications* with Oracle SOA Suite

1.48 Create Property Dialog

Use to create a property name and value for the binding component.

This property is added to the composite.xml file. Any property specified in this file overrides the same property in the adapter binding file.

Examples of properties for overriding are jca.retry.count and jca.retry.interval. These override the retry count and retry interval for the reference invocation.

Element	Description
Name	Select or enter a name.
Value	Enter a value.

Related Topics

"Viewing Component Details in the Property Inspector" in *Developing SOA Applications with Oracle SOA Suite*



1.49 Config Override Properties Dialog

Use to override the values for a security or management policy.

Your environment may include multiple clients or servers with the same policies. However, each client or server may have their own specific policy requirements.

You can override these policy settings on an individual client or server basis without creating new policies for each. In this way, you can override client or server policies that define default configuration values and customize those values based on your runtime requirements.

Element	Description
Name	Displays the property name of the selected policy.
	For attached client policies, the property names, values, and overridden values for all of your attached policies are displayed. For attached server policies, only the property name, value, and overridden value for the policy that you explicitly selected are displayed.
Value	Displays the default value of the selected policy. If the values for sever policies are displayed in red, this means the property is not in the policy store.
Override Value	Enter a new value to override the default setting in the Value field. This value is displayed in the composite.xml file with the orawsp:OverrideProperty attribute for server policies and the property name attribute for client policies.

Related Topics

Determining Which Predefined Policies to Use in *Securing Web Services and Managing Policies with Oracle Web Services Manager*

Enabling Security with Policies and Message Encryption in *Developing SOA Applications with Oracle SOA Suite*

1.50 Deploy SOA Archive Dialog

Use to select the SOA composite application archive to deploy.

When attempting to deploy an archive to Oracle WebLogic Server, always create a connection to the Oracle WebLogic Server Administration Server. Deployment then prompts you by displaying all SOA configured servers (can be the administration server or one or more managed servers).

Note: The archive must already exist. You cannot create an archive in this dialog.

Choose the target SOA server(s) to which you want to deploy this archiveSelect the Oracle WebLogic Servers to which to deploy the archive.

Element	Description
SOA Server	Select the SOA server to which to deploy the archive.
Partition	Select the partition in which to deploy the archive. If the server contains no partitions, you cannot deploy this archive. By default, a partition named default is automatically included with Oracle SOA Suite.
Status	Displays the status of the server. If the server is not in a running state, you cannot deploy this archive.
Server URL	Displays the URL of the server.



Element	Description
SOA Archive	Click Browse to select a prebuilt SOA composite application archive. The archive consists of a JAR file of a single application or a SOA bundle ZIP file containing one or more composite archives. If the older, currently-deployed version of this revision has running instances, the state of those instances is changed to aborted.
Configuration Plan (Optional)	Click Browse to select a configuration plan to attach to the SOA composite application archive. A configuration plan enables you to define the URLs and property values to use for development, test, and production environments. During process deployment, the configuration plan is used to search the SOA project for values that must be replaced to adapt the project to the next target environment.
Mark composite revision as default	Select to make this the default revision of the SOA composite application. This revision is instantiated when a new request comes in.
Overwrite any existing composites with the same revision ID	Select to overwrite (redeploy) an existing SOA composite application with the same revision ID. The consequences of this action are as follows:
	• A new revision of the currently deployed SOA composite application is redeployed (for example, old version 1.0 is redeployed as new version 1.0).
	• The older, currently-deployed version of this revision is removed (overwritten).
	 If the older, currently-deployed version of this revision has running instances, the state of those instances is changed to aborted.

Deploying SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Managing and Testing a SOA Composite Application in *Developing SOA Applications with Oracle SOA Suite*

1.51 SAR Deployment Profile Properties Dialog - General Page

Use to view the path to the JAR file of the SOA composite application to deploy.

Element	Description
Deploy Folder	Click Browse to specify the folder.
JAR Name	Displays the path to the JAR file of the SOA composite application to deploy. This field cannot be edited. This revision ID (for example, 1.0) becomes the value for the $\{composite.revision_id\}$ variable in the JAR file name.

Related Topics

Deploying SOA Composite Applications in Oracle JDeveloper in *Developing SOA Applications* with Oracle SOA Suite

1.52 SOA Composite Editor

A SOA composite application is typically referred to as a composite application because it consists of services and applications. The SOA Composite Editor enables you to create, edit, and deploy services, but also to assemble them in a composite application, all from a single location. These components are integrated together into one application and communicate with the outside world through binding components such as web services, REST bindings, and JCA adapters.



A SOA composite application can consist of multiple projects (for example, a SOA project, a web project, business components project, and so on). You deploy the application a single time into a single runtime environment instead of deploying components separately to multiple runtime environments.

Once deployed, you can monitor and manage a SOA composite application from Oracle Enterprise Manager.

The sections of the SOA Composite Editor enable you to perform specific design tasks.

Element	Description
Applications Window	Displays the folders and files of a SOA project. Key folders and files in the SOA folder include the following:
	 service_component_directory: Displays a directory for the artifacts of each service component you create:
	A BPEL directory is created for BPEL processes.
	A Mediators directory is created for Oracle Mediators.
	A HumanTasks directory is created for human tasks.
	An oracle/rules directory is created for business rules.
	• Events: Displays the business event files (.edn).
	• Schemas: Displays the service component schema files (.xsd).
	testsuites: Displays the test suite files.
	 Transformations: Displays the transformation mapper files (.xsl).
	 WSDLs: Displays the BPEL process and Oracle Mediator WSDL files. This file defines the input and output messages, the supported client interface and operations, and other features.
	• composite_name : Automatically created when you create a SOA project. This file describes the entire composite assembly of services, service components, references, and wires.
	As you design the BPEL process service component, additional files, folders, and elements appear in the Applications window.
Components Window	Drag services, service components, and references from the Components window into specific sections of the SOA Composite Editor. This enables you to design your SOA composite application.
Exposed Services swimlane	Drag services into this swimlane from the Technology section of the Components window. This action invokes the initial property editor of the service. Services provide the outside world with an entry point to the SOA composite application. Examples of services include web services, HTTP binding, direct binding, REST binding, Oracle Application Development Framework (ADF) Business Components, JCA adapters, and Enterprise JavaBeans (EJBs).
Components section	Drag service components into this section from the Components section of the Components window. This action invokes the initial property editor of the service component. After completing the property editor, the service component is created with its initial values. Service components are the building blocks of the composite that you construct to implement the business logic or processing rules. Examples of service components are BPEL processes, Oracle Mediators, human tasks, spring context, and business rules. You can specifically design the service component now or at a later time by double-clicking the service component icon.
External References swimlane	Drag references into this swimlane from the Technology section of the Components window. This action invokes the initial property editor of the reference. References enable messages to be sent from the SOA composite application to external services in the outside world. Examples of references include web services, HTTP binding, direct binding, REST binding, Oracle ADF Business Components, JCA adapters, and EJBs.

Element	Description
Wires	Select the reference handle on the right side of a service or service component and drag it to the left side of a service component or reference. Wires provide the communication between services, service components, and references in a SOA composite application.
Property Inspector	Displays properties that you can edit for the selected service component, service, or reference.
Log Window	Displays messages about application compilation, validation, and deployment.

What Happens When You Create a SOA Application and Project in *Developing SOA Applications with Oracle SOA Suite*

1.53 Binding URLs Dialog

Use to create tokens for the HTTP protocol, host, and port values in the binding URLs of external references. The values that you assign to the tokens are then substituted in place of the hardcoded HTTP host and port values in the location attribute of the binding.ws element of the composite.xml file.

Binding URLs of each external reference that has a binding.ws element with a location attribute in the composite.xml file that starts with the following entries are automatically displayed:

- http
- https
- callbackServerURL
- \${ (for a URL that uses tokens in place of the hardcoded HTTP host or port values)

Notes:

- You can only use tokens in the location attribute of the binding.ws element of the composite.xml file.
- Tokens cannot be used for the host and port values in other files, such as WSDL files, schema files, and so on.
- Oracle JDeveloper only updates token files on the local file system that include the token values. If you use a local token file at design time, you must move the tokens to the SOA server at runtime.

Element	Description
Reference Binding URLs.	Displays an entry for each external reference and its binding URL. Examples of binding URLs include the following:
	 Tokenized: http://\${host1}:\${port1}/some/path/service2.wsdl Nontokenized: http://host.us.example.com:80/some/path/service2.wsdl
Edit icon	Click to specify tokens for the HTTP host and port values of a selected binding URL. You can also double-click the row of a selected binding URL.



Creating Tokens for Use in the Binding URLs of External References in *Developing SOA Applications with Oracle SOA Suite*

1.54 Binding URL Tokenization Dialog

Use to create tokens for the HTTP host and port values of binding URLs of external references.

Element	Description
Token File	Click the Browse icon to access the Resource Browser dialog for selecting the token file that includes the token names and values. The file can be on the local file system. The names and values specified in this file replace the hardcoded names and values for protocol, host, and port in the binding.ws element. This field is automatically populated with your file selection on subsequent invocations of this dialog. If you specify a token file from the file system, it must be an XML file that follows the http://java.sun.com/dtd/properties.dtd format.
	You can also skip this field entirely if you want to manually enter new token names and values in the Token and Current Values fields, respectively.
Reference	Displays the external reference of the selected binding URL.
Protocol	Click the Browse icon to select the token name to use from the Token Picker dialog. The Token Picker dialog is populated with the token names that appear in the token file you imported in the Token File field. The token name you select and its default value are added to the Token and Current Value fields, respectively. If the token file is writable (meaning an unprotected file in the file system), you can change the current value of the token name. If the file is read-only, you are warned with a message and allowed to cancel the operation and continue. You can also manually enter information in these fields regardless of whether you imported a file in the Token File field. If you imported a file that is writable in the Token File field and manually enter a token name, it is added to the file if it does not already exist. The current value for the new token name defaults to the value in the URL that is being tokenized.
Host	Displays the field in which to specify the token host name. See the description of the Protocol field for details about how to specify information.
Port	Displays the field in which to enter the token port name. See the description of the Protocol field for details about how to specify information.
Apply these tokens to other References which have the same Current Values	Deselect this checkbox if you do not want other external references with the same protocol, host, and port values to be replaced with the same tokens. If this checkbox is selected and you tokenize just one or two of the URL objects, then the references for only those objects are modified. For example, if you only tokenize the host (with current value of hostl.us.oracle), all references that have that same host value are updated.

Related Topics

Creating Tokens for Use in the Binding URLs of External References in *Developing SOA Applications with Oracle SOA Suite*

1.55 Token Picker Dialog

Use to select the protocol, host, or port token from the token file.

This dialog lists all the tokens that you have defined in the file imported in the **Token File** field of the Binding URL Tokenization dialog.

Element	Description
Token	Scroll through the list and select the token or enter the name. As you enter the name, it is automatically completed and the first matching token is selected in the list.

Related Topics

Creating Tokens for Use in the Binding URLs of External References in *Developing SOA* Applications with Oracle SOA Suite

1.56 REST Binding Configuration Wizard

Use the REST Binding Configuration Wizard to create a REST binding and select operations for it to perform.

REST Binding Configuration Wizard (Step 1 of 2)

Element	Description
Name	Enter a name for the REST binding.
Туре	Select the type of REST binding to create:
	• Service: Creates an inbound REST binding in the Exposed Services (left) swimlane that provides the outside world with an entry point to the SOA composite application. This direction is selected by default if you dropped the REST binding into the Exposed Services swimlane.
	• Reference : Creates an outbound REST binding in the External References (right) swimlane that enables messages to be sent from the SOA composite application to external partners in the outside world. This direction is selected by default if you dropped the REST binding into the External References swimlane.
Reference will be invoked by components using WSDL interfaces	Appears if you select Reference for Type . If you select this option, binding maps WSDL operations and XML Schemas to the REST resources/verbs, with outbound payloads being translated from XML.
Service will invoke components using WSDL interfaces	Appears if you select Service for Type . If you select this option, binding maps REST resources/verbs to internal WSDL operations and XML Schemas, with inbound payloads being translated from XML.
Description	Enter a description. The description is published as part of the readable API used during deployment. The description is only available for service binding components. References have the Base URI field.
Enforce XML	Select to enforce the ordering of the XML schema.
Schema Ordering	When selected, this reorders JSON payloads to match the order of elements in the XML schema. This includes inbound request payloads and responses from outbound requests. This option may add a performance overload.
	Selecting this check box sets the REST service binding property reorderJsonAsPerXmlSchema to true in the composite.xml file.

REST Binding	Configuration	Wizard	(Step 2 of	2)
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Element	Description
WADL or Swagger Document URL	Enter the URL of the Swagger document for the hybrid integration you want to use in your SOA composite application or Service Bus application. The wizard fetches the contents of the Swagger document, converts it into WADL, and displays the resources.
	Alternatively, click the + icon to the right of this field to open the WADL or Swagger Chooser dialog, where you can select an integration created in Oracle Integration.
	"Create a REST Binding" in <i>Developing SOA Applications with Oracle SOA Suite</i> or <i>Developing Services with Oracle Service Bus</i>
Base URI	Appears if you choose Reference option for Type . This field is auto-populated.
Description	Appears if you choose Service option for Type . Enter a description. The description is published as part of the readable API used during deployment. The description is only available for service binding components.
Resource Path	Enables you to manage (add, edit, and delete) REST resource paths. A resource is any source of specific information that can be addressed. Each operation in the Operation Binding section of this dialog must belong to a resource path.
	For example, a resource path may consist of the following operations located in multiple locations of the REST binding base URL:
	 Place an order (REST_binding_base_URL/Orders)
	 Pay for an order (REST_binding_base_URL/Orders/OrderID)
	 View an order (REST_binding_base_URL/Orders/OrderID)
	• Get all orders (REST_binding_base_URL/Orders)
	• Verify payment of an order (REST_binding_base_URL/Orders/OrderID)
	• Delete an order (REST_binding_base_URL/Orders/OrderID)
Operation Bindings	Click Add and select to define the REST operations based on the WSDL of the component with which the REST service interfaces.
	 Select Add operation binding to manually define the rest service definition. You can define resource paths and REST operations. An underlying WSDL is generated that contains the mapping from the REST definition to the WSDL. For more information about this selection, see How to Generate Schemas Manually.
	 Select REST enable component or reference to invoke the Service Explorer dialog to select the WSDL of the service component or external reference from which to map WSDL operations to resource paths and HTTP verbs. This option is only available to service binding components. This selection is described in subsequent steps of this section.
	 Select REST enable external webservice to invoke the WSDL Chooser dialog to select a WSDL from many sources including the application server and SOA-MDS. After the WSDL is selected, the REST adapter is automatically populated with operation mappings for the selected WSDL. On completion of the dialog, a REST service, SOAP reference, and wire between the two are created.

Resource Path Section

Element	Description
Resource Path Table	Double-click to edit the REST resource path. By default, a / path is automatically provided. You can edit the default path or add additional paths by clicking the Add icon.
	When you specify a resource path for an operation, it is added to the Resource Path column of the Operation Bindings section of this dialog.
	Any resources paths that are unused are ignored.
Add icon	Click to add more REST resource paths.
Edit icon	Click to edit a selected resource path.
Delete icon	Click to delete a selected resource path.

Operation Bindings Section

Element	Description
Operation Bindings Table	Double-click an operation to invoke the REST Operation Binding dialog for specifying a resource path and HTTP verb.
Add	Select to define REST service operations.
Add operation binding	Select to manually add REST operations. Any operations you add are also added to the WSDL file.
REST enable component or reference	Select to invoke the Service Explorer dialog to select the WSDL of the service component or external reference from which to map WSDL operations to resource paths and HTTP verbs. This option is only available to service binding components.
REST enable external webservice	Select to invoke the WSDL Chooser dialog to select a WSDL from many sources including the application server and SOA-MDS. After the WSDL is selected, the REST adapter is automatically populated with operation mappings for the selected WSDL. On completion of the dialog, a REST service, SOAP reference, and wire between the two are created.
Edit icon	Click to edit a selected operation binding (such as the operation's resource path or HTTP verb) in the REST Operation Binding dialog.
Delete icon	Click to delete a selected operation binding.

1.57 REST Operation Binding Dialog

Use to configure resource URLs, HTTP verbs, and request-response details for the Representational State Transfer (REST) binding operation.

The REST Operation Binding dialog is arranged in the following sections:

- Resource and HTTP Verb
- Request
- Response

Resource and HTTP Verb

The Resource and HTTP Verb section enables you to manage the resource URL and HTTP verb for the selected REST binding operation.



Element	Description
Method	Displays the WSDL operation name that is being mapped. In most cases, you can specify a name that is used in the generated WSDL.
Resource	Select an existing URL resource path from the list or click the Add icon to add a new resource path.
	The selected resource path is added to the URI Parameters table of the Request section at the bottom of this dialog. If the selected resource contains a template variable, such as {var} , the variable is added to the URI parameters.
HTTP Verb	Select the operation to perform (for example, GET, PATCH, PUT, POST, DELETE).
	When you pick a schema for the request, actions are taken based on the verb. URI parameters are added if the verb does not have a payload (GET , DELETE). The URI Parameters table is populated with mappings from the incoming REST query parameters to the WSDL schema. The PATCH verb is used to partially update a resource, and the PUT verb is used to replace resource entirely.
	The HTTP verb for the operation is also added to the Operation Bindings section of the Create REST Binding dialog.
Description	Enter an optional description.

Request

The Request section enables you to manage request details for the REST operation.

Element	Description
Request	Displays the operation request details.
Schema URL	Displays the schema being used.
Browse for Schema file icon	Select to browse for an existing schema file. This icon is only displayed if you have not yet selected the schema to use.
Define Schema for Native Format icon	Select to invoke the Native Format Builder wizard to create a new native schema file from the following types:
	JSON interchange format
	• XML sample
	URL-encoded name
	 UKI sample This icon is only displayed if you have not yet selected the schema to use
Element	Displays the schema element being used
	Displays the schema element being used.
Payload	Displays the format of the request payload.
XML	Select to display the payload in XML format. This is the default selection.
JSON	Select to display the payload in JavaScript Object Notation (JSON) format.
URL-Encoded	Select to display the payload in URL-encoded format.
No Payload	Select if there is no payload.
Generate Sample Payload	Select to display the request input for the operation in the Generate Sample Payload dialog.
URI Parameters	Displays the mapping from the REST query parameters to the WSDL schema. This section is automatically populated when a schema is specified (depending on the verb) in the HTTP Verb list.
Generate sample URL for operation	Click to display the sample URL for the operation.



Element	Description
Add parameter	Click to manually add a parameter. In the Style column, click a specific row to invoke a list that enables you to select query or template . In the Expression column, click a specific row to invoke the Expression Builder dialog for adding an XPath expression function.
Delete	Click to delete a selected mapping.
Parameter	Displays the resource selected from the Resource list.
Style	Select the type of variable for the operation:
	• template : If selected, the parameter name must match with the name in the resource path (for example, if orderID is the parameter name, it must appear as part of the resource path). Template variables are typically used for POST and PUT operations.
	• query : Query parameters are typically used for GET and Delete operations.
Туре	Displays the parameter type (for example, string or integer).
Default Value	Displays the default value.
Expression	Displays the XPath expression.

Response

The Response section enables you to manage response details for the REST operation. You can have multiple responses. You can create one success response and map other responses to WSDL faults. On the inbound side, when a fault is generated, if you have mapped the response code to a fault in the REST binding, the binding maps the fault to the corresponding HTTP status code. On the outbound side, if an external service returns a particular response code that you have configured, that code is mapped to the corresponding fault in the WSDL and a fault is raised. For example, if you issue a GET request to /Orders/OrderID and that ID is not there, you can map that fault to a 404 error response.

Element	Description
Response	Displays the operation response details.
HTTP Statuses	Displays the HTTP statuses. The status are separated by a space (for example 200 201 202).
Payload	Displays the format of the response payload.
XML	Select to display the payload in XML format. This is the default selection.
JSON	Select to display the payload in JSON format.
No Payload	Select if there is no payload.
Generate Sample Payload	Select to display the response output for the operation in the Generate Sample Payload dialog.
Schema URL	Displays the schema being used.
Browse for Schema file icon	Select to browse for an existing schema file. This icon is displayed if you have not yet selected the schema to use. This icon is not displayed for environments in which you cannot change the schema (the WSDL already exists).

Element	Description
Define Schema for Native Format icon	Select to invoke the Native Format Builder wizard to create a new native schema file from the following types:
	JSON interchange format
	XML sample
	URL-encoded name
	URI sample
	This icon is displayed if you have not yet selected the schema to use and in environments in which the WSDL does not already exist.
Element	Displays the element being used.
Fault Bindings	Displays the response fault name, status, type, and schema.
	If fault details are defined in the WSDL file, a fault binding is automatically created to this section. You can also manually define fault bindings.
Add icon	Click to add a fault.
Edit icon	Click to edit a selected fault.
Delete icon	Click to delete a selected fault.

Integrating REST Operations in SOA Composite Applications in *Developing SOA Applications* with Oracle SOA Suite

1.58 Create REST Resource Dialog or Update REST Resource Dialog

Use to add a REST resource path URL for an operation.

A resource is any source of specific information that can be addressed. A resource path may consist of operations located in multiple paths of a REST binding base URL. For example, a resource path may consist of the following operations located in multiple locations of the REST binding base URL:

- Place an order (REST_binding_base_URL/Orders)
- Pay for an order (*REST_binding_base_URL*/Orders/OrderID)
- View an order (REST_binding_base_URL/Orders/OrderID)
- Get all orders (REST_binding_base_URL/Orders)
- Verify payment of an order (REST_binding_base_URL/Orders/OrderID)
- Delete an order (REST_binding_base_URL/Orders/OrderID)

Element	Description
Relative Path	Enter the relative path to the REST resource (for example, /Orders).
	When you specify a resource path for an operation, it is added to the Resource Path column of the Operation Bindings table of the Create REST Binding dialog.
Full Path	Displays the full path to the REST resource based on your updates to the Relative Path field.

Integrating REST Operations in SOA Composite Applications in *Developing SOA Applications* with Oracle SOA Suite

1.59 REST Fault Binding Dialog

Use to create or edit the fault binding associated with the response from a REST operation.

If fault details are defined in the WSDL file, fault binding is automatically defined in the **Response** section of the REST Operating Binding dialog.

Element	Description
Fault Name	Displays the name of the fault.
HTTP Statuses	Displays the HTTP status code for the fault (for example, an ID of 404). If you specify multiple statuses, separate them with a single space. The first status listed is the default status.
Payload	Displays the payload format to select (XML, JSON, or no payload). Click the icon to display an example of the payload output.
Schema URL	Displays the schema URL.
Browse for Schema file icon	Select to browse for an existing fault schema file (for example, for an order not found fault). This icon is only displayed if you have not yet selected the schema to use.
Define Schema for Native Format icon	Select to define a new fault schema file. This icon is only displayed if you have not yet selected the schema to use.
Element	Displays the schema element.

Related Topics

Integrating REST Operations in SOA Composite Applications in *Developing SOA Applications* with Oracle SOA Suite

1.60 WADL or Swagger Chooser Dialog

Use the WADL or Swagger Chooser dialog to select an integration that you want to use in your SOA composite application or Service Bus application.

Element	Description
Connection list	Select the connection for the Oracle Integration instance.
Filter by Name or Description	Optionally enter the full or partial name or description of the integration you want to use in your SOA composite application, then click Apply . Click Cancel to remove the filter.
Integrations list	Select the integration you want to use.
Information icon	Click to display details about the associated integration, including name, version, description, and a View Swagger button to view the Swagger document for the integration.
Selection	Displays the Swagger document URL of the selected integration.



"Create a REST Binding" in Developing SOA Applications with Oracle SOA Suite or Developing Services with Oracle Service Bus

1.61 Create Oracle Integration Connection Dialog

Use the Create Oracle Integration Connection dialog to connect to Oracle Integration so that you can select an integration that you want to use in your SOA composite application or Service Bus application.

Create connection parameters

Element	Description
Create Connection in	IDE connections is selected by default.
Connection Name	Give a name for the connection
URL	Enter the URL of the server
User Name	Enter user name
Password	Enter Password

After entering the required details, click **Test Connection**. After you confirm that the connection is successful, click **OK** to save the connection.

1.62 WADL Location Dialog

Use to select the Web Application Description Language (WADL) file location.

WADL files provide an XML description of HTTP-based web applications.

Element	Description
WADL URL	Click Browse to select the WADL file.
copy schema artifacts into the project	Select to copy the schemas of the selected WADL file into the project.

Related Topics

Integrating REST Operations in SOA Composite Applications in *Developing SOA Applications* with Oracle SOA Suite

1.63 Sample URL Dialog

Use to view the URL to invoke the operation during runtime.

Element	Description
Sample URL	Displays the sample URL to invoke the operation.
Save to	Displays the default file in which to save the URL. You can specify a different file name.



Element	Description
Directory	Displays the default directory in which to save the URL. Click the Browse icon to select a different directory.

Integrating REST Operations in SOA Composite Applications in *Developing SOA Applications* with Oracle SOA Suite

1.64 Generate Sample Payload Dialog

Use to display the format for the REST operation.

Element	Description
Sample Type	Select the format in which to display the payload.
XML	Displays the payload in XML format.
JSON	Displays the payload in JavaScript Object Notation (JSON) format.
URL encoded	Displays the payload in URL-encoded output.
Sample	Displays the selected format.
Save To	Specify a file to which to save the format.
Directory	Click the Search icon to save the format to a specific directory.

Related Topics

Integrating REST Operations in SOA Composite Applications in *Developing SOA Applications* with Oracle SOA Suite

1.65 Rename Service Dialog

Use to rename the selected reference binding component.

You can rename the component in either of the following ways:

- Right-clicking the file name in the Applications window and selecting Refactor > Rename.
- Right-clicking the component in the editor and selecting Rename.

Element	Description
Name	Enter a new name for the service binding component.

Related Topics

Renaming, Deleting, and Moving Components and Artifacts in *Developing SOA Applications* with Oracle SOA Suite

1.66 Rename Reference Dialog

Use to rename the selected reference binding component.

You can rename the component in either of the following ways:



- Right-clicking the file name in the Applications window and selecting Refactor > Rename.
- Right-clicking the component in the editor and selecting Rename.

Element	Description
Name	Enter a new name for the reference binding component.

Renaming, Deleting, and Moving Components and Artifacts in *Developing SOA Applications* with Oracle SOA Suite

1.67 Rename Component Dialog

Use to rename the selected service component.

You can rename the component in either of the following ways:

- Right-clicking the file name in the Applications window and selecting Refactor > Rename.
- Right-clicking the component in the editor and selecting Rename.

Element	Description
Name	Enter a new name for the service component.

Related Topics

Renaming, Deleting, and Moving Components and Artifacts in *Developing SOA Applications* with Oracle SOA Suite

1.68 Insert Fault Policy Dialog

Use to name the fault policy file for handling faults in BPEL processes.

When fault policy file creation is complete, the file is displayed in the Applications window. The fault policy file is included as part of the SOA composite application you deploy to the SOA Infrastructure.

If a fault occurs during runtime in an invoke activity in the process, the framework catches the fault and performs a user-specified action defined in the fault policy file associated with the activity. If a fault results in a condition in which human intervention is the prescribed action, you perform recovery actions from Oracle Enterprise Manager Fusion Middleware Control.

Element	Description
ID	Enter a name or accept the default value of policynumber for the fault policy file.

Related Topics

How to Design a Fault Policy for Automated Fault Recovery with the Fault Policy Wizard in *Developing SOA Applications with Oracle SOA Suite*

Handling Faults with the Fault Management Framework in *Developing SOA Applications with Oracle SOA Suite*



1.69 Fault Chooser Dialog

Use to select a custom fault for the fault policy.

Element	Description
Type Explorer	Expand the Type Explorer to select the custom fault.
Import WSDL File icon	Click to import a WSDL file.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information.

Related Topics

How to Design a Fault Policy for Automated Fault Recovery with the Fault Policy Wizard in *Developing SOA Applications with Oracle SOA Suite*

Handling Faults with the Fault Management Framework in *Developing SOA Applications with Oracle SOA Suite*

1.70 Fault Policy Editor

Use to create a fault policy.

The Fault Policy Editor is arranged in the following sections:

- Name, Description, and Default Action Fields
- Alerts Tab
- Actions Tab
- Properties Tab

Name, Description, and Default Action Fields

The Name, Description, and Default Action fields enable you to define fault policy details.

Element	Description
Fault Policy	Enter a fault policy name.
Fault	Use to define fault policy details.
Add icon	Click to add new Fault Name , Description , and Default Action fields for defining a fault.
Delete icon	Click to delete a selected fault.
Fault Name	Select a fault name.
Description	Enter a description of the fault.
Default Action	Select a default action to take when a fault occurs.

Alerts Tab

The Alerts tab enables you to specify the type of alert to send when a fault occurs.



Element	Description
Add icon	Use to specify the type of alert to send when a fault occurs (email or JMS queue).
Edit icon	Click to edit a selected alert.
Delete icon	Click to delete a selected alert.

Actions Tab

The Actions tab enables you to specify the action to perform when a fault occurs.

Element	Description
Add icon	Use to specify the type of action to perform.
Edit icon	Click to edit a selected action.
Delete icon	Click to delete a selected action.

Properties Tab

The Properties tab enables you to specify the property set.

Element	Description
Add icon	Click to specify the property set to use.
Delete icon	Click to delete a selected property set.

Related Topics

How to Design a Fault Policy for Automated Fault Recovery with the Fault Policy Wizard in *Developing SOA Applications with Oracle SOA Suite*

Handling Faults with the Fault Management Framework in *Developing SOA Applications with Oracle SOA Suite*

1.71 Email Properties or JMS Properties Dialog

Use to specify the type of alert to send when a fault occurs (email or JMS queue).

The Properties dialog includes the following options for selection:

- Email
- JMS

Email

The Email Properties dialog enables you to specify the users to receive an email alert when a fault occurs.

Element	Description
ID	Enter a name or accept the default value of emailnumber.
То	Enter the email account of the recipient to receive the alert.
CC	If you want to copy additional users, then optionally enter an email account of the recipient to receive this alert.



Element	Description
Property Set	Select the property set to use with the alert type.

JMS

The JMS Properties dialog enables you to use JMS queues for sending alerts when a fault occurs.

Element	Description
ID	Enter a name or accept the default value of jmsnumber.
Property Set	Select the property set to use with the alert type.
Header	Displays the JMS queue headers and values that describe the alert.
Add icon	Click to add a new header and its value.
Delete icon	Click to delete a selected header and its value.
Up and Down arrows	Click to move selected headers up and down in the table.

Related Topics

How to Design a Fault Policy for Automated Fault Recovery with the Fault Policy Wizard in *Developing SOA Applications with Oracle SOA Suite*

Handling Faults with the Fault Management Framework in *Developing SOA Applications with Oracle SOA Suite*

1.72 Action Properties Dialog

Use to select the action to perform when a fault occurs.

The following predefined actions are available for selection when you initially access the Fault Policy Editor.

- Abort
- Human intervention
- Java action
- Replay scope
- Rethrow fault
- Retry

You can also select additional actions:

- Invoke web service (WS)
- Enqueue
- File action

The Properties dialog is arranged in the following dialogs:

- Abort, Human Intervention, Replay Scope, and Rethrow Fault
- Java Action



Retry

• Invoke WS, Enqueue, and File Action

Abort, Human Intervention, Replay Scope, and Rethrow Fault

The Abort, Human Intervention, Replay Scope, and Rethrow Fault dialogs enable you to change the default reference to the action.

Element	Description
ID	Enter a different value or accept the default reference to the action of default-
	action.

Java Action

The Java Action dialog enables you to define Java action details.

Element	Description
ID	Enter a name or accept the default reference to the action of default-java.
Class	Accept the default value of oracle.integration.platform.faultpolicy.lFaultRecoveryJavaClass or click the Browse icon to invoke the Class Browser dialog to select the Java class to use to correct actions.
	To invoke a Java class, you must select a class that implements the IFaultRecoveryJavaClass interface. The package name is oracle.integration.platform.faultpolicy. More
Default Action	Select the default action to perform when a fault occurs (human-intervention , replay , rethrow , retry , or abort).
Property Set	Select the property set.
Return Values	Return values provide an alternative to using the default fault policy. Return values enable you to specify an additional fault policy that is executed by providing a mapping from the output value (return value) of implemented methods to a fault policy. If the Java class returns the value you specify (for example, ABORT), the action you select is invoked (for example, default-abort).
Value	Click the row to enter a value (for example, ABORT).
Action	Double-click the row to invoke a list for selecting an action (for example, default-abort).
Add	Click to add a value and select an action.
Delete	Click to delete a selected value and action.

Retry

The Retry dialog enables you to define retry action details.

Element	Description
ID	Enter a name or accept the default value of retrynumber.
Retry Count	Enter the specified number of times to retry.
Retry Interval	Enter the delay between retries (in seconds).



Element	Description
Exponential Back off	Select to increase the interval with an exponential back off.
	Exponential back off indicates the next retry attempt is scheduled at 2 x the delay, where delay is the current retry interval. For example, if the current retry interval is 2 seconds, the next retry attempt is scheduled at 4, the next at 8, and the next at 16 seconds until the Retry Count value is reached.
Retry Success Action	Enter the retry success action.
Retry Failure Action	Select the action to take if the value specified for Retry Count is exceeded.

Invoke WS, Enqueue, and File Action

This dialog enables you to create rejection handlers to handle message errors.

Element	Description
ID	Enter a name or accept the default value.
Invoke WS URI	A rejected message can be handled by calling a web service. This field is only displayed if you selected invokeWS . More
Enqueue URI	You can enqueue a rejected message to a JMS queue as a JMS message with the appropriate context and payload.
	This field is only displayed if you selected enqueue. More
Name	You can create an error handler for messages by storing a rejected message in a file.
	This field is only displayed if you selected fileAction. More
Location	Enter the file location.
	This field is only displayed if you selected fileAction .

Related Topics

How to Design a Fault Policy for Automated Fault Recovery with the Fault Policy Wizard in *Developing SOA Applications with Oracle SOA Suite*

Handling Faults with the Fault Management Framework in *Developing SOA Applications with Oracle SOA Suite*

Message Error Rejection Handlers in Understanding Technology Adapters

1.73 Property Set Properties Dialog

Use to specify property sets to use in actions.

The property sets you create are displayed for selection in the actions and alerts dialogs.

Element	Description
Sets	Edit the property set name of the fault policy.
Add	Click to add a property set name and value.
Delete	Click to delete a selected property set name and value.



How to Design a Fault Policy for Automated Fault Recovery with the Fault Policy Wizard in *Developing SOA Applications with Oracle SOA Suite*

Handling Faults with the Fault Management Framework in *Developing SOA Applications with Oracle SOA Suite*

1.74 Composite Fault Policies Dialog

Use to select the fault policy file and service components, service binding components, or reference binding components to associate with the SOA composite application.

Element	Description
Fault Policy File	Accept the default fault policy file or click the Browse icon to select a fault policy file from the file directory or Oracle Metadata Services Repository (MDS Repository) to associate with this SOA composite application.
Fault Binding File	Displays the fault binding file associated with the fault policy file.
Artifact	Indicates that artifact type (a composite).
Policy	Displays the associated fault policy attachment. A fault policy bindings file associates the policies defined in the fault policy file with SOA composite applications, service components, service binding components, or reference binding components.
Components	Displays the service components and any associated fault policy attachments in this SOA composite application. Click the policy to display a list of policies available for selection.
References	Displays the reference binding components and any associated fault policy attachments in this SOA composite application. Click the policy to display a list of policies available for selection.
Services	Displays the service binding components and any associated fault policy attachments in this SOA composite application. Click the policy to display a list of policies available for selection.

Related Topics

How to Design a Fault Policy for Automated Fault Recovery with the Fault Policy Wizard in *Developing SOA Applications with Oracle SOA Suite*

Handling Faults with the Fault Management Framework in *Developing SOA Applications with Oracle SOA Suite*

1.75 Create SOA Template Wizard - Specify Template Information Page

Use to create a SOA composite application template.

A template is a reusable part of a SOA project that you can use to bootstrap new projects. A template can contain a SOA composite application, a service component, and part of a BPEL process and related additional resources, such as XML schemas or WSDLs. More


Element	Description
Name	Specify the template name.
File Name	Creates a template file (.tmpl) based on the name you specify in the Name field.
Save in	Accept the default directory path or click Browse to enter a different directory. You can save the template in the file system or the design-time Oracle Metadata Services Repository (MDS Repository).
Description	Enter an optional description of the template.

Introduction to Oracle SOA Suite Templates in *Developing SOA Applications with Oracle SOA Suite*

Managing Shared Data with the SOA Design-Time MDS Repository in *Developing SOA* Applications with Oracle SOA Suite

1.76 Create SOA Template Wizard - Files to Bundle Page

Use to select the files to include in the template (for example, WSDL, XSD, and BPEL process files).

Element	Description
File List	Expand and select the files to include in the template.
Files to Include	Displays the selected files to include in the template.

Related Topics

Introduction to Oracle SOA Suite Templates in *Developing SOA Applications with Oracle SOA Suite*

Creating and Using a SOA Composite Application as a SOA Template in *Developing SOA* Applications with Oracle SOA Suite

1.77 Preferences Dialog - SOA: Templates Dialog

Use to select additional folders that contain SOA templates.

The SOA templates can be selected from the file system or the design-time MDS Repository. The SOA templates are then available for selection in the Components window.

A template is a reusable part of a SOA project that you can use to bootstrap new projects. A template can contain a SOA composite application, a service component, and part of a BPEL process and related additional resources, such as XML schemas or WSDLs. More

Element	Description
Folder	Displays the SOA templates.
Add	Click to add additional folders that contain SOA templates
Remove	Click to remove the selected SOA template.



"Introduction to Oracle SOA Suite Templates in *Developing SOA Applications with Oracle SOA Suite*

Managing Shared Data with the SOA Design-Time MDS Repository in *Developing SOA* Applications with Oracle SOA Suite

1.78 Create Component Template Wizard - Specify Template Information

Use to create a service component template.

A template is a reusable part of a SOA project that you can use to bootstrap new projects. A template can contain a SOA composite application, a service component, and part of a BPEL process and related additional resources, such as XML schemas or WSDLs. More

Element	Description
Name	Specify the template name.
File Name	Creates a template file (.tmpl) based on the name you specify in the Name field.
Save in	Accept the default directory path or click Browse to enter a different directory. You can save the template in the file system or the design-time Oracle Metadata Services Repository (MDS Repository).
Palette Icon	Click Browse to select an icon to represent the template in the Components window.
Description	Enter an optional description of the template.

Related Topics

Introduction to Oracle SOA Suite Templates in *Developing SOA Applications with Oracle SOA Suite*

Managing Shared Data with the SOA Design-Time MDS Repository in *Developing SOA* Applications with Oracle SOA Suite

1.79 Create Custom Activity Template Wizard - Specify Template Information

Use to create a BPEL process scope activity template.

A template is a reusable part of a SOA project that you can use to bootstrap new projects. A template can contain a SOA composite application, a service component, and part of a BPEL process and related additional resources, such as XML schemas or WSDLs. More

Element	Description
Name	Specify the template name.
File Name	Creates a template file (.tmpl) based on the name you specify in the Name field.



Element	Description
Save in	Accept the default directory path or click Browse to enter a different directory. You can save the template in the file system or the design-time Oracle Metadata Services Repository (MDS Repository).
Palette Icon	Click Browse to select an icon to represent the template in the Components window.
Description	Enter an optional description of the template.

"Introduction to Oracle SOA Suite Templates in *Developing SOA Applications with Oracle SOA Suite*

Managing Shared Data with the SOA Design-Time MDS Repository in *Developing SOA* Applications with Oracle SOA Suite

1.80 Template Chooser Dialog

Use to select a template.

Element	Description
Template	Select the template to use.

Related Topics

Introduction to Oracle SOA Suite Templates in *Developing SOA Applications with Oracle SOA Suite*

1.81 Create SOA Component from Component Template Dialog or Create Custom Activity from Template Dialog

Use to create a service component or custom activity from an existing template.

The selected service component's or custom activity's template name, description, and files are included in the template.

A template is a reusable part of a SOA project that you can use to bootstrap new projects. A template can contain a SOA project, a service component, or a scope activity of a BPEL process packaged as a custom activity. More

Element	Description
Name	Displays the template name.
Description	Displays a description entered during template creation.
Template Entries	Displays the files included in the template.
Conflicts	Displays any conflicts that can cause the use of this service component or custom activity to fail (such as a naming conflict). Select Overwrite to overwrite the existing file or select Skip to not include this file.



Oracle SOA Suite Templates and Reusable Subprocesses in *Developing SOA Applications* with Oracle SOA Suite

1.82 ToDo Tasks Dialog

Use to add a description to a SOA composite application.

When complete, the description is displayed for viewing when you place your cursor over the **TODO Tasks** icon above the SOA composite application.

Element	Description
Description	Click Add to add a row, then double-click the default text and replace it with your description. When complete, click outside the row, then click Close . The description is displayed when you place your cursor over the TODO Tasks icon above the SOA composite application.

Related Topics

Adding Descriptions to SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

1.83 Search By Name Dialog

Use to search for the names of service binding components, service components, and reference binding components in the SOA composite application.

Element	Description
Search Text from Beginning	Displays the names of all service binding components, service components, and reference binding components in the SOA composite application when you first open this dialog.
	Click a component to jump to it in the SOA composite application or enter the beginning letters of a component name to filter the list of names.

Related Topics

Service Component Architecture within SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

1.84 Chooser Dialog - File System Tab

Use to select the file type to use from the file system.

The file type available for selection (for example, WSDL file, event definition language (EDL) file, or JAR file) is based on how you accessed this dialog.

Element	Description
Location	Displays the directory path of the current SOA composite application when you initially access this dialog.



Element	Description
Go to the previous directory icon	Click to access the previous directory in the current path. This icon is initially disabled when you access this dialog.
Go to the next directory icon	Click to access the next directory in the current path. This icon is initially disabled when you access this dialog.
Go up one directory	Click to go up one directory in the current directory path.
Create new subdirectory	Click to create a new subdirectory in the current directory path.
List icon	Click to display the folders and files in the current directory path.
Details icon	Click to display details about the current directory path, including name, size, and last modified date.
File Name	Displays the selected file.
File Type	Displays the select file type.
Selection	Displays the complete path of the selected file.

Deploying a SOA Composite Application in *Developing SOA Applications with Oracle SOA Suite*

1.85 Chooser Dialog - SOA MDS Dialog Tab

Use to select the file type to use from the Oracle Metadata Services Repository (MDS Repository).

The file type available for selection (for example, WSDL file, event definition language (EDL) file, or JAR file) is based on how you accessed this dialog.

Element	Description
Search	Enter the name of the connection, and click Search .
Refresh icon	Click to refresh the display of connections.
/apps Directory	Displays the folders under the <i>lapps</i> folder of the MDS Repository.
Search Results	Displays the results of the search you invoked.
Selection	Displays the complete path to the file you selected.

Related Topics

Managing Data with the SOA Design-Time MDS Repository in *Developing SOA Applications* with Oracle SOA Suite

Deploying a SOA Composite Application in *Developing SOA Applications with Oracle SOA Suite*

1.86 Chooser Dialog - My Catalog Tab

Use to select the WSDL file through the catalogs created in the My Catalogs panel of the Resource Palette.



The My Catalogs panel enables you to view catalogs created to store reusable components and to create new catalogs. Catalogs that you import into the Resources window are also listed.

For more information about My Catalog, place your cursor in the Resource Palette and select F1.

Element	Description
Add icon	Click to create a new catalog connection.
Edit icon	Click to edit the settings for the selected catalog connection.
Refresh icon	Click to refresh the display of catalog connections.
Services Catalog	Displays the catalogs.
Selection	Displays the complete path to the WSDL file you selected in the catalog.

Related Topics

Deploying a SOA Composite Application in *Developing SOA Applications with Oracle SOA Suite*

Working with Oracle JDeveloper of Developing Applications with Oracle JDeveloper

1.87 Chooser Dialog or Browser Dialog - Application Server Tab

Use to select the WSDL file to use through an application server connection.

Element	Description
Add icon	Click to create a new application server connection.
Edit icon	Click to edit the settings for the selected application server connection.
Refresh icon	Click to refresh the display of application server connections.
Search	Enter the name of an application server connection, and click Search.
Application Server list	Expand the navigator tree to select the WSDL file to use (for example, for a service binding component).
Search Results	Displays the results of the search you invoked.
Selection	Displays the complete path to the WSDL file you selected in the application server list.

Related Topics

Deploying a SOA Composite Application in *Developing SOA Applications with Oracle SOA Suite*

1.88 Chooser Dialog - UDDI Tab

Use to select the file to use through a UDDI registry connection.

Element	Description
Add icon	Click to create a new UDDI registry connection.
Edit icon	Click to edit the settings for the selected UDDI registry connection.
Refresh icon	Click to refresh the display of UDDI registry connections.



Element	Description
Search	Enter the name of a UDDI registry connection, and click Search.
Search Results	Displays the results of the search you invoked.
Selection	Displays the complete path to the WSDL file you selected in the application server list.

Deploying a SOA Composite Application in *Developing SOA Applications with Oracle SOA Suite*

1.89 Chooser Dialog - WSIL Tab

Use to select the Web Services Inspection Language (WSIL) file to use.

A WSIL file references groups of web services and their endpoints in XML format.

WSIL files are typically distributed by a Web service provider. These files describe how to inspect the provider's Web site for available Web services. The WSIL file defines rules for how WSIL documents are made available to consumers of Web services. More

Element	Description
Add icon	Click to create a new connection to a WSIL file.
Edit icon	Click to edit the settings for the selected WSIL file connection.
Refresh icon	Click to refresh the display of WSIL file connections.
Search	Enter the name of a WSIL file, and click Search.
WSIL list	Select the WSIL file to use.
Search Results	Displays the search results.
Selection	Displays your selection.

Related Topics

Deploying a SOA Composite Application in *Developing SOA Applications with Oracle SOA Suite*

1.90 Chooser Dialog - Project Libraries Tab

Use to select the file to use from the project libraries.

Element	Description
Add icon	Click to create a new connection.
Edit icon	Click to edit the settings for the connection.
Refresh icon	Click to refresh the display connections.
Search	Enter the name of a connection, and click Search.
Oracle Acadia Server list	Select the file to use.
Search Results	Displays the search results.



Element	Description
Selection	Displays your selection.

Deploying a SOA Composite Application in *Developing SOA Applications with Oracle SOA Suite*

1.91 Variable Usage Search Dialog

Use to search for a variable in the SOA composite application.

Element	Description
Variable	Select the variable for which to search.

Related Topics

Service Component Architecture within SOA Composite Applications in *Developing SOA* Applications with Oracle SOA Suite



2 Oracle BPEL Process Manager Context Sensitive Help Topics

The following file covers the following technology area: Oracle BPEL Process Manager.

2.1 Correlation Wizard - Define Correlation Set Page

Use to define the activities and properties to use in a correlation set.

Correlation sets address complex message delivery situations by providing a declarative mechanism to specify correlated groups of operations within a service instance. A set of correlation tokens is defined as a set of properties shared by all messages in the correlated group. A property definition creates a globally unique name and associates it with an XML schema instance. The property name must have global significance in correlations.

For more information about properties and correlation sets, see the *Business Process Execution Language for Web Services Specification* at http://www.oasis-open.org.

Element	Description
Create Correlation Set	Select to create a new correlation set in which to include the selected activity.
Choose Existing Correlation Set	Select an existing correlation set in which to include the selected activity.
Name	Enter the name of the correlation set you want to create.
Scope	Displays the scope or process on which to create the new correlation set.
Properties table	Displays the property names and types (for example, string, integer, boolean, or some other type).
	On subsequent pages of this wizard, you map the properties you create on this page to the values of fields in specific message parts of the variable. This action enables the property names to become aliases for the message parts and locations. The aliases can be used in XPath expressions.
Add icon	Click to edit the property name in the Name column.
Search icon	Click to search for property names.
Delete icon	Click to delete the selected property name.
Name	Displays the property names. To edit a name, click the property name in this column.
Туре	Displays the property types of the names (for example, integer, boolean, or some other type). Perform the following steps to edit the property type:
	1. Click the row in this column to display the Browse icon.
	2. Click the Browse icon to invoke the Type Chooser dialog for selecting the property type.



'How to Create Correlation Sets with the Correlation Wizard' in *Developing SOA Applications* with Oracle SOA Suite

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*

2.2 Correlation Wizard - Initiate Settings Page

Use to define whether the activity is the initiator or responder in this correlation set.

The correlation set is in an uninitiated state at the beginning of a process. The correlation set can be initiated only once during the lifetime of the scope to which it belongs. The values of the initiating activity populate the correlation set property values.

For more information about properties and correlation sets, see the *Business Process Execution Language for Web Services Specification* at http://www.oasis-open.org.

Element	Description
Activity	Displays the activity on which the correlation is set.
Initiate	Select whether this activity is the initiator in the correlation set.
	• yes: The activity attempts to initiate the correlation set. If the correlation set is already initiated, a bpel:correlationViolation is fault thrown.
	• no : The activity does not attempt to initiate the correlation set. If the correlation set was not previously initiated, a bpel:correlationViolation fault is thrown. If the correlation set is already initiated and the correlation consistency constraint is violated, a bpel:correlationViolation fault is thrown.
	• join: The activity attempts to initiate the correlation set, if the correlation set is not yet initiated. If the correlation set is already initiated and the correlation consistency constraint is violated, a bpel:correlationViolation fault is thrown.

Related Topics

'How to Create Correlation Sets with the Correlation Wizard' in *Developing SOA Applications* with Oracle SOA Suite

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*

2.3 Correlation Wizard - Property Aliases Page

Use to define property aliases that map the property names you created on the Correlation Wizard - Define Correlation Set page to values of fields in specific parts of the variable's message.

This enables the property name to become an alias for the message part and location. The alias can be used in XPath expressions.

For example, you may create the following property alias:



Map Property	To This Field in the Variable's Message
username	internalOrderReceiveVariable > payload > <i>namespace</i> :PurchaseOrder > <i>namespace</i> :name

For more information about properties and correlation sets, see the *Business Process Execution Language for Web Services Specification* at http://www.oasis-open.org.

Element	Description
Activity	Displays the name of the activity on which to create the correlation set.
Message	Displays the message. You map a property to a field in a specific part of this message.
Property Alias	Displays properties that you define.
Edit icon	Double-click a row in the table or select a row and click this icon to invoke the Alias Editor dialog to select the field of the variable's message to map to the selected property.
Drag and drop icon	Select a row and click this icon to invoke the Alias Drag and Drop Editor dialog for selecting the part of the variable's message to map to the selected property. Drag the message part into the property row in the Correlation Wizard - Property Aliases page.
Clear icon	Click to delete a selected property.
Fit to Width	Select to fit to the width of the dialog.
Show Namespace URIs	Click to show the namespace URIs.
Existing Property Aliases	Displays properties you defined previously.
Fit to Width	Select to fit to the width of the dialog.
Show Namespace URIs	Click to show the namespace URIs.

Related Topics

'How to Create a Correlation Set with the Correlation Wizard' in *Developing SOA Applications* with Oracle SOA Suite

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*

2.4 Correlation Wizard - Correlated Activities Page

Use to specify additional activities to include in the correlation set.

After specifying an activity, you select it and click the **Edit** icon to perform the following tasks:

- Specify whether this activity is the initiator
- Select the activity variable message parts for populating the property values

For more information about properties and correlation sets, see the *Business Process Execution Language for Web Services Specification* at http://www.oasis-open.org.

Element	Description
Correlation Activities	Click the activity to invoke the Initiate tab of the Activity Correlation Editor dialog.
Add icon	Click to invoke the Activity Browser dialog for adding other activities to include in the correlation set.
Edit icon	Click to edit the selected activity. This enables you to specify whether this activity is the initiator and to select the activity variable message parts for populating the property values.
Delete icon	Click to delete the selected activity.

'How to Create a Correlation Set with the Correlation Wizard' in *Developing SOA Applications* with Oracle SOA Suite

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*

2.5 Alias Editor Dialog

Use to select the part of the variable's message to map to the selected property.

Element	Description
Property	Displays the selected property alias.
Туре	Displays the property type.
Variable Structure	Expand the tree and select the part of the variable's message to map to the selected property.
	If you select an invalid type, the OK button is disabled. You must select a valid type.

Related Topics

'How to Create a Correlation Set with the Correlation Wizard' in *Developing SOA Applications* with Oracle SOA Suite

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*

2.6 Correlation Wizard - Summary Page

Use to view a summary of the correlation set, including the selected activities and their roles, the correlation set name, and the defined property aliases.

After you click **Finish**, the Structure window and **Correlations** tab of the included activities are updated with these details.

The Correlation Wizard - Summary page is arranged in the following tabs:

- Activities
- Correlation Set
- Alias



Activities

The Activities page enables you to view the activities in the correlation set and their roles (for example, the receive activity is the initiator and the invoke activity is the responder).

Element	Description
Activities	Displays the activities in the correlation set.
Initiator	Displays the role of the selected activity in the correlation set (for example, the receive activity is the initiator and the invoke activity is the responder).

Correlation Set

The Correlation Set page enables you to view the name of the correlation set.

Element	Description
Correlation Set	Displays the name of the correlation set.

Alias

The Alias page enables you to view the property aliases defined in the correlation set.

Element	Description
Aliases	Displays the property aliases defined for the activities in the correlation set.

Related Topics

'How to Create a Correlation Set with the Correlation Wizard' in *Developing SOA Applications* with Oracle SOA Suite

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle* SOA Suite

2.7 Drag and Drop Editor Dialog

Use to drag the part of the variable's message into the row of the property name with which to map in the **Property Alias** table of the Correlation Wizard.

Element	Description
Variable	Select the part of the variable's message and drag it to the property name with which to map in the Property Alias table.

Related Topics

'How to Create a Correlation Set with the Correlation Wizard' in *Developing SOA Applications* with Oracle SOA Suite

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*



2.8 Activity Correlation Editor Dialog - Initiate Tab

Use to specify the initiator status and pattern type for this activity in the correlation set.

When complete, select the Alias tab.

Element	Description
Activity	Displays the activity name.
Initiate	Select whether to make this activity the initiator in the correlation set.
	• yes: The activity attempts to initiate the correlation set. If the correlation set is already initiated, a bpel:correlationViolation is fault thrown.
	• no : The activity does not attempt to initiate the correlation set. If the correlation set was not previously initiated, a bpel:correlationViolation fault is thrown. If the correlation set is already initiated and the correlation consistency constraint is violated, a bpel:correlationViolation fault is thrown.
	• join: The activity attempts to initiate the correlation set, if the correlation set is not yet initiated. If the correlation set is already initiated and the correlation consistency constraint is violated, a bpel:correlationViolation fault is thrown.
Pattern	Select the pattern for the activity (requester or responder). The options available are based on the operation the selected activity is calling. For example, if this is a one-way call, only the request option is available for selection.
	 In BPEL 1.1, you can select in for an inbound message (response), out for an outbound message (request), or out-in (for both response and request messages).
	• In BPEL 2.0, you can select response for an inbound message, request for an outbound message, or request-response (for both outbound and inbound messages).

Related Topics

'How to Create a Correlation Set with the Correlation Wizard' in *Developing SOA Applications* with Oracle SOA Suite

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*

2.9 Activity Correlation Editor Dialog - Aliases Tab

Use to define property aliases that map the property names you created on the Correlation Wizard - Define Correlation Set page to values of fields in specific parts of the variable's message.

This enables the property name to become an alias for the message part and location. The alias can be used in XPath expressions.

Element	Description
Activity	Displays the name of the activity on which to create the correlation set.
Request or Response	Displays the pattern of the activity (requester or responder).
Message	Displays the message. You map a property to a field in a specific part of this message.



Element	Description
Property Alias	Displays properties you defined previously in the Correlation Wizard - Define Correlation Set page.
Edit icon	Double-click a row in the table or select a row and click this icon to invoke the Alias Editor dialog to select the field of the variable's message to map to the selected property.
Drag and drop icon	Select a row and click this icon to invoke the Alias Drag and Drop Editor dialog for selecting the part of the variable's message to map to the selected property. Drag the message part into the property row in the Correlation Wizard - Property Aliases page.
Clear icon	Click to delete a selected property.
Fit to Width	Select to fit to the width of the dialog.
Show Namespace URIs	Click to show the namespace URIs.
Existing Property Type Aliases	Displays the existing property type aliases created during a previous session of the Correlation Wizard.

'How to Create a Correlation Set with the Correlation Wizard' in *Developing SOA Applications* with Oracle SOA Suite

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*

2.10 Correlation Search Dialog

Use to find out which activities are configured to use a correlation set.

Element	Description
Correlation Set	Click the Browse icon to search for correlation sets.

Related Topics

'How to Create a Correlation Set with the Correlation Wizard' in *Developing SOA Applications* with Oracle SOA Suite

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle* SOA Suite

2.11 Published Events Dialog

Use to configure business events published by a BPEL process or an Oracle Mediator.

Business events consist of message data sent as the result of an occurrence in a business environment. For example, in a loan flow scenario, a BPEL process executing a loan process can raise a loan-completed business event at the completion of the process. When a business event is published, other components can subscribe to it.

In a BPEL process, the invoke and reply activities enable you to select **Event** from the **Interaction Type** list to publish a business event.



Element	Description
Add icon	Click Add to invoke the Event Chooser dialog for selecting the business event to publish.
Delete icon	Click to delete a selected business event.
Events table	Displays the created business events.
Event	Displays the names of the published business events.
Persistent Delivery	Click the table row to select whether to use persistent delivery.
	• yes (the default value): The most reliable messaging to protect against a JMS server crash after publishing. However, there is overhead with this delivery method.
	• no : Low overhead, but less reliable after publishing because no persistence is involved.
Priority	Click the table row to invoke a menu for selecting the priority of the event (0 - 9). The default value is 4 . There are ten levels of priority for JMS, with 0 representing the lowest priority and 9 representing the highest priority. Set these priorities as follows:
	 Priorities 0 through 4 are successive stages of normal priority. Priorities 5 through 9 are successive stages of expedited priority.
Time to Live (ms)	Click the table row to invoke a menu for selecting the life span of the message in milliseconds. A value of zero indicates that the message life span is unlimited.

Using Business Events and the Event Delivery Network in *Developing SOA Applications with Oracle SOA Suite*

2.12 XQuery Dialog - General Tab

Use to name the activity in which to create an XQuery using the XQuery Mapper.

The XQuery Mapper enables you to map source elements to target elements. For example, you can map incoming source purchase order data to outgoing target purchase order acknowledgement data.

Element	Description
Name	Enter a name. This becomes the name for this activity in the designer.

Related Topics

Creating Transformations with the XQuery Mapper of *Developing SOA Applications with Oracle* SOA Suite

2.13 XQuery Dialog - XQuery Tab

Use to select the source and target variables and parts (for example, payload schemas) from which to create an XQuery.

The XQuery Mapper enables you to map source elements to target elements. For example, you can map incoming source purchase order data to outgoing target purchase order acknowledgement data.



Element	Description
Add icon	Click to select a source variable. For example, select a payload schema consisting of a purchase order request.
Edit icon	Click to edit a selected source variable.
Delete icon	Click to delete a selected source variable.
Move Up icon	Click to move a selected source variable up in the list.
Move Down icon	Click to move a selected source variable down in the list.
Source	Displays the source variable (and its part, such as a payload) from which to map elements. In addition, there are mapping capabilities from the BPEL variable name to the XQuery external variable name (third column in the source table).
Target Variable	Select the target variable (and its part) to which to map elements.
Target Part	Displays the target part of the variable (for example, a payload schema consisting of a purchase order acknowledgement) to which to map.
Mapper File	Select a map file to use. You create your mappings in the map file using the XQuery Mapper. By default, the map file is initially named Transformation_1.xqy in the Transformations folder in the Applications window. After creation, the map file appears in the Applications window.
	The XQuery Mapper displays the source and target schemas as trees and nodes. Select and right-click <source/> or <target></target> , then select Expand All to display all available elements. The Components window displays functions and constructs that you can drag into the XQuery Mapper for use
Search icon	Click to browse a directory structure for existing transformation files to open for editing.
Add icon	Click to create a new transformation mapping in the XQuery Mapper. If you receive a message indicating the map file already exists, then click the Edit Mapping icon to edit this file.
	Note : You must first select a source variable before you can create a new transformation mapping.
Edit icon	Click to edit the transformation mapping.
Target Part	Displays the target part of the variable (for example, a payload schema consisting of a purchase order acknowledgement) to which to map.
Parsing <from> expression errors and warnings.</from>	Display any errors from the XQuery compiler.
Switch to assign activity	Click to convert the XQuery activity to an assign activity. From a source code perspective, this removes a special BPEL annotation.

Creating Transformations with the XQuery Mapper of *Developing SOA Applications with Oracle SOA Suite*

2.14 Switch Dialog - Condition Branch

Use to specify an XPath expression in the condition (case) branch.

You select exactly one branch of activity from a set of choices. The condition branches are considered in the order in which they appear. The first branch whose condition is true is taken and provides the activity performed for the switch. If no branch with a condition is taken, then the otherwise branch is taken. If the otherwise branch is not explicitly specified, then an

otherwise branch with an empty activity is assumed to be available. This activity is complete when the activity of the selected branch completes.

Element	Description
Label	Enter a label for the condition branch. When complete, this label becomes the name for the condition branch of the switch activity in Oracle BPEL Designer.
Description	Enter a complete description of the functionality of this condition branch.
Condition	Click the XPath Expression Builder icon to display the Expression Builder dialog that enables you to create an expression.
	For example, assume you have two loan offers from competing loan companies stored in the global variables loanOffer1 and loanOffer2. Each loan offer variable contains the loan offer's APR. The BPEL flow must choose the loan with the lower APR, as shown in the following XPath expression example:
	<pre>bpws:getVariableData('loanOffer1','payload','/loanOffer/APR') > bpws:getVariableData('loanOffer2','payload','/loanOffer/APR')</pre>

Related Topics

Creating a Switch Activity to Define Conditional Branching in *Developing SOA Applications* with Oracle SOA Suite

2.15 Translate Dialog - Translation Tab

Use to configure inbound message translation (with automatic use of the doTranslateFromNative function) or outbound message translation (with automatic use of the doTranslateToNative function).

Use of the translate dialog eliminates the need to create an assign activity and invoke the Expression Builder dialog to configure these functions. More

Element	Description
Native to XML	Select to translate from native XSD format to XML format (inbound translation).
XML to Native	Select to translate from XML format to native XSD format (outbound translation).
Input	Click the Search icon to invoke the Variable XPath Builder dialog for selecting your input variable. For example, if you are translating from a single string in native format to XML format, you select the single string variable.
	Click the Create an expression icon to invoke the Expression Builder dialog for building an XPath expression to obtain the input variable.
NXSD Schema	Click the Search icon to select the native XSD schema.
Element	Displays the schema element.
Output Type	Displays the output type (for example, domain object model (DOM) or attachment).
Location	If you selected Attachment in the Output Type field, click Browse to specify the directory location of the attachment.
Output	Click the Search icon to invoke the Variable XPath Builder dialog for selecting your output variable.
	Click the Add icon to create an output variable. This is an intermediate variable that you can later assign to another variable, as needed.

Translating Between Native Data and XML in *Developing SOA Applications with Oracle SOA Suite*

2.16 Translate Dialog - General Tab

Use to name the translate dialog.

The translate dialog enables you to configure inbound message translation (with automatic use of the doTranslateFromNative function) or outbound message translation (with automatic use of the doTranslateToNative function).

Element	Description
Name	Enter a name or accept the default name of Translatenumber.
Validate	Click to validate.

Related Topics

Translating Between Native Data and XML in *Developing SOA Applications with Oracle SOA Suite*

2.17 Edit Schedule Job Dialog - General Tab

Use to schedule an Oracle Enterprise Scheduler job in a BPEL process.

An Oracle Enterprise Scheduler job is a unit of work in the form of either Java, a database stored procedure, or any executable. A job is associated with a schedule that describes when and how often the job executes. A web service invokes this job within a BPEL process.

The scheduled Oracle Enterprise Scheduler job resides in a runtime environment and is accessible with an Oracle Metadata Services Repository (MDS Repository) connection, using database-based access.

Element	Description
Application	Displays the value of the selected job's SYS_effectiveApplication property. This property <i>must</i> be set, or an error message is displayed and you cannot proceed.
	This editable state of this field depends on the selected job definition:
	 If the selected job definition provides SYS_effectiveApplication, then the value for this property is displayed and this field is not editable. If the job definition does not provide SYS_effectiveApplication, then this field is editable and you must specify the application name in the User Defined Properties section of the System Properties tab.
Name	Specify the name of the job.
Description	Specify a description for the request.
Job	Click the Search icon to invoke the Enterprise Scheduler Browser dialog to select the job.
Schedule	Click the Search icon to invoke the Enterprise Scheduler Browser dialog to select the job schedule. If not specified, the job is executed immediately.



Element	Description
Start Time	Specify a datetime string (in ISO 8601 format). Alternatively, click the XPath Expression Builder icon to specify the Start Time as an XPath expression. The start is separate from the schedule, and indicates when the job takes effect. If not specified, the job is executed immediately.
	If you are manually specifying a datetime string, you must enclose it in single quotes. For example: '2013-08-06T01:19:39.261+0530'. Also, make sure you are using the ISO 8601 format: yyyy-MM-dd'T'HH:mm:ss.SSSZ.
	A valid entry in this format would be: '2013-08-06T01:19:39.261+0530'. The single quotes around the datetime string distinguishes it from an expression, which does not use quotes.
End Time	Specify a datetime string (in ISO 8601 format). Alternatively, click the XPath Expression Builder icon to specify the End Time as an XPath expression. The end is separate from the schedule, and indicates when the job ends. If a schedule is not specified, this field is not displayed.
	If you are manually specifying a datetime string, you must enclose it in single quotes. For example: '2013-08-06T01:19:39.261+0530'. Also, make sure you are using the ISO 8601 format: yyyy-MM-dd'T'HH:mm:ss.SSSZ.
	A valid entry in this format would be: '2013-08-06T01:19:39.261+0530'. The single quotes around the datetime string distinguishes it from an expression, which does not use quotes.

Invoking an Oracle Enterprise Scheduler Job in a BPEL Process in *Developing SOA* Applications with Oracle SOA Suite

Developing Applications for Oracle Enterprise Scheduler

2.18 Edit Schedule Job Dialog - Application Properties Tab

Use to specify application properties.

Application properties are unique to a specific job. When you schedule an Oracle Enterprise Scheduler job in a BPEL process, the application properties defined in the job are displayed in this dialog. You can also specify your own application properties.

Element	Description
Job Properties	Displays the application properties defined by the job. Only the values can be modified. The properties in this table cannot be removed.
Name	Displays the application property name.
Туре	Displays the type (for example, integer or string) of the application property.
Value	Double-click this field to manually edit the value or click the ellipses on the right side to display the XPath Expression Builder for changing the value. The values are used in the assign activity. If an application property was created as a read-only property, it cannot be edited.
User Defined Properties	Displays the application properties that you added for this request. You can add, modify, and remove properties in this table. Select from a fixed list of system property names in this table.
Add	Click to add a property to this table.
Remove	Click to remove a selected property from this table.

Element	Description
Name	Displays the user property name.
Туре	Displays the type of the user property. The data types in this table must be selected from a fixed list: string, integer, long, boolean, and datetime.
Value	Click the ellipses on the right side to display the XPath Expression Builder for changing a value. The values are used in the assign activity. You can also enter static values that must be specified in single quotes. If the property has an initial value, it is displayed in the cell.

Invoking an Oracle Enterprise Scheduler Job in a BPEL Process in *Developing SOA Applications with Oracle SOA Suite*

Developing Applications for Oracle Enterprise Scheduler

2.19 Edit Schedule Job Dialog - System Properties Tab

Use to specify system property values.

System properties are parameters with names reserved by Oracle Enterprise Scheduler. Oracle Enterprise Scheduler represents parameter names that are known to and used by the system in the SystemProperty class. More

When you schedule an Oracle Enterprise Scheduler job in a BPEL process, the system properties defined in the job are displayed in this dialog. You can also specify your own system properties.

Element	Description
Job Properties	Displays the system properties defined by the job. Only the values can be modified. The properties in this table cannot be removed.
Name	Displays the system property name.
Туре	Displays the type (for example, integer or string) of the system property.
Value	Double-click this field to manually edit the value or click the ellipses on the right side to display the XPath Expression Builder for changing the value. If a system property was created as a read-only property, it cannot be edited.
User Defined Properties	Displays the system properties that you have added for this request. You can add, modify, and remove properties in this table. Select from a fixed list of system property names in this table.
Add	Click to add a property to this table.
Remove	Click to remove a selected property from this table.
Name	Displays the user property name.
Туре	Displays the type (for example, integer or string) of the user property.
Value	Click the ellipses on the right side to display the XPath Expression Builder for changing a value. The values are used in the assign activity. You can also enter static values that must be specified in single quotes.

Related Topics

Invoking an Oracle Enterprise Scheduler Job in a BPEL Process in *Developing SOA Applications with Oracle SOA Suite* Developing Applications for Oracle Enterprise Scheduler

2.20 Enterprise Scheduler Browser Dialog

Use to select a job or schedule under an Oracle Metadata Services Repository (MDS Repository) connection.

If you select to browse for a job, only jobs are displayed. If you select to browse for a schedule, only schedules are displayed.

Element	Description
MDS Connection	Select the MDS Repository connection.
Navigation Tree	Expand the tree to select the job or schedule.

Related Topics

Invoking an Oracle Enterprise Scheduler Job in a BPEL Process in *Developing SOA* Applications with Oracle SOA Suite

2.21 Type Chooser Dialog

Use to associate types such as XML schema simple types, Web Services Description Language (WSDL) message types, and XML schema elements with entities such as variables, message parts, correlation sets, entity keys, and so on.

This dialog displays information based on the context of its use. For example, if selecting a simple, message, or element type for a variable, the dialog displays XML schema simple types, WSDL file message types, or XML schema elements, respectively. If selecting a message part type, the dialog displays project schema files, XML schema simple types, and project WSDL files.

This dialog also includes a **Recent Files** folder in which information is kept for the duration of the Oracle JDeveloper session. For example, if you create a new BPEL process and want to define the input variable from a schema in the SOA Design-Time Oracle Metadata Services Repository, you go there once. When you want to define the output variable from the same schema, the schema is visible in the **Recent Files** folder.

Element	Description
Type Explorer	Expand the tree and select the specific type with which to associate the variable, message part, correlation set, or other entity.
Туре	Displays the selected message part.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information.

Related Topics

Introduction to the BPEL Process Service Component" in *Developing SOA Applications with Oracle SOA Suite*

How to Translate Native Data to XML Data in *Developing SOA Applications with Oracle SOA Suite*



2.22 Switch Dialog - Otherwise Branch

Use to drop an activity into the otherwise branch of a switch activity.

You select exactly one branch of activities from a set of choices. The case branches are considered in the order in which they appear. The first branch whose condition is true is taken and provides the activity performed for the switch. If no branch with a condition is taken, then the otherwise branch is taken. If the otherwise branch is not explicitly specified, then an otherwise branch with an empty activity is assumed to be available. This activity is complete when the activity of the selected branch completes.

For more information about the switch activity, see the *Business Process Execution Language* for Web Services Specification at http://www.oasis-open.org.

Element	Description
Otherwise branch	Drop an activity into the otherwise branch of a switch activity.

Related Topics

Defining Conditional Branching with the Switch Activity in BPEL 1.1 of *Developing SOA Applications with Oracle SOA Suite*

2.23 Add or Edit Fault Dialog

Use to create or edit the operation.

Element	Description
Name	Enter a name for the fault.
Message	Select the Search icon to choose the fault message.

Related Topics

Getting Started with Oracle BPEL Process Manager in *Developing SOA Applications with Oracle SOA Suite*

2.24 Property Chooser Dialog

Use to select a correlation set property.

Correlation sets address complex message delivery situations by providing a declarative mechanism to specify correlated groups of operations within a service instance. A set of correlation tokens is defined as a set of properties shared by all messages in the correlated group. A property definition creates a globally unique name and associates it with an XML schema instance. The property name must have global significance in correlations.

For more information about properties and correlation sets, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.



Element	Description
Add icon	Click to create a correlation set property. You must first select the Properties folder to enable this icon.
Edit icon	Click to edit an existing correlation set property.
Delete icon	Click to delete a correlation set property.
Properties	Expand the tree and select the specific correlation set property.
Show Detailed Node Information	.Select an element and click this checkbox to display detailed information.

Using Correlation Sets and Message Aggregation in *Developing SOA Applications with Oracle SOA Suite*

2.25 Property Alias Dialog

Use to create a property alias.

Property aliases enable you to map a global property to a field in a specific message part. This enables the property name to become an alias for the message part and location. The alias can be used in XPath expressions.

Property aliases are used with correlation sets. A set of correlation tokens is defined as a set of properties shared by all messages in the correlated group. A property definition creates a globally unique name and associates it with an XML schema instance. Properties in business protocols are typically included in application-visible message data.

For more information about properties and correlation sets, see the *Business Process Execution Language for Web Services Specification* at http://www.oasis-open.org.

Element	Description
Property	Select a property from the list for which to create an alias. If a property does not exist, select the Add icon to create a correlation set property.
Interaction Type	Select the message type or business event to which to map the property.
Message Type	Select a message type.
	• Type Explorer : Expand the tree and select the specific message part to which to map the property. The property name becomes an alias for the message part and location.
	• Type: Displays the selected message part.
	• Show Detailed Node Information : Select an element and click this checkbox to display detailed information.
	• Query : Press Ctrl+Space in this field to start the XPath Building Assistant. The XPath Building Assistant cannot be started until you have made your selection in the tree. The query selections that appear are based on your selection in the tree. Press Esc when complete.
Event	Select to publish to a business event.
	• Event: Click the Search icon to select the business event.
	• Query : Press Ctrl+Space in this field to start the XPath Building Assistant. The XPath Building Assistant cannot be started until you have made your selection in the tree. The query selections that appear are based on your selection in the tree. Press Esc when complete.

Using Correlation Sets and Message Aggregation in *Developing SOA Applications with Oracle SOA Suite*

Using Business Events and the Event Delivery Network in *Developing SOA Applications with Oracle SOA Suite*

2.26 Partner Links Dialog

Use to manage (create, update, and delete) the partner links with which your BPEL process interacts.

A partner link characterizes the conversational relationship between two services. It defines the roles played by each service in the conversation and specifies the port type provided by each service to receive messages within the context of the conversation.

For more information about partner links, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Add icon	Click to create a partner link. You must first select the second Partner Links folder to enable this icon.
Edit icon	Click to edit a selected partner link.
Delete icon	Click to delete a selected partner link.
Partner Links	Displays the partner links in the BPEL process.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information. Selecting this checkbox for partner links does not display any additional information.

Related Topics

Introduction to Partner Links in Developing SOA Applications with Oracle SOA Suite

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

Invoking an Asynchronous Web Service from a BPEL Process in *Developing SOA Applications* with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.27 Configure Service or Adapter Dialog

Use to select a service or adapter for configuration as a partner link. When you select a service or adapter, an appropriate wizard is launched for configuration. For example, selecting **B2B** launches the B2B wizard or selecting **File** launches the Adapter Configuration wizard.

Element	Description
Configure Service or Adapter	Select a service or adapter for configuration as a partner link



Getting Started with Binding Components in *Developing SOA Applications with Oracle SOA Suite*

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

"Invoking an Asynchronous Web Service from a BPEL Process in *Developing SOA* Applications with Oracle SOA Suite

2.28 Create Property Dialog

Use to define a deployment descriptor property for the partner link.

Properties define the locations of the Web Services Description Language (WSDL) files for services to be called by this BPEL process flow and reference the public interface for the service.

Element	Description
Name	Enter a name or select an existing property name from the list.

Related Topics

Deployment Descriptor Properties in Developing SOA Applications with Oracle SOA Suite

2.29 Import WSDL File Dialog

Use to import a Web Services Description Language (WSDL) file into the project.

Element	Description
URL	Click the Search icon to select a WSDL file.
Copy to Project	Select to copy this WSDL file to the current project. This is the default selection.

Related Topics

Getting Started with Oracle BPEL Process Manager in *Developing SOA Applications with Oracle SOA Suite*

2.30 Oracle BPEL Designer

Use Oracle BPEL Designer to design and automate testing of a BPEL process.

The sections of the designer enable you to perform specific design tasks.



Element	Description
Applications window	Displays the directories and files of a SOA project. Key folders and files in the SOA folder include the following:
	• BPEL : Displays the BPEL process service component file (. bpel). This file displays the contents of the BPEL process. You add syntax to this file when you drag activities from the Components window, create variables, create partner links, and so on.
	• Events: Displays the business event files (.edn).
	• Schemas: Displays the BPEL process schema files (.xsd).
	testsuites: Displays the test suite files.
	 Transformations: Displays the transformation mapper files (.xsl).
	 WSDLs: Displays the BPEL process WSDL files. This file defines the input and output messages for the BPEL process flow, the supported client interface and operations, and other features.
	As you design the BPEL process service component, additional files, folders, and elements appear in the Applications window.
Designer	Provides a visual view of the BPEL process that you design. This view displays when the Design tab is selected.
BPEL, Monitor, Test, and Analytics buttons	Click BPEL View to access the BPEL process in design mode (that is, nontest mode) in Oracle BPEL Designer. Click Monitor View to configure Oracle Business Activity Monitoring (BAM) monitors and BPEL sensors in Oracle BPEL Designer. Click Test View to access the BPEL process in test mode in Oracle BPEL Designer. Click Analytics View to configure BPEL process analytics in Oracle BPEL Designer. BPEL Designer.
Test Mode in Oracle BPEL Designer	Enables you to automate the testing of an individual BPEL process service component included in a new or existing SOA composite application test suite. These test cases enable you to simulate the interaction between a BPEL process and its web service partners prior to deployment in a production environment. This helps to ensure that a BPEL process interacts with web service partners as expected by the time it is ready for deployment to a production environment. You can perform the following types of tests:
	• Asserts: Enable you to create variable and fault assertions in BPEL process activities. Variable assertions enable you to validate test data in a variable as a process is executed. This is done by extracting a value from a variable or an XML document and comparing it to an expected value.
	• Fast forwards: Enable you to specify the amount of time for which to bypass a wait activity and move forward in a test scenario.
	 Assert execution counts: Enable you to specify and validate the number of times an activity is executed in a BPEL process.
	 onAlarm branches: Enable you to test onAlarm branches of pick activities.
Components window	Displays a set of BPEL activities and services that you drag into the designer.
Property Inspector	Displays details about a selected activity in the BPEL process. You can edit activities from the Property Inspector.
Structure window	Provides a structural view of the data in the BPEL process.
Log window	Displays messages about the status of BPEL process validation and compilation.

Introduction to the BPEL Process Service Component in *Developing SOA Applications with Oracle SOA Suite*

2.31 Service Explorer Dialog

Use to select the Web Services Description Language (WSDL) file or Java interface of the partner link with which the BPEL process is to interface.

Note: This dialog is also available in the Oracle Mediator Editor when you select the target for a new routing rule.

Element	Description
Service Explorer	Displays all the SOA service components (BPEL process, Oracle Mediator, human task, spring, and business rules) and external references (including outbound adapters). When selected, the WSDL file of the partner link displays in the WSDL URL field of the Create Partner Link dialog. If a Java interface is selected, the generated WSDL file is displayed.
	If you select a target with a Java interface, and this component requires a WSDL interface, you are prompted to automatically create a compatible WSDL interface. All WSDL information is automatically entered in the fields of the Create Partner Link dialog.
BPEL Processes	Expand and select the BPEL process service component to integrate as a partner link in this SOA composite application.
Business Rules	Expand and select the business rule service component to integrate as a partner link in this SOA composite application.
Mediators	Expand and select the Oracle Mediator service component to integrate as a partner link in this SOA composite application.
Human Tasks	Expand and select the human task service component to integrate as a partner link in this SOA composite application.
Spring Contexts	Expand and select the spring service component to integrate as a partner link in this SOA composite application.
Services	Expand and select the service binding component to integrate as a partner link in this SOA composite application.
References	Expand and select the reference binding component to integrate as a partner link in this SOA composite application.

Related Topics

Deploying a SOA Composite Application in *Developing SOA Applications with Oracle SOA Suite*

2.32 Expression Builder Dialog

Use to visually design XPath expressions in the selected service component (BPEL process or Oracle Mediator).

Element	Description
Expression	Displays the XPath expression that you are building.
	Double-clicking items in the Functions palette and the BPEL Variables section (for a BPEL process), Business Event section (for Oracle Mediator or certain activities of a BPEL process such as an invoke, reply, receive, or onMessage branch of a pick activity), or Variables section (for Oracle Mediator) builds the XPath expression in the Expression field. You can also create or edit expressions directly in the Expression field by invoking the XPath Building Assistant by pressing Ctrl+Space. How?
	By default, XPath expressions are validated as you create them with the XPath Building Assistant. You can disable validation to improve performance during XPath expression creation. Select Tools > Preferences > SOA and disable the Validate Expression checkbox. Once expression validation is disabled, no underlines display to indicate possible errors or warnings for the XPath expression.
	Note : If your expression is complete, but you are still being prompted to enter information, press Esc . This closes the list.
BPEL Variables, Business Event, or Variables	Create XPath expressions by expanding and selecting required items. The items available for selection are based on the selected service component. For a BPEL process, the item is a variable. For Oracle Mediator or certain activities of a BPEL process such as an invoke, reply, receive, or onMessage branch of a pick activity, the item is a business event, to which it is subscribed, or a variable. Build an XPath expression in this section by single-clicking elements.
	For example, expanding and single-clicking Variables > output > Variable > payload > ns1:OrderItems > ns1:Item > ns1:ProductName for a BPEL process service component displays a preview version of the XPath expression in the Content Preview field at the bottom left. When the XPath expression is complete, double-click the last element or click Insert Into Expression to display it in the Expression field at the top.
	Note : The name of this section is based on the service component in which you are creating the XPath expression:
	• For a BPEL process, this section is named BPEL Variables or, if you accessed this dialog by selecting Event as the Interaction Type in activities such as an invoke, reply, receive, or onMessage branch of a pick activity, this section is named Business Events .
	 For Oracle Mediator, this section is named either Variables (if defining an interface) or Business Event (if subscribing to an event).
Functions	Select a category of functions from the list in order to build XPath expressions. Each category contains a number of specific functions. The functions available for selection are based on the selected service component.
	Single-clicking a function displays a detailed description (including syntax usage) in the Description field at the bottom. A preview version of the function also displays in the Content Preview field at the bottom left.
	The syntax usage describes the expected arguments for the selected function. These arguments can be variables, parts, elements, literals, or other functions. Insert a function into the Expression field by double-clicking it or clicking Insert Into Expression . For example, double-clicking the concat string function displays it in the Expression field.
	Enter an argument for the selected function by placing the cursor inside the function in the Expression field and double-clicking the BPEL variable expression or function to insert. For example, place the cursor inside the parentheses of concat() and select the BPEL variable syntax. The expression is inserted at the cursor position.
	Note : You can specify a literal or number by manually entering it in the Expression field. A literal must be specified in single quotes.

Element	Description
Insert into Expression	Click to insert the created expression into the Expression field.
Undo Last Edit icon	Click to undo your last edit in the Expression field.
Redo Last Edit icon	Click to redo your last edit in the Expression field.
Clear Expression icon	Click to clear the Expression field.
Content Preview	Displays details about your selection.

XPath Extension Functions in Developing SOA Applications with Oracle SOA Suite

2.33 Timeout Tab

Use to provide a timeout setting for request-response operations in receive activities.

You can select to specify a timeout setting relative from when the activity is invoked or as an absolute deadline on a midprocess receive activity. You cannot specify a timeout setting for a request-response invoke activity.

You can also specify an XPath expression to dynamically compute timeout settings.

This provides an alternative to using the onMessage and onAlarm branches of a pick activity to specify a timeout duration for partner callbacks.

Note: You cannot provide timeout settings for a receive activity with the **Create Instance** checkbox on the **General** tab enabled.

Element	Description
For	Select to specify a timeout setting as a static value or an XPath expression. This timeout setting is relative from when this activity is invoked. This selection uses the bpelx:for attribute.
Time	Select to specify a timeout setting as a static value.
Expression	Build an expression for a timeout setting. Enter this expression through one of the following methods:
	• Press Ctrl+Space in this field to start the XPath Building Assistant. Press Esc when complete. How?
	• Click the XPath Expression Builder icon to display the Expression Builder dialog that enables you to create an expression.
Until	Select to specify a static value or an XPath expression that must evaluate to an XML schema type datetime or date. This timeout setting is an absolute deadline for a request-response operation. This selection uses the bpelx:until attribute.
Time	Select to specify a timeout setting deadline as a static value.
Expression	Build an expression for a timeout setting deadline. Enter this expression through one of the following methods:
	• Press Ctrl+Space in this field to start the XPath Building Assistant. Press Esc when complete. How?
	• Click the XPath Expression Builder icon to display the Expression Builder dialog that enables you to create an expression.



Setting Timeouts for Request-Reply and In-Only Operations in Receive Activities in *Developing* SOA Applications with Oracle SOA Suite

2.34 Assertions Tab

Use to specify an assertion condition that is executed upon receipt of a callback message in request-response invoke activities, receive activities, and onMessage branches of pick activities.

For reply and preassert invoke activities, the condition executes before performing the activity. If the condition evaluates to true, the invoke activity executes. For receive, onMessage, and postassert invoke activities, the condition executes upon receipt of a callback message. The invoke activity executes before the assert activity. Essentially, it is used to assert the inbound message.

The assertion specifies an XPath expression that, when evaluated to false, causes a BPEL fault to be thrown from the activity. This condition provides an alternative to creating a potentially large number of switch, assign, and throw activities after a partner callback. If no fault is specified in the **Assertions** tab, it defaults to <code>AssertFailure</code>. Otherwise, it throws the fault declared in the **Assertions** tab.

The bpelx:assert extension specifies the XPath expression to evaluate upon receipt of a callback message from a partner. If the assertion expression returns a false boolean value, the specified fault is thrown from the activity. If the assertion expression returns a true boolean value, no fault is thrown and the activities following the invoke activity, receive activity, or onMessage branch of a pick or scope activity are executed as in a normal BPEL process flow.

Element	Description
Pre Asserts Tab (BPEL 2.0 projects only)	Displays the defined preassertion conditions. Click this tab, then click Add to create a preassertion condition.
Post Asserts Tab (BPEL 2.0 projects only)	Displays the defined postassertion conditions. Click this tab, then click Add to create a postassertion condition.
Add Icon	Click to create an assertion condition.
	In BPEL 1.1 projects, the following options appear:
	• Pre Assert : If selected, the condition is executed before the invoke or reply activity sends out the outbound message.
	• Post Assert : If selected, the condition is executed after the invoke activity, receive activity, or onMessage branch receives the inbound message.
	In BPEL 2.0 projects, no Pre Assert or Post Assert options are displayed. To create a preassertion condition, you must first select the Pre Asserts tab. To create a postassertion condition, you must first select the Post Asserts tab.
Edit Icon	Click this tab, then click Add to edit a selected assertion condition.
Delete Icon	Click to delete a selected assertion condition.
Assertions	Displays details about the created assertions, including the name, type (preassert or postassert), XPath expression, fault to be thrown, and message.

Related Topics

Throwing Faults with Assertion Conditions in *Developing SOA Applications with Oracle SOA Suite*



2.35 Annotations Tab

Use to create annotations in all activities.

Annotations enable you to provide descriptions in activities in the form of code comments and name and pair value assignments. Instead of manually creating annotations, you can also import a file of annotations from the Preferences dialog - Oracle BPEL Designer page.

Element	Description
Documentation	Enter documentation comments about the activity. For example, within the first of several scope activities, you may enter the following documentation comment to describe the phases of a hiring process:
	This scope activity handles the beginning phases of a hiring process
	This displays in the BPEL source code as follows:
	<pre><bpelx:annotation> <bpelx:documentation>This scope activity handles the beginning phases of a hiring process</bpelx:documentation></bpelx:annotation></pre>
General	Create general name and value pairs to extend attributes in activities. You create general annotations in conjunction with documentation comments. For example, you may create the following general attributes:
	• Enter Hiring Request Submitted in the Name field and Phase 1 in the
	 Enter Joe Smith - manager in the Name field and Oct-10-2013 in the Value
	field of another Create Annotation dialog.
	This displays in the BPEL source code as follows:
	<pre><bpelx:general> <bpelx:property name="Hiring Request Submitted">Phase 1</bpelx:property> <bpelx:property name="Joe Smith - manager">Oct-10-2005</bpelx:property> </bpelx:general></pre>
Analysis	Create analysis name and value pairs for activities that an analyst can extract from the BPEL process with a business analysis tool. In this example, a human resources manager wants to know the number of new hires in the sales department for a specific month. You can enter Sales Department Hiring in the Name field and October 2013 in the Value field of the Create Annotation dialog. This displays in the BPEL source code as follows:
	<bpelx:analysis> <property name="Sales Department Hiring">October 2013 </property></bpelx:analysis>
Add icon	Click to create a name and value annotation.
Edit icon	Click to edit a selected annotation.
Delete icon	Click to delete a selected annotation.

Related Topics

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite



2.36 Skip Condition Tab

Use to specify an XPath expression in an activity that, when evaluated to true, causes that activity to be skipped.

The bpelx:skipCondition attribute causes an XPath expression to be evaluated immediately upon creation of the activity instance. If the skip expression returns a false boolean value, the activity is executed. If the skip expression returns a true boolean value, the activity is completed immediately and execution moves to the activity immediately following that one. For example, you may specify an XPath expression such as the following:

"bpws:getVariableData('crOutput', 'payload','/tns:rating') > 0">

If a value of 3 is returned, the expression evaluates to true, and the activity is skipped.

You can also use built-in and custom XPath functions and *\$variable* references within the skip condition expression.

This functionality provides an alternative to using a switch activity for conditionally executing activities.

Element	Description
Skip Condition	Click the XPath Expression Builder icon to specify an XPath expression. When the expression is evaluated to true, it causes this activity to be skipped.

Related Topics

"Specifying XPath Expressions to Bypass Activity Execution" in *Developing SOA Applications* with Oracle SOA Suite

2.37 Correlations Tab

Use to create a method for explicitly specifying correlated groups of operations within a service instance.

A business process instance typically holds many conversations with partners during its lifecycle. Conversations can use a transport mechanism that correlates the messages in a conversation with an identifier and automatically sends them to the correct instance. However, correlated conversations often involve more than two parties. They also use a lightweight transport mechanism with correlation tokens embedded in the application data being exchanged. Therefore, it is often necessary to provide additional methods for matching messages and conversations with the intended service instance. For example:

- A buyer starts a correlated exchange with a seller by sending a purchase order with a number embedded in the document as the correlation token.
- The seller uses the number in the acknowledgement.
- The seller later sends an invoice that includes the same number (to correlate it with the purchase order) and an additional invoice number so that future payment-related messages must only carry the invoice number as the correlation token.

Therefore, the invoice message carries two separate correlation tokens and participates in two overlapping correlated exchanges.

Correlation sets address these complex situations by providing a method for explicitly specifying correlated groups of operations within a service instance. A set of correlation tokens is defined as a set of properties shared by all messages in the correlated group.

Correlation set names are used in invoke, receive, and reply activities, the OnMessage branch of pick and scope activities, and the OnMessage variant of event handlers. The **Initiate** attribute indicates whether the set is being initiated. When set to **yes**, the set is initiated with the values of the properties occurring in the message being sent or received. In an invoke activity, when the operation invoked is a synchronous request and response, a pattern attribute indicates whether the correlation applies to the outbound (request) message, the inbound (response) message, or both.

WS-Addressing correlations are supported by default with Oracle BPEL Process Manager. However, correlation sets offer several additional benefits:

- Enable a BPEL process to initiate multiple tasks through the same partner link. The correlation ID is bound to the partner link. This means that the same partner link cannot be used to handle multiple concurrent, asynchronous processes.
- When a partner link is a third-party Web service that is not an Oracle BPEL process, there
 is no guarantee that this partner supports WS-Addressing

For more information about correlations, see the Business Process Execution Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Add icon	Click to create a correlation set.
Edit icon	Click to edit a selected correlation set. You can also edit the Initiate and Pattern attributes (for invoke activities) values in this tab by clicking the value to display a list. For Initiate , you can select yes or no . For Pattern in BPEL 1.1, you can select in for inbound (response), out for outbound (request), or out-in (for both response and request). For Pattern in BPEL 2.0, you can select response for inbound, request for outbound, or request-response (for both outbound and inbound).
Delete icon	Click to delete a selected correlation set.
Correlations	Displays the correlation set, whether the set is being initiated, the associated property, and the direction pattern (for BPEL 1,1, in (for inbound response), out (for outbound request), or out-in (for an outbound response and inbound request), and for BPEL 2.0, response (for inbound), request (for outbound), or request-response (for both outbound and inbound)).

Related Topics

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*

2.38 Properties Tab

Use to define message header values for normalized messages in Oracle BPEL Process Manager. Normalized messages enable you to manipulate and propagate header values. Oracle BPEL Process Manager, Oracle B2B, Oracle Mediator, and Oracle JCA adapters rely extensively on header support to solve integration requirements. For example, you can preserve a file name from the source directory to the target directory by propagating it through message headers.

Element	Description
Properties	Displays the message header property names and their values. For descriptions of properties and supported ranges of values, see the Related Topics section for links to relevant documentation.
Name	Displays the name of the property.
Value	Displays the value of the property. Follow these steps to add a value to a property:
	1. Double-click the appropriate field to display the Browse icon.
	2. Click the Browse icon to access a dialog for entering a value.
Туре	Select the type of message delivery. This column only displays for invoke activities in BPEL 1.1 projects.
	• input: Sent to the service.
	• output : Returned from the service as part of a (two-way) response message.
Fit to Width	Deselect to limit the amount of space taken by both fields in the table. This checkbox is selected by default.

Propagating Normalized Message Properties Through Message Headers in *Developing SOA* Applications with Oracle SOA Suite

Oracle JCA Adapter Properties in Understanding Technology Adapters

Normalized Message Properties in Using Oracle B2B

2.39 Targets Tab

Use to create a target link for synchronizing the execution of activities within a flow activity to ensure that certain activities only execute after other activities have completed.

For example, assume you have an invoke activity that is executed in parallel with other invoke activities when the flow activity begins. However, one target activity (scheduling a flight) only requires execution if a source activity (verifying that a flight is available) has executed. Therefore, you add a link between the two invoke activities. Links provide a level of dependency indicating that the activity that is the target of the link is only executed if the activity that is the source of the link has completed.

For more information about targets and sources, see the *Business Process Execution* Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Add icon	Click to create a target link name for this activity.
Delete	Click to delete a selected target link name.
Targets Table	Displays the target link names for this activity.
Link Name	When you click the Add icon, a field is displayed for entering a target link name.

Related Topics

Synchronizing the Execution of Activities in a Flow Activity in *Developing SOA Applications* with Oracle SOA Suite



2.40 Sources Tab

Use to create a source link for synchronizing the execution of activities within a flow activity to ensure that certain activities only execute after other activities have completed.

For example, assume you have an invoke activity that is executed in parallel with other invoke activities when the flow activity begins. However, one target activity (scheduling a flight) only requires execution if a source activity (verifying that a flight is available) has executed. Therefore, you add a link between the two invoke activities. Links provide a level of dependency indicating that the activity that is the target of the link is only executed if the activity that is the source of the link has completed.

For more information about targets and sources, see the *Business Process Execution* Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Add icon	Click to create a source link name for this activity.
Delete	Click to delete a selected source link name.
Sources Table	Displays the source link names for this activity.
Link Name	When you click the Add icon, a field is displayed for entering a source link name.
Transition Condition	Click the row in this column to display a Browser icon for accessing the Expression Builder dialog. You must have already entered a link name for this icon to be displayed. This enables you to create an expression condition that acts as a safe guard for following the specified link. If this column is left blank, it is assumed to evaluate to true.

Related Topics

Synchronizing the Execution of Activities in a Flow Activity in *Developing SOA Applications* with Oracle SOA Suite

2.41 Fault Chooser Dialog

Use to select the fault with which to associate the fault sensor.

Element	Description
Fault Explorer	Expand the tree and select the fault with which to associate the fault sensor (for example, a system fault such as invalidReply).
Show Detailed Node Information	Select an element and click this checkbox to display detailed information.

Related Topics

Using Oracle BPEL Process Manager Sensors in *Developing SOA Applications with Oracle SOA Suite*

Understanding Sensor Public Views and the Sensor Actions XSD in *Developing SOA Applications with Oracle SOA Suite*


2.42 Create or Edit Variable Dialog - General Tab

Use to manage (create, edit, or delete) a variable.

Variables contain messages that constitute the state of a business process. These messages are typically received from partners or sent to partners. Variables can also contain data required for holding state information related to the process that is never exchanged between partners. Variables are defined in terms of XML schema simple types, Web Services Description Language (WSDL) message types, or XML schema elements. Variables associated with message types can be specified as input or output variables for invoke, receive, and reply activities.

For more information about variables, see the Business Process Execution Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of Variablenumber. The name must be unique within its own scope. Once complete, this name displays under the second Variables folder in the Structure window and in the Variable Chooser window.
Туре	Select one of the following types and click the respective Search icon to browse a list of types to use with this variable. Message types are used to specify the type of a variable.
Туре	Select an XML schema simple type (for example, string, boolean, float, and so on). This type is selected by default.
Message Type	Select a WSDL message file definition of a partner link or of the project WSDL file of the current BPEL process (for example, a response message or request message). Variables associated with message types can be specified as input or output variables for invoke, receive, and reply activities.
Element	Select an XML schema element of the project schema file or project WSDL file of the current BPEL process or partner link.
Namespace	Displays the namespace based on the type selected.
Local Part	Displays the local part based on the type selected.
Entity Variable	Click to select an entity variable. The entity variable can be used with an Oracle Application Development Framework (ADF) Business Component data provider service using service data object (SDO)-based data. The entity variable enables you to specify BPEL data operations to be performed by an underlying data provider service. The data provider service performs the data operations in a data store behind the scenes and without use of other data store-related features provided by Oracle BPEL Process Manager (for example, the database adapter). This action enhances Oracle BPEL Process Manager runtime performance and incorporates native features of the underlying data provider service during compilation and runtime. More
Partner Link	Click the Search icon to select the SDO service.
SDO Capable	Select to make this variable SDO-capable if the schema defines it. This is different from entity variables. This type of data does not necessarily contain a unique key value. The data life cycle of this variable is similar to a BPEL XML DOM-based variable. The major difference is that the underlying data form is SDO-based, instead of DOM-based. Therefore, it can use some SDO features (for example, Java API access and change summary). However, its usage is also subject to some SDO restrictions that do not exist in XML-DOM (for example, SDO supports a small subset of XPath expressions).

Manipulating XML Data in a BPEL Process in *Developing SOA Applications with Oracle SOA Suite*

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

Invoking an Asynchronous Web Service from a BPEL Process in *Developing SOA Applications* with Oracle SOA Suite

Using Standalone SDO-based Variables in *Developing SOA Applications with Oracle SOA Suite*

2.43 Create or Edit Variable Dialog - Initialize Tab

Use to initialize a variable.

This provides a shortcut for creating separate assign activities.

Element	Description
Data Source	Select the data source type.
Variable	Expand the tree and select a variable, its part type (for example, a payload), and its XPath expression contents (for example, ns1:OrderItems/ns1:Item). As you select the XPath, it also displays in the XPath field at the bottom of the dialog. This type is the default selection.
Expression	Enter an XPath expression by pressing Ctrl+Space in this field to start the XPath Building Assistant or clicking the XPath Expression Builder icon to display the Expression Builder dialog for creating an expression.
Literal	Assign a literal value to a destination. The type of the literal value must be the type of the destination.
Partner Link	Copy endpoint references from a partner link. Use the default selection of client , select other partner links, or click the Add icon to create a new partner link. Endpoint references represent required dynamic data that describes a partner service endpoint.
My Role	Means that the endpoint reference of the process with respect to that partner link is the source.
Partner Role	Means that the partner's endpoint reference for the partner link is the source.
Property	Select the variable and property and its associated property.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information.
XPath	Displays the XPath as you select it.

Related Topics

Initializing Variables with an Inline from-spec in BPEL 2.0 in *Developing SOA Applications with Oracle SOA Suite*

2.44 Variable Chooser Dialog or Entity Variable Dialog

Use to select the variable to associate with this activity.



Element	Description
Search	Click to search for a variable.
Refresh	Click to refresh the display of variables.
Variables	Expand the tree and select the variable to associate with this activity. To create a variable, select the second Variables folder and click the Add icon.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information.
Add icon	Click to create a variable.
Edit icon	Click to edit the selected variable.
Delete icon	Click to delete the selected variable.

Manipulating XML Data in s BPEL Process in *Developing SOA Applications with Oracle SOA* Suite

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

Invoking an Asynchronous Web Service from a BPEL Process in *Developing SOA Applications* with Oracle SOA Suite

Delegating XML Data Operations to Data Provider Services in *Developing SOA Applications* with Oracle SOA Suite

2.45 Variable XPath Builder Dialog

Use to select a variable XPath value.

Element	Description
Variables	Expand the tree and select a variable XPath expression.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information.
XPath	Displays the XPath query as you select it.

Related Topics

XPath Extension Functions in Developing SOA Applications with Oracle SOA Suite

2.46 Create or Edit Correlation Set Dialog

Use to specify correlated groups of operations within a service instance.

Correlation sets address complex message delivery situations by enabling you to specify correlated groups of operations within a service instance. A set of correlation tokens is defined as a set of properties shared by all messages in the correlated group.

Each correlation set defines a method for identifying an application-level conversation in a business protocol instance. A message can carry multiple correlation sets. After a correlation set is initiated, the values of correlation set properties must be the same for all messages in all operations that carry the correlation set and occur within the corresponding scope until its completion.



For more information about correlation sets, see the Business Process Execution Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default value of CorrelationSetnumber.
Add icon	Click to add an existing property or create a new property.
Edit icon	Click to edit a selected property.
Delete icon	Click to delete a selected property.
Properties	Displays the name, type, and property alias of this correlation set.
Show Namespace URIs	Select an element and click this checkbox to display detailed information.

Related Topics

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle* SOA Suite

2.47 Correlation Set Chooser Dialog

Use to select the correlation set to include in this activity.Correlation sets address complex message delivery situations by enabling you to specify correlated groups of operations within a service instance. A set of correlation tokens is defined as a set of properties shared by all messages in the correlated group.

Each correlation set defines a method for identifying an application-level conversation in a business protocol instance. A message can carry multiple correlation sets. After a correlation set is initiated, the values of correlation set properties must be the same for all messages in all operations that carry the correlation set and occur within the corresponding scope until its completion.

For more information about correlation sets, see the Business Process Execution Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Add icon	Click to create a correlation set. You must first select the second Correlation Sets folder to enable this icon.
Edit icon	Click to edit an existing correlation set.
Delete icon	Click to delete a correlation set.
Correlation Sets	Expand the tree and select the specific correlation set with which to associate the activity.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information.

Related Topics

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*



2.48 Correlation Sets Dialog

Use to manage (create, edit, and delete) correlation sets.

Correlation sets address complex message delivery situations by enabling you to specify correlated groups of operations within a service instance. A set of correlation tokens is defined as a set of properties shared by all messages in the correlated group.

Each correlation set defines a method for identifying an application-level conversation in a business protocol instance. A message can carry multiple correlation sets. After a correlation set is initiated, the values of correlation set properties must be the same for all messages in all operations that carry the correlation set and occur within the corresponding scope until its completion.

For more information about correlation sets, see the Business Process Execution Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Search	Click to search for a correlation set.
Refresh	Click to refresh the display of correlation sets.
Add icon	Click to create a correlation set. You must first select the second Correlation Sets folder to enable this icon.
Edit icon	Click to edit an existing correlation set.
Delete icon	Click to delete a correlation set.
Correlation Sets	Expand the tree and select the specific correlation set with which to associate the activity.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information.

Related Topics

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle* SOA Suite

2.49 Import Schema Dialog

Use to copy or import a schema file into the project.

Element	Description
URL	Click the Search icon to select a schema file.
Copy schema file to project	Select to copy this schema file to the appropriate project. This is the default selection.
Import Into	Select the project into which to import this schema.

Related Topics

Getting Started with Developing SOA Composite Applications in *Developing SOA Applications* with Oracle SOA Suite



2.50 BPEL Type Search Dialog

Use to search for and jump to activities in the BPEL process.

Element	Description
Select All icon	Click to select all activities for which to search in the BPEL process. This is the default selection.
Deselect All icon	Click to deselect all activities.
Types	Displays the types of activities in the BPEL process. Select the Search checkbox for a specific activity and click Search . For example, select an invoke activity. All invoke activities in the process display in the Log window below the BPEL process. Double-click the appropriate invoke activity in the Log window to jump to it in the BPEL process.

Related Topics

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.51 Search BPEL Diagram Dialog

Use to search for activities in a BPEL process.

Element	Description
Search For	Enter the name of the activity for which to search (for example, if the transform activity is named MyTransform , enter that name).
Match Case	Select to match the case sensitivity of the name.
Whole Word	Select to search only for this name, and not part of the name.
Specify Types To Search	Select the activities for which to search. Two icons above the table enable you to select all or deselect all activities in the table.

Related Topics

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.52 Bookmarks Dialog

Use to manage bookmarks, including jumping to bookmarked activities, creating folders for bookmarks, and moving bookmarks to specific folders.

You can create bookmarks on specific activities in your BPEL process. This is similar to bookmarking web pages. This enables you to quickly access specific activities in your process. This feature is particularly useful for large BPEL processes.

Create a bookmark by right-clicking an activity and selecting **Bookmark**. This causes the bookmarked activity to display in this dialog. You can then use this dialog to manage the bookmark. For example, you can move the bookmark to a folder by right-clicking it and selecting **Move To Folder**.



Element	Description
Create Folder icon	Click to create a folder in which to place activity bookmarks. You must first select the <i>Bookmarks</i> folder to enable this icon
Move To Folder icon	Click to move a selected activity bookmark to a folder.
Edit icon	Click to edit the name of a selected activity bookmark.
Delete icon	Click to delete a selected activity bookmark or folder.
Bookmarks	Lists the created bookmarks.

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.53 Create or Edit Bookmark Dialog

Use to create a bookmark for an activity or partner link in the Partner Links swimlanes.

You can organize your bookmarks into folders by selecting **Manage Bookmarks** from the **Bookmarks** list above Oracle BPEL Designer.

Element	Description
Name	Enter a name for the bookmark or accept the default value, which is the activity name.
XPath	Displays the path to the bookmarked activity, service, or reference.

Related Topics

BPEL Processes Activities and Services in *Developing SOA Applications with Oracle SOA Suite*

2.54 Drill Down Stack Dialog

Use to access the contents of an activity in greater detail.

This selection causes only the selected activity to display in Oracle BPEL Designer.

For example, right-click an activity, and select **Drill Into** from the menu. The designer then only displays that activity. If you select an activity with activities inside it (such as a scope activity), you can then select the internal activities (such as a sequence activity), and drill further into them. The designer then only shows that selected activity. The Drill Down Stack dialog then displays only the scope and sequence activities into which you have drilled.

Element	Description
Drill Down Stack	Displays the activities that you have accessed in greater detail.
Clear icon	Select an activity and click to display the BPEL process in its entirety again. You can also display the entire BPEL process again by right-clicking the activity and selecting Drill Out .

Related Topics

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite



2.55 Process Dialog - General Tab

Use to view the top-level attributes and edit the current structure of the BPEL process.

For more information about BPEL processes, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Name	Displays the BPEL process name.
Target Namespace	Displays the target namespace of the BPEL process.
Query Language	Displays the XML query language for selecting nodes in assignments, property definitions, and other uses.
Expression Language	Displays the expression language used in the process.
Suppress Join Failure	Select whether the joinFailure fault is suppressed for all activities in the process. The default value is no . The effect of the attribute at the process level can be overridden by an activity using a different value for the attribute.
Enable Instance Compensation (BPEL 1.1 only)	Select whether the process instance in its entirety can be compensated by platform-specific means. The default value is no .
Abstract Process (BPEL 1.1 only)	Select whether the process being defined is abstract (rather than executable). The default value is no .
Select whether the process being defined is abstract (rather than executable). The default value is no.	Select yes for the process to exit immediately as if an exit activity has been encountered, when a WS-BPEL standard fault other than bpel:joinFailure is encountered. If the value is set to no , the process can handle a standard fault using a fault handler. The default value is no .

Related Topics

Introduction to the BPEL Process Service Component in *Developing SOA Applications with Oracle SOA Suite*

2.56 Create Correlation Set Property or Property Dialog

Use to create a property.

Correlation sets address complex message delivery situations by enabling you to specify correlated groups of operations within a service instance. A set of correlation tokens is defined as a set of properties shared by all messages in the correlated group. A property definition creates a globally unique name and associates it with an XML schema instance. The property name must have global significance in correlations.

After a correlation set is initiated, the values of correlation set properties must be the same for all messages in all operations that carry the correlation set and occur within the corresponding scope until its completion.

For more information about properties and correlation sets, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.



Element	Description
Name	Enter a property name.
Туре	Click the Search icon to select an XML schema simple type.
Property Alias	Displays the property name, type, and query.

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*

2.57 Create or Edit Message Type Dialog

Use to manage (create, edit, or delete) the message types in your BPEL process.

A message type specifies the type of a variable. Message types refer to a Web Services Description Language (WSDL) message type definition. Variables associated with message types can be specified as input or output variables for invoke, receive, and reply activities.

For more information about message types, see the *Business Process Execution Language* for *Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Name	Enter a name. Once complete, this name displays under the Message Types folder in the Structure window.
Add icon	Click to add a message part.
Edit icon	Click to edit a selected message part.
Delete icon	Click to delete a selected message part.
Message Parts	Displays the message parts. Message types consist of message parts such as payloads and purchase orders. This section displays the message part name, message type, QName (qualified name), and schema location. You can manage the parts of the message (for example, the payload).
Show Namespace URIs	Deselect this checkbox to remove the namespace uniform resource identifier (URI) from the QName value. Only the QName appears. This checkbox is selected by default.

Related Topics

Copying Between Variables in Developing SOA Applications with Oracle SOA Suite

Accessing Fields in Element and Message Type Variables in *Developing SOA Applications with Oracle SOA Suite*

2.58 Message Types Dialog

Use to manage (create, update, and delete) message types in the BPEL process.

A message type specifies the type of a variable. Message types refer to a Web Services Description Language (WSDL) message type definition.



For more information about message types, see the *Business Process Execution Language* for *Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Add icon	Click to create a message type. You must first select the Process WSDL - <i>file_name</i> folder to enable this icon.
Edit icon	Click to edit a selected message type.
Delete icon	Click to delete a selected message type.
Message Types	Displays the message types in the BPEL process.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information (for example, the complete namespace path location or a standards organization).

Related Topics

Copying Between Variables in Developing SOA Applications with Oracle SOA Suite

Accessing Fields in Element and Message Type Variables in *Developing SOA Applications with Oracle SOA Suite*

2.59 Create or Edit Message Part Dialog

Use to manage (add or edit) message parts (such as a payload or purchase order).

Message types consist of message parts, such as payloads.

For more information about message parts, see the *Business Process Execution Language* for *Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Name	Enter a name. Once complete, this name displays under the message type name in the Message Types folder of the Structure window.
Туре	Select one of the following formats for representing messages and click the Search icon to browse a list of Web Services Description Language (WSDL) message file definition types with which to associate this part. The difference between the type and element formats is the way in which the actual XML appears that is exchanged in the simple object access protocol (SOAP) message.
Туре	Select a WSDL message file definition type or XML schema simple type. This type is selected by default. The type style for a message part is used in remote procedure call (RPC)/encoded web services.
Element	Select an XML schema element. The element style for a message part is used in document/literal formats.

Related Topics

Understanding Document-Style and RPC-Style WSDL Differences in *Developing SOA Applications with Oracle SOA Suite*

2.60 Create Variable Dialog

Use to automatically create a variable for the selected activity.



Variables contain messages that constitute the state of a business process. These messages are typically received from partners or sent to partners. Variables can also contain data required for holding state information related to the process that is never exchanged between partners. Variables are defined in terms of XML schema simple types, Web Services Description Language (WSDL) message types, or XML schema elements. Variables associated with message types can be specified as input or output variables for invoke, receive, and reply activities.

For more information about variables, see the Business Process Execution Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Name	Enter a name or select the default of <pre>activity_name_operation_input_or_outputVariable. For example, if the activity name is receiveCredit, the operation is initiate, and the variable is an input variable, the variable is named receiveCredit_initiate_InputVariable.</pre>
Туре	Displays the automatically assigned message type for this variable.
Global Variable	Select to make this variable global to the BPEL process. Variables that belong to the global process scope are called global variables.
Local Variable	Select to make this variable local to the scope. Variables that belong to nonglobal scopes are called local variables.

Related Topics

Adding an Invoke Activity in Developing SOA Applications with Oracle SOA Suite

2.61 Properties Dialog

Use to manage (create, edit, and delete) correlation set properties.

Correlation sets address complex message delivery situations by providing a declarative mechanism to specify correlated groups of operations within a service instance. A set of correlation tokens is defined as a set of properties shared by all messages in the correlated group. A property definition creates a globally unique name and associates it with an XML schema instance. The property name must have global significance in correlations. After a correlation set is initiated, the values of correlation set properties must be the same for all messages in all operations that carry the correlation set and occur within the corresponding scope until its completion.

For more information about correlation sets and properties, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Add icon	Click to create a property. You must first select the Properties folder to enable this icon.
Edit icon	Click to edit a selected property.
Delete icon	Click to delete a selected property.
Properties	Displays the correlation set properties in the BPEL process.



Element	Description
Show Detailed Node Information	Select an element and click this checkbox to display detailed information (for example, the complete path location or standards organization).

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle* SOA Suite

2.62 Documentation Tab

Use to embed descriptive comments about the actions of an activity in a BPEL file.

These comments only display in the source code of the BPEL file.

Note: This tab is only available in BPEL projects that support version 2.0 of the BPEL specification.

For more information about the documentation attribute, see the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Source	Enter the documentation source.
Description	Enter a description for the selected activity. For example, if a receive activity receives the credit score from a credit agency, you can add a descriptive comment such as the following:
	Receives the credit score from the United Credit Agency

Related Topics

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.63 Partner Links Tab

Use to manage (create, update, and delete) the partner links with which your BPEL process interacts.

A partner link characterizes the conversational relationship between two services. It defines the roles played by each service in the conversation and specifies the port type provided by each service to receive messages within the context of the conversation.

Element	Description
Add icon	Click to create a partner link.
Edit icon	Click to edit a selected partner link.
Delete icon	Click to delete a selected partner link
Partner Links	Displays the partner links in the BPEL process, the role of the client partner link (for example, requester), and the role of the remote partner link (for example, provider).



Introduction to Partner Links in Developing SOA Applications with Oracle SOA Suite

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

Invoking an Asynchronous Web Service from a BPEL Process in *Developing SOA Applications* with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.64 Pick Dialog - General Tab

Use to create an activity that waits for the occurrence of one event in a set of events and performs the associated activity. The occurrence of the events is typically mutually exclusive (the process either receives an acceptance or rejection message, but not both). If more than one of the events occurs, the selection of the activity to perform depends on which event occurred first. If the events occur nearly simultaneously, there is a race and the choice of activity to perform is dependent on both timing and implementation. This activity consists of OnMessage and OnAlarm branches. One branch is selected before the other based on the occurrence of the associated event. After the pick activity has accepted an event for handling, other events are no longer accepted. The possible events are the arrival of some message in the form of the invocation of an inbound one-way or request and response operation, or an alarm based on a timer (analogous to an alarm clock). The pick activity completes when one of the branches is triggered by the occurrence of its associated event. For more information about the pick activity, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of Picknumber. This becomes the name for this activity in the designer.
Create Instance	If selected, a special form of this activity is used where the creation of an instance of the business process can occur as a result of receiving one of a set of possible messages. In such a case, the events in this activity must all be inbound messages. Each of those are equivalent to a receive activity with the Create Instance checkbox selected. No alarms are permitted for this special case.

Related Topics

Selecting Between Continuing or Waiting on a Process with a Pick Activity in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.65 Repeat Until Dialog - General Tab

Use to repeatedly execute the body of the activity until the specified boolean XPath expression condition is evaluated to true.

Because the condition is tested after the body of the activity completes, the repeatUntil activity executes the body at least once.

For more information about the repeatUntil activity, see the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.



Note: This activity is supported in BPEL projects that support version 2.0 of the BPEL specification.

Element	Description
Name	Enter a name or accept the default value of RepeatUntilNumber. This becomes the name for this activity in the designer.
Expression Language	Displays the XPath expression version and BPEL specification version of this BPEL project. This field cannot be edited.
Condition	Click the XPath Expression Builder icon to display the Expression Builder dialog to create an XPath expression condition.

Related Topics

Defining Conditional Branching with the repeatUntil Activity in *Developing SOA Applications* with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.66 For Each Dialog - General Tab

Use to process multiple sets of activities in both parallel and serial fashion.

The forEach activity executes the contained scope activity N + 1 times, where N equals the final counter value minus the starting counter value that you specify on the **Counter Values** tab. While other structured activities such as a flow activity can have any type of activity as its contained activity, the forEach activity can only use a scope activity. When the forEach activity is started, the expressions for the starting counter and final counter values are evaluated. Once the two values are returned, they remain constant for the life of the activity. Both expressions must contain at least one character that can be validated as an xsd:unsignedInt. If these expressions do not return valid values, a fault is thrown. If the starting counter value is greater than the final counter value, the scope activity must not be performed and the forEach activity is considered complete.

Note: The forEach activity is supported in BPEL projects that support version 2.0 of the BPEL specification. This activity replaces the flowN activity that was supported in version 1.1 of the BPEL specification.

For more information about the forEach activity, see the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default value of ForEachNumber. This name becomes the name for this activity in the designer.
Counter Name	Enter a name for the implicit counter variable or accept the default value of ForEachNumberCounter. For the first iteration of the scope, the counter variable is initialized to the starting counter value. For the next iteration of the scope, the counter variable is initialized to the starting counter value, plus one. Each subsequent iteration increments the previously initialized counter variable value by one, until the final iteration in which the counter is set to the final counter value. The counter variable is local to the enclosed scope. Although its value can be changed during an iteration, that value is lost at the end of each iteration. Therefore, the counter variable value does not impact the value of the next iteration's counter.



Element	Description
Parallel Execution	If this checkbox is selected, the activity is a parallel forEach, in which $N + 1$ instances of the enclosed scope activity occur in parallel. If this checkbox is not selected, the activity is a serial forEach. The enclosed activity must be executed $N + 1$ times, with each instance starting only after the previous repetition has completed.

Processing Multiple Sets of Activities with the forEach Activity in BPEL 2.0 in *Developing SOA* Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.67 For Each Dialog - Counter Values Tab

Use to specify condition expressions for the starting and final counter values. When the forEach activity is started, the expressions you specify for the starting counter and final counter values are evaluated. Once the two values are returned, they remain constant for the life of the activity. Both expressions must contain at least one character that can be validated as an xsd:unsignedInt. If these expressions do not return valid values, a fault is thrown. If the starting counter value is greater than the final counter value, the contained scope activity is not performed and the forEach activity is considered complete.

Note: The forEach activity is supported in BPEL projects that support version 2.0 of the BPEL specification. This activity replaces the flowN activity that was supported in version 1.1 of the BPEL specification.

For more information about the forEach activity, see the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Start Value	Specify a condition expression for the starting counter value.
Expression Language	Displays the XPath expression version and BPEL specification version of this BPEL project. This field cannot be edited.
Expression	Click the XPath Expression Builder icon to enter a starting counter value condition expression.
Final Value	Specify a condition expression for the final counter value.
Expression Language	Displays the XPath expression version and BPEL specification version of this BPEL project. This field cannot be edited.
Expression	Click the XPath Expression Builder icon to enter a final counter value condition expression.

Related Topics

Processing Multiple Sets of Activities with the forEach Activity in BPEL 2.0 in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.68 For Each Dialog - Completion Tab

Use to determine how to count completed scope activities and to specify a completion condition that enables the forEach activity to execute the condition and complete without executing or finishing all the branches specified.

Note: The forEach activity is supported in BPEL projects that support version 2.0 of the BPEL specification. This activity replaces the flowN activity that was supported in version 1.1 of the BPEL specification.

For more information about the forEach activity, see the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Expression Language	Displays the XPath expression version and BPEL specification version of this BPEL project. This field cannot be edited.
Expression	If you want to specify a completion condition that enables the forEach activity to execute the condition and complete without executing or finishing all the branches specified, click the XPath Expression Builder icon to enter a condition.

Related Topics

Processing Multiple Sets of Activities with the forEach Activity in BPEL 2.0 in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.69 FlowN Dialog - General Tab

Use to create activities within this flow.

You also specify the number of branches of these activities to create.

Note: This activity is available in BPEL projects that support version 1.1 of the BPEL specification. In BPEL 2.0, this activity is replaced with the forEach activity.

Element	Description
Name	Enter a name or accept the default name of FlowNnumber. This becomes the name for this activity in the designer.
Ν	Enter the number of branches to create or click the XPath Expression Builder icon to dynamically set this value. This activity creates multiple flows equal to the value of <i>N</i> , which is defined at runtime based on the data available and the logic within the process. An index variable increments each time a new branch is created, until the index variable reaches the value of <i>N</i> .
Index Variable	Click the Add icon to create a new variable or click the Search icon to browse for an existing variable. This variable indicates the period of time to wait in each branch. The index variable indicates a number associated with each branch.

Related Topics

Customizing the Number of Flow Activities with the flowN Activity in BPEL 1.1 in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite



2.70 If Dialog - General Tab

Use to define conditional behavior for specific activities to decide between the execution of two or more branches.

Only one activity is selected for execution from a set of branches. The if activity consists of a list of one or more conditional branches that are considered for execution in the following order:

- if branch
- Optional elseif branches
- Optional else branches

To add an elseif branch or another else branch, highlight the if activity and click the **Add** icon.

The first branch whose condition evaluates to true is taken, and its contained activity is performed. If no branch with a condition is taken, the else branch is taken (if present). The if activity is complete when the contained activity of the selected branch completes, or immediately when no condition evaluates to true and no else branch is specified.

Note: The if activity is supported in BPEL projects that support version 2.0 of the BPEL specification. This activity replaces the switch activity that was supported in version 1.1 of the BPEL specification.

For more information about the if activity, see the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default value of Ifnumber. This name becomes the name for this activity in the designer.
Expression Language	Displays the XPath expression version and BPEL specification version of this BPEL project. This field cannot be edited.
Condition	Click the XPath Expression Builder icon to enter an if condition expression.

Related Topics

Defining Conditional Branching with the If Activity in BPEL 2.0 in *Developing SOA Applications* with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.71 If Dialog - If Label Branch

Use to specify an if branch condition.

Element	Description
Label	Enter an optional name.
Condition	Click the XPath Expression Builder icon to enter an if condition expression.



Defining Conditional Branching with the If Activity in BPEL 2.0 in *Developing SOA Applications* with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.72 If Dialog - Else If Label Section

Use to specify optional elseif branches.

Element	Description
Expression Language	Displays the XPath expression version and BPEL specification version of this BPEL project. This field cannot be edited.
Condition	Click the XPath Expression Builder icon to enter an elseif condition expression.

Related Topics

Defining Conditional Branching with the If Activity in BPEL 2.0 in *Developing SOA Applications* with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.73 Empty Dialog - General Tab

Use to insert a no-operation instruction into a process.

This activity is useful for the synchronization of concurrent activities or for when you must use an activity that does nothing (for example, when a fault must be caught and suppressed).

For more information about the empty activity, see the *Business Process Execution Language* for Web Services Specification at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of Empty_number. This becomes the name for this activity in the designer.

Related Topics

How to Insert No-Op Instructions into a Business Process with an Empty Activity in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.74 Flow Dialog - General Tab

Use to specify one or more activities to be performed concurrently.

This activity provides concurrency and synchronization. This activity completes when all activities in the flow have finished processing. Completion of this activity includes the possibility that it can be skipped if its enabling condition is false.



For more information about the flow activity, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of Flownumber. This becomes the name for this activity in the designer.
Links	Click to enter a link name.
	You can synchronize the execution of activities in a flow activity to ensure that certain activities only execute after other activities have completed. For example, assume you have an invoke activity, verifyFlight, that is executed in parallel with other invoke activities (verifyHotel, verifyCarRental, and scheduleFlight) when the flow activity begins. However, scheduling a flight is necessary only after verifyIng that a flight is available. Therefore, you can add a link between the verifyFlight and scheduleFlight invoke activities. Links provide a level of dependency indicating that the activity that is the target of the link (scheduleFlight) is only executed if the activity that is the source of the link (verifyFlight) has completed.
Add icon	Click to add a field in the table in which to enter a link name.
Delete icon	Click to delete a selected link name.

Related Topics

"Using Parallel Flow in a BPEL Process" in *Developing SOA Applications with Oracle SOA Suite*

"Synchronizing the Execution of Activities in a Flow Activity" in *Developing SOA Applications* with Oracle SOA Suite

"BPEL Process Activities and Services" in *Developing SOA Applications with Oracle SOA Suite*

2.75 Exit Dialog - General Tab

Use to immediately end all currently running activities on all parallel branches.

All currently running activities must be ended immediately without involving any termination handling, fault handling, or compensation behavior.

Note: This activity is supported in BPEL projects that support version 2.0 of the BPEL specification. This activity replaces the terminate activity that was supported in version 1.1 of the BPEL specification.

For more information about the exit activity, see the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default value of ExitNumber.

Related Topics

Immediately Ending a Business Process Instance with the Exit Activity in BPEL 2.0 in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite



2.76 CompensateScope Dialog - General Tab

Use to start compensation on a specified inner scope activity that has already completed successfully.

Only use the compensateScope activity from within a fault handler, another compensation handler, or a termination handler.

The compensateScope activity differs from the compensate activity, which is used to start compensation on all inner scopes that have already completed successfully.

Note: This activity is supported in BPEL projects that support version 2.0 of the BPEL specification.

For more information about the compensateScope activity, see the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of CompensateScopenumber. This becomes the name for this activity in the designer.
Target	Select a target. The target must refer to the name of an immediately enclosed scope.

Related Topics

Using a CompensateScope Activity in BPEL 2.0 in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.77 Compensate Dialog - General Tab

Use to create compensation on a scope activity.

This activity invokes compensation handling on an inner scope activity that has already successfully completed. This activity can be invoked only from within a fault handler or another compensation handler. Compensation handling occurs when a process cannot complete several operations after already completing others. The process must return and undo the previously-completed operations.

For more information about compensation, see the Business Process Execution Language for Web Services Specification at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of Compensatenumber. This becomes the name for this activity in the designer.
Scope	Click the Search icon to select a scope activity for which to invoke the compensation handler. This field does not display in BPEL 2.0 projects.

Related Topics

Using Compensation After Undoing a Series of Operations in *Developing SOA Applications* with Oracle SOA Suite



BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.78 Reply Dialog - General Tab

Use to create an activity that allows the process to send a synchronous message in reply to a message that was received through a receive activity.

The combination of a receive activity and a reply activity creates a request-response operation on the Web Services Description Language (WSDL) port type for the process. You can also create correlation sets on reply activities.

For more information about the reply activity, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

The Reply Dialog - General Tab is arranged in the following sections:

- Name
- Interaction Type Event
- Interaction Type Partner Link
- Fault QName

Name

The Name section enables you to name the reply activity.

Element	Description
Name	Enter a name or accept the default name of Replynumber. This becomes the name for this activity in the designer.

Interaction Type - Event

The **Interaction Type -Event** section enables you to select the web service partner or business event with which to interact.

Element	Description
Event	Select to publish a business event.
Event	Click the Search icon to select the business event.
Variable	Click the Add icon to automatically create a variable. The variable is automatically assigned a message type. Click the Search icon to browse a list of existing variables to assign.

Interaction Type - Partner Link

The **Interaction Type - Partner Link** section enables you to select the web service partner with which to interact.

Element	Description
Partner Link	Select the partner link to invoke with this activity.
Port Type	Select the port type for this activity. This field only displays in BPEL 2.0 projects.
Operation	Select the operation to be performed.



Element	Description
Argument Mapping	Select to set the message parts for the selected operation.
Operation Parts Table	Displays the message parts, message types, and values of the selected operation.
Part	Displays the message part.
Туре	Displays the message type.
Value	Click to set the value for the message part. Select the variable in which to retrieve the value and store in the message part.
Variable	Select to specify a variable to hold the process data sent to or received from the partner.
Variable	Select one of the following options:
	• Click the Add icon to automatically create a variable for this activity. A message type is automatically assigned to this variable.
	 Click the Search icon to browse a list of existing variables to assign to this activity.

Fault QName

The Fault QName section enables you to create fault handling in the reply activity.

Element	Description
Namespace URI	Create fault handling logic to catch and manage exceptions.
	Click the Search icon to select a fault. For example, you can select a fault associated with a partner link or select an applicable system fault (such as invalidReply or uninitializedVariable). After you select the fault, the namespace uniform resource identifier (URI) for the fault displays in this field.
Local Part	Displays the fault selection you make for the Namespace URI field (for example, invalidReply or uninitializedVariable).

Related Topics

Introduction to Synchronous Interactions in *Developing SOA Applications with Oracle SOA Suite*

Mapping WSDL Message Parts in BPEL 2.0 in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

Using Business Events and the Event Delivery Network in *Developing SOA Applications with Oracle SOA Suite*

2.79 Receive Dialog - General Tab

Use to specify the partner link from which to receive information and the port type and operation for the partner link to invoke.

This activity waits for an asynchronous callback response message from a partner link. While the BPEL process is waiting, it is dehydrated (compressed and stored) until the callback message arrives. You can also automatically create a variable in this activity or browse for an existing one. This variable receives the message data.



For more information about the receive activity, see the Business Process Execution Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

The Receive Dialog - General Tab is arranged in the following sections:

- Name
- Interaction Type Event
- Interaction Type Partner Link

Name

The **Name** section enables you to name the receive activity and specify optional conversation ID and instance creation details.

Element	Description
Name	Enter a name or accept the default name of Receivenumber. This becomes the name for this activity in the designer.
Conversation ID	Enter a unique value. This value is used for identifying a process instance during an asynchronous conversation. By default, the BPEL process service engine generates a unique ID for each conversation (which can span multiple invoke and receive activities), as specified by WSA addressing. If you want, you can specify your own value for the engine to use.
Create Instance	Select to create a new instance of the business process.
	When a message is received, receive activities play a role in the lifecycle of a business process. If this checkbox is selected, this indicates that the occurrence of this activity causes a new instance of the business process to be created. If you select this checkbox, this must be the initial activity in the business process.

Interaction Type - Event

The **Interaction Type -Event** section enables you to select the web service partner or business event with which to interact.

Element	Description
Event	Select to publish a business event.
Event	Click the Search icon to select the business event.
Variable	Click the Add icon to automatically create a variable. The variable is automatically assigned a message type. Click the Search icon to browse a list of existing variables to assign.

Interaction Type - Partner Link

The Interaction Type - Partner Link section enables you to select the web service partner with which to interact.

Element	Description
Partner Link	Select the partner link to invoke with this activity.
Port Type	Select the port type for this activity. This field only displays in BPEL 2.0 projects.
Operation	Select the operation to be performed.
Argument Mapping	Select to set the message parts for the selected operation.



Element	Description
Operation Parts Table	Displays the message parts, message types, and values of the selected operation.
Parts	Displays the message part.
Туре	Displays the message type.
Value	Click to set the value for the message part. Select the variable in which to retrieve the value and store in the message part.
Variable	Select to specify a variable to hold the process data sent to or received from the partner.
Variable	Select one of the following options:
	• Click the Add icon to automatically create a variable for this activity. A message type is automatically assigned to this variable.
	Click the Search icon to browse a list of existing variables to assign to this activity.

Invoking an Asynchronous Web Service from a BPEL Process in *Developing SOA Applications* with Oracle SOA Suite

Mapping WSDL Message Parts in BPEL 2.0 in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

Using Business Events and the Event Delivery Network in *Developing SOA Applications with Oracle SOA Suite*

2.80 Invoke Dialog - General Tab

Use to specify an operation that you want to invoke for the service (identified by its partner link).

The operation can be an asynchronous one-way operation or synchronous request-response operation on a port provided by the service. You can also automatically create variables in this activity. An asynchronous invocation requires only the input variable of the operation because it does not expect a response as part of the operation. A synchronous invocation requires both an input variable and an output variable.

For more information about the invoke activity, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

The Invoke Dialog - General Tab is arranged in the following sections:

- Name
- Interaction Type Event
- Interaction Type Partner Link

Name

The **Name** section enables you to name the invoke activity and specify optional conversation ID and master and detail process information.



Element	Description
Name	Enter a name or accept the default name of Invokenumber. This becomes the name for this activity in the designer.
Conversation ID	Enter a unique value. This value is used for identifying a process instance during an asynchronous conversation. By default, the BPEL process service engine generates a unique ID for each conversation (which can span multiple invoke and receive activities), as specified by WSA addressing. If you want, you can specify your own value for the engine to use.
Detail Label	Enter a detail instance name for coordinating master and detail processes in a BPEL process. This field is enabled when you select the Invoke As Detail checkbox
Invoke As Detail	Select to create the partner process instance as a detail instance when coordinating master and detail processes in a BPEL process. This coordination enables you to specify the tasks performed by a master BPEL process and its related detail BPEL processes.

Interaction Type - Event

The **Interaction Type -Event** section enables you to select the web service partner or business event with which to interact.

Element	Description
Event	Select to publish a business event.
Event	Click the Search icon to select the business event.
Variable	Click the Add icon to automatically create a variable. The variable is automatically assigned a message type. Click the Search icon to browse a list of existing variables to assign.

Interaction Type - Partner Link

The Interaction Type - Partner Link section enables you to select the web service partner with which to interact.

Element	Description
Partner Link	Select the partner link to invoke with this activity.
Port Type	Select the port type for this activity. This field only displays in BPEL 2.0 projects.
Operation	Select the operation to be performed
Input	Select Argument Mapping or Input Variable.
Argument Mapping	Select to set the message parts for the selected operation.
Operation Parts Table	Displays the message parts, message types, and values of the selected operation.
Parts	Displays the message part.
Туре	Displays the message type.
Value	Click to set the value for the message part. Select the variable in which to retrieve the value and store in the message part.
Input Variable	Select to specify a variable.



Element	Description
Input	Select one of the following options:
	 Click the Add icon to automatically create a variable for this activity. The variable follows a naming convention of <i>activity_name_operation_</i>InputVariable. For example, if the activity name is invokeCredit and the operation is initiate, the variable is named invokeCredit_initiate_InputVariable. A message type is automatically assigned to this variable (for example, request message). Click the Search icon to browse a list of existing variables to assign to this
	activity.
Output Variable	Select to specify a variable.
Output	Select one of the following options:
	 Click the Add icon to automatically create a variable for this activity. The variable is automatically assigned a message type. The variable follows a naming convention of activity_name_operation_OutputVariable. For example, if the activity name is receiveCredit and the operation is process, the variable is named receiveCredit_process_OutputVariable. A message type is automatically assigned to this variable (for example, response message). Click the Search icon to browse a list of existing variables to assign to this activity.

"Using Business Events and the Event Delivery Network" in *Developing SOA Applications with Oracle SOA Suite*

"Coordinating Master and Detail Processes" in *Developing SOA Applications with Oracle SOA Suite*

"Mapping WSDL Message Parts in BPEL 2.0" in *Developing SOA Applications with Oracle SOA Suite*

"Invoking a Synchronous Web Service" in Developing SOA Applications with Oracle SOA Suite

"Invoking an Asynchronous Web Service from a BPEL Process" in *Developing SOA* Applications with Oracle SOA Suite

"BPEL Process Activities and Services" in *Developing SOA Applications with Oracle SOA* Suite

"What Happens When You Specify a Conversation ID" in *Developing SOA Applications with Oracle SOA Suite*

2.81 OnMessage Branch Dialog - General Tab

Use to create an activity that indicates that the event specified must wait for a message to arrive.

A pick activity must include at least one OnMessage branch. An OnMessage branch is similar in functionality to a receive activity. The OnMessage branch indicates that the event specified must wait for a message to arrive. The usage and interpretation of correlation is the same as for receive activities.



For more information about the OnMessage branch, see the *Business Process Execution* Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

The OnMessage Branch Dialog - General Tab is arranged in the following sections:

- Name
- Interaction Type Event
- Interaction Type Partner Link

Name

The **Name** section enables you to name the OnMessage branch and specify optional conversation ID information.

Element	Description
Name	Enter a name or accept the default name of OnMessagenumber. This becomes the name for this activity in the designer.
Conversation ID	Enter a unique value. This value is used for identifying a process instance during an asynchronous conversation. By default, the BPEL process service engine generates a unique ID for each conversation (which can span multiple invoke and receive activities), as specified by WSA addressing. If you want, you can specify your own value for the engine to use.

Interaction Type - Event

The **Interaction Type -Event** section enables you to select the web service partner or business event with which to interact.

Element	Description
Event	Select to publish a business event.
Event	Click the Search icon to select the business event.
Variable	Click the Add icon to automatically create a variable. The variable is automatically assigned a message type. Click the Search icon to browse a list of existing variables to assign.

Interaction Type - Partner Link

The **Interaction Type - Partner Link** section enables you to select the web service partner with which to interact.

Element	Description
Partner Link	Select the partner link to invoke with this activity.
Port Type	Select the port type for this activity. This field only displays in BPEL 2.0 projects.
Operation	Select the operation to be performed.
Input	Select Argument Mapping or Variable.
Argument Mapping	Select to set the message parts for the selected operation.
Operation Parts Table	Displays the message parts, message types, and values of the selected operation.
Parts	Displays the message part.
Туре	Displays the message type.



Element	Description
Value	Click to set the value for the message part. Select the variable in which to retrieve the value and store in the message part.
Variable	Select to specify a variable.
Variable	Select one of the following options:
	 Click the Add icon to automatically create a variable for this activity. The variable follows a naming convention of <i>activity_name_operation_</i>InputVariable. For example, if the activity name is invokeCredit and the operation is initiate, the variable is named invokeCredit_initiate_InputVariable. A message type is automatically assigned to this variable (for example, request message). Click the Search icon to browse a list of existing variables to assign to this activity.

Selecting Between Continuing or Waiting on a Process with a Pick Activity in *Developing SOA Applications with Oracle SOA Suite*

Mapping WSDL Message Parts in BPEL 2.0 in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

Using Business Events and the Event Delivery Network in *Developing SOA Applications with Oracle SOA Suite*

2.82 OnEvent Dialog

Use to indicate that the specified event waits for a message to arrive.

For example, assume you have a credit request process that is initiated by a customer's credit request message. The request may be completely processed without the need for further interaction, and the results submitted to the customer. In some cases, however, the customer may want to inquire about the status of the credit request, modify the request content, or cancel the request entirely while it is being processed. You cannot expect these interactions to occur only at specific points in the business order processing. An event handler such as an onEvent branch enables the business process to accept requests (such as status request, modification request, or cancellation request) to arrive in parallel to the primary business logic flow.

For more information about the onEvent activity, see the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Note: This branch is supported in BPEL projects that support version 2.0 of the BPEL specification.

The OnEvent Dialog - General Tab is arranged in the following sections:

- Name
- Interaction Type Event
- Interaction Type Partner Link
- Fault QName



Name

The **Name** section enables you to name the OnEvent branch.

Element	Description
Name	Enter a name or accept the default name of onEventnumber. This becomes the name for this activity in the designer.

Interaction Type - Event

The **Interaction Type -Event** section enables you to select the web service partner or business event with which to interact.

Element	Description
Event	Select to publish a business event.
Event	Click the Search icon to select the business event.
Variable	Click the Add icon to automatically create a variable. The variable is automatically assigned a message type. Click the Search icon to browse a list of existing variables to assign.

Interaction Type - Partner Link

The Interaction Type - Partner Link section enables you to select the web service partner with which to interact.

Element	Description
Partner Link	Select the partner link to invoke with this activity.
Port Type	Select the port type for this activity. This field only displays in BPEL 2.0 projects.
Operation	Select the operation to be performed.
From Parts	Select to set the message parts for the selected operation.
Operation Parts Table	Displays the message parts, message types, and values of the selected operation.
Parts	Displays the message part.
Туре	Displays the message type.
Value	Click to set the value for the message part. Select the variable in which to retrieve the value and store in the message part.
Variable	Select the following details:
Variable	Enter a variable local to the event handler that contains the message received from the partner.
Message Type	Click the Search icon to select the variable type by referencing a message type definition using its QName. The variable type (as specified by the message type) must be the same as the input message type defined by the operation referenced by the operation attribute.
Element	Click the Search icon to select an element if the message to be received has a single part that is defined with an element type. That element type must be an exact match of the element type referenced by the element attribute.
Namespace	Click the Search icon to select the namespace.
Local Part	Displays a part value based on the selection you make in the Namespace field.



Mapping WSDL Message Parts in BPEL 2.0 in *Developing SOA Applications with Oracle SOA Suite*

Specifying Events to Wait for Message Arrival with an OnEvent Branch in *Developing SOA Applications with Oracle SOA Suite*

2.83 Rethrow Dialog - General Tab

Use to rethrow the fault that was originally caught by the immediately enclosing fault handler.

This activity must only be used within a fault handler (that is, catch and catchAll elements).

The rethrow activity is used in fault handlers to rethrow the captured fault (that is, the fault name and the fault data (if present) of the original fault). The rethrow activity must ignore modifications to fault data. For example:

- If the fault handler modifies fault data and then calls a rethrow activity, the original fault data is rethrown, and not the modified fault data.
- If a fault is captured using the functionality that enables message type faults with one part defined using an element to be caught by fault handlers looking for the same element type, then the rethrow activity rethrows the original message type data.

Note: The rethrow activity is supported in BPEL projects that support version 2.0 of the BPEL specification.

For more information about the rethrow activity, see the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default value of RethrowNumber.

Related Topics

Rethrowing Faults with the Rethrow Activity in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.84 Throw Dialog - General Tab

Use to generate a fault from inside the business process.

Use the throw activity when a business process must explicitly signal an internal fault. Each fault requires a globally unique qualified name (QName). The throw activity is required to provide this fault name. The throw activity can also optionally provide a variable that provides additional details about the fault. A fault handler uses this data to analyze and handle the fault and to populate any fault messages that must be sent to other services.

For more information about the throw activity, see the Business Process Execution Language for Web Services Specification at http://www.oasis-open.org.



Element	Description
Name	Enter a name or accept the default name of Thrownumber. This becomes the name for this activity in the designer.
Namespace URI	Click the Search icon to select the fault to monitor. Expand the tree until you locate the partner link with which the fault handler is associated. This field is automatically completed with a Uniform Resource Locator (URL) path based on your fault selection.
	A fault must have a unique QName. This activity must provide a name for the fault and optionally provide a variable of data that provides further information about the fault.
Local Part	Displays a part value based on the fault selection you make in the Namespace URI field. For example, if you select a partner link with an associated fault named NegativeCredit , the name NegativeCredit is added to this field.
Fault Variable	Click the Search icon to select the variable to hold the fault data.

Throwing Internal Faults with the Throw Activity in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.85 Assign Dialog - Copy Rules Tab

Use to create a method for data manipulation, such as copying the contents of one variable to another.

Copy operations enable you to transfer information between variables, expressions, endpoints, and other elements.

You create rules by dragging and dropping nodes from the source tree on the left side to the target tree on the right side.

For more information about the assign activity, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Notes:

- By default, the center canvas is open. If it is closed, drag the bars open to display the center canvas.
- You can also create a mapping between source and target nodes by selecting the source node, selecting the target node, and then clicking the **Add** icon above the table at the bottom of the dialog. The mapping is then added to the table and the connecting line between the nodes is drawn in the tree.

Element	Description
Select Insert Mode	Determines whether a newly created copy rule is inserted before the selected rule or after the selected rule.
Insert New Rule After	Select to insert a rule after the currently selected copy rule in the table at the bottom of the dialog.
Insert New Rule Before	Select to insert a rule before the currently selected copy rule in the table at the bottom of the dialog.



Element	Description
Expression icon	Drag this icon to a target node to invoke the Expression Builder dialog for assigning an XPath expression to that node. You can also drag this icon to the center canvas to invoke this dialog, specify the expression, save and close the dialog, and then drag the icon to the target node.
Literal (BPEL 2.0 specification) icon or XML Fragment (BPEL 1.1 specification) icon	Drag this icon to a target node to invoke a dialog for assigning a literal (if the BPEL project supports the BPEL 2.0 specification) or XML fragment (if the BPEL project supports the BPEL 1.1 specification) to that target node. You can also drag this icon to the center canvas to invoke this dialog, specify the value, save and close the dialog, and then drag the icon to the target node.
Remove icon	Drag this icon to a target node to create a bpelx:remove extension rule. You can also drag this icon to the center canvas to invoke this dialog, specify the rule, save and close the dialog, and then drag the icon to the target node.
Rename icon	Drag this icon to rename a target node. This adds a bpelx:rename extension rule with an elementTo attribute. You can also drag this icon to the center canvas to invoke this dialog, specify the rule, save and close the dialog, and then drag the icon to the target node.
🔁 Recast icon	Drag this icon to recast a target node. This adds a bpelx:rename extension rule with a typeCastTo attribute. This results in an xsi:type attribute in the XML output. You can also drag this icon to the center canvas to invoke this dialog, specify the rule, save and close the dialog, and then drag the icon to the target node.
Source and Target Trees	Drag the source node to the target node to create a BPEL copy rule from the source to the target node. This action creates a line that connects the source and target types. The copy rule is displayed in the From and To sections at the bottom of the dialog.
	Note : You can also double-click the appropriate literals, XML fragments, renames, or recasts icon in the center canvas to edit that object. Alternatively, double-click the From element for the rule or right-click a rule and select the edit option to edit these objects.
Change rule type (BPEL 1.1 only)	Use to change the type of the selected rule to one of the BPEL extension rules (bpelx:copyList , bpelx:append , bpelx:insertAfter , or bpelx:insertBefore).
	rule type to access the BPEL extension rules.
Сору	Use to copy the contents of one type to another type. This is the default selection. For an assignment to be valid, the data referenced in the From and To sections selections must be of compatible types. For example:
	 The From variable selection and To variable selection are both of a Web Services Description Language (WSDL) message type. In this case, both variables must be of the same message type. Two message types are said to be equal if their qualified names (QNames) are the same. The From variable selection is a WSDL message type and the To variable.
	selection is not, or vice versa. This is illegal because parts of variables, selections of variable parts, or endpoint references cannot be directly assigned to and from variables of WSDL message types.
	 In all other cases, the types of the source and destination are XML schema types or elements, and the constraint is that the source value must possess the element or type associated with the destination. This does not require the types associated with the source and destination to be the same. In particular, the source type can be a subtype of the destination type. In the case of variables defined by reference to an element, both the source and the target must be the same element.

Element	Description
CopyList	Use to perform a CopyList operation of the contents of one type to another type. The From selection (from-spec) can yield a list of either all attribute nodes or all element nodes. The To selection (to-spec) can yield a list of L-value nodes: either all attribute nodes or all element nodes. All the element nodes returned by the To selection must have the same parent element. If the To selection returns a list of element nodes, all element nodes must be contiguous. If the From selection returns attribute nodes, then the To selection must return attribute nodes. Likewise, if the From selection returns element nodes, then the To selection must return element nodes. Otherwise, a bpws:mismatchedAssignmentFailure fault is thrown. The From selection can return zero nodes, while the To selection must return at least one node. If the From selection returns zero nodes, the effect of the CopyList operation is similar to the remove operation. The CopyList operation provides the following features:
	 Removes all the nodes pointed to by the To selection. If the To selection returns a list of element nodes and there are leftover child nodes after removal of those nodes specified by the To selection, the nodes returned by the From selection are inserted before the next sibling of the last element specified by the To selection. If there are no leftover children nodes, an append operation is performed. If the To selection returns a list of attribute nodes, those attributes are removed
	from the parent element. Then, the attributes returned by the From selection are appended to the parent element.
Append	Use to append the contents of one type to another type. The From selection (from- spec) of the append operation yields zero or more nodes. The node list is appended as child nodes to the target node specified by the To selection (to-spec). If the From selection yields a zero node, a bpel:selectionFailure fault is generated. The To selection must yield a single L-Value element node. Otherwise, the same fault error is also generated. The To selection cannot refer to a partner link.
InsertAfter	Use to insert the contents of one type after another type's contents. This operation is similar to the functionality for the Insert-Before operation, except for the following issues:
	 If multiple L-Value nodes are returned by the To selection (to-spec), the last node is used as the reference node. Instead of inserting nodes before the reference node, the source nodes are inserted after the reference node.
InsertBefore	Use to insert the contents of one type before another type's contents. The From selection (from-spec) of the insert-before operation yields zero or more nodes. The node list is appended as child nodes to the target node specified by the To selection (to-spec). The To selection of the insert-before operation points to one or more single L-Value nodes. If more than one node is returned, the first node is used as the reference node must also be an element node. Otherwise, a bpel:selectionFailure fault is generated. The node list generated by the From selection is inserted before the reference node. The To selection cannot refer to a partner link.
From XPath Field and To XPath Field	Displays the rules that you created in the tree. Place your cursor over the icon to the left of the source type to display the operation being performed (for example, copy, append, and so on). Each operation type is represented by a different icon. You can right-click a copy rule to display a list of actions to perform. Note: In BPEL 1.1, you can edit XPath values when the created copy rule contains a query for the source node in the From XPath field and edit XPath values when the created copy rule contains a query for the target node in the To XPath field.

Element	Description
Edit 'From' Expression or Edit 'To' Expression	Select this option to edit XPath expression values when the created copy rule contains a query for the source or target node. This selection invokes the Expression Builder dialog. The menu option that displays is based on the current content of your copy rule selection.
ignoreMissingFrom Data	Select this option to toggle the ignoreMissingFromData attribute on the copy rule on and off. When toggled on, this suppresses any bpel:selectionFailure standard faults.
insertMissingToDat a	Select this option to toggle the insertMissingToData attribute on the copy rule on and off.
keepSrcElementN ame (BPEL 2.0)	Select this option to toggle the keepSrcElementName attribute on the copy rule on and off. This enables you to replace the element name of the destination (as selected by the to-spec) with the element name of the source. This attribute is only available in BPEL version 2.0 projects.
Change rule type (BPEL 2.0)	Use to change the type of the selected rule to one of the BPEL extension rules: bpelx:copyList , bpelx:append , bpelx:insertAfter , or bpelx:insertBefore .
Create rule from selected node icon	Create a mapping between source and target nodes in the tree by selecting the source node, selecting the target node, and then clicking the Add icon. The mapping is then added to the table and the connecting line between the nodes is drawn in the tree.
Delete selected rule icon	Click to delete the selected rule. You can also use the Delete key on your keyboard.
Move selected rule up in list icon	Click to move the selected rule up in the list.
Move selected rule down in list icon	Click to move the selected rule down in the list.

Manipulating XML Data with bpelx Extensions in *Developing SOA Applications with Oracle SOA Suite*

How to Use Assign Extension Attributes in *Developing SOA Applications with Oracle SOA Suite*

Introduction to Manipulating XML Data in BPEL Processes in *Developing SOA Applications* with Oracle SOA Suite

Copying Between Variables in Developing SOA Applications with Oracle SOA Suite

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.86 Assign Dialog - General Tab

Use to create a method for data manipulation, such as copying the contents of one variable to another. This enables you to update the values of variables with new data.

You can also create and insert new data using XPath expressions and copy endpoint references to and from partner links. The assign activity can contain any number of elementary assignments.



For more information about the assign activity, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of Assignnumber. This becomes the name for this activity in the designer.
Validate	Select to validate the content of the assign activity.

Related Topics

Introduction to Manipulating XML Data in BPEL Processes in *Developing SOA Applications* with Oracle SOA Suite

Copying Between Variables in Developing SOA Applications with Oracle SOA Suite

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.87 Scope Dialog - General Tab

Use to create an activity that consists of a collection of nested activities that can have their own local variables, fault handlers, compensation handlers, and so on.

For more information about the scope activity, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default value of Scopenumber for a scope activity. This becomes the name for this activity in the designer.
Variable Access Serializable	Select this checkbox for the activity to provide concurrency control in governing access to shared variables. This activity must not be nested, and must be a leaf scope. This checkbox is deselected by default. This checkbox displays in scope activities that support the BPEL 1.1 specification. For example, two concurrent serializable scopes, S1 and S2, access a common set of variables (external to them) for read or write operations. This selection ensures that the results of their behavior are not different if all conflicting activities (read-and-write and write-and-write activities) on any shared variable are conceptually reordered so that either all activities within S1 are completed before those in S2, or vice versa. The mechanisms are used to ensure that serializability is implementation-dependent.
Exit On Standard Fault	Select this checkbox for the process to exit immediately when any BPEL standard fault other than bpel:joinFailure reaches the scope. This is similar to encountering an exit activity. This checkbox is deselected by default.
	If not selected, the process can handle a BPEL standard fault with a fault handler. When this attribute is not specified on a scope activity, it inherits its value from its enclosing scope or process. This checkbox displays in scope and business rule activities that support the BPEL 2.0 specification.

Related Topics

Managing a Group of Activities with a Scope Activity in *Developing SOA Applications with Oracle SOA Suite*



BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.88 Rule Dialog - General Tab

Use to create a business rule activity.

Element	Description
Name	Enter a name or accept the default value of Rulenumber for a business rule activity. This becomes the name for this activity in the designer.
Variable Access Serializable	Select this checkbox for the activity to provide concurrency control in governing access to shared variables. This activity must not be nested, and must be a leaf scope. This checkbox is deselected by default. This checkbox displays in business rule activities that support the BPEL 1.1 specification. For example, two concurrent serializable scopes, S1 and S2, access a common set of variables (external to them) for read or write operations. This selection ensures that the results of their behavior are not different if all conflicting activities (read-and-write and write-and-write activities) on any shared variable are conceptually reordered so that either all activities within S1 are completed before those in S2, or vice versa. The mechanisms are used to ensure that serializability is implementation-dependent.
Exit On Standard Fault	Select this checkbox for the process to exit immediately when any BPEL standard fault other than bpel:joinFailure reaches the scope or business rule. This is similar to encountering an exit activity. This checkbox is deselected by default. If not selected, the process can handle a BPEL standard fault with a fault handler. When this attribute is not specified on a business rule activity, it inherits its value from its enclosing scope or process. This checkbox displays in scope and business
	rule activities that support the BPEL 2.0 specification.

Related Topics

Using the Business Rules Service Component in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.89 Scope Dialog - User Documentation Tab

Use to add descriptive notes that provide simple descriptions of the functionality of the scope. These notes display in a bubble next to the scope in Oracle BPEL Designer. You can also change the graphical image of scopes. The notes and images help to make a scope activity easier to understand.

Element	Description
Label	Enter a label name. When complete, this name displays as the scope name in Oracle BPEL Designer. This name overrides the name provided in the Name field of the General tab of the scope activity.
Comment	Enter a description of the functionality of the scope. When complete, this description displays in a bubble to the right of the scope activity icon in Oracle BPEL Designer.
Image	Click the Browse icon to invoke a dialog for selecting a different image for the scope. When complete, this image replaces the default icon for the scope activity in Oracle BPEL Designer.


How to Add Descriptive Notes and Images to a Scope Activity in *Developing SOA Applications* with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.90 Scope Dialog - Variables Tab

Use to view the variables used locally in this scope. Variables contain messages that constitute the state of a business process. These messages are typically received from partners or sent to partners. Variables can also contain data required for holding state information related to the process that is never exchanged between partners. Variables are defined in terms of XML schema simple types, Web Services Description Language (WSDL) message types, or XML schema elements. Variables associated with message types can be specified as input or output variables for invoke, receive, and reply activities. For more information about scope activities, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Add icon	Click to create a variable in this scope.
Edit icon	Click to edit a selected variable.
Delete icon	Click to delete a selected variable.
Variables	Displays the name, type, and QName of the variable.
Show Namespace URIs	Deselect this checkbox to remove the namespace uniform resource identifier (URI) from the QName value. Only the qualified name (QName) appears.

Related Topics

Manipulating XML Data in a BPEL Process in *Developing SOA Applications with Oracle SOA Suite*

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

Invoking an Asynchronous Web Service from a BPEL Process in *Developing SOA Applications* with Oracle SOA Suite

Managing a Group of Activities with a Scope Activity in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.91 Catch Dialog - General Tab

Use to create fault handling logic to catch and manage exceptions.

Fault handling is associated with a scope activity. Fault handling undoes the incomplete and unsuccessful work of a scope activity in which a fault has occurred. You define a catch branch to intercept a specific type of fault. The fault is defined by a globally-unique qualified name (QName) and a variable associated with the fault. If you do not define a fault name, all faults with the right type of data are intercepted.



For more information about the catch activity, see the *Business Process Execution Language for Web Services Specification* at http://www.oasis-open.org.

Element	Description
Name	Enter a name.
Namespace URI	Click the Search icon to select a fault. For example, you can select a fault associated with a partner link or select an applicable system fault (such as invalidReply or uninitializedVariable). After you select the fault, the namespace uniform resource identifier (URI) for the fault displays in this field.
Local Part	Displays the fault selection you make for the Namespace URI field (for example, invalidReply or uninitializedVariable).
Fault Variable	Click the Search icon to select the variable to hold the fault data.

Related Topics

Managing a Group of Activities with a Scope Activity" in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.92 OnAlarm Branch Dialog - General Tab

Use to create a branch that marks a time out event.

The OnAlarm branch of a pick activity marks a time out event. The **For** attributes specify the duration after which the event is signaled. The clock for the duration starts at the point in time at which the associated scope starts. The alternative **Until** attributes specify the specific point in time when the alarm is activated. Exactly one of these two attributes must occur in any OnAlarm event.

For more information about the OnAlarm branch, see the *Business Process Execution* Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Name	Enter a name.
For	Select the amount of time for which to wait.
Time	Select a time for which to wait.
Expression	Build an expression for which to wait. Enter this expression through one of the following methods:
	• Press Ctrl+Space in this field to start the XPath Building Assistant. Press Esc when complete. How?
	• Click the XPath Expression Builder icon to display the Expression Builder dialog that enables you to create an expression.
Until	Select the deadline for which to wait.
Time	Select a time for which to wait.
Expression	Build an expression for which to wait. Enter this expression through one of the following methods:
	• Press Ctrl+Space in this field to start the XPath Building Assistant. Press Esc when complete. How?
	• Click the XPath Expression Builder icon to display the Expression Builder dialog that enables you to create an expression.



Element	Description
Repeat Every	Select the time at which to repeat.
Time	Select a time for which to wait.
Expression	Build an expression for which to wait. Enter this expression through one of the following methods:
	• Press Ctrl+Space in this field to start the XPath Building Assistant. Press Esc when complete. How?
	• Click the XPath Expression Builder icon to display the Expression Builder dialog that enables you to create an expression.

Selecting Between Continuing or Waiting on a Process with a Pick Activity in *Developing SOA Applications with Oracle SOA Suite*

2.93 Edit Note Dialog

Use to change the content of the description of the scope.

This description displays in a bubble to the right of the scope activity in Oracle BPEL Designer. Notes enable you to provide simple descriptions of the functionality of the scope.

Element	Description
Comment	Modify the description.

Related Topics

How to Add Descriptive Notes and Images to a Scope Activity in *Developing SOA Applications* with Oracle SOA Suite

2.94 Image Browser Dialog

Use to change the graphical image of a scope activity in Oracle BPEL Designer.

When complete, this image replaces the default icon for the scope activity in Oracle BPEL Designer. This helps to make a scope easier to understand.

Element	Description
Images	Select an image.

Related Topics

How to Add Descriptive Notes and Images to a Scope Activity in *Developing SOA Applications* with Oracle SOA Suite

2.95 Specify Key Dialog

Use to create a key to point to the data in the Oracle ADF Business Component data provider service. Oracle BPEL Process Manager fetches the key when access to the data is required.



Element	Description
Key Local Part	Enter the local part of the key.
Key Namespace URI	Enter the namespace URI of the key.
Key Value	Enter the key value expression. This expression must match the type of a key. The following examples show expression value keys for a purchase order ID (POID) key:
	 \$inputMsg.payload/tns:poid
	 bpws:getVariableData('inputmsg', 'payload', 'tns:poid')
	The POID key for an entity variable typically comes from another message. If the type of POID key is an integer and the expression result is a string of ABC, the string-to-integer fails and the bind entity activity also fails at runtime.

Delegating XML Data Operations to Data Provider Services in *Developing SOA Applications* with Oracle SOA Suite

2.96 Create Entity Dialog

Use to create an entity variable.

The entity variable can be used with an Oracle Application Development Framework (ADF) Business Component data provider service using service data object (SDO)-based data. The entity variable enables you to specify BPEL data operations to be performed by an underlying data provider service. The data provider service performs the data operations in a data store behind the scenes and without use of other data store-related features provided by Oracle BPEL Process Manager (for example, the database adapter). This action enhances Oracle BPEL Process Manager runtime performance and incorporates native features of the underlying data provider service during compilation and runtime.

Element	Description
Name	Enter a name or accept the default name of CreateEntitynumber. This becomes the name for this activity in the designer.
Entity Variable	Click the Search icon to select an entity variable. If you have not created an entity variable, select the second Variables folder in the Variable Chooser dialog and click the Add icon.
From	Enter a value or click the Expression Builder icon to access the XPath Expression Builder dialog for dynamically entering a name.

Related Topics

Delegating XML Data Operations to Data Provider Services in *Developing SOA Applications* with Oracle SOA Suite

2.97 Remove Entity Dialog

Use to remove an entity variable. This action removes the row.



Element	Description
Name	Enter a name or accept the default name of RemoveEntitynumber. This becomes the name for this activity in the designer.
Entity Variable	Click the Search icon to select an entity variable. If you have not created an entity variable, select the second Variables folder in the Variable Chooser dialog and click the Add icon.

Delegating XML Data Operations to Data Provider Services in *Developing SOA Applications* with Oracle SOA Suite

2.98 Sequence Dialog - General Tab

Use to define a collection of activities to be performed sequentially in the order in which they are listed within this activity.

For example, you may create and define flow, scope, and pick activities in that order inside the sequence activity. The sequence activity completes when the final activity (in this example, the pick activity) in the sequence has completed.

For more information about the sequence activity, see the *Business Process Execution* Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of Sequencenumber. This becomes the name for this activity in the designer.

Related Topics

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.99 Terminate Dialog - General Tab

Use to end the tasks of an activity (for example, the fault handling tasks in a catch branch).

The terminate activity can immediately end the behavior of a business process instance within which this activity is performed. All currently running activities must be terminated as soon as possible without any fault handling or compensation behavior. The terminate activity is only available in executable processes.

For example, if a client's bad credit history is identified or a social security number is identified as invalid, a loan application process is terminated, and the client's loan application document is never submitted to the service loan providers.

For more information about the terminate activity, see the Business Process Execution Language for Web Services Specification at http://www.oasis-open.org.

Note: This activity is available in BPEL projects that support version 1.1 of the BPEL specification. In BPEL 2.0, this activity is replaced with the exit activity.



Element	Description
Name	Enter a name or accept the default name of Terminatenumber. This becomes the name for this activity in the designer.

Stopping a Business Process Instance with the Terminate Activity in BPEL 1.1 in *Developing* SOA Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.100 While Dialog - General Tab

Use to create an activity that supports the repeated performance of a specified iterative activity. The iterative activity is performed until the given boolean while condition is no longer true. You drag activities inside a while activity (such as a scope activity and its block of activities).

For more information about the while activity, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of ${\tt While} {\tt number}.$ This becomes the name for this activity in the designer.
Condition	 Build a while condition. Enter this expression through one of the following methods: Press Ctrl+Space in this field to start the XPath Building Assistant. Press Esc when complete. How? Click the XPath Expression Builder icon to create an expression in the Expression Builder dialog.

Related Topics

Defining Conditional Branching with the While Activity in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.101 Wait Dialog - General Tab

Use to specify a delay for a certain period of time or until a certain deadline is reached.

Exactly one of the expiration criteria must be specified. A typical use of this activity is to invoke an operation at a certain time. You typically enter an expression that is dependent on the state of a process.

When specifying a time period for waiting, note the following:

- Wait times cannot be guaranteed if they are scheduled with other events that require processing. Due to this additional processing, the actual wait time can be greater than the wait time specified in the BPEL process.
- Wait times of less than two seconds are ignored by the server. Wait times above two seconds but less than one minute may not get executed in the exact, specified time. However, waits in minutes do execute in the specified time.

 The default value of 2 seconds for wait times is specified with the MinBPELWait property in the System MBean Browser in Oracle Enterprise Manager Fusion Middleware Control. You can set this property to any value and the wait delay is bypassed for any waits less than this value.

For more information about the wait activity, see the *Business Process Execution Language* for *Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
For	Select the amount of time for which to wait.
Time	Select a time for which to wait.
Expression	Build an expression for which to wait. Enter this expression through one of the following methods:
	• Press Ctrl+Space in this field to start the XPath Building Assistant. Press Esc when complete.
	 Click the XPath Expression Builder icon to create an expression in the Expression Builder dialog. How?
Until	Select the deadline for which to wait.
Time	Select a time for which to wait.
Expression	Build an expression for which to wait. Enter this expression through one of the following methods:
	• Press Ctrl+Space in this field to start the XPath Building Assistant. Press Esc when complete.
	 Click the XPath Expression Builder icon to create an expression in the Expression Builder dialog. How?

Related Topics

Setting an Expiration Time with a Wait Activity in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.102 Create or Edit Partner Link Dialog - Image Tab

Use to change the image with which to represent partner links in the designer. The default image for representing partner links displays in the upper field of this dialog.

For more information about partner links, see the Business Process Execution Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Add icon	Click to add an image from the file system.
Delete icon	Click to delete a selected image.
Image	Displays the images. Double-click an image to make it the default image.

Related Topics

"Introduction to Partner Links" in Developing SOA Applications with Oracle SOA Suite

"Invoking a Synchronous Web Service" in *Developing SOA Applications with Oracle SOA Suite*



"Invoking an Asynchronous Web Service from a BPEL Process" in *Developing SOA Applications with Oracle SOA Suite*

"BPEL Process Activities and Services" in *Developing SOA Applications with Oracle SOA Suite*

2.103 Create or Edit Partner Link Dialog - Property Tab

Use to define deployment descriptor properties for this partner link. These properties define the locations of the Web Services Description Language (WSDL) files for services to be called by this BPEL process flow and reference the public interface for the service.

For more information about partner links, see the Business Process Execution Language for Web Services Specification at Business Process Execution Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Property Names	Displays the partner link property names you have added.
Add icon	Click to create a new property or select an existing property.
Delete icon	Click to delete a selected property.
Property Value	Select the property to edit in the Property Names field and enter a value in this field. You must restart Oracle JDeveloper for your changes to take effect.

Related Topics

"Introduction to Partner Links" in Developing SOA Applications with Oracle SOA Suite

"Invoking a Synchronous Web Service" in Developing SOA Applications with Oracle SOA Suite

"Invoking an Asynchronous Web Service from a BPEL Process" in *Developing SOA Applications with Oracle SOA Suite*

"BPEL Process Activities and Services" in *Developing SOA Applications with Oracle SOA Suite*

2.104 Create or Edit Partner Link Dialog - Idempotence Tab

Use to define idempotent settings for a specific operation in a partner link.

Some partner links can expose multiple operations (for example, getEmployee, depositPayCheck, and so on). You can define some operations as idempotent (for example, getEmployee). This enables these operations to be called multiple times. Other operations may not be idempotent (for example, depositPayCheck), and do not require this setting. This setting provides the same functionality as the idempotent deployment descriptor property, but at the more granular, partner link level.

Element	Description
Add icon	Click to specify an operation as idempotent. Double-click in the Operation column to display the Operation list from which to select an operation, then select the Idempotent checkbox.
Delete icon	Click to delete the selected idempotent setting from an operation.
Operation	Displays the operation.

Element	Description
Idempotent	If the checkbox is selected, this indicates that the operation is defined as idempotent.

"Introduction to Deployment Descriptor Properties" in *Developing SOA Applications with Oracle SOA Suite*

"Introduction to Partner Links" in Developing SOA Applications with Oracle SOA Suite

"Invoking a Synchronous Web Service" in Developing SOA Applications with Oracle SOA Suite

"Invoking an Asynchronous Web Service from a BPEL Process" in *Developing SOA* Applications with Oracle SOA Suite

"BPEL Process Activities and Services" in *Developing SOA Applications with Oracle SOA Suite*

Managing Idempotence at the Partner Link Operation Level in *Developing SOA Applications* with Oracle SOA Suite

2.105 Create or Edit Partner Link Dialog - General Tab

Use to create and define the characteristics of the external services with which your process interacts.

A partner link type characterizes the conversational relationship between two services. It defines the roles played by each service in the conversation and specifies the port type provided by each service to receive messages within the context of the conversation.

For more information about partner links, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of PartnerLink <i>number</i> . This becomes the name for this service in the designer.
Process	Displays the name of the BPEL process after you complete creation of the partner link.
Initialize Partner Role	Select to initialize a BPEL 2.0 partner link's partner role value. This attribute does not impact the partner role's value after its initialization. When selected, the endpoint reference value used in partner role initialization is typically specified as part of deployment or execution environment configuration.
WSDL URL	Select the Web Services Description Language (WSDL) file that describes the services offered by the partner link. This file provides a method for the BPEL process to access these services.
	Four icons display for selection above the WSDL URL field.
SOA Resource Browser	Click to select the type of resource required for the service or component. For example, select a WSDL file for a simple object access protocol (SOAP) service.



Element	Description
SOA Service Explorer icon	Click to select the WSDL file of the partner link with which the BPEL process is to interface. The partner link can be a BPEL process service component, Oracle Mediator service component, service binding component, or reference binding component.
Service Wizard icon	Click to launch a wizard to create a WSDL file. This wizard guides you through the creation of a service that uses an adapter type. An adapter type enables your BPEL process or Oracle Mediator service component to interact with components such as Oracle B2B, Oracle Healthcare, Oracle Application Development Framework (ADF) Business Components, Enterprise JavaBeans, REST bindings, HTTP, Oracle Service Bus (through direct binding), database tables, database queues, file systems, FTP servers, Java Message Services (JMS), IBM WebSphere MQ, Oracle Business Activity Monitoring 11 <i>g</i> , TCP/IP sockets, Coherence cache, LDAP services, or Oracle E-Business Suite applications.
Parse WSDL	Click to reload the WSDL file and automatically fill in the Partner Link Type , Partner Role , and My Role fields.
Partner Link Type	Displays the partner type (external service) with which the BPEL process is to interface.
Partner Role	Select the role of the external service with which your BPEL process is interacting (for example, provider).
My Role	Select the role of your BPEL process in this interaction (for example, requester). Leave this field blank if the external service is synchronous.
	The role determines the operations you see when creating a receive or invoke activity. For example, when requester is selected, the receive activity operations are typically initiate , select , or write .

"Introduction to Partner Links" in Developing SOA Applications with Oracle SOA Suite

"Invoking a Synchronous Web Service" in Developing SOA Applications with Oracle SOA Suite

"Invoking an Asynchronous Web Service from a BPEL Process" in *Developing SOA* Applications with Oracle SOA Suite

"BPEL Process Activities and Services" in *Developing SOA Applications with Oracle SOA* Suite

2.106 Validate Dialog - General Tab

Use to validate the variables in the list.

This activity verifies code and identifies XML data in a BPEL project. The variables are validated against their XML schema.

Element	Description
Name	Enter a name or accept the default name of ValidateNumber. This becomes the name for this activity in the designer.
Variables	Displays the variable name.
Add icon	Click to add a variable.
Delete icon	Click to delete a selected variable.



Validating XML Data in Developing SOA Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.107 Assert Dialog - General Tab

Use to create an assertion condition. The assertion specifies an XPath expression that, when evaluated to false, causes a BPEL fault to be thrown from the activity.

This is a standalone activity in which to specify assertions. You can also specify assertions from the **Assertions** tab in invoke activities, receive activities, and the onMessage branch of pick and scope activities.

Element	Description
Name	Enter a name or accept the default name of Assertnumber.
Message	Specify a message to be displayed when the assertion condition evaluates to false.
Expression	Click the XPath Expression Builder icon to create an expression.

Related Topics

How to Create Assertion Conditions in Developing SOA Applications with Oracle SOA Suite

Assertion Conditions in a Standalone Assert Activity in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.108 Email Dialog - General Tab

Use to send an automatic, asynchronous email notification to a user, group, or destination address.

You must also configure user messaging preferences in the User Messaging Preferences application. For example, you register e-mail clients and specify the message content to receive and the channel to use for receiving messages. If no channel is specified, email is used by default. These tasks enable you to receive notifications. The preferences you set in this application are applicable only to you, and not to other users.

Element	Description
Name	Enter a name for the activity or accept the default value of Emailnumber.
From Account	Use the Default account name to send system notifications or enter a custom account from which to send the notification message.
То	Enter a valid email account for the recipient of this notification message through one of the following methods:
	 Enter the account manually. Click the Search icon to display a dialog for selecting an account configured through the Identity Service. The Identity Service enables the lookup of user properties, roles, and group memberships. Click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter an account.

Element	Description
Cc	If you want to copy additional users, then optionally enter a valid email account for the recipient of this notification message using one of the methods described for the To field.
Всс	If you want to blind copy additional users, then optionally enter a valid email account for the recipient of this notification message using one of the methods described for the To field.
Reply To	If you want to reply to additional users, then optionally enter a valid email account for the recipient of this notification message using one of the methods described for the To field. Also complete this field if any specific reply-to address is used (for example, no.reply@yourdomain.com).
Subject	Enter a message subject or click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter a subject.
Body	Enter a message or click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter text.

Using the Notification Service in Developing SOA Applications with Oracle SOA Suite

Developing Applications with Oracle User Messaging Service

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.109 Email Dialog - Attachments Tab

Use to specify the number of attachments for this email.

Each attachment has three elements: name, Multi-Purpose Internet Mail Extensions (MIME) type, and attachment content.

Element	Description
Add icon	Click to add a row for specifying the attachment name, MIME type, and attachment content.
Delete icon	Click to delete a selected attachment.
Attachments Table	Displays the attachment names, MIME types, and attachment contents for this email. All three elements must be set for each attachment.
Name	Accept the default attachment name of AttachmentNumber that appears when you click the Add icon or highlight the name to change it. You can also click the row to display the Browse icon for invoking the Expression Builder dialog to specify an attachment name.
Mime Type	Click to display the Browse icon for invoking the Expression Builder dialog to specify MIME type contents.
Value	Click the row to display the Browse icon for invoking the Expression Builder dialog to create an expression for adding the contents of the attachment.

Related Topics

Selecting Notification Channels During BPEL Process Design in *Developing SOA Applications* with Oracle SOA Suite



2.110 IM Dialog - General Tab

Use to send an automatic, asynchronous instant message (IM) notification to a user, group, or destination address.

You must also configure the IM channel driver instance to use in the Oracle User Messaging Service section of Oracle Enterprise Manager Fusion Middleware Control. The driver's instance resides on the same server on which you deploy the SOA composite application.

Element	Description
Name	Enter a name for the activity or accept the default value of IMnumber.
То	Enter a valid IM address for the recipient of this notification message through one of the following methods:
	 Enter the account manually. Click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter an account. Click the Search icon to display a dialog for selecting an account configured through the Identity Service. The Identity Service enables the lookup of user properties, roles, and group memberships.
Body	Enter a message or click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter text.

Related Topics

Using the Notification Service in Developing SOA Applications with Oracle SOA Suite

Developing Applications with Oracle User Messaging Service

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.111 SMS Dialog - General Tab

Use to send an automatic, asynchronous short message service (SMS) notification to a user, group, or destination address.

You must also configure the SMS channel driver instance in the Oracle User Messaging Service section of Oracle Enterprise Manager Fusion Middleware Control. The driver's instance resides on the same server on which you deploy the SOA composite application.

Element	Description
Name	Enter a name for the activity or accept the default value of SMS number.
From #	Enter the number from which the message is being sent or click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter a number.
Telephone #	Enter the number of the recipient of this message through one of the following methods:
	Enter the number manually.
	 Click the Search icon to display a dialog for selecting a number configured through the Identity Service. The Identity Service enables the lookup of user properties, roles, and group memberships.
	 Click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter a number.



Element	Description
Subject	Enter a message subject or click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter a subject.
Body	Enter a message or click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter text.

Using the Notification Service in Developing SOA Applications with Oracle SOA Suite

Developing Applications with Oracle User Messaging Service

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.112 Edit Java Embedding Dialog - General Tab

Use to add custom Java code to a BPEL process using the Java BPEL exec extension

bpelx:exec>.

This is useful when you already have Java code that can perform a function, and want to use this existing code instead of starting over.

Element	Description
Name	Enter a name or accept the default name of Java_Embedding_number. This becomes the name for this activity in the designer.
Java Version	Enter a version number for the code. This field only displays in BPEL 1.1 projects.
Code Snippet	Enter the code to add to the BPEL process. For example, if the following code is added to an activity named JavaEmbed :
	<pre>/*Write your java code below for example System.out.println("Hello there, World");*/</pre>
	The following code displays in the BPEL process file:
	 <bpelx:exec language="java" name="JavaEmbed" version="1.3"><![CDATA[/*Write your java code below for example. System.out.println("Hello there, World"); */]]></bpelx:exec>

Related Topics

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

Using Java Embedding in a BPEL Process in Oracle JDeveloper in *Developing SOA* Applications with Oracle SOA Suite

2.113 Phase Dialog - General Tab

Use to create Oracle Mediator and business rules service components for integration with the BPEL process.

This activity enables you to create message request input and message response output variables and design business rules for evaluating variable content for the BPEL process.

When you complete these tasks, the following activities and service components are created:



- An assign activity that includes the message request input and message response output variables.
- An invoke activity, which is automatically designed to invoke an Oracle Mediator partner link in the BPEL process.
- The Oracle Mediator partner link, which is automatically designed to route the message request input variable to the business rules service component in the SOA composite application of which this BPEL process is a part. The business rules service component displays in the SOA Composite Editor. The Oracle Mediator service component also displays as a service component in the SOA Composite Editor.
- The business rules service component, which evaluates the content of the message request input variable and returns the results in the message response output variable to Oracle Mediator. Oracle Mediator then makes a routing decision and routes the message to the correct target destinations.

Element	Description
Name	Enter a name or accept the default name of Phasenumber. This becomes the name for this activity in the designer.
Description	Enter a description of what the activities and service components in the phase activity accomplish.
Inputs and Output Variables	Displays the variable direction (input or output), name, and type that you create.
Add icon	Click to create a new input (for message request) or output (for message response) element type variable. Message and simple type variables are not supported with the phase activity. You cannot use a previously-created variable.
Delete icon	Click to delete a selected variable.
Move Up icon	Click to move up a selected variable.
Move Down icon	Click to move down a selected variable.
Edit Dynamic Rules	Click to invoke the Oracle Business Rules Designer of the business rules service component. This enables you to create a business rule for evaluating the content of the input variable message request. Business rules are statements that describe business policies, or describe key business decisions for a business. For example, the input variable message request may include a purchase order request that exceeds \$5000. You can create a business rule that requires purchase order requests over \$5000 to be initially sent to a manager for approval. If the request is less than \$5000, manager approval is not required.
	The results of the business rule evaluation are sent in the response message output variable to Oracle Mediator, which makes a routing decision and routes the message to the correct target destinations

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

Getting Started with Oracle Mediator in Developing SOA Applications with Oracle SOA Suite

Getting Started with Oracle Business Rules in *Developing SOA Applications with Oracle SOA Suite*

Using Two-Layer Business Process Management (BPM) in *Developing SOA Applications with Oracle SOA Suite*



2.114 Receive Signal Dialog - General Tab

Use to perform the following tasks:

- Use in detail processes to wait for the notification signal from the master process to begin processing
- Use in a master process to wait for the notification signal from all detail processes indicating that processing has completed

Master and detail coordinations consist of a one-to-many relationship between a single master process and multiple detail processes. For example, assume a business process imports sales orders into an application. Each sales order consists of a header (customer information, ship-to address, and so on) and multiple lines (item name, item number, item quantity, price, and so on). To perform these tasks, create a single master BPEL process to check and validate each header and multiple detail BPEL processes to check and validate each line item. You configure the master and detail processes to notify each other with the following details:

- When to begin processing
- When processing has completed

A receive signal activity is used in each master and detail process. The responsibilities of a receive signal activity are based on the process in which they are used.

- If part of a detail process, the detail process waits until it receives the signal executed by its master process.
- If part of a master process, the master process waits until it receives the signal executed by all of its detail processes.

Element	Description
Name	Enter a name or accept the default name of receiveSignalnumber. This becomes the name for this activity in the designer.
Label	Enter a label name. The label name of a receive signal activity is based on the process in which they are included. This ensures that the signal is delivered to the correct process.
	 If part of a master process, the label name that you set in this dialog must match with the label name that you set in the signal activity of all detail processes.
	• If part of a detail process, the label name that you set in this dialog must match with the label name that you set in the signal activity of the master process.
From	Select either master (the default value) or detail as the type of process to receive this signal.

Related Topics

Coordinating Master and Detail Processes in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.115 Replay Dialog - General Tab

Use to re-execute all of the activities inside the selected scope.



Element	Description
Name	Enter a name or accept the default value of ReplayNumber.
Scope	Select the scope to re-execute.

Re-executing Activities in a Scope Activity with the Replay Activity in *Developing SOA* Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.116 Signal Dialog - General Tab

Use to perform the following tasks:

- Use in a master process to notify detail processes to perform processing at runtime.
- Use in detail processes to notify a master process that processing has completed.

Master and detail coordinations consist of a one-to-many relationship between a single master process and multiple detail processes. For example, assume a business process imports sales orders into an application. Each sales order consists of a header (customer information, ship-to address, and so on) and multiple lines (item name, item number, item quantity, price, and so on). To perform these tasks, create a single master BPEL process to check and validate each header and multiple detail BPEL processes to check and validate each line item. You configure the master and detail processes to notify each other with the following details:

- When to begin processing
- When processing has completed

A signal activity is used in each master and detail process. The responsibilities of a signal activity are based on the process in which they are used.

- If part of a master process, the master process signals all of its associated detail processes to begin processing at runtime.
- If part of a detail process, the detail process signals its associated master process at runtime that processing has completed.

Element	Description
Name	Enter a name or accept the default name of Signalnumber. This becomes the name for this activity in the designer.
Label	Enter a label name. The label name of a signal activity is based on the process in which they are included. This ensures that the signal is delivered to the correct process.
	 If part of a master process, the label name that you set in this dialog must match with the label name that you set in the receive signal activity of all detail processes.
	• If part of a detail process, the label name that you set in this dialog must match with the label name that you set in the receive signal activity of the master process.
	Within each invoke activity in the master process, you must select the Invoke As Detail checkbox. This selection creates the partner process instance as a detail instance. You must select this checkbox in the master process in the invoke activity for each detail process with which to interact.

Element	Description
То	Select either master (the default value) or detail as the type of process to receive this signal.

Coordinating Master and Detail Processes in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.117 Dehydrate Dialog - General Tab

Use to dehydrate an instance.

This activity enables you to explicitly specify a dehydration point to automatically maintain longrunning asynchronous processes and their current state information in a database while they wait for asynchronous callbacks. By default, dehydration points continue to be automatically set on activities such as waits and receives.

Element	Description
Name	Enter a name or accept the default value of Dehydratenumber. This becomes the name for this activity in the designer.

Related Topics

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.118 XSLT Transform Dialog - Transformation Tab

Use to select the source and target variables and parts (for example, payload schemas) from which to create a transformation.

The XSLT Map Editor enables you to map source elements to target elements. For example, you can map incoming source purchase order data to outgoing target purchase order acknowledgement data.

Element	Description
Add icon	Click to select a source variable. For example, select a payload schema consisting of a purchase order request.
Edit icon	Click to edit a selected source variable.
Delete icon	Click to delete a selected source variable.
Move Up icon	Click to move a selected source variable up in the list.
Move Down icon	Click to move a selected source variable down in the list.
Source	Displays the source variable (and its part, such as a payload) from which to map elements.
Target Variable	Select the target variable (and its part) to which to map elements.
Target Part	Displays the target part of the variable (for example, a payload schema consisting of a purchase order acknowledgement) to which to map.



Element	Description
Mapper File	Select a map file to use. You create your mappings in the map file using the XSLT Map Editor. By default, the map file is initially named Transformation_1.xsl in the Transformations folder in the Applications window. After creation, the map file appears in the Applications window.
	The XSLT Map Editor displays the source and target schemas as trees and nodes. Select and right-click <source/> or <target></target> , then select Expand All to display all available elements. The Components window displays functions and constructs that you can drag into the XSLT Map Editor for use.
Search icon	Click to browse a directory structure for existing transformation files to open for editing.
	Note: Ensure that the file has an extension of .xsl. If the XSL file has an extension of .xslt, then rename it to .xsl. If you browse for and select an .xslt file such as xform.xslt, it opens the mapper pane to create a new XSL file named xform.xslt.xsl, even though your intension is to use the existing xform.xslt file. An .xsl extension is appended to any file that does not already have an .xsl extension, and you must create the mappings in the new file.
Add icon	Click to create a new transformation mapping in the XSLT Map Editor. If you receive a message indicating the map file already exists, then click the Edit Mapping icon to edit this file.
	Note: You must first select a source variable before you can create a new transformation mapping.
Edit icon	Click to edit the transformation mapping file associated with this activity.

Creating Transformations with the XSLT Map Edit in *Developing SOA Applications with Oracle SOA Suite*

2.119 XSLT Transform Dialog - General Tab

Use to name the transform activity in which to create a transformation using the XSLT Map Editor.

The XSLT Map Editor enables you to map source elements to target elements. For example, you can map incoming source purchase order data to outgoing target purchase order acknowledgement data.

Element	Description
Name	Enter a name or accept the default name of Transformnumber. This becomes the name for this activity in the designer.
Validate	Select to validate both XML input and output to and from the XSLT transformation.

Related Topics

Creating Transformations with the XSLT Map Editor in *Developing SOA Applications with Oracle SOA Suite*

2.120 User Notification Dialog - General Tab

Use to send a notification to a user.

You can design a BPEL process in which you do not explicitly select a notification channel during design time, but simply indicate that a notification must be sent. The channel to use for sending notifications is resolved at runtime based on preferences defined by the end user in the User Messaging Preferences user interface of the Oracle User Messaging Service. This moves the responsibility of notification channel selection from Oracle JDeveloper to the end user. If the end user does not select a preferred channel or rule, email is used by default for sending notifications to that user.

The following notification configuration tasks must also be performed outside of Oracle JDeveloper.

- Configure the appropriate channel driver instance to use (email, voice, IM, or SMS) in the Oracle User Messaging Service section of Oracle Enterprise Manager Fusion Middleware Control. These driver instances reside on the same server on which you deploy the SOA composite application.
- The end user must configure messaging preferences in the User Messaging Preferences application. For example, the end user can specify the email ID or mobile number on which to receive notifications. If messaging preferences are not set up by the end user, the email channel is used to send notifications by default. The preferences set by the end user are only applicable to them.

Based on these configuration settings, a notification is sent to the appropriate channel during runtime.

Element	Description
Name	Enter a name for the activity or accept the default value of UserNotification <i>number</i> .
То	Enter a valid user for the recipient of this notification message through one of the following methods:
	 Enter the user manually. Click the Search icon to display a dialog for selecting a user configured through the Identity Service. The Identity Service enables the lookup of user properties, roles, and group memberships.
	• Click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter a user.
	Note : You must specify a user name (for example, jcooper) instead of an address.
Subject	Enter a message name or click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter a subject. If notification is sent through e-mail, this field is used during runtime. This field is ignored if notifications are sent through the voice, SMS, or IM channels.
Notification Message	Enter the notification message or click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter a message to send.

Related Topics

Using the Notification Service in Developing SOA Applications with Oracle SOA Suite

Developing Applications with Oracle User Messaging Service

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.121 User Notification Dialog - Advanced Tab

Use to create and send header and name information that may be useful to an end user in creating their own preference rules for receiving notifications.



For example, during runtime customization, you can set up the rules for your preferred channels. Assume user jcooper uses IM and user jstein uses email. The user notification then sends IM notification to jcooper and email to jstein.

Assume you send the following facts along with the user notification:

- ApplicationName: SalesOrder
- Amount: Payload->cost

ApplicationName and Amount are the header values and SalesOrder and Payload->cost are the name values. During runtime customization, jcooper creates the following rules:

- [[If ApplicationName == SalesOrder && Amount < 10000]] Send Email
- [[If ApplicationName == SalesOrder && Amount > 10000]] Send Voice

The user notification then uses email if Amount < 10000 and voice in all other cases.

Element	Description
Add icon	Click to add rows to the Header and Name columns.
Delete icon	Click to delete a section header and name.
Header	Select a header value from the list or manually enter a value.
Value	Select the field to enter a name or click the Browse icon to access the Expression Builder dialog for dynamically entering a name.

Related Topics

Using the Notification Service in Developing SOA Applications with Oracle SOA Suite

Developing Applications with Oracle User Messaging Service

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.122 Voice Dialog - General Tab

Note:

Voice notifications are supported in Oracle SOA Suite 11g, but not supported in Oracle SOA Suite 12c.

Use to send an automatic, asynchronous, voice mail notification to a user or destination address.

You must also configure the voice channel driver instance in the Oracle User Messaging Service section of Oracle Enterprise Manager Fusion Middleware Control. The driver's instance resides on the same server on which you deploy the SOA composite application.

Element	Description
Name	Enter a name for the activity or accept the default value of Voicenumber.



Element	Description
Telephone Number	Enter the number of the recipient of this message through one of the following methods:
	 Enter the number manually. Click the Search icon to display a dialog for selecting a number configured through the Identity Service. The Identity Service enables the lookup of user properties, roles, and group memberships. Click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter a number.
Body	Enter a message or click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically enter text.

Using the Notification Service in Developing SOA Applications with Oracle SOA Suite

Developing Applications with Oracle User Messaging Service

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.123 Create BPEL Process Dialog

Use to create a BPEL process service component in a service-oriented architecture (SOA) composite application.

A BPEL process service component integrates a series of business activities and services into an end-to-end process flow. After creation, double-click the BPEL process icon in the SOA Composite Editor to get started with designing your component. How?

Element	Description
BPEL 1.1 Specification	Select to create a BPEL process service component that conforms to BPEL 1.1 specifications.
BPEL 2.0 Specification	Select to create a BPEL process service component that conforms to BPEL 2.0 specifications. This is the default selection.
Name	Enter a name for the BPEL process or accept the default name of BPELProcessnumber. The name you enter here becomes the file name for the BPEL and Web Services Description Language (WSDL) files in the Applications window.
	Always use completely unique names when creating BPEL processes. Do not create:
	 A non-ASCII process name (for example, ৉ Ŕ BPELProcess1). The BPEL process name is used in directory and file names of the SOA project, which can cause problems.
	• A process name that begins with a number (for example, 1SayHello).
	 A process name that includes a dash (for example, Say-Hello).
	• Two processes with the same name, but with different capitalization (for example, SayHello and sayhello).
Namespace	Use the default namespace path or enter a custom path.



Element	Description
Directory	Specify a directory in which to place BPEL process service component artifacts or accept the default directory of project_root_directory/SOA/BPEL.
	You can change the directory path, but ensure that the directory is beneath the SOA folder (that is, <i>project_root_directory</i> /SOA). If you specify a directory outside of SOA, an error message is displayed and the BPEL process is not created.
Template	Select a template based on the type of BPEL process service component you want to design.
	A template provides a basic set of default files (<i>process_name.wsdl</i> and <i>process_name.bpel</i>) with which to begin designing your BPEL process service component.
Asynchronous BPEL Process	Creates an asynchronous process with a default receive activity to initiate the BPEL process service component flow and an invoke activity to asynchronously call back the client. This type is selected by default. More
Synchronous BPEL Process	Creates a synchronous process with a default receive activity to initiate the BPEL process service component flow and a reply activity to return the results. More
One Way BPEL Process	Creates a process with a one-way call interface definition.
Define Service Later	Select to create an empty BPEL process service component with no activities.
Base on a WSDL	Creates a BPEL process with an interface defined by an existing WSDL file. You must specify the WSDL Uniform Resource Locator (URL), port type, and callback port type to use.
Subscribe to Events	Creates a BPEL process in which you can subscribe to a business event. After selecting this option, the dialog refreshes to display the Delivery list for selecting a transaction type and an event table. Click the Add icon to select an event to which to subscribe. Your selection is then displayed in the event table where you can perform additional configuration.
	• Consistency : Click the table row to select an option. If you select one and only one , there is exactly one delivery guaranteed. The event delivery is conducted in a global transaction. If you select guaranteed , at least one delivery is guaranteed. Event delivery is conducted in a local transaction.
	• Durable : If you select yes , events are retained even if the subscriber is not running. If you select no , events are dropped if the subscriber is not running.
	• Run as publisher : If you select yes , the subscriber has the event publisher's security identity. If you select no , the subscriber does not have the event publisher's security identity.
	• Filter : You can also click the Filter icon to create a filter expression for the selected event. This selection launches the Expression Builder dialog.
Service Name	Accept the default value of <i>BPEL_process_name_client</i> or enter the name of the service this process is exposing. When you open an invoke, receive, OnMessage, or reply activity, the service name appears by default in the Partner Link field. This name is the same name as the partner link.
Expose as a SOAP Service	Select this checkbox to create a BPEL process service component that is automatically connected (wired) to an inbound simple object access protocol (SOAP) web service binding component. If you do not select this checkbox, the BPEL process service component is created as a standalone component in the SOA Composite Editor. You can explicitly associate the BPEL process service component with a service at a later time. This checkbox is selected by default.

Element	Description
Delivery	Set the persistence policy of the process in the delivery layer. This list enables you to specify a value for the oneWayDeliveryPolicy deployment descriptor property. This field is displayed if you select an asynchronous or one-way BPEL process in the Template list. The possible values are as follows:
	 async.persist: Messages into the system are saved in the delivery store before being picked up by the service engine.
	 async.cache: Messages into the system are saved in memory before being picked up by the service engine.
	 sync: The instance-initiating message is not temporarily saved in the delivery layer. The service engine uses the same thread to initiate the message. If you select sync, the Transaction field is displayed.
Transaction	Set the transaction behavior of the BPEL instance for initiating calls. This list enables you to specify a value for the Transaction deployment descriptor property. This field is displayed if you select a synchronous BPEL process in the Template list.
	• requiresNew : A new transaction is created for the execution, and the existing transaction (if there is one) is suspended. This behavior is true for both request/response (initiating) environments and one-way, initiating environments in which the Delivery list value (oneWayDeliveryPolicy property) is set to sync
	 required: In request/response (initiating) environments, this setting joins a caller's transaction (if there is one) or creates a new transaction (if there is no transaction). In one-way, initiating environments in which the Delivery list value (oneWayDeliveryPolicy property) is set to sync, the invoke message is processed using the same thread in the same transaction.
	 notsupported: Business process activities are executed without any transaction.
	Note : This property does not apply for midprocess receive activities. In those cases, another thread in another transaction is used to process the message. This is because a correlation is needed and it is always done asynchronously.
Input	Accept the default input XSD schema or click the Search icon to select a different XSD. If you click the Search icon, the Type Chooser dialog appears. Browse the imported schemas and select the input element (for example, a purchase order). You can also import an existing schema or WSDL in the Type Chooser dialog.
Output	Accept the default output XSD schema or click the Search icon to select a different XSD. If you click the Search icon, the Type Chooser dialog appears. Browse the imported schemas and select the output element (for example, a purchase order).

Introduction to the BPEL Process Service Component in *Developing SOA Applications with Oracle SOA Suite*

Using Business Events and the Event Delivery Network in *Developing SOA Applications with Oracle SOA Suite*

Deployment Descriptor Properties in Developing SOA Applications with Oracle SOA Suite

2.124 Extension Dialog

Use to extend a version 2.0 BPEL process to add custom extension namespace declarations.

With the mustUnderstand attribute, you can indicate whether the custom namespaces carry semantics that must be understood by the BPEL process.



Note: Extensions are supported in BPEL projects that support version 2.0 of the BPEL specification.

For more information about extensions, see the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Namespace	Enter a name.
Must Understand	Select to enable extensions to be recognized. If a BPEL process does not support one or more of the extensions with this checkbox selected, then the process definition must be rejected.

Related Topics

Declaring Extension Namespaces in BPEL 2.0 in *Developing SOA Applications with Oracle SOA Suite*

2.125 Literal Dialog

Use to assign a literal XML fragment or string to the selected target node. This defines the contents of the literal tag.

Note: This dialog is available in BPEL 2.0 projects.

Element	Description
Literal	Enter a well-formed XML fragment or string. If entering a literal string, deselect the Validate as XML checkbox.
Validate as XML	If selected, a test is done to ensure that the literal is well-formed XML.

Related Topics

Introduction to Manipulating XML Data in BPEL Processes in *Developing SOA Applications* with Oracle SOA Suite

Copying Between Variables in Developing SOA Applications with Oracle SOA Suite

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.126 Rename Dialog

Use to rename the selected target node.

The target must return a list of one more element nodes. Otherwise, a bpel:selectionFailure fault is generated. The element nodes specified in the from-spec are renamed to the QName specified by the elementTo attribute. The elementTo attribute is set to the QName selected in this dialog.

Element	Description
Search icon	Click the Search icon to select the new element QName.
Namespace URI	Displays the namespace of the element QName you selected with the Search icon.



Element	Description
Local Part	Displays the local name of the element QName you selected with the Search icon.

Introduction to Manipulating XML Data in BPEL Processes in *Developing SOA Applications* with Oracle SOA Suite

Copying Between Variables in Developing SOA Applications with Oracle SOA Suite

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.127 Recast Dialog

Use to define the type of the target node using xsi:type casting.

This adds a bpelx:rename operation to the BPEL assignment statement that uses the typeCastTo attribute. The typeCastTo attribute is set to the type QName selected in this dialog.

The target must return a list of one more element nodes. Otherwise, a bpel:selectionFailure fault is generated. The xsi:type attribute is added to those element nodes to cast those elements to the QName type specified by the typeCastTo attribute.

Element	Description
Search icon	Click the Search icon to select the new type QName.
Namespace URI	Displays the namespace of the type QName you selected with the Search icon.
Local Part	Displays the local name of the type QName you selected with the Search icon.

Related Topics

Introduction to Manipulating XML Data in BPEL Processes in *Developing SOA Applications* with Oracle SOA Suite

Copying Between Variables in Developing SOA Applications with Oracle SOA Suite

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.128 XML Fragment Dialog

Use to assign a literal XML fragment to the selected target node.

Element	Description
XML Fragment	Enter a well-formed XML fragment.

Related Topics

Introduction to Manipulating XML Data in BPEL Processes in *Developing SOA Applications* with Oracle SOA Suite



Copying Between Variables in Developing SOA Applications with Oracle SOA Suite

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.129 Create or Edit Activity Sensor Dialog

Use to manage (create, edit, or delete) activity sensors.

Activity sensors monitor the execution of activities in a BPEL process. For example, you can monitor the execution time of an invoke activity or the completion time for a scope activity.

Element	Description
Name	Enter a name or accept the default name of ActivitySensornumber. Once complete, this name displays under the Sensors > Activity folder in the Structure window.
Activity Name	Displays the name of the selected activity in which to create the activity sensor. If this sensor is not currently associated with an activity, click the Search icon to select an activity.
Evaluation Time	Select a time phase during which to monitor the activity:
	Activation: Monitoring begins when the activity starts its tasks.
	Completion: Monitoring begins when the activity completes its tasks.
	• Fault : Monitoring begins if an error occurs in the activity.
	• Compensation : Monitoring begins when compensation occurs (when a scope activity is compensated).
	 Retry: Monitoring begins when a retry occurs (when an invoke activity is retried).
	• All: Monitoring occurs through all of these phases. This option is the default selection.
Activity Variable Sensors	Displays the variable sensors associated with this sensor activity, the XPath, and the output namespace. Variable sensors monitor variables (for example, input and output data) in a BPEL process.
Add icon	Click to create an activity variable sensor.
Edit icon	Click to edit a selected activity variable sensor.
Delete icon	Click to delete a selected activity variable sensor.
Sensor Actions	Displays the sensor actions associated with this activity sensor. Sensor actions enable you to publish sensor data to an endpoint, such as a database or JMS queue.
	Note : You cannot create or edit Oracle BAM sensor actions from this dialog. You can only create Oracle BAM sensor actions from the Structure window by right- clicking Sensor Actions and selecting Create > BAM Sensor Action . You can edit an existing Oracle BAM sensor by selecting it from beneath the Sensor Actions folder in the Structure window.
Add icon	Click to add a sensor action.
Edit icon	Click to edit a selected sensor action.
Delete icon	Click to delete a selected sensor action.

Related Topics

Using Oracle BPEL Process Manager Sensors in *Developing SOA Applications with Oracle SOA Suite*



Understanding Sensor Public Views and the Sensor Actions XSD in *Developing SOA* Applications with Oracle SOA Suite

2.130 Activity Browser Dialog

Use to select the activity to monitor from the tree. All activities in the BPEL process display in this tree.

Element	Description
Activities	Select the activity to monitor.

Related Topics

Introduction to Activities in Developing SOA Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.131 Create or Edit Activity Variable Sensor Dialog

Use to manage variable sensors. Variable sensors monitor variables in a BPEL process.

Element	Description
Variable XPath	Click the Edit icon to select a variable XPath value (for example, \$inputVariable/ payload). This format is nonstandard.
Output Namespace	Displays the namespace for the variable selection you make for the Variable XPath field.
Output Datatype	Displays the data type selection you make for the Variable XPath field (for example, initiateTaskResponseMessage).

Related Topics

Using Oracle BPEL Process Manager Sensors in *Developing SOA Applications with Oracle SOA Suite*

Understanding Sensor Public Views and the Sensor Actions XSD in *Developing SOA* Applications with Oracle SOA Suite

2.132 Sensor Action Chooser Dialog

Use to add a sensor action.

Sensor actions enable you to publish sensor data to an endpoint, such as a database or JMS queue.

Element	Description
Add icon	Click to create a sensor action. You must first select the Sensor Actions folder to enable this icon.
	Note : Oracle BAM sensor actions can only be created from the Structure window by right-clicking Sensor Actions and selecting Create > BAM Sensor Action .
Sensor Actions	Expand the tree and select the specific sensor action.



Element	Description
Show Detailed	Select an element and click this checkbox to display detailed information.

Using Oracle BPEL Process Manager Sensors in *Developing SOA Applications with Oracle SOA Suite*

Understanding Sensor Public Views and the Sensor Actions XSD in *Developing SOA Applications with Oracle SOA Suite*

2.133 Create or Edit Variable Sensor Dialog

Use to manage (create, edit, or delete) variable sensors.

Variable sensors monitor variables (for example, input and output data) in a BPEL process.

Element	Description
Name	Enter a name or accept the default name of VariableSensornumber. Once complete, this name displays under the Sensors > Variable folder in the Structure window.
Target	Click the Edit icon to select a target variable to monitor.
Output Namespace	Displays a namespace value based on your target variable selection.
Output Datatype	Displays a data type value based on your target variable selection.
Sensor Actions	Displays the sensor actions associated with this variable sensor. Sensor actions enable you to publish sensor data to an endpoint, such as a database or JMS queue.
	Note : You cannot create or edit Oracle BAM sensor actions from this dialog. You can only create Oracle BAM sensor actions from the Structure window by right-clicking Sensor Actions and selecting Create > BAM Sensor Action . You can edit an existing Oracle BAM sensor by selecting it from beneath the Sensor Actions folder in the Structure window.
Add icon	Click to create a sensor action.
Edit icon	Click to edit a selected sensor action.
Delete icon	Click to delete a selected sensor action.

Related Topics

Using Oracle BPEL Process Manager Sensors in *Developing SOA Applications with Oracle SOA Suite*

Understanding Sensor Public Views and the Sensor Actions XSD in *Developing SOA* Applications with Oracle SOA Suite

2.134 Sensor Action Chooser Dialog

Use to add a sensor action.

Sensor actions enable you to publish sensor data to an endpoint, such as a database or JMS queue.



Element	Description
Add icon	Click to create a sensor action. You must first select the Sensor Actions folder to enable this icon.
	Note : Oracle BAM sensor actions can only be created from the Structure window by right-clicking Sensor Actions and selecting Create > BAM Sensor Action .
Sensor Actions	Expand the tree and select the specific sensor action.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information.

Using Oracle BPEL Process Manager Sensors in *Developing SOA Applications with Oracle SOA Suite*

Understanding Sensor Public Views and the Sensor Actions XSD in *Developing SOA Applications with Oracle SOA Suite*

2.135 Create or Edit Variable Sensor Dialog

Use to manage (create, edit, or delete) variable sensors.

Variable sensors monitor variables (for example, input and output data) in a BPEL process.

Element	Description
Name	Enter a name or accept the default name of VariableSensornumber. Once complete, this name displays under the Sensors > Variable folder in the Structure window.
Target	Click the Edit icon to select a target variable to monitor.
Output Namespace	Displays a namespace value based on your target variable selection.
Output Datatype	Displays a data type value based on your target variable selection.
Sensor Actions	Displays the sensor actions associated with this variable sensor. Sensor actions enable you to publish sensor data to an endpoint, such as a database or JMS queue.
	Note : You cannot create or edit Oracle BAM sensor actions from this dialog. You can only create Oracle BAM sensor actions from the Structure window by right- clicking Sensor Actions and selecting Create > BAM Sensor Action . You can edit an existing Oracle BAM sensor by selecting it from beneath the Sensor Actions folder in the Structure window.
Add icon	Click to create a sensor action.
Edit icon	Click to edit a selected sensor action.
Delete icon	Click to delete a selected sensor action.

Related Topics

Using Oracle BPEL Process Manager Sensors in *Developing SOA Applications with Oracle SOA Suite*

Understanding Sensor Public Views and the Sensor Actions XSD in *Developing SOA Applications with Oracle SOA Suite*



2.136 Create Annotation Dialog

Use to create annotations in all activities.

Annotations enable you to provide descriptions in activities in the form of code comments and name and pair value assignments.

Element	Description
Name	Enter a name.
Value	Enter a value.

Related Topics

Annotations Tab of Developing SOA Applications with Oracle SOA Suite

2.137 Variables Dialog

Use to manage (create, update, and delete) variables.

Variables contain messages that constitute the state of a business process. These messages are typically received from partners or sent to partners. Variables can also contain data required for holding state information related to the process that is never exchanged between partners. Variables are defined in terms of XML schema simple types, Web Services Description Language (WSDL) message types, or XML schema elements. Variables associated with message types can be specified as input or output variables for invoke, receive, and reply activities.

For more information about variables, see the Business Process Execution Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Search	Click to search for a variable.
Refresh	Click to refresh the display of variables.
Add icon	Click to create a variable. You must first select the second Variables folder to enable this icon.
Edit icon	Click to edit a selected variable.
Delete icon	Click to delete a selected variable.
Variables	Displays the variables in the BPEL process.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information (for example, the complete namespace path location or a standards organization).

Related Topics

Manipulating XML Data in a BPEL Process in *Developing SOA Applications with Oracle SOA Suite*

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

Invoking an Asynchronous Web Service from a BPEL Process in *Developing SOA Applications* with Oracle SOA Suite

2.138 Move To Folder Dialog

Use to move the selected bookmark to a folder.

Element	Description
Folder	Select the folder in which to place the bookmark of the activity, service, or reference.

Related Topics

Introduction to Activities and Components" in *Developing SOA Applications with Oracle SOA Suite*

2.139 Create Folder Dialog

Use to create a folder in which to store bookmarks.

Element	Description
Name	Enter a name for the folder. You can then store a bookmark in the folder by selecting Manage Bookmarks from the list above Oracle BPEL Designer, right-clicking the bookmark, and selecting Move to Folder .

Related Topics

Introduction to Activities and Components in *Developing SOA Applications with Oracle SOA Suite*

2.140 Create or Edit Variable Dialog - General Tab

Use to manage (create, edit, or delete) a variable.

Variables contain messages that constitute the state of a business process. These messages are typically received from partners or sent to partners. Variables can also contain data required for holding state information related to the process that is never exchanged between partners. Variables are defined in terms of XML schema simple types, Web Services Description Language (WSDL) message types, or XML schema elements. Variables associated with message types can be specified as input or output variables for invoke, receive, and reply activities.

For more information about variables, see the Business Process Execution Language for Web Services Specification (for BPEL 1.1) or the Web Services Business Process Execution Language Version 2.0 Specification.at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of Variablenumber. The name must be unique within its own scope. Once complete, this name displays under the second Variables folder in the Structure window and in the Variable Chooser window.
Туре	Select one of the following types and click the respective Search icon to browse a list of types to use with this variable. Message types are used to specify the type of a variable.

Element	Description
Туре	Select an XML schema simple type (for example, string, boolean, float, and so on). This type is selected by default.
Message Type	Select a WSDL message file definition of a partner link or of the project WSDL file of the current BPEL process (for example, a response message or request message). Variables associated with message types can be specified as input or output variables for invoke, receive, and reply activities.
Element	Select an XML schema element of the project schema file or project WSDL file of the current BPEL process, or of a partner link.
Entity Variable (BPEL 1.1 only)	Click to select an entity variable. The entity variable can be used with an Oracle Application Development Framework (ADF) Business Component data provider service using service data object (SDO)-based data. The entity variable enables you to specify BPEL data operations to be performed by an underlying data provider service. The data provider service performs the data operations in a data store behind the scenes and without use of other data store-related features provided by Oracle BPEL Process Manager (for example, the database adapter). This action enhances Oracle BPEL Process Manager runtime performance and incorporates native features of the underlying data provider service during compilation and runtime.
Partner Link	Click the Search icon to select the SDO service.
SDO Capable	Select to make this variable SDO-capable if the schema defines it. This is different from entity variables. This type of data does not necessarily contain a unique key value. The data life cycle of this variable is similar to a BPEL XML DOM-based variable. The major difference is that the underlying data form is SDO-based, instead of DOM-based. Therefore, it can use some SDO features (for example, Java API access and change summary). However, its usage is also subject to some SDO restrictions that do not exist in XML-DOM (for example, SDO supports a small subset of XPath expressions).

Manipulating XML Data in a BPEL Process in *Developing SOA Applications with Oracle SOA Suite*

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

Invoking an Asynchronous Web Service from a BPEL Process in *Developing SOA Applications* with Oracle SOA Suite

Using Standalone SDO-based Variables in *Developing SOA Applications with Oracle SOA Suite*

2.141 Filter Settings Dialog

Use to filter the types of BPEL process information that displays in the Structure window.

The Structure window offers a structural view of the types of information available for design in the BPEL process.

Element	Description
Туре	Displays the types of information in the Structure window.
Display	Deselect types of information to hide them from view in the Structure window. By default, all types are selected to be displayed.



Introduction to the BPEL Process Service Component in *Developing SOA Applications with Oracle SOA Suite*

2.142 Property Aliases Dialog

Use to manage (create, edit, and delete) property aliases.

Properties in business protocols are typically included in application-visible message data. Property aliases enable you to map a global property to a field in a specific message part. This enables the property name to become an alias for the message part and location. The alias can be used in XPath expressions.

Note: You cannot edit an existing property aliases.

Element	Description
Search	Click to search for a property alias.
Refresh	Click to refresh the display of property aliases.
Add icon	Click to create a property alias. You must first select the Property Aliases folder to enable this icon.
Edit icon	Click to edit a selected property alias.
Delete icon	Click to delete a selected property alias.
Property Alias	Displays the property aliases in the BPEL process. View an existing alias by expanding the + sign to display the property name, message type, part, and query attributes. The meaning of the message, part, and query attributes is the same as the From section in the Copy Operation dialog.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information (for example, the complete path location or standards organization).

Related Topics

Using Correlation Sets in an Asynchronous Service in *Developing SOA Applications with Oracle SOA Suite*

2.143 Bind Entity Dialog - General Tab

Use to select the entity variable to act as the data handle to access and plug in different data provider service technologies.

Note: This feature is only available in BPEL 1.1 projects.

The entity variable can be used with an Oracle Application Development Framework (ADF) Business Component data provider service using service data object (SDO)-based data. The entity variable enables you to specify BPEL data operations to be performed by an underlying data provider service. The data provider service performs the data operations in a data store behind the scenes and without use of other data store-related features provided by Oracle BPEL Process Manager (for example, the database adapter). This action enhances Oracle BPEL Process Manager runtime performance and incorporates native features of the underlying data provider service during compilation and runtime.



Element	Description
Name	Enter a name or accept the default value of BindEntitynumber. This becomes the name for this activity in the designer.
Entity Variable	Click the Search icon to select an entity variable. If you have not created an entity variable, select the second Variables folder in the Variable Chooser dialog and click the Add icon.
Add icon	Click to add a key. The key points to the data in the Oracle ADF Business Component data provider service. Oracle BPEL Process Manager fetches the key when access to the data is required. When complete, your selection displays in the Unique Keys table.
Edit icon	Click to edit a selected key.
Delete icon	Click to delete a selected key.
Unique Keys	Displays the QNames and value expressions for the defined keys.

Delegating XML Data Operations to Data Provider Services in *Developing SOA Applications* with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.144 Select Role Dialog

Use to manipulate endpoint references associated with partner links.

This dialog is invoked when the source partner link from which you are dragging has both **My Role** and **Partner Role** attributes defined.

Element	Description
Select role for partner link	Select the role to use for the source partner link.
My Role	Indicates that the endpoint reference of the process with respect to that partner link is the source.
Partner Role	Indicates that the partner's endpoint reference for the partner link is the source.

Related Topics

Introduction to Manipulating XML Data in BPEL Processes in *Developing SOA Applications* with Oracle SOA Suite

Copying Between Variables in Developing SOA Applications with Oracle SOA Suite

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.145 Information Dialog

Use to indicate the BPEL specification version supported by this BPEL project (either 1.1 or 2.0) and if the BPEL process service component is customizable.



Element	Description
BPEL Version	Indicates the BPEL specification version (either 1.1 or 2.0) supported by this BPEL project. You select the version to support when creating a BPEL process in the Create BPEL Process dialog.
Customizable	Indicates if the BPEL process service component is customizable.
	You select to create a customizable BPEL process service component on the Configure SOA Settings page of the Create SOA Application wizard. This enables you to deliver a customizable SOA composite application to another applications team that imports it into a SOA project and customizes it for a certain industry (for example, telecommunications). The tailored solution is then sold to a telecommunications customer that further customizes the composite for their specific geographic business needs. Essentially, there is a base composite and several layers of customized composites. At a later time in the composite life cycle, you may deliver the next version of the base composite, which triggers an upgrade cycle for the other applications team and the customer.
Project Properties	Displays the property names and values.
Fit to Width	Select to fit the properties to the width of the dialog.

Customizing SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.146 Pre Assert Dialog or Post Assert Dialog or Assert Dialog

Use to create an assertion condition that is executed upon receipt of a callback message in request-response invoke activities, receive activities, and onMessage branches of pick or scope activities.

The assertion specifies an XPath expression that, when evaluated to false, causes a BPEL fault to be thrown from the activity. If no fault name is specified in the Pre Assert or Post Assert dialog, it defaults to an AssertFailure exception.

The type of assertion condition you select (preassert or postassert) is displayed in the **Type** column of the activity.

Element	Description
Name (BPEL 1.1 projects only)	Enter a name or accept the default name of Assert_number.
Message	Specify a message to be displayed.
Expression	Click the XPath Expression Builder icon to create an expression.
Fault QName	Click the Browse icon to select the fault to be thrown when the XPath expression is evaluated to false.
Namespace URI	Displays the fault element you selected with the Browse icon.
Local Part	Displays the local part of the qualified name you selected with the Browse icon.

Related Topics

Throwing Faults with Assertion Conditions in *Developing SOA Applications with Oracle SOA Suite*


2.147 Import Schema File Dialog

Use to copy or import a schema file into the project.

Element	Description
URL	Click the Search icon to select a schema file.
Copy to project	Select to copy this schema file to the appropriate project. This is the default selection.

Related Topics

Getting Started with Developing SOA Composite Applications in *Developing SOA Applications* with Oracle SOA Suite

2.148 Create or Edit Operation Dialog

Use to create or edit the operation.

Element	Description
Name	Enter a name for the operation.
Input	Select to enter input information.
Name	Enter a name.
Message	Click the Search icon to select a message.
Output	Select to enter output information.
Name	Enter a name.
Message	Click the Search icon to select a message.
Fault	Select to create a fault message.
Add icon	Click to create a fault message.
Edit icon	Click to edit a selected fault message.
Delete icon	Click to delete a selected fault message.

Related Topics

Getting Started with Oracle BPEL Process Manager in *Developing SOA Applications with Oracle SOA Suite*

2.149 Create or Edit Fault Sensor Dialog

Use to manage (create, edit, or delete) fault sensors.

Fault sensors monitor BPEL process faults.

Element	Description
Name	Enter a name or accept the default name of FaultSensornumber. Once complete,
	this name displays under the Sensors > Fault folder in the Structure window.



Element	Description
Namespace	Click the Search icon to select the fault to monitor. Expand the tree until you locate the fault with which the fault sensor is associated. This field is automatically completed with a Uniform Resource Locator (URL) path based on your selection.
Local Part	Displays the fault you selected to monitor. For example, if you select a partner link with an associated fault named NegativeCredit , then the name NegativeCredit displays in this field.
Sensor Actions	Displays the sensor actions associated with this fault sensor. Sensor actions enable you to publish sensor data to an endpoint, such as a database or JMS queue.
	Note : You cannot create or edit Oracle BAM sensor actions from this dialog. You can only create Oracle BAM sensor actions from the Structure window by right- clicking Sensor Actions and selecting Create > BAM Sensor Action . You can edit an existing Oracle BAM sensor by selecting it from beneath the Sensor Actions folder in the Structure window.
Add icon	Click to add a sensor action.
Edit icon	Click to edit a selected sensor action.
Delete icon	Click to delete a selected sensor action.

Using Oracle BPEL Process Manager Sensors in *Developing SOA Applications with Oracle SOA Suite*

Understanding Sensor Public Views and the Sensor Actions XSD in *Developing SOA Applications with Oracle SOA Suite*

2.150 Extensions Dialog

Use to extend a version 2.0 BPEL process to add custom extension namespace declarations.

Note: Extensions are supported in BPEL projects that support version 2.0 of the BPEL specification.

For more information about extensions, see the Web Services Business Process Execution Language Version 2.0 Specification at http://www.oasis-open.org.

Element	Description
Search icon	Click to refresh the dialog to display fields for entering a search criteria.
Refresh icon	Click to refresh.
Add icon	Click to add an extension. You must first select the $\ensuremath{\text{Extensions}}$ folder to enable this icon.
Edit icon	Click to edit a selected extension.
Delete icon	Click to delete a selected extension.
Extensions Table	Displays the available extensions.
Show Detailed Node Information	Select an element and click this checkbox to display detailed node information.

Related Topics

Declaring Extension Namespaces in BPEL 2.0 in *Developing SOA Applications with Oracle SOA Suite*



2.151 Correlation Dialog

Use to specify correlated groups of operations within a service instance.

Correlation sets address complex message delivery situations by enabling you to specify correlated groups of operations within a service instance. A set of correlation tokens is defined as a set of properties shared by all messages in the correlated group. Each correlation set defines a method for identifying an application-level conversation in a business protocol instance. A message can carry multiple correlation sets. After a correlation set is initiated, the values of correlation set properties must be the same for all messages in all operations that carry the correlation set and occur within the corresponding scope until its completion.

For more information about correlations, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Correlation Set	Click the Add icon to choose a correlation set or create a new one.
Initiate	Select whether the set is being initiated.
Pattern	For BPEL 1.1, select in if the correlation applies to an inbound message (response), out if the correlation applies to an outbound message (request), or out-in if the correlation applies to both inbound and outbound messages (response and request)
	For BPEL 2.0, select response if the correlation applies to an inbound message, request if the correlation applies to an outbound message, or request-response if the correlation applies to both outbound and inbound messages

Related Topics

'Using Correlation Sets and Message Aggregation' in *Developing SOA Applications with Oracle SOA Suite*

2.152 Create or Edit Sensor Action Dialog

Use to manage (create, edit, or delete) sensor actions.

Sensor actions enable you to publish sensor data to an endpoint, such as a database or a JMS queue. You can create multiple sensor actions for an activity sensor.

Element	Description
Name	Enter a name for the activity or accept the default value of SensorActionnumber.



Element	Description
Publish Type	Select one of the following publishing types. The publishing type specifies the destination to which to publish the sensor data.
	• Database : Publishes sensor data to the Oracle BPEL Process Manager reports schema only in the database. The database publisher type cannot be configured to publish to arbitrary database tables. Query this data with SQL commands. This type is the default selection
	• JMS Queue: Publishes sensor data to a Java Message Service (JMS) queue.
	• JMS Topic: Publishes sensor data to a JMS topic.
	• Custom : Publishes sensor data to a custom Java class that implements the data publisher interface.
	 JMS Adapter: Uses the JMS adapter to publish to remote queues or topics and a variety of different JMS providers. The JMS Queue and JMS Topic publishing types only publish to local JMS destinations. If you select the JMS Adapter publishing type, you must create an entry in the weblogic-ra.xml file from the Oracle WebLogic Server Administration Console. Each JMS connection factory (pool) entry created at the Console corresponds to one JNDI entry in weblogic-ra.xml. Update the Sensor dialog with the chosen JNDI name selected during the creation of the JMS connection factory (pool). Note: Caching data in the data publisher is not supported; data publishers must be stateless.
JMS Connection Factory	If your publish type selection is JMS Queue , JMS Topic , or JMS Adapter , specify the connection factory.
Publish Target	If your publish type selection is JMS Queue , JMS Topic , Custom , or JMS Adapter , you must specify a publish target. The publish target represents different things depending on the publish type specified:
	 If the publish type is a database, this field is left blank.
	• If the publish type is JMS Queue, JMS Topic, or JMS Adapter, this represents the JMS destination's JNDI name.
	 If the publish type is Custom, this represents the fully-qualified Java class name.
Filter	Enter filter logic as a boolean expression. A filter enables you to monitor sensor data within a specific range. For example, you may want to monitor loan requests in which the loan amount is greater than \$100,000. In this case, you can enter an expression such as the following:
	<pre>boolean(/s:actionData/s:payload/s:variableData/s:data/autoloan: loanAmount > 100000)</pre>
Enable	Enable or disable a sensor action. By default, sensor actions are enabled. If you disable a sensor action by deselecting this checkbox, the action does not publish data.

Using Oracle BPEL Process Manager Sensors in *Developing SOA Applications with Oracle SOA Suite*

Understanding Sensor Public Views and the Sensor Actions XSD in *Developing SOA Applications with Oracle SOA Suite*

Understanding Technology Adapters



2.153 Switch Dialog - General Tab

Use to create an activity that consists of an ordered list of one or more conditional branches defined in a case branch, followed optionally by an otherwise branch.

You select exactly one branch of activity from a set of choices. The case branches are considered in the order in which they appear. The first branch whose condition is true is taken and provides the activity performed for the switch. If no branch with a condition is taken, then the otherwise branch is taken. If the otherwise branch is not explicitly specified, then an otherwise branch with an empty activity is assumed to be available. This activity is complete when the activity of the selected branch completes.

Note: This activity is available in BPEL projects that support version 1.1 of the BPEL specification. In BPEL 2.0, this activity is replaced with the if activity.

For more information about the switch activity, see the *Business Process Execution Language for Web Services Specification* at http://www.oasis-open.org.

Element	Description
Name	Enter a name or accept the default name of Switchnumber. This becomes the name for this activity in the designer.

Related Topics

Introduction to One Request, One of Two Possible Responses in *Developing SOA Applications* with Oracle SOA Suite

Defining Conditional Branching with the Switch Activity in BPEL 1.1 in *Developing SOA Applications with Oracle SOA Suite*

BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

2.154 Switch Dialog - Otherwise Branch - General Tab

Use to place an activity into the otherwise branch.

If no branch with a condition is taken, then the otherwise branch is taken. If the otherwise branch is not explicitly specified, then an otherwise branch with an empty activity is assumed to be available. This activity is complete when the activity of the selected branch completes.

Element	Description
Otherwise Branch	Place an activity into the otherwise branch.

Related Topics

Defining Conditional Branching with the Switch Activity in BPEL 1.1 in *Developing SOA Applications with Oracle SOA Suite*

2.155 Rule Dialog - Dictionary Tab

Use to execute a business rule from a specified dictionary. You can also use this dialog to create a new dictionary.



Element	Description
Dictionary	Select the business rule dictionary. Click the Add icon to create a new dictionary, and to specify the inputs and outputs for the business rule service component. This displays the Create Business Rules dialog and starts the Oracle Business Rules Designer.

Getting Started with Oracle Business Rules in *Developing SOA Applications with Oracle SOA Suite*

2.156 Partner Link Chooser Dialog

Use to select a partner link.

A partner link characterizes the conversational relationship between two services. It defines the roles played by each service in the conversation and specifies the port type provided by each service to receive messages within the context of the conversation.

For more information about partner links, see the *Business Process Execution Language for Web Services Specification* (for BPEL 1.1) or the *Web Services Business Process Execution Language Version 2.0 Specification* at http://www.oasis-open.org.

Element	Description
Add icon	Click to create a partner link. You must first select the second Partner Links folder to enable this icon.
Edit icon	Click to edit an existing partner link.
Delete icon	Click to delete an existing partner link.
Partner Links	Displays the partner links in the BPEL process.
Show Detailed Node Information	Select an element and click this checkbox to display detailed information.

Related Topics

Introduction to Partner Links in Developing SOA Applications with Oracle SOA Suite

Invoking a Synchronous Web Service in Developing SOA Applications with Oracle SOA Suite

Invoking an Asynchronous Web Service from a BPEL Process in *Developing SOA Applications* with Oracle SOA Suite

2.157 Adapter Property Value Dialog or To Property Dialog or From Property Dialog

Use to assign a value to the message header property.

If BPEL 1.1, this dialog is named the Adapter Property Value dialog. In BPEL 2.0, this dialog is named the To Property Dialog (if defining a property for an invoke or reply activity) or the From Property Dialog (if defining a property for a receive, onMessage branch, or onEvent branch).



Element	Description
Name	For BPEL 2.0, select a property. For BPEL 1.1, you already selected the property on the Properties tab.
Variable	Click the Browse icon to select a variable to assign to the property.
Expression	Enter an expression to assign to the property.

Propagating Normalized Message Properties Through Message Headers in *Developing SOA* Applications with Oracle SOA Suite

2.158 Breakpoint Dialog

Use to view the group name for the breakpoint.

Breakpoints are the intentional pausing locations in a SOA composite application that you set for debugging purposes. You can set breakpoints on the following components:

- Service binding components
- Inbound and outbound parts of BPEL process and BPM process service components
- Reference binding components such as web services and JCA adapters

Components on which breakpoints are set are designated with request (outbound) icons, reply (inbound) icons, or request-reply (outbound-inbound) icons.

Element	Description
Group Name	Displays the name of the group that includes the defined breakpoints.
Enabled	Select to enable the group name.

Related Topics

Debugging and Auditing SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Managing Breakpoints in Developing Applications with Oracle JDeveloper

How to Manage Breakpoint Groups in Developing Applications with Oracle JDeveloper

How to Remove Breakpoints in Developing SOA Applications with Oracle SOA Suite

2.159 Breakpoints Dialog

Use to add or remove individual breakpoints or all breakpoints to or from a BPEL process.

Breakpoints are the intentional pausing locations in a SOA composite application that you set for debugging purposes. You can set breakpoints on the following components:

- Service binding components
- Inbound and outbound parts of BPEL process and BPM process service components
- Reference binding components such as web services and JCA adapters

Components on which breakpoints are set are designated with request (outbound) icons, reply (inbound) icons, or request-reply (outbound-inbound) icons.

Element	Description
Delete Selected Breakpoints icon	Delete a selected breakpoint.
Delete All Breakpoints icon	Delete all breakpoints.
XPath Name	The XPath of the breakpoint.
Name	The name of the BPEL activity on which the breakpoint is set.
Enable	Select to enable the breakpoint or deselect to disable the breakpoint.
Valid	Indicates that the breakpoint is valid.
Fit to Width	Select to fit breakpoint details to the width of the dialog.

Related Topics

Debugging and Auditing SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Managing Breakpoints in Developing Applications with Oracle JDeveloper

How to Manage Breakpoint Groups in Developing Applications with Oracle JDeveloper

How to Remove Breakpoints in Developing SOA Applications with Oracle SOA Suite

2.160 Preferences Dialog - Oracle BPEL 1.1 or 2.0 Designer Page - Diagram Tab

Use to customize the layout of Oracle BPEL Designer for dragging activities and editing dialogs.

Note: The preferences you set in this page apply to all new projects going forward. You can set preferences for a single project by placing the cursor in the designer, right-clicking, and selecting **Display** > **BPEL Designer Settings** or clicking the **BPEL Designer Settings** icon in the tool bar immediately above the BPEL process design.

Element	Description
Layout tab	Customize the size of activity icons, the width of swimlanes, and the shape of partner links. For example, assume you have a large process with many activities. The size requires you to scroll up and down to view the entire process. This makes the process difficult to manage. You can select to optimize (reduce) the size of all or specific activities in the process. Despite the reduction in icon size, you can still drag activities into the process and edit dialogs at full size. To determine the type of an optimized icon, hold the cursor over it to display the icon at regular size.
Auto Optimize	Select this checkbox if you want to optimize all activity types.
Manually Optimize	Select this checkbox if you want to optimize the size of specific activity types. Then, select the activities to optimize in the list. This checkbox is selected by default.
Types	Select to optimize activities in the BPEL process.



Element	Description
Fixed Width Swimlanes	Select this checkbox if you want both the left and right swimlanes to remain at a fixed size, no matter how large an activity extends horizontally. For example, assume you have a switch activity with multiple assign activities inside a human task service. This checkbox is selected by default. Selecting this checkbox ensures that both swimlanes remain at a fixed length and the activity does not extend into both swimlanes.
Curved Connections	Select this checkbox if you want partner link icons to be rounded. This checkbox is selected by default.
Colors tab	Select a checkbox for the element whose color you want to change (for example, a partner link or a swimlane). A palette for changing the color appears. The change displays the next time you start Oracle JDeveloper.
Tab Placement tab	Select the location in which to display tabs in dialogs. By default, tabs display at the top of dialogs.
Options tab	Enables you to customize the layout of Oracle BPEL Designer.
Zoom Centered	If selected, the image is centered in the designer if the zoom is set to less than 100%. Otherwise, the location of the image is based on the scroll bar position. The setting only applies to a new project. This checkbox is selected by default.
	Note : If you zoom the image to above or below 100% and click an activity to edit, the dialog appears. If you are using the inline editor, and try to perform any task in this dialog (including closing it), you receive an error indicating that you cannot use the inline editor when zoom is not 100%
	Click the icon next to the zoom slider. The slider sometimes does not enable you to position the zoom level at 100%.
Confirm before delete	If selected, this prompts you to confirm that you want to delete the selected element. This checkbox is selected by default.
Reset to Defaults	Click to reset all fields in this dialog to their default values.

Introduction to the BPEL Process Service Component in *Developing SOA Applications with Oracle SOA Suite*

2.161 Preferences Dialog - Oracle 1.1 or 2.0 Designer Page - Data Tab

Use to select an annotation file.

Annotations enable you to provide descriptions in activities in the form of code comments and name and pair value assignments. The annotation preferences you import in this dialog display in all new projects going forward.

Element	Description
Annotation File	Click the Search icon to select an annotation file to import.

Related Topics

Introduction to the BPEL Process Service Component in *Developing SOA Applications with Oracle SOA Suite*



2.162 Call Activity Dialog - General Tab

Use to execute referenced subprocess code in standalone and inline subprocesses.

- For standalone subprocesses, arguments in the call activity map in-scope variables and partner links to subprocess parameters.
- For inline subprocesses, arguments in the call activity map in-scope variables and partner links to inline subprocess parameters.

Element	Description
Name	Accept the default name of Callnumber or enter a new name.
Subprocess	Select the name of the subprocess to reference.
Arguments	Specify the mapping arguments.
Name	Click the column to specify the name.
Value	Click the row in this column to invoke the Variable Chooser dialog. This enables you to select the variable to which to map from the variable in the Name column.
Copy By Value	Select this checkbox to copy the variable content by value. Copying by value supports only input values. Only variables or partner links are accepted for variables, not XPath expression queries.
	Deselect this checkbox to copy by reference, which supports both input and output variables.

Related Topics

Introduction to Standalone and Inline BPEL Subprocess Invocations in *Developing SOA Applications with Oracle SOA Suite*

Creating Standalone and Inline BPEL Subprocesses in a BPEL process in *Developing SOA Applications with Oracle SOA Suite*

2.163 Create Inline Subprocess Dialog

Use to name the inline subprocess.

A subprocess is a fragment of BPEL code that can be reused within a particular process by separate processes. An inline subprocess is embedded in another process. A call activity executes the referenced subprocess code. More

Element	Description
Name	Enter a name for the inline subprocess.
Replace Scope with Subprocess Call	Select to automatically replace the scope with a BPEL call activity (the default selection). If you want to create an inline subprocess and keep the selected scope in the process, you can deselect this checkbox.
Label	Optionally enter a description.
Comment	Optimally enter a comment.
Image	Select to replace the standard call activity icon with a unique image.



Introduction to Standalone and Inline BPEL Subprocess Invocations in *Developing SOA Applications with Oracle SOA Suite*

Introduction to an Inline Subprocess in Developing SOA Applications with Oracle SOA Suite

Creating Standalone and Inline BPEL Subprocesses in a BPEL Process in *Developing SOA Applications with Oracle SOA Suite*

2.164 Inline Subprocesses Dialog

Use to manage (create, edit, and delete) inline subprocesses.

A subprocess is a fragment of BPEL code that can be reused within a particular process by separate processes. An inline subprocess is embedded in another process. A call activity executes the referenced subprocess code. More

Element	Description
Inline Subprocess	Displays the defined inline subprocesses.
Search icon	Click to open a field for specifying the inline subprocess for which to search.
Refresh icon	Click to refresh the list of inline subprocesses.
Add icon	Click to create an inline subprocess.
	After creation, the inline subprocess name is displayed with the following folders:
	Creating partner links, variables, and correlation sets in the subprocess
	Viewing activities in the subprocess
Edit icon	Click to edit a selected inline subprocess.
Delete icon	Click to delete a selected inline subprocess.

Related Topics

Introduction to Standalone and Inline BPEL Subprocess Invocations in *Developing SOA* Applications with Oracle SOA Suite

Introduction to an Inline Subprocess in Developing SOA Applications with Oracle SOA Suite

Creating Standalone and Inline BPEL Subprocesses in a BPEL process in *Developing SOA Applications with Oracle SOA Suite*

2.165 Value Editor Dialog

Use to edit the value of the variable.

Element	Description
Variable	Click to use a variable.
Expression	Click to use an expression.
Variable	Click the Browse icon to select a variable.



Manipulating XML Data in a BPEL Process in *Developing SOA Applications with Oracle SOA Suite*

2.166 Create Subprocess Dialog

Use to create a standalone BPEL subprocess.

A subprocess is a fragment of BPEL code that can be reused within a particular process by separate processes. A call activity executes referenced subprocess code. Standalone subprocesses are inline with the WS-BPEL 2.0 standalone language. More

Element	Description
Name	Enter a name or use the default name of Subprocessnumber.
Namespace	Displays the namespace directory path.
Directory	Displays the Oracle JDeveloper directory path to the BPEL process to use as a subprocess. Click Browse to select a different directory path.

Related Topics

Introduction to Standalone and Inline BPEL Subprocess Invocations in *Developing SOA Applications with Oracle SOA Suite*

Introduction to a Standalone Subprocess in *Developing SOA Applications with Oracle SOA Suite*

Creating Standalone and Inline BPEL Subprocesses in a BPEL Process in *Developing SOA Applications with Oracle SOA Suite*

2.167 TODO Tasks Dialog

Use to add a description to a BPEL process activity.

When complete, the description is displayed for viewing when you place your cursor over the **TODO Tasks** icon to the right of the BPEL process activity.

Element	Description
Tasks	Displays the existing descriptions of the selected BPEL process activity.
Add Icon	Click Add to add a row, then double-click the default text and replace it with your description. When complete, click outside the row, then click Close . The description is displayed when you place your cursor over the TODO Tasks icon above the SOA composite application.
Delete Icon	Click to delete a selected description.

Related Topics

How to Add a Description of Actions to BPEL Process Activities in *Developing SOA* Applications with Oracle SOA Suite



2.168 Add TODO Task Dialog

Use to add a description to a BPEL process activity.

When complete, the description is displayed for viewing when you place your cursor over the **TODO Tasks** icon to the right of the BPEL process activity.

Element	Description
Enter Task Description	Click Add to add a row, then double-click the default text and replace it with your description. The description is displayed when you place your cursor over the TODO Tasks icon to the right of the BPEL process activity.

Related Topics

How to Add Descriptions to BPEL Process Activities in *Developing SOA Applications with Oracle SOA Suite*

2.169 Dynamic Partner Links Dialog

Use to dynamically assign an endpoint reference to a partner link for use at runtime.

Element	Description
Partner Link	Select the partner link with which to dynamically assign an endpoint.
Variable	Select the variable.
Edit Assign or Oracle Business Rule to set Dynamic Service Values	Select the assign activity or business rule to use for setting the dynamic service value.
Assign	Select to use for setting the dynamic service value.
Business Rule	Select to use for setting the dynamic service value.

Related Topics

Creating a Dynamic Partner Link at Design Time for Use at Runtime in *Developing SOA Applications with Oracle SOA Suite*

2.170 Bind Counter Dialog or Create Counter Dialog

Use to define a counter binding for a BPEL process.

A counter is meant to count how many times a specific BPEL activity gets executed at runtime. A counter is a type of business indicator. Business indicators are designed to be sharable and bindable to multiple BPEL processes within a composite. This enables you to monitor their value changes from one process to another when the composite is executed during analytics runtime.

Element	Description
Name	Select a name or click the Add icon to create a new counter binding.



Configuring BPEL Process Analytics in Developing SOA Applications with Oracle SOA Suite

2.171 Bind Measure Dialog or Bind Dimension Dialog or Create Dimension Dialog

Use to define a measure binding or dimension binding for a BPEL process.

A measure or dimension is a type of business indicator. Business indicators are designed to be sharable and bindable to multiple BPEL processes within a composite. This enables you to monitor their value changes from one process to another when the composite is executed during analytics runtime. You can bind measures or dimensions to BPEL XPath expression functions during creation. You can also specify ranges on some dimension data types.

Element	Description
Name	Select a name or click the Add icon to create a new measure binding or dimension binding.
XPath Expression	Click the Edit icon to invoke the Expression Builder dialog in which to build the XPath expression for binding to the measure or dimension.
Ranges	This section is only displayed in the Create Dimension dialog.
	Optional ranges can be specified for some data types such as integers and decimals. This enables dimensions to show their ranges at analytics runtime for better analytics reporting.

Related Topics

Configuring BPEL Process Analytics in Developing SOA Applications with Oracle SOA Suite

2.172 SOA Analytics Metrics

Use to configure the composite level analytic settings.

Element	Description
Generate For All Activities	Generates standard analytic events for all process and activity events.
Human Workflow Activities Only	Generates standard analytic events only for human task events.
Start and Stop of the BPEL Process Only	Generates standard analytic events for starting and stopping of the BPEL process.
Do Not Generate (Default Value)	Does not generate any standard analytic events.

Related Topics

Configuring BPEL Process Analytics in Developing SOA Applications with Oracle SOA Suite



2.173 Composite Analytics Sampling Points for BPEL

Use to configure analytic sampling points (process start/stop, activity start/stop) at the individual BPEL process level.

Process level configuration only applies to the generation of standard analytics events for the specific BPEL process. It does not impact the generation of user-defined measurement events for the process. User-defined measurements always generate their measurement events, if enabled.

Element	Description
Inherit From Composite Default	Inherits the analytics setting from the composite level analytics configuration.
Human Workflow Activities Only	Generates standard analytic events only for human task events.
Start and Stop of the BPEL Process Only	Generates standard analytic events for starting and stopping of the BPEL process.
Do Not Generate (Default Value)	Does not generate any standard analytic events.
Is Primary Process	Select to inform analytics runtime if the process is one of the primary processes for the SOA composite application.

Related Topics

Configuring BPEL Process Analytics in Developing SOA Applications with Oracle SOA Suite

2.174 Interval Start Dialog, Interval End Dialog, Counter Mark Dialog, or Measurement Mark Dialog

Use to edit the selected measurement type: interval start, interval end, counter mark, and measurement (single) mark.

Measurements are defined as floaters on top of read-only activities in the BPEL process. The measurement floaters can be moved around by mouse on top of the BPEL process to achieve the necessary topology.

The Interval Start dialog, Interval End dialog, Counter Mark dialog, or Measurement Mark dialog is arranged in the following tabs:

- General Tab
- Business Indicators Tab

General Tab

The General tab enables you to define the impacted activity, the evaluation event that triggers the measurement being taken, the measurement description, and whether the measurement is enabled.



Element	Description
Name	Enter a name of the measurement: interval start, interval end, counter mark, or measurement mark.
Activity	Displays the BPEL activity on which the measurement is taken. Depending on the measurement you selected, this can be the following:
	 Interval start: The BPEL activity on which the interval starts. Interval end: The BPEL activity on which the interval stops. Counter mark: The BPEL activity on which the counter mark is taken. Measurement mark: The BPEL activity on which the single mark is taken.
Evaluation Event	Select a time phase during which to monitor the activity:
	 Activate: Monitoring begins when the activity starts its tasks. Compensate: Monitoring begins when compensation occurs (when a scope activity is compensated). Complete: Monitoring begins when the activity completes its tasks. Fault: Monitoring begins if an error occurs in the activity. Retry: Monitoring begins when a retry occurs (when an invoke activity is retried).
Description	Provide an optional description for the measurement.
Enabled	Select whether to enable the measurement. By default, this measurement is enabled.

Business Indicators Tab

The Business Indicators tab enables you to select the business indicators for the measurement.

Element	Description
Available	Move selected business indicators to the Selected section. You can also click the Add icon to create new business indicators. Created business indicators are automatically added to the Selected section.
Selected	Displays the selected business indicators.

Related Topics

Configuring BPEL Process Analytics in Developing SOA Applications with Oracle SOA Suite

2.175 Catch All Dialog - General Tab

Use to create a catch all activity.

For more information about the catch all activity, see the Business Process Execution Language for Web Services Specification at http://www.oasis-open.org.

Element	Description
Namespace	Enter a name for the activity.

Related Topics

Managing a Group of Activities with a Scope Activity in *Developing SOA Applications with Oracle SOA Suite*



BPEL Process Activities and Services in Developing SOA Applications with Oracle SOA Suite

Oracle Human Workflow Context Sensitive Help Topics

This topic describes the Human Workflow UI.

3.1 Outcomes Dialog

3

Use to select an outcome that requires a task assignee to enter a comment in Oracle BPM Worklist during runtime.

The assignee must add a comment and perform the action without saving the task at runtime.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.2 Human Task Editor - General Page

Use to specify the task title, task description, task outcomes, task priority, category, and task owner. How?

The Human Task Editor enables you to define the metadata for a human task. You can specify human task settings, such as task outcome, payload structure, task participants, assignment and routing policy, expiration and escalation policy, notification settings, and so on.

Element	Description
Task Title	Enter an optional task title. The title defaults to this value only if the initiated task does not have a title set in it. The title provides a visual identifier for the task. The task title displays in Oracle BPM Worklist. You can also search on titles in Oracle BPM Worklist.
	Select a method for specifying a task title:
	 Plain Text: Manually enter a name (for example, Vacation Request Approved)
	• Text and XPath: Enter a combination of manual text and a dynamic expression. After manually entering a portion of the title (for example, Approval Required for Order Id:), place the cursor one blank space to the right of the text and click the icon to the right of this field. This displays the Expression Builder for dynamically creating the remaining portion of the title. After completing the dynamic portion of the name, click OK to return to this field. The complete name is displayed. For example:
	Approval Required for Order Id: <%/task:task/task:payload/ task:orderId%>
	The expression is resolved during runtime with the exact order ID value from the task payload.

Element	Description
Description	Enter an optional description of the task. The description enables you to provide additional details about a task. For example, if the task title is Computer Upgrade Request, you can provide additional details in this field, such as the model of the computer, amount of CPU, amount of RAM, and so on. The description does not display in Oracle BPM Worklist.
Outcomes	Accept the default values of APPROVE and REJECT or click the Search icon to perform the following:
	Select additional seeded task outcomes
	Create custom outcomes
	Task outcomes capture the possible outcomes of a task. Oracle BPM Worklist displays the outcomes you specify here as the possible task actions to perform during runtime.
	Note : Ensure that you do not specify a custom name that matches a name listed in the Actions tab of the Access page of the Human Task Editor (for example, do not specify Delete). Specifying the same name can cause problems at runtime.
Priority	Specify the priority of the tasks. Priority can be 1 through 5 , with 1 being the highest. By default, the priority of a task is 3 (Normal) . This priority value is overridden by any priority value you select in the General page of the Create Human Task dialog. You can filter tasks based on priority and create views on priorities in Oracle BPM Worklist.
Category	Specify an optional task category through one of the following methods:
	By name: Manually enter a name
	• By expression: Click the icon to the right of this field to display the Expression Builder for dynamically creating a category
	This categorizes tasks created in a system. For example, in a help desk environment, you may categorize customer requests as either software-related or hardware-related. The category displays in Oracle BPM Worklist. You can filter tasks based on category and create views on categories in Oracle BPM Worklist.

Element	Description
Owner	Select a task owner:
	• User: You can assign an individual user as the task owner. For example, you may assign user jlondon. Users are defined in an identity store configured with the SOA Infrastructure
	 Group: You can assign groups as the task owner. Groups contain individual users. For example, users jcooper and fkafka may be members of the group LoanAgentGroup
	 Application Role: You can assign users who are members of application roles to claim and act upon tasks
	Select a method for specifying the task owner:
	 Statically through the identity service user directory or the list of application roles
	Dynamically through an XPath expression
	For example:
	 If the task has a payload message attribute named po within which the owner is stored, you can specify an XPath expression such as: /
	<pre>task:task/task:payload/po:purchaseOrder/po:owner</pre>
	<pre>- ids:getManager('jstein', 'jazn.com')</pre>
	The manager of jstein is the task owner.
	The task owner can view the tasks belonging to business processes they own and perform operations on behalf of any of the assigned task participant types. Additionally, the owner can also reassign, withdraw, or escalate tasks. The task owner can be considered the business administrator for a task. The task owner can also be specified in the Advanced tab of the Create Human Task dialog. The task owner specified in the Advanced tab overrides any task owner you enter in this field.
Application Context	Enter the name of the application that contains the application roles used in the task. This indicates the context in which the application role operates. If you do not explicitly create a task, but end up having one, you can set up the context.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.3 Outcomes Dialog

Use to select possible task outcomes (for example, a manager rejects or accepts a vacation request).

Element	Description
Select one or more outcomes	Select the task outcomes. APPROVE and REJECT are selected by default. Oracle BPM Worklist displays these outcomes as the possible actions you can perform during runtime.
	Task outcomes can also be localized by clicking the Add icon for the Resource Bundle in the Presentation page of the Human Task Editor. For example, you can select ACCEPT here, but change this word to display in a different language during runtime in Oracle BPM Worklist.
Add icon	Click to add custom outcomes.
Outcomes Requiring Comment	Click to select an outcome that requires a comment in Oracle BPM Worklist at runtime. You must add a comment and perform the action without saving the task at runtime.



Element	Description
Default Outcome	Select the default outcome of the task. The actions that display are based upon your selections in the Select one or more outcomes list.

Creating the Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.4 Add Custom Outcome Dialog

Use to add a custom task outcome.

Element	Description
Name	Enter a custom task outcome. If you enter multiple custom task outcomes, ensure
	that they are separated by commas.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.5 Identity Lookup Dialog

Use to specify a user, group, or application role as a task owner.

The Identity Service enables the lookup of user properties, roles, and group memberships. User information is obtained from the user directory or repository that is configured with the identity store (Oracle Internet Directory, Oracle Virtual Directory, XML, or a third-party user store). For group assignments, the task must be performed by one of the members in the group. Therefore, the user must first claim the task in order to act on it.

Application roles consist of users or other roles grouped logically for application-level authorizations. These roles are application-specific and are defined in the application Java policy store rather than the identity store. These roles are used by the application directly and are not necessarily known to a Java EE container.

Application roles define policy. Java permission can be granted to application roles. Therefore, application roles define a set of permissions granted to them directly or indirectly through other roles (if a role is granted to a role). The policy can contain grants of application roles to enterprise groups or users.

In the jazn-data.xml file of the file-based policy store, these roles are defined in <app-role> elements under <policy-store> and written to system-jazn-data.xml at the farm level during deployment. You can also define these roles after deployment using Oracle Enterprise Manager Fusion Middleware Control Console, which updates system-jazn-data.xml.

To search for application roles, you must first create a connection to the application server. When searching, you must specify the application name in order to find the name of the role.

Note: Application roles that are already available in the policy store can be browsed.



Element	Description	
Application Server	Select the type of application server that contains the user, group, or application role or click the Create icon to launch the Create Application Server Connection wizard and create a new application server connection.	
	You must select an application server connection configured with the complete domain name (for example, myhost.us.example.com). If you select a connection configured with only the host name (for example, myhost), the Realm list may not display the available realms. If the existing connection does not include the domain name, perform the following steps:	
	1. In the Resource Palette , right-click the application server connection.	
	2. Select Properties.	
	3. In the Configuration tab, add the appropriate domain to the host name.	
	4. Return to the Identity Lookup dialog and reselect the connection.	
Realm	Select the realm. A realm provides access to a policy store of users and roles (groups) and optionally provides administrative functionality. A policy store provides secure, centralized storage, retrieval, and administration of Java Authentication and Authorization Service (JAAS) policies (the roles and privileges of a user).	
Search Pattern	Enter a search pattern for finding the user. Wild cards are supported. For example, entering j* finds users jcooper and jstein.	
User Name or Group Name	Select the attribute for which to search. You can search for the user name, first name, last name, email address, cell phone number, home phone number, work phone number, manager, and job title. Groups and application roles can be searched for by name.	
Lookup icon	Click to search for the user, group, or application role.	
Select	Click to move a selected user from the Search User section to the Selected User section.	
Hierarchy	Click to view the reporting hierarchy of a selected user.	
Reportees	Click to view the reportees of a selected user.	
Members	Click to view the members of a group.	
Detail	Click to view details about a selected user, group, or role. For example, if you select a user such as jcooper, information similar to the following appears:	
	• Full name (James Cooper)	
	• GUID (jcooper)	
	• Title (Loan Agent 1)	
	• Manager (jstein) • Empileddrose (vecer10mubect.com)	
	 Work phone (123-456-7899) 	
	• Cell phone (123–465–7349)	
	• Country (US)	
Remove	Click to remove a selected user, group, or application role from the Selected User list.	
Detail	Click to view details about a selected user, group, or application role.	

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite



3.6 Human Task Editor - Data Page

Use to define the structure (message attributes) of the task payload. Task payload data consists of one or more elements or types.

Based on your selections, an XML schema definition is created for the task payload. How?

Element	Description
Add icon	Click to specify the structure (message elements) of the task payload (the data in the task) defined in the XSD file. You create parameters to represent the elements in the XSD file. This makes the payload data available to the workflow task. For example:
	 You create a parameter for an order ID element for placing an order from a store front application.
	 You create parameters for the location, type, problem description, severity, status, and resolution elements for creating a help desk request.
Edit icon	Click to edit the structure of the selected task payload.
Delete icon	Click to delete the structure of the selected task payload.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.7 Add or Edit Task Parameter Dialog

Use to define the message attributes of the payload data for your task.

Based on your selections, an XML schema definition is created for the task payload (the data in the task).

Element	Description
Туре	Click the Search icon to select an XML schema simple type or project schema file. This option is the default selection.
Element	Click the Search icon to select a project schema file.
Parameter Name	Accept the default name of Payloadnumber or enter a custom name. This field only displays if Type is selected.
Editable via worklist	Select this checkbox to enable users to edit payload data in Oracle BPM Worklist. For example, the approver in the application may change the amount approved in an expense request and add a justification.
Use Collections	If a task uses collections, then define this parameter to use collections. Click the Add button to provide the collection name and the Xpath expression for the collection type. Use Expression Builder to look up the collection type from the schema.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.8 Add or Edit Mapped Attribute

Use to define attribute-label mappings

Element	Description
Application Server	Select the application server that contains the protected-attribute labels.
Attribute	Select the available attribute labels. The list does not include any labels for flexfield attributes to which this task component is being mapped.
Value	Enter an XPath expression that determines the value to be stored in the attribute. You can leave the field blank to allow the value to be determined at runtime
Description	Enter a description.

Specifying Mapped Attributes in Developing Business Processes with Oracle Business Process Management Studio

3.9 Add or Edit Summary Field Dialog

Use to add a summary field to a human task definition.

Element	Description
Туре	Select the type of the summary field expression.
Name	Enter a name to identify the summary field.
Value	Click the Edit button to select a value from the task payload.
Editable	Select to make the summary field editable to the end user of the Human Task.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.10 Human Task Editor - Assignment Page

Use to specify the following assignment and routing policies to define a multistage approval environment:

- Create a participant type (pattern) that meets your business requirements. Available selections are single, parallel, serial, and FYI. You then model your workflow based on the participant type. You can also define multiple participant types in parallel blocks. How?
- Allow all task participants to invite other participants. This functionality is equivalent to the ad hoc workflow pattern of pre-10.1.3 Oracle BPEL Process Manager releases. This applies when there is at least one participant. In this case, each user selects users or groups as the next assignee when approving the task.
- Add review participants to a task. These participants can only add comments and attachments to a task. This differs from task assignees, who can perform actions on the task such as reassign, escalate, custom actions (for example, approve and reject), add comments, add attachments, and so on.
- Route tasks to all participants. This is known as default routing because the task is routed to each of the participants in the order in which they appear.
- Abruptly complete a task when a participant chooses. For example, assume an expense report goes to the manager, and then the director. If the first participant (manager) rejects it, you can end the workflow without sending it to the next participant (director).



Element	Description	
Make Parallel icon	Click to make multiple participant types parallel to one another. To enable this icon, you must first select multiple participant types in the block.	
Make Serial icon	Click to make multiple participant types sequential to one another. To enable this icon, you must first select multiple participant types in the block.	
Up Arrow	Moves the selected participant type or stage up in the block.	
Down Arrow	Moves the selected participant type or stage down in the block.	
Add icon	Select a participant type or stage and click Add to add another participant type or stage to the block in sequential or parallel order.	
	 Sequential participant block: Invokes the Add Participant Type dialog for adding another task participant below the selected one. To enable this selection in the list, you must first create a task participant type and select it in the block. Parallel participant block: Invokes the Add Participant Type dialog for adding another task participant in parallel to (next to) the selected one. To enable this selection, you must first create a task participant type and select it in the block. Sequential stage: Adds another stage below the selected stage. To enable this selection in the list, you must first select a stage. A stage is a way of organizing the approval process for blocks of participant types. Within each stage you can have one or more participant type blocks in sequence or in parallel. Parallel stage: Adds another stage in parallel to the selected stage. To enable 	
	this selection in the list, you must first select a stage.	
Edit icon	Click to add a task participant or stage. The first time you add a task participant or stage, you must double-click <edit participant=""></edit> or Stage1 or select either and click the Edit icon to add a task participant or stage.	
Delete icon	Click to delete the selected task participant or stage.	
Task will go from starting to final participant icon	Click to display the Configure Assignment dialog for specifying a method for routing your task through the workflow.	

• Create external routing that dynamically determines the participants in the workflow.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.11 Early Completion Dialog

Use the Early Completion dialog in cases of multiple stages and groups of participants performing subtasks in parallel.

A participant in one group approves or rejects a subtask, which causes the other participants in that same group to stop acting upon the task. However, this does not cause the other parallel group to stop acting upon subtasks. That group continues taking actions on tasks.

Element	Description
Complete task when a participant chooses: <outcome></outcome>	A participant in a task can accept or reject it, thus ending the workflow without the task being sent to any other participant. For example, a manager rejects a purchase order, meaning that purchase order is not sent to their manager for review.
Enable early completion in parallel subtasks	Participants perform subtasks in parallel, and one group's rejection or approval of a subtask does not cause the other group's subtask to also be rejected or approved.



Element	Description
Complete parent tasks of early completing subtasks	Participants perform subtasks in parallel, and one group's rejection or approval of a subtask causes the other group's subtask to also be rejected or approved.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.12 Use Advanced Rules Dialog

Use the Decision Components (Business Rules) to override static routes at runtime. Dynamic routing enables you to dynamically route messages at runtime from a mediator to multiple target services, based on the message content.

Element	Description
Rules Dictionary	Provide a name for the rule.
Create Rules	Select to create dynamic routing rules.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.13 Add Error Assignees Dialog

Use to assign a user, group, or application role as error assignees in the workflow.

Element	Description
Add icon	Click to assign a user, group, or application role to participate in this task.
	Users who are members of the specified group or application role are assigned this task. For a user to act on a task assigned to a group or an application role, they must first claim the task in Oracle BPM Worklist during runtime. This enables a task to be assigned to a user who is, for example, passed the payload of a BPEL process or computed in a prior activity of a BPEL process.
	Application roles consist of users or other roles grouped logically for application- level authorizations. These roles are application-specific and are defined in the application Java policy store rather than the identity store. These roles are used by the application directly and are not necessarily known to a Java EE container.
	Application roles define policy. Java permissions can be granted to application roles. Therefore, application roles define a set of permissions granted to them directly or indirectly through other roles (if a role is granted to a role). The policy can contain grants of application roles to enterprise groups or users. In the jazn-data.xml file of the file-based policy store, these roles are defined in application roles to enterprise groups or users. In the jazn-data.xml file of the file-based policy store, these roles are defined in application roles to enterprise groups or users. In the jazn-data.xml file of the file-based policy store, these roles are defined in application roles to enterprise groups or users. In the jazn-data.xml file of the file-based policy store, these roles are defined in app-roles-elements-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-store-spolicy-store-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-stores-spolicy-spoli
Identification Type column	Displays your selection of user, group, or application role. To change your selection, click in this column to invoke a dropdown list.



Element	Description
Data Type column	Click your selection to invoke a dropdown list to assign a value:
	• By Name: If your identification type is a user or group, click the Browse icon on the right to display a dialog for selecting a user or group configured through the identity service. The identity service enables the lookup of user properties, roles, and group memberships. User information is obtained from an LDAP server such as Oracle Internet Directory. You can use wild cards (*) to search for IDs.
	If your selection is an application role, click the Browse icon to display a dialog for selecting an application role. To search for application roles, you must first create a connection to the application server. When searching, you must specify the application name in order to find the name of the role. Note that the task definition can refer to only one application name. You cannot use application roles from different applications as assignees or task owners.
	• By Expression: For user, group, or application role, click the Browse icon to dynamically select a task assignee in the Expression Builder dialog. Use the bpws:getVariableData() expression or the ids:getManager() XPath function.
Value column	Displays the value you specified with the Browse icon in the Data Type column. You can also manually enter a value in this field.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.14 Expiration Assignees Dialog

Use the Expiration Assignees dialog to assign a user, group, or application role as expiration assignees in the workflow.

Element	Description
Add icon	Click to assign a user, group, or application role to participate in this task.
	Users who are members of the specified group or application role are assigned this task. For a user to act on a task assigned to a group or an application role, they must first claim the task in Oracle BPM Worklist during runtime. This enables a task to be assigned to a user who is, for example, passed the payload of a BPEL process or computed in a prior activity of a BPEL process.
	Application roles consist of users or other roles grouped logically for application- level authorizations. These roles are application-specific and are defined in the application Java policy store rather than the identity store. These roles are used by the application directly and are not necessarily known to a Java EE container.
	Application roles define policy. Java permissions can be granted to application roles. Therefore, application roles define a set of permissions granted to them directly or indirectly through other roles (if a role is granted to a role). The policy can contain grants of application roles to enterprise groups or users. In the jazn-data.xml file of the file-based policy store, these roles are defined in <app-role> elements under <policy-store> and written to system-jazn-data.xml at the farm level during deployment. You can also define these roles after deployment using Oracle Enterprise Manager Fusion Middleware Control Console. You can set a task owner or approver to an application role at design time if the role has been previously deployed.</policy-store></app-role>
Identification Type column	Displays your selection of user, group, or application role. To change your selection, click in this column to invoke a dropdown list.

Element	Description
Data Type column	Click your selection to invoke a dropdown list to assign a value:
	• By Name: If your identification type is a user or group, click the Browse icon on the right to display a dialog for selecting a user or group configured through the identity service. The identity service enables the lookup of user properties, roles, and group memberships. User information is obtained from an LDAP server such as Oracle Internet Directory. You can use wild cards (*) to search for IDs.
	If your selection is an application role, click the Browse icon to display a dialog for selecting an application role. To search for application roles, you must first create a connection to the application server. When searching, you must specify the application name in order to find the name of the role. Note that the task definition can refer to only one application name. You cannot use application roles from different applications as assignees or task owners.
	• By Expression: For user, group, or application role, click the Browse icon to dynamically select a task assignee in the Expression Builder dialog. Use the bpws:getVariableData() expression or the ids:getManager() XPath function.
Value column	Displays the value you specified with the Browse icon in the Data Type column. You can also manually enter a value in this field.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.15 Add Reviewers Dialog

Use to assign a user, group, or application role as reviewers in the workflow.

Element	Description
Add icon	Click to assign a user, group, or application role to participate in this task.
	Users who are members of the specified group or application role are assigned this task. For a user to act on a task assigned to a group or an application role, they must first claim the task in Oracle BPM Worklist during runtime. This enables a task to be assigned to a user who is, for example, passed the payload of a BPEL process or computed in a prior activity of a BPEL process.
	Application roles consist of users or other roles grouped logically for application- level authorizations. These roles are application-specific and are defined in the application Java policy store rather than the identity store. These roles are used by the application directly and are not necessarily known to a Java EE container.
	Application roles define policy. Java permissions can be granted to application roles. Therefore, application roles define a set of permissions granted to them directly or indirectly through other roles (if a role is granted to a role). The policy can contain grants of application roles to enterprise groups or users. In the jazn-data.xml file of the file-based policy store, these roles are defined in <app-role> elements under <policy-store> and written to system-jazn-data.xml at the farm level during deployment. You can also define these roles after deployment using Oracle Enterprise Manager Fusion Middleware Control Console. You can set a task owner or approver to an application role at design time if the role has been previously deployed.</policy-store></app-role>
Identification Type column	Displays your selection of user, group, or application role. To change your selection, click in this column to invoke a dropdown list.

Element	Description
Data Type column	Click your selection to invoke a dropdown list to assign a value:
	• By Name: If your identification type is a user or group, click the Browse icon on the right to display a dialog for selecting a user or group configured through the identity service. The identity service enables the lookup of user properties, roles, and group memberships. User information is obtained from an LDAP server such as Oracle Internet Directory. You can use wild cards (*) to search for IDs.
	If your selection is an application role, click the Browse icon to display a dialog for selecting an application role. To search for application roles, you must first create a connection to the application server. When searching, you must specify the application name in order to find the name of the role. Note that the task definition can refer to only one application name. You cannot use application roles from different applications as assignees or task owners.
	 By Expression: For user, group, or application role, click the Browse icon to dynamically select a task assignee in the Expression Builder dialog. Use the bpws:getVariableData() expression or the ids:getManager() XPath function.
Value column	Displays the value you specified with the Browse icon in the Data Type column. You can also manually enter a value in this field.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.16 Adhoc Routing Dialog

Use the adhoc routing page to configure whether a participant can invite other participants as part of performing the task.

Element	Description
Allow participants to invite other participants	Select to enable end users to invite other users to perform the task.
Allow participants to edit new participants	Select to enable end users to make modifications to new participants.
Allow initiators to add participants	Select to enable the user that started the task to add participants.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.17 Custom List Builders Dialog

Use the Custom List Builder dialog to create a new custom list of participants.

Element	Description
Add Icon	Click to add a new list.
Delete Icon	Click to delete a list.
Name	Provide a name for the custom list.



Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.18 Human Task Editor - Presentation Page

Use to perform the following tasks:

- Specify resource bundles for displaying task details in different languages in Oracle BPM Worklist
- Dynamically create Microsoft Word and custom style sheets to send them as email attachments using a style sheet

Element	Description
Resource Bundle	Click the Add icon to specify resource bundles for displaying task details in different languages in Oracle BPM Worklist.
Stylesheet for Attachments	Select a style sheet to attach, then click the Search icon.
	• Word ML: Select to dynamically create a Microsoft Word document for sending it as an email attachment using a WordML XSLT style sheet. The XSLT style sheet is applied on the task document.
	 Other: Select to dynamically create an email attachment for using an XSLT style sheet. The XSLT style sheet is applied on the task document.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.19 Resource Details Dialog

Use to specify resource bundles for displaying task outcomes and user-specified task content in different languages. Resource bundles are supported for the following task details:

- Displaying the value for task outcomes in plain text or with the message (key) format.
- Displaying the XML element and attribute names in the payload display of Oracle BPM Worklist. The key name in the resource bundle must be the same as the name of the XML element and attributes for internationalization of XML element names in Oracle BPM Worklist.
- Making email notification messages available in different languages. At runtime, select the XPath extension function hwf:getTaskResourceBundleString(taskId, key, locale?) to obtain the internationalized string from the specified resource bundle. The locale of the notification recipient can be retrieved with the function hwf:getNotificationProperty(propertyName).

Element	Description
Resource Name	Enter the name of the resource in the resource bundle.



Element	Description
Resource Location	Click the Search icon to select the Java archive (JAR) or ZIP resource bundle file to use. The resource bundle is part of your SOA archive (SAR).
	You can also specify Uniform Resource Locators (URLs) for the JAR or ZIP file. For example:
	http://myhost.com/resources/workflowbundles.jar
	http://myhost.com/resources/workflowbundles.zip
	file:///scratch/userA/resources/workflowbundles.zip

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.20 Human Task Editor - Deadlines Page

Use to specify the expiration duration of a task. How?

Element	Description
Task Duration	Specify the expiration duration of the task:
Settings	 Never expire: Specify for a task to never expire. Expire after: Specify for a task to expire after a certain date. You specify the maximum time period for the task to remain open. When the task expires, either the escalation policy or the renewal policy at the routing slip level is applied. If neither is specified, the task expires. The expiration policy at the routing slip level is common to all the participants. Renew after: Renew the expiration period for a task when the user does not respond within the allotted time. The renewal policy specifies the number of times the task can be renewed on expiration and the renewal duration. Escalate after: Escalate a task (for example, to the user's manager) after a certain date if the user does not respond within the allotted time. You specify the number of management levels to which to escalate the task and the title of the highest approver (for example, self, manager, director, or CEO). These titles are compared against the title of the task assignee in the corresponding user repository.
Custom Escalation Java Class	Specify custom escalation Java classes. For example, to assign the task to a current user's department manager on task expiration, you can write a custom task escalation function, register it with the workflow service, and use that function in task definitions.
Action Requested Before	Select to enter a due date for a task. A task is considered overdue once it is past the specified due date. This date is in addition to the expiration policy. A due date can be specified irrespective of whether an expiration policy has been specified. The due date enables Oracle BPM Worklist to display a due date, list overdue tasks, highlight overdue tasks in the inbox, and so on.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.21 Human Task Editor - Notification Page - General Tab

Use to specify when a user is assigned a task or informed that the status of the task has changed.



Notifications can be sent through email, voice message, instant message, or SMS. Notifications are sent to different types of participants for different actions. You can also modify the default notification message text. How?

Element	Description
Add icon	Click to add a row to the table for specifying task status, recipient, and notification header.
Delete icon	Click to delete a selected row from the table.
Task Status	Click to select a task status for which to receive notification messages.
Recipient Notification Header	 Click an entry to display a list of possible recipients for the notification message: Assignees: the users or groups to whom the task is currently assigned Initiator: the user who created the task Approvers: the users who have acted on the task up to this point. This applies in a serial participant type in which multiple users have approved the task and a notification must be sent to all of them Owner: the task owner Reviewer: the user who can add comments and attachments to a task Click the Edit icon to modify the default notification message. This message applies to all the supported notification channels: email, voice, instant messaging, and
	message. The channel by which the message is delivered is based upon the notification preferences you specify.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.22 Human Task Editor - Notification Page - Advanced Tab

Use to perform the following notification tasks:

- Send task reminders
- Encode notifications
- Make notifications secure
- Make email messages actionable
- Send attachments with email notifications
- Customize notification headers. Notification preference terms can be bound to a specific value by name or expression. This enables users to filter their messages based on these terms in their notification preference and decide which notifications to send to which channel or which to not receive at all

Element	Description
Reminders	Select to send task reminders (one time, two times, three times, or not at all), which can be based on the time the task was assigned to a user or the expiration time of a task. The number of reminders and the interval between the reminders can also be configured.
Encoding	If you select to remind the assignee one, two, or three times, select the interval between reminders, and whether to send the reminder before or after the assignment.

Element	Description
Make notifications secure (exclude details)	Select to use a default notification message. There are no HTML worklist task details, attachments, or actionable links in the email. Only the task Uniform Resource Locator (URL) link is sent in the notification.
Show worklist URL in notifications	Select to display the Oracle BPM Worklist URL in email notification messages. If this checkbox is not selected, the URL is not displayed.
Make notification actionable	Select to enable users to perform task actions (approve, reject) through email. How?
Send task attachments with email notifications	Select to send task attachments with email notifications.
Group notification configuration	Select to send email notifications to groups and application roles to which tasks are assigned.
U	• Send individual emails: Each user in the group or application role receives an individual email notification. This is the default selection. In addition, the Use separate task forms based on locale checkbox is automatically selected. When selected, this sends individual emails with a separate task form based on the language locale. When not selected, this sends individual emails and reuses (shares) the task form.
	• Send one email containing all user addresses: A shared notification email is generated once per user locale in a group or application role, thereby saving time in notification email content generation. The email is sent to all users in the group or application role.
Notification Header Attributes	Select to customize the notification headers. Custom notification headers are used to specify name and value pairs to identify key fields within the notification. These entries can be used by users to define delivery preferences for their notifications. How?

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.23 Human Task Editor - Access Page - Content Tab

Use to specify access rules for task content and task actions, specify workflow signature policies, and specify task restrictions through callback classes. How?

These rules determine the parts of a task that participants can view and update. Access rules are enforced by the workflow service by applying rules on the task object during the retrieval and update of the task.

For example, you can assign the task creator and task owner with read permissions on the payload part of a task.

Note: Access rules are always applied on top of what the system permits, depending on who is performing the action and the current state of the task.



Element	Description
Select access levels for each content item	Select the method for displaying task content in this dialog. Note that choosing the currently deselected option causes all settings to reset to their default values.
	• Coarse grained: Displays the task content as a whole (for example, displays only one payload or reviewer)
	• Fine grained: Displays the content as individual elements. For example, displays all payloads (such as p1, p2, and p3) and all reviewers assigned to this task (such as jstein, wfaulk, and cdickens)
Task Content Table	Displays the contents of a task (for example, PAYLOAD and ATTACHMENTS) and the participants with read or write privileges for acting upon this content (for example, ADMIN and APPROVERS).
	Select the content for a participant (for example, content PAYLOAD for participant ADMIN) and select a privilege from the dropdown list (for example, READ , WRITE , or NONE).
Signature policy	Select Configure Policy from the dropdown list to specify a workflow signature policy. Digital signatures provide a mechanism for the nonrepudiation of digitally-signed human tasks. This ability to mandate that a participant acting on a task signs the details and their action before the task is updated ensures that they cannot repudiate it later.
Specify Restricted Assignment	Click Configure Restricted Assignments to specify a callback class to restrict the users to which a task can be reassigned or routed.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.24 Human Task Editor - Access Page - Actions Tab

Use to specify the actions (either access or no access) that specific users (such as the task creator or owner) have for acting on the task content, specify signature policies, and specify task restrictions through callback classes (such as a payload).

Element	Description
Check access boxes to permit access	Select the method for displaying task content in this dialog. Note that choosing the currently deselected option causes all settings to reset to their default values.
	• Coarse grained: Displays the task actions as a whole (for example, displays only one approval or rejection)
	• Fine grained: Displays the content actions as individual elements (for example, displays all approvals or rejections)

Element	Description
Task Actions Table	Displays the actions of a task and the task participants who can perform these actions. The following actions are available. Custom actions created in the Outcomes dialog also appear.
	Select the checkbox for the actions that a specific user can perform on a task.
	 Select the checkbox for the actions that a specific user can perform on a task. Approve: Enables a participant to approve a task. This selection displays if you selected it in the Outcomes dialog.
	Acquire: Enables a participant to acquire a task.
	 Adhoc Route: Enables a participant to enter an outcome and then route the task in an ad hoc fashion to the next user who must review the task.
	Note: This choice is available if you selected Add all participants to invite other participants in the Configure Assignment dialog of the Assignment page of the Human Task Editor.
	 Delegate: Enables a participant to delegate the task to another user. In this case, the other user is acting on behalf of the current assignee. When the task is delegated, it resides on both users' worklists until the original assignee or the delegated person acts on it.
	• Escalate: Enables a participant to escalate a task to their manager for further action.
	• Info Request: Enables a participant to request more information about a task.
	 Push back: Sends the task one level back in the workflow. For example, assume the task was routed to the LoanAgentGroup and then to jstein. If jstein now pushes the task back, it goes back to the LoanAgentGroup.
	 Reassign: Enables the current assignee of the task to transfer it to another use or group. In this case, the task is moved from the worklist of the current assignee to the new assignee.
	• Release: Enables the participant to release the task to another participant.
	• Renew: If a task is about to expire, a task assignee can renew the task and request more time to perform the task. This operation is not allowed if the process designer has restricted task renewal on the workflow.
	Resume: Enables the participant to resume a suspended task.
	• Skip current assignment: Skips the current assignment and moves to the next assignment or picks the outcome as set by the previous approver if there are no more assignees.
	• Suspend: Enables process owners (or users with the BPMWorkflowSuspend privilege) to put a workflow temporarily on hold. Task expiration and escalation do not apply until the workflow is resumed. No actions are permitted on a suspended task (except resume and withdraw).
	 Update: Enables the participant to update the task.
	 View Task: Enables the participant to view a task. If other actions are permitted, the user is able to act on the task. If this permission is removed for a participant, then that participant cannot view the task. By default, this permission is granted to everyone associated with the task.
	• Withdraw: Enables the task initiator to withdraw any pending task if they no longer want to send it through the workflow. A process owner can also withdraw a task on behalf of the initiator. When a task is withdrawn, the business process is called back with the state attribute of the task set to Withdrawn .
Signature policy	Select Configure Policy from the dropdown list to specify a workflow signature policy. Digital signatures provide a mechanism for the nonrepudiation of digitally-signed human tasks. This ability to mandate that a participant acting on a task signs the details and their action before the task is updated ensures that they cannot repudiate it later.
Specify Restricted Assignment	Click Configure Restricted Assignments to specify a callback class to restrict the users to which a task can be reassigned or routed.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.25 Signature Policy Details Dialog

Use to select the signature policy for task participants to use.

Digital signatures provide a mechanism for the nonrepudiation of digitally-signed human tasks. This ability to mandate that a participant acting on a task signs the details and their action before the task is updated ensures that they cannot repudiate it later.

Element	Description
No signature required	Select for participants to send and act upon tasks without providing a signature. This is the default policy.
Password required	Select for participants to specify a signature before sending tasks to the next participant. Participants must re-enter their password while acting on a task. The password is used to generate the digital signature. A digital signature authenticates the identity of the message sender or document signer. This ensures that the original content of the sent message is unchanged.
Digital certificate required	Select only if participants possess a digital certificate for the nonrepudiation of digitally-signed human tasks. A digital certificate establishes the participant's credentials. It is issued by a certification authority (CA). It contains the following:
	 Your name A serial number The expiration dates A copy of the certificate holder's public key (used for encrypting messages and digital signatures) The digital signature of the certificate-issuing authority so that message authenticity can be established The CA names and CA CRL and URLs of the issuing authorities must be configured separately.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

"How to Specify a Workflow Digital Signature Policy" in *Developing SOA Applications with Oracle SOA Suite*

3.26 Configure Restricted Assignment Dialog

Use to restrict the users to which a task can be reassigned or routed through a callback class.

Element	Description
Class Name	Enter the callback class. The class must implement the oracle.bpel.services.workflow.task.IRestrictedAssignmentCallback interface.
Add icon	Click to add name and value pairs for the property map passed to invoke the callback.
Delete icon	Click to delete a selected name and value pair.


Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.27 Human Task Editor - Events Page

Use to specify callback classes and enable task and routing customizations in BPEL callbacks. How?

Two types of callbacks are supported:

- Java callbacks: The callback class must implement the interface oracle.bpel.services.workflow.task.IRoutingSlipCallback. Make the callback class available in the class path of the server.
- Business event callbacks: You can have business events raised when the state of a human task changes. You do not need to develop and register a Java class. The caller implements the callback using an Oracle Mediator or BPEL process service component to subscribe to the applicable business event in order to be informed of the current state of an approval transaction.

Element	Description
State Change Callbacks	Displays the callback states in the task. You can perform the following tasks in this table:
	 Use OnAssigned if the callback class must be called on any assignment change, including standard routing, reassignment, delegation, escalation, and so on. If a callback is required when a task has an outcome update (that is, one of the approvers in a chain approves or rejects the task), this option must be selected. Use OnUndated if the callback class must be called on any update (including
	payload, comments, attachment, priority, and so on).
	• Use OnCompleted if the callback class must finally be called when the task is completed and control is about to be passed to the initiator (such as the BPEL process initiating the task).
	• Use OnStageCompleted if the callback class must be called to enable business event callbacks in a human workflow task. When the event is raised, it contains the name of the completed stage, the outcome for the completed stage, and a snapshot of the task when the callback is invoked.
	 Use OnSubtaskUpdated if the callback class must be called on any update (including payload, comments, attachment, priority, and so on) on a subtask (one of the tasks in a group vote and parallel scenario).
Java Class	Click the empty field to enter a value for the selected state. This value is the complete class name of the Java class that implements oracle.bpel.services.workflow.task.IRoutingSlipCallback.
Trigger Workflow Event	Select the checkbox to use business event callbacks. This action disables the Java Class column. Each callback, such as OnAssigned , corresponds to a business event point. When a business event is fired, the event details contain the task object and a set of properties that are populated based on the context of the event being fired.
Allow task and routing customization in BPEL callbacks	Select to send fine-grained callbacks (for example, onTaskUpdate or onTaskEscalated) to the BPEL process.
Disable BPEL callbacks	Select if you want to invoke the task service without waiting for a reply.



Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

"Using Business Events and the Event Delivery Network" in *Developing SOA Applications with Oracle SOA Suite*

3.28 Edit Participant Type Dialog - Single Page

Use to configure the single approver participant type.

This participant type requires a single user to act on a task. If the task is assigned to a role or group with multiple users, one of the members must claim the task and act on it. Based on the user's action, you define what the business process does.

For example, a vacation request is assigned to a manager. The manager must act on the request task within three days of the assignment. Once the manager approves or rejects the request, the single approver is finished and the task is marked as completed.

Element	Description
Label	Enter a recognizable label for this participant or accept the default value of Stagenumber.Participantnumber. This label must be unique within this workflow (for example, Approval Manager, Primary Reviewers, and so on). This label shows up in other parts of the Human Task Editor, such as the configuration of access rules and the specification of advanced routing rules.
Build a list of participants using: (Names and expressions)	Select Names and Expressions as a method for assigning a user, group, or application role to participate in this task.
Let participants manually claim the task	If you select this, then the task is assigned to all participants in the list. It becomes assigned to a particular participant when that participant manually claims it.
Auto assign task to a single	Select Auto-assign to a single list, select User, Group, or Application Role, then select an assignment pattern. To find out more about each assignment pattern, and to select and configure it, click the Assignment Pattern icon. The Assignment Pattern dialog box appears.

Element	Description
Value-based	Click the Add icon to assign a user, group, or application role to participate in this task.
	Users who are members of the specified group or application role are assigned this task. For a user to act on a task assigned to a group or an application role, they must first claim the task in Oracle BPM Worklist during runtime. This enables a task to be assigned to a user who is, for example, passed the payload of a BPEL process or computed in a prior activity of a BPEL process.
	Application roles consist of users or other roles grouped logically for application- level authorizations. These roles are application-specific and are defined in the application Java policy store rather than the identity store. These roles are used by the application directly and are not necessarily known to a Java EE container.
	Application roles define policy. Java permissions can be granted to application roles. Therefore, application roles define a set of permissions granted to them directly or indirectly through other roles (if a role is granted to a role). The policy can contain grants of application roles to enterprise groups or users. In the jazn-data.xml file of the file-based policy store, these roles are defined in <app-role> elements under <policy-store> and written to system-jazn-data.xml at the farm level during deployment. You can also define these roles after deployment using Oracle Enterprise Manager Fusion Middleware Control Console. You can set a task owner or approver to an application role at design time if the role has been previously deployed.</policy-store></app-role>
	The Participant Names table contains the following columns:
	 Identification Type: Displays your selection of user, group, or application role. To change your selection, click in this column to invoke a dropdown list. Data Type: Click your selection to invoke a dropdown list to assign a value:
	 By Name: If your identification type is a user or group, click the Browse icon on the right to display a dialog for selecting a user or group configured through the identity service. The identity service enables the lookup of user properties, roles, and group memberships. User information is obtained from an LDAP server such as Oracle Internet Directory. You can use wild cards (*) to search for IDs.
	If your selection is an application role, click the Browse icon to display a dialog for selecting an application role. To search for application roles, you must first create a connection to the application server. When searching, you must specify the application name in order to find the name of the role. Note that the task definition can refer to only one application name. You cannot use application roles from different applications as assignees or task owners.
	 By Expression: For user, group, or application role, click the Browse icon to dynamically select a task assignee in the Expression Builder dialog. Use the bpws:getVariableData() expression or the ids:getManager() XPath function.
	• Value: Displays the value you specified with the Browse icon in the Data Type column. You can also manually enter a value in this field.
Rule-based	Enter a ruleset created with the Oracle Business Rules Designer in the List Ruleset field. In this case, the rules define parameters of the Names and Expressions list builder. A ruleset provides a unit of execution for rules and decision tables. In addition, rulesets provide a unit of sharing for rules; rules belong to a ruleset. Rulesets can push other rulesets on the ruleset stack. In rulesets, the priority of rules applies to specify the order of firing of the rules in the ruleset. Rulesets also provide an effective date specification that identifies that the ruleset is always active, or that the ruleset is restricted based on a time and date range, or a starting or ending time and date.

ORACLE

Element	Description
Build a list of participants using: (Management Chain)	Select Management Chain as a method for assigning a user, group, or application role to participate in this task.
Let participants manually claim the task	If you select this, then the task is assigned to all participants in the list. It becomes assigned to a particular participant when that participant manually claims it.
Auto assign task to a single	Select User, Group, or Application Role.
Value-based	Click the Add icon to assign a user, group, or application role to participate in this task.
	The Starting Participant table contains the following columns:
	 Identification Type: See the online help for the Build a list of participants using: (Names and expressions) field of the single participant type for a description. Data Type: See the online help for the Build a list of participants using: (Names and expressions) field of the single participant type for a description. Value: See the online help for the Build a list of participants using: (Names and expressions) field of the single participant type for a description. Value: See the online help for the Build a list of participants using: (Names and expressions) field of the single participant type for a description. Top Participant: Select a method for assigning a top participant:
	 By Title: Select the title of the last (highest) approver in the management
	 chain. XPath: Select to dynamically enter a top participant through the Expression Builder dialog.
	• Number of Levels: Select a method for assigning the number of task participant levels:
	 XPath: Select to dynamically enter a level through the Expression Builder dialog.
	 By Number: Enter a value for the number of levels in the management chain to include in this task. For example, if you enter 2 and the task is initially assigned to user jcooper, both the user jstein (manager of jcooper) and the user wfaulk (manager of jstein) are included in the list (apart from jcooper, the initial assignee).
Rule-based	Enter a ruleset created with the Oracle Business Rules Designer in the List Ruleset field. In this case, the rules define parameters of the Management Chain list builder. A ruleset provides a unit of execution for rules and decision tables. In addition, rulesets provide a unit of sharing for rules; rules belong to a ruleset. Rulesets can push other rulesets on the ruleset stack. In rulesets, the priority of rules applies to specify the order of firing of the rules in the ruleset. Rulesets also provide an effective date specification that identifies that the ruleset is always active, or that the ruleset is restricted based on a time and date range, or a starting or ending time and date.
Build a list of participants using: (Rule-based)	Enter a rule in the List Ruleset field. In this case, rules define the list builder and the list builder parameters. The list itself is built using rules.
Let participants manually claim the task	If you select this, then the task is assigned to all participants in the list. It becomes assigned to a particular participant when that participant manually claims it.
Auto assign task to a single	Select User, Group, or Application Role.

Element	Description
Limit allocated duration to	Select the amount of time a user or group receives to act on a task. If the user or group does not act in the time specified, the global escalation and renewal policies are applied. For example, if the global policy is set to escalate the task and this participant does not act in the duration specified, the task is escalated to the manager or another user, as appropriate.
Allow this participant to invite other participants	Select this checkbox if you want the task assignee to have the ability to invite other participants into the workflow before routing it to the next assignee in this workflow. For example, assume the approval workflow goes from James Cooper to John Steinbeck. If this option is checked, James Cooper can decide to first route it to Irving Stone before it goes to John Steinbeck by using the route action dialog in the task details page.
Specify skip rule	Select this checkbox if you want the user, group, or application role to be bypassed if a specific condition is satisfied. This action displays an icon for accessing the Expression Builder dialog for building a condition. For example, if a user submits a business trip expense report that is below a specific amount, no approval is required by their manager.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

"Configuring the OPSS Security Store" in Developing SOA Applications with Oracle SOA Suite

3.29 Assignment Pattern Dialog

Use the Assignment Pattern dialog to set the pattern for the assignment.

Element	Description
Application server	Specify an application server connection.
Assignment Pattern	Choose from the available options.
Round Robin	Picks each user or group in turn.
Least busy	Picks the user or group with the least number of tasks currently assigned to it.
Most Productive	Picks the user or group that has completed the most tasks over a certain time period (by default, the last seven days).
Use Tasks of all Types to evaluate pattern criteria	If you want the assignment pattern to consider all types of tasks, then select the checkbox. Else, the pattern considers only this task type when determining the selected user.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.30 Use External Routing Dialog

Use to configure an external routing service that dynamically determines the participants in the workflow.

If this participant type is specified, all other participant types are ignored. It is assumed that the external routing service provides a list of participant types (single, parallel, serial, and so on) at runtime to determine the routing of the task.



Element	Description
Class Name	Enter the fully qualified class file name (for example, the org.mycompany.tasks.RoutingService class name). This class must implement the oracle.bpel.services.workflow.task.IAssignmentService interface.
Add icon	Click to add a list of name-value pairs that are sent as parameters to this service (for example, Priority, /task/priority).
	Add the name-value pairs through one of the following methods:
	 By name: Select to manually enter the pairs. By Expression: Select to dynamically enter the pairs by clicking the XPath Expression Builder icon to invoke the Expression Builder dialog.
Delete icon	Click to delete the selected pair.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.31 Edit Participant Type Dialog - FYI Page

Use to configure the FYI participant type.

This participant type is used when a task is sent to a user, but the business process does not wait for a user response; it just continues. FYI assignees cannot directly impact the outcome of a task, but can provide comments or add attachments.

Element	Description
Label	Enter a recognizable label for this participant or accept the default value of Stagenumber. Participantnumber. This label must be unique within this workflow (for example, Approval Manager, Primary Reviewers, and so on). This label shows up in other parts of the Human Task Editor, such as the configuration of access rules and the specification of advanced routing rules.
Build a list of participants using: (Names and expressions)	Select Names and Expressions as a method for assigning a user, group, or application role to participate in this task.
Let participants manually claim the task	If you select this, then the task is assigned to all participants in the list. It becomes assigned to a particular participant when that participant manually claims it.
Auto assign task to a single	Select Auto-assign to a single list, select User, Group, or Application Role, then select an assignment pattern. To find out more about each assignment pattern, and to select and configure it, click the Assignment Pattern icon. The Assignment Pattern dialog box appears.
Specify attributes using:	



Element	Description
Value-based	Click the Add icon to assign a user, group, or application role to participate in this task.
	Users who are members of the specified group or application role are assigned this task. For a user to act on a task assigned to a group or an application role, they must first claim the task in Oracle BPM Worklist during runtime. This enables a task to be assigned to a user who is, for example, passed the payload of a BPEL process or computed in a prior activity of a BPEL process.
	Application roles consist of users or other roles grouped logically for application- level authorizations. These roles are application-specific and are defined in the application Java policy store rather than the identity store. These roles are used by the application directly and are not necessarily known to a Java EE container.
	Application roles define policy. Java permissions can be granted to application roles. Therefore, application roles define a set of permissions granted to them directly or indirectly through other roles (if a role is granted to a role). The policy can contain grants of application roles to enterprise groups or users. In the jazn-data.xml file of the file-based policy store, these roles are defined in <app-role> elements under <policy-store> and written to system-jazn-data.xml at the farm level during deployment. You can also define these roles after deployment using Oracle Enterprise Manager Fusion Middleware Control Console. You can set a task owner or approver to an application role at design time if the role has been previously deployed.</policy-store></app-role>
Participant Names table	
Identification Type	Displays your selection of user, group, or application role. To change your selection, click in this column to invoke a dropdown list.
Data Type	Click your selection to invoke a dropdown list to assign a value:
	• By Name: If your identification type is a user or group, click the Browse icon on the right to display a dialog for selecting a user or group configured through the identity service. The identity service enables the lookup of user properties, roles, and group memberships. User information is obtained from an LDAP server such as Oracle Internet Directory. You can use wild cards (*) to search for IDs.
	 If your selection is an application role, click the Browse icon to display a dialog for selecting an application role. To search for application roles, you must first create a connection to the application server. When searching, you must specify the application name in order to find the name of the role. Note that the task definition can refer to only one application name. You cannot use application roles from different applications as assignees or task owners. By Expression: For user, group, or application role, click the Browse icon to dynamically select a task assignee in the Expression Builder dialog. Use the bpws:getVariableData() expression or the ids:getManager() XPath function.
Value	Displays the value you specified with the Browse icon in the Data Type column. You can also manually enter a value in this field.
Rule-based	Enter a ruleset created with the Oracle Business Rules Designer in the List Ruleset field. In this case, the rules define parameters of the Names and Expressions list builder. A ruleset provides a unit of execution for rules and decision tables. In addition, rulesets provide a unit of sharing for rules; rules belong to a ruleset. Rulesets can push other rulesets on the ruleset stack. In rulesets, the priority of rules applies to specify the order of firing of the rules in the ruleset. Ruleset also provide an effective date specification that identifies that the ruleset is always active, or that the ruleset is restricted based on a time and date range, or a starting or ending time and date.

Element	Description
Build a list of participants using: (Management Chain)	Select Management Chain as a method for assigning a user, group, or application role to participate in this task.
Let participants manually claim the task	If you select this, then the task is assigned to all participants in the list. It becomes assigned to a particular participant when that participant manually claims it.
Auto assign task to a single	Click the Add icon to assign a user, group, or application role to participate in this task.
Value-based	Click the Add icon to assign a user, group, or application role to participate in this task.
Starting Participant table	
Identification Type	Displays your selection of user, group, or application role. To change your selection, click in this column to invoke a dropdown list.
Data Type	Click your selection to invoke a dropdown list to assign a value:
	• By Name: If your identification type is a user or group, click the Browse icon on the right to display a dialog for selecting a user or group configured through the identity service. The identity service enables the lookup of user properties, roles, and group memberships. User information is obtained from an LDAP server such as Oracle Internet Directory. You can use wild cards (*) to search for IDs.
	 If your selection is an application role, click the Browse icon to display a dialog for selecting an application role. To search for application roles, you must first create a connection to the application server. When searching, you must specify the application name in order to find the name of the role. Note that the task definition can refer to only one application name. You cannot use application roles from different applications as assignees or task owners. By Expression: For user, group, or application role, click the Browse icon to dynamically select a task assignee in the Expression Builder dialog. Use the bpws:getVariableData() expression or the ids:getManager() XPath function.
Value	Displays the value you specified with the Browse icon in the Data Type column. You can also manually enter a value in this field.
Top Participant	Select a method for assigning a top participant:
	 By Title: Select the title of the last (highest) approver in the management chain. XPath: Select to dynamically enter a top participant through the Expression Builder dialog.
Number of Levels	Select a method for assigning the number of levels:
	 XPath: Select to dynamically enter a level through the Expression Builder dialog.
	• By Number: Enter a value for the number of levels in the management chain to include in this task. For example, if you enter 2 and the task is initially assigned to user jcooper, both the user jstein (manager of jcooper) and the user wfaulk (manager of jstein) are included in the list (apart from jcooper, the initial assignee).

Element	Description
Rule-based	Enter a ruleset created with the Oracle Business Rules Designer in the List Ruleset field. In this case, the rules define parameters of the Management Chain list builder. A ruleset provides a unit of execution for rules and decision tables. In addition, rulesets provide a unit of sharing for rules; rules belong to a ruleset. Rulesets can push other rulesets on the ruleset stack. In rulesets, the priority of rules applies to specify the order of firing of the rules in the ruleset. Rulesets also provide an effective date specification that identifies that the ruleset is always active, or that the ruleset is restricted based on a time and date range, or a starting or ending time and date.
Build a list of participants using: (Rule-based)	Enter a rule in the List Ruleset field. In this case, rules define the list builder and the list builder parameters. The list itself is built using rules.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

Oracle Fusion Middleware Security Guide

3.32 Edit Participant Type Dialog - Serial Page

Use to configure the serial participant type.

This enables you to create a list of sequential participants for a workflow. For example, if you want a document to be reviewed by John, Mary, and Scott in sequence, use this pattern. For the serial participant type, they can be any list of users or groups.

Element	Description
Label	Enter a recognizable label for this participant or accept the default value of Stagenumber. Participantnumber. This label must be unique within this workflow (for example, Approval Manager, Primary Reviewers, and so on). This label shows up in other parts of the Human Task Editor, such as the configuration of access rules and the specification of advanced routing rules.
Build a list of participants using: (Names and expressions)	Select Names and Expressions as a method for assigning a user, group, or application role to participate in this task.
Let participants manually claim the task	If you select this, then the task is assigned to all participants in the list. It becomes assigned to a particular participant when that participant manually claims it.
Auto assign task to a single	Select Auto-assign to a single list, select User, Group, or Application Role, then select an assignment pattern. To find out more about each assignment pattern, and to select and configure it, click the Assignment Pattern icon. The Assignment Pattern dialog box appears.



Element	Description
Value-based	Click the Add icon to assign a user, group, or application role to participate in this task.
	Users who are members of the specified group or application role are assigned this task. For a user to act on a task assigned to a group or an application role, they must first claim the task in Oracle BPM Worklist during runtime. This enables a task to be assigned to a user who is, for example, passed the payload of a BPEL process or computed in a prior activity of a BPEL process.
	Application roles consist of users or other roles grouped logically for application- level authorizations. These roles are application-specific and are defined in the application Java policy store rather than the identity store. These roles are used by the application directly and are not necessarily known to a Java EE container.
	Application roles define policy. Java permissions can be granted to application roles. Therefore, application roles define a set of permissions granted to them directly or indirectly through other roles (if a role is granted to a role). The policy can contain grants of application roles to enterprise groups or users. In the jazn-data.xml file of the file-based policy store, these roles are defined in <app-role> elements under <policy-store> and written to system-jazn-data.xml at the farm level during deployment. You can also define these roles after deployment using Oracle Enterprise Manager Fusion Middleware Control Console. You can set a task owner or approver to an application role at design time if the role has been previously deployed.</policy-store></app-role>
Participant Names table	
Identification Type column	Displays your selection of user, group, or application role. To change your selection, click in this column to invoke a dropdown list.
Data Type column	Click your selection to invoke a dropdown list to assign a value:
	• By Name: If your identification type is a user or group, click the Browse icon on the right to display a dialog for selecting a user or group configured through the identity service. The identity service enables the lookup of user properties, roles, and group memberships. User information is obtained from an LDAP server such as Oracle Internet Directory. You can use wild cards (*) to search for IDs.
	 If your selection is an application role, click the Browse icon to display a dialog for selecting an application role. To search for application roles, you must first create a connection to the application server. When searching, you must specify the application name in order to find the name of the role. Note that the task definition can refer to only one application name. You cannot use application roles from different applications as assignees or task owners. By Expression: For user, group, or application role, click the Browse icon to dynamically select a task assignee in the Expression Builder dialog. Use the bpws:getVariableData() expression or the ids:getManager() XPath function.
Value column	Displays the value you specified with the Browse icon in the Data Type column. You can also manually enter a value in this field.
Rule-based	Enter a ruleset created with the Oracle Business Rules Designer in the List Ruleset field. In this case, the rules define parameters of the Names and Expressions list builder. A ruleset provides a unit of execution for rules and decision tables. In addition, rulesets provide a unit of sharing for rules; rules belong to a ruleset. Rulesets can push other rulesets on the ruleset stack. In rulesets, the priority of rules applies to specify the order of firing of the rules in the ruleset. Rulesets also provide an effective date specification that identifies that the ruleset is always active, or that the ruleset is restricted based on a time and date range, or a starting or ending time and date.

Element	Description
Build a list of participants using: (Rule-based)	Enter a rule in the List Ruleset field. In this case, rules define the list builder and the list builder parameters. The list itself is built using rules.
Let participants manually claim the task	If you select this, then the task is assigned to all participants in the list. It becomes assigned to a particular participant when that participant manually claims it.
Auto assign task to a single	Enter a rule in the List Ruleset field. In this case, rules define the list builder and the list builder parameters. The list itself is built using rules.
Limit allocated duration to	Select the amount of time a user or group receives to act on a task. If the user or group does not act in the time specified, the global escalation and renewal policies are applied. For example, if the global policy is set to escalate the task and this participant does not act in the duration specified, the task is escalated to the manager or another user, as appropriate.
Allow this participant to invite other participants	Select this checkbox if you want the task assignee to have the ability to invite other participants into the workflow before routing it to the next assignee in this workflow. For example, assume the approval workflow goes from James Cooper to John Steinbeck. If this option is checked, James Cooper can decide to first route it to Irving Stone before it goes to John Steinbeck by using the route action dialog in the task details page.
Specify skip rule	Select this checkbox if you want the user, group, or application role to be bypassed if a specific condition is satisfied. This action displays an icon for accessing the Expression Builder dialog for building a condition. For example, if a user submits a business trip expense report that is below the specific limit, no approval is required by their manager.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.33 Edit Participant Type Dialog - Parallel Page

Use to configure the parallel participant type.

This participant type is used when multiple users, working in parallel, must take action simultaneously, such as in a hiring situation when multiple users vote to hire or reject an applicant. You specify the voting percentage required for the outcome to take effect, such as a majority vote or a unanimous vote.

For example, a business process collects the feedback from all interviewers in the hiring process, consolidates it, and assigns a hire or reject request to each of the interviewers. At the end, the candidate is hired if the majority of interviewers vote for hiring instead of rejecting.

You can define multiple participant types in parallel blocks. After creating an initial parallel participant type, click the **Add** icon in the **Assignment** page of the Human Task Editor, and select **Parallel participant block**. This creates a second participant block in parallel.

Element	Description
Label	Enter a recognizable label for this participant or accept the default value of Stagenumber.Participantnumber. This label must be unique within this workflow (for example, Approval Manager, Primary Reviewers, and so on). This label shows up in other parts of the Human Task Editor, such as the configuration of access rules and the specification of advanced routing rules.

Element	Description
Vote Outcome	You can specify a voted-upon outcome that overrides the default outcome selected in the Default Outcome list. This outcome takes effect if the required percentage is reached. Outcomes are evaluated in the order listed in the table.
Voted Outcomes table	Click the Add icon to add additional columns.
Voted Outcomes column	Select an outcome for the task (for example, Any , ACCEPT , REJECT , or any other outcome specified in the Outcomes dialog).
	The Any outcome enables you to determine the outcome dynamically at runtime. For example, if you select Any and set the outcome percentage to 60, then at runtime, whichever outcome reaches 60% becomes the final voted outcome. If 60% of assignees vote to reject the outcome, then it is rejected.
Outcome Type	Select a method for determining the outcome of the final task.
column	 By Expression: Dynamically specify the details with an XPath expression. By Percentage: Specify a percentage value that determines when the outcome of this task takes effect.
Value column	Specify a value based on your selection in the Outcome Type column.
	• If you selected By Expression , click the Browse icon to the right of the field to display the Expression Builder dialog for creating an expression.
	 If you selected By Percentage, enter a percentage value required for the outcome of this task to take effect (for example, a majority vote (51) or a unanimous vote (100)). For example, assume there are two possible outcomes (ACCEPT and REJECT) and five subtasks. If two subtasks are accepted and three are rejected, and the required acceptance percentage is 50%, the outcome of the task is rejected.
	Note that this functionality is nondeterministic. For example, selecting a percentage of 30% when there are two subtasks does not make sense.
Default Outcome	Select the default outcome for this task to take effect if the consensus percentage value is not satisfied. This happens if there is a tie or if all participants do not respond before the task expires. The default outcomes that display are based upon your selections in the Outcomes dialog in the General page of the Human Task Editor. You can also select By Expression to use the XPath Expression Builder.
Immediately trigger voted outcome when minimum percentage is met	If selected, the outcome of the task can be computed early with the outcomes of the completed subtasks, enabling the pending subtasks to be withdrawn. For example, assume four users are assigned to act on a task, the default outcome is APPROVE , and the consensus percentage is set at 50. If the first two users approve the task, the third and fourth users do not need to act on the task, since the consensus percentage value has already been satisfied. This option is automatically selected.
Wait until all votes are in before triggering outcome	If selected, the workflow waits for all responses before an outcome is initiated.
Share attachments and comments	Select this checkbox if you want all group voters or workflow participants to share comments and attachments for this task. This option is typically used when users must collaborate, such as collectively producing a proposal or a design. This information typically displays in Oracle BPM Worklist.
Build a list of participants using: (Names and expressions)	Select Names and Expressions as a method for assigning a user, group, or application role to participate in this task.
Let participants manually claim the task	If you select this, then the task is assigned to all participants in the list. It becomes assigned to a particular participant when that participant manually claims it. To find out more about each assignment pattern, and to select and configure it, click Assignment Pattern. The Assignment Pattern dialog box appears.



Element	Description
Auto assign task to a single	Select Auto-assign to a single list, select User, Group, or Application Role, then select an assignment pattern. To find out more about each assignment pattern, and to select and configure it, click the Assignment Pattern icon. The Assignment Pattern dialog box appears.
Value-based	Click the Add icon to assign a user, group, or application role to participate in this task.
	Users who are members of the specified group or application role are assigned this task. For a user to act on a task assigned to a group or an application role, they must first claim the task in Oracle BPM Worklist during runtime. This enables a task to be assigned to a user who is, for example, passed the payload of a BPEL process or computed in a prior activity of a BPEL process.
	Application roles consist of users or other roles grouped logically for application- level authorizations. These roles are application-specific and are defined in the application Java policy store rather than the identity store. These roles are used by the application directly and are not necessarily known to a Java EE container.
	Application roles define policy. Java permissions can be granted to application roles. Therefore, application roles define a set of permissions granted to them directly or indirectly through other roles (if a role is granted to a role). The policy can contain grants of application roles to enterprise groups or users. In the jazn-data.xml file of the file-based policy store, these roles are defined in <app-role> elements under <policy-store> and written to system-jazn-data.xml at the farm level during deployment. You can also define these roles after deployment using Oracle Enterprise Manager Fusion Middleware Control Console. You can set a task owner or approver to an application role at design time if the role has been previously deployed.</policy-store></app-role>
Participant Names table	
Identification Type column	Displays your selection of user, group, or application role. To change your selection, click in this column to invoke a dropdown list.
Data Type column	Click your selection to invoke a dropdown list to assign a value:
	• By Name: If your identification type is a user or group, click the Browse icon on the right to display a dialog for selecting a user or group configured through the identity service. The identity service enables the lookup of user properties, roles, and group memberships. User information is obtained from an LDAP server such as Oracle Internet Directory. You can use wild cards (*) to search for IDs.
	If your selection is an application role, click the Browse icon to display a dialog for selecting an application role. To search for application roles, you must first create a connection to the application server. When searching, you must specify the application name in order to find the name of the role. Note that the task definition can refer to only one application name. You cannot use application roles from different applications as assignees or task owners.
	• By Expression: For user, group, or application role, click the Browse icon to dynamically select a task assignee in the Expression Builder dialog. Use the bpws:getVariableData() expression or the ids:getManager() XPath function.
Value column	Displays the value you specified with the Browse icon in the Data Type column. You can also manually enter a value in this field.

Element	Description
Rule-based	Enter a ruleset created with the Oracle Business Rules Designer in the List Ruleset field. In this case, the rules define parameters of the Names and Expressions list builder. A ruleset provides a unit of execution for rules and decision tables. In addition, rulesets provide a unit of sharing for rules; rules belong to a ruleset. Rulesets can push other rulesets on the ruleset stack. In rulesets, the priority of rules applies to specify the order of firing of the rules in the ruleset. Rulesets also provide an effective date specification that identifies that the ruleset is always active, or that the ruleset is restricted based on a time and date range, or a starting or ending time and date.
Build a list of participants using: (Rule-based)	Enter a rule in the List Ruleset field. In this case, rules define the list builder and the list builder parameters. The list itself is built using rules.
Let participants manually claim the task	If you select this, then the task is assigned to all participants in the list. It becomes assigned to a particular participant when that participant manually claims it.
Auto assign task to a single	Enter a rule in the List Ruleset field. In this case, rules define the list builder and the list builder parameters. The list itself is built using rules.
Limit allocated duration to	Select the amount of time a user or group receives to act on a task. If the user or group does not act in the time specified, the global escalation and renewal policies are applied. For example, if the global policy is set to escalate the task and this participant does not act in the duration specified, the task is escalated to the manager or another user, as appropriate.
Allow this participant to invite other participants	Select this checkbox if you want the task assignee to have the ability to invite other participants into the workflow before routing it to the next assignee in this workflow. For example, assume the approval workflow goes from James Cooper to John Steinbeck. If this option is checked, James Cooper can decide to first route it to Irving Stone before it goes to John Steinbeck by using the route action dialog in the task details page.
Specify skip rule	Select this checkbox if you want the user, group, or application role to be bypassed if a specific condition is satisfied. This action displays an icon for accessing the Expression Builder dialog for building a condition. For example, if a user submits a business trip expense report that is below the specific limit, no approval is required by their manager.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.34 Assignment Pattern Dialog - FYI Page

Use to find out more about each assignment pattern, and to select and configure it.

When you specify an application server connection in the **Application Server** field, the assignment patterns are loaded into the **Assignment Pattern** list. When you select a pattern from the **Assignment Pattern** list, a description of your selection appears in the text box.

If you want the assignment pattern to consider all types of tasks, then select **Use tasks of all types to evaluate pattern criteria**. Otherwise, the pattern considers only this task type when determining the selected user. For example, if you want to assign a vacation request task to the least busy user, and you select **Use tasks of all types to evaluate pattern criteria**, then all assigned tasks are taken into consideration when determining the least busy user. If you do not select Use tasks of all types to evaluate pattern criteria, then only assigned vacation request tasks are considered when determining the least busy user.

A particular pattern may enable you to specify input parameters that control how the pattern is evaluated. For example the Most Productive pattern enables you to specify the time period (in days) over which the productivity is calculated. Input values can be static, or can be dynamically set by using an Xpath expression. Note that not all patterns accept parameters.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.35 Create Human Task Dialog - General Tab

Use to associate a metadata task configuration file designed in the Human Task Editor (the file with the .task extension) with the BPEL process.

When association is complete, a Task Service partner link is created. The Task Service exposes the operations required to act on a task. When this is used in the context of a BPEL process, a special BPEL activity for a human task is generated.

Element	Description
Edit icon	Click to return to the Human Task Editor. This icon only displays if you previously associated the metadata task configuration file with the BPEL process, exited the Create Human Task dialog, and returned to the dialog to make updates.
Task Definition	Select a metadata task configuration file (.task file) to associate with the BPEL process from the dropdown list. This file stores the task settings. You previously created the contents of this file in the Human Task Editor. You can also click the Add icon to create a new metadata task configuration file. Note: The fields below the Task Definition field are not visible until a metadata task configuration file has been selected or created.
Add icon	Click to create a new metadata task configuration file to associate with the BPEL process.
Identification Key	Enter or click the XPath Expression Builder icon to specify an optional identification key value. The identification key can be used as a user-defined ID for the task. For example, if the task is meant for approving a purchase order, the purchase order ID can be set as the identification key of the task. Tasks can be searched from Oracle BPM Worklist using the identification key. This attribute has no default value.
Identity Context	Enter the identity realm name to be used for the task when multiple realms are configured.
Application Context	Enter the stripe name of the application that contains the application roles used in the task.
Include task history from	Use to extend a task prior to this one in the BPEL process by selecting to include task history, comments, and attachments from the previous task to get a complete end-to-end audit trail.
	For example, assume you have a computer purchase workflow that first gets manager approvals (for example, computer purchase approval). Some BPEL logic then calls external services to get price quotes. You then have another computer order task for the procurement department. The task for the procurement department may extend the previous computer purchase approval task to get approval history and comments from the approvers.

Element	Description
Task Title	Enter the task title through one of the following methods. This is a mandatory field. The title displays the task in Oracle BPM Worklist during runtime.
	Enter the title manually.
	 Click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically create the title.
	You can also mix static text and dynamic expressions in the same message. To include dynamic text, place your cursor at the appropriate point in the text and click the XPath Expression Builder icon on the right to invoke the Expression Builder dialog.
Initiator	If you want to assign an initiator to this task, then optionally enter a name (for example, jcooper) or click the XPath Expression Builder icon to display the Expression Builder dialog for dynamically specifying an initiator.
	The initiator is the user who initiates a task. The initiator can view their created tasks from Oracle BPM Worklist and perform specific tasks, such as withdrawing or suspending a task. If not specified, the initiator defaults to the task owner specified in the Create Human Task Dialog - Advanced Tab.
Priority	Select a priority value between 1 (the highest) and 5. This field is provided for user reference and does not make this task a higher priority during runtime. The default value that displays is based upon your selection for this task definition from the Priority list of the General page in the Human Task Editor.
Task Parameters	Displays a list of task parameters and associated BPEL variables. Click the Browse icon in the BPEL Variable column to assign a variable or XPath expression for the specific task parameter. You must map only the task parameters that carry input data. For output data that is filled in from the worklist, you do not need to map the corresponding variables.
	Note : If you have not yet defined the message attributes of the payload data for your task in the Add Task Parameter dialog of the Data page of the Human Task Editor, the Browse icon does not display.

"Associating Human Tasks with BPEL Processes" in *Developing SOA Applications with Oracle SOA Suite*

3.36 Create Human Task Dialog - Advanced Tab

Use to specify advanced features for the metadata task configuration file associated with the BPEL process, such as scope name, global task variable name, task owner, identification key, included task history, and callbacks.

When association is complete, a Task Service partner link is created. The Task Service exposes the operations required to act on a task.

Element	Description
Scope Name	Enter the name for the BPEL scope activity to be generated or accept the default value of human_task_namenumber. This BPEL scope encapsulates the entire interaction with the workflow service and BPEL variable manipulation.
Global Task Variable Name	Enter the global task variable name. This is the name of the BPEL task variable used for the workflow interaction.



Element	Description
Owner	Enter the owner of this task. The task owner can view tasks belonging to business processes they own and perform operations on behalf of any of the task assignees. Additionally, the owner can also reassign, withdraw, or escalate tasks.
	If you do not specify a task initiator in the Create Human Task Dialog - General Tab, it defaults to the owner specified here. If an owner is not explicitly specified here or in the Human Task Editor, the service queries the identity provider and automatically selects a user with an admin privilege to be the owner.
	• Enter the initiator manually (for example, jcooper).
	 Click the XPath Expression Builder icon to display the Expression Builder dialog for dynamically specifying an owner.
Identification Key	Enter or click the XPath Expression Builder icon to specify an optional identification key value. The identification key can be used as a user-defined ID for the task. For example, if the task is meant for approving a purchase order, the purchase order ID can be set as the identification key of the task. Tasks can be searched from Oracle BPM Worklist using the identification key. This attribute has no default value.
Identity Context	Enter the identity realm name to be used for the task when multiple realms are configured.
Application Context	Enter the stripe name of the application that contains the application roles used in the task.
Include task history from	Use to extend a task prior to this one in the BPEL process by selecting to include task history, comments, and attachments from the previous task to get a complete end-to-end audit trail.
	For example, assume you have a computer purchase workflow that first gets manager approvals (for example, computer purchase approval). Some BPEL logic then calls external services to get price quotes. You then have another computer order task for the procurement department. The task for the procurement department may extend the previous computer purchase approval task to get approval history and comments from the approvers.
Clear old payload and recreate	Click if the extending task has a payload that is different from the other task.
Use existing payload	Click if the extending task has the same payload as the other task.

"Associating Human Tasks with BPEL Processes" in *Developing SOA Applications with Oracle SOA Suite*

3.37 Create Human Task Dialog

Use to associate a metadata task configuration file designed in the Human Task Editor (the file with the .task extension) with the BPEL process.

When association is complete, a Task Service partner link is created. The Task Service exposes the operations required to act on a task. When this is used in the context of a BPEL process, a special BPEL activity for a human task is generated.

Element	Description
Edit icon	Click to return to the Human Task Editor. This icon only displays if you previously associated the metadata task configuration file with the BPEL process, exited the Create Human Task dialog, and returned to the dialog to make updates.



Element	Description
Task Definition	Select a metadata task configuration file (.task file) to associate with the BPEL process from the dropdown list. This file stores the task settings. You previously created the contents of this file in the Human Task Editor. You can also click the Add icon to create a new metadata task configuration file.
	Note : The fields below the Task Definition field are not visible until a metadata task configuration file has been selected or created.
Add icon	Click to create a new metadata task configuration file to associate with the BPEL process.
Task Title	Enter the task title through one of the following methods. This is a mandatory field.The title displays the task in Oracle BPM Worklist during runtime.Enter the title manually.
	• Click the XPath Expression Builder icon to display the Expression Builder dialog to dynamically create the title.
	You can also mix static text and dynamic expressions in the same message. To include dynamic text, place your cursor at the appropriate point in the text and click the XPath Expression Builder icon on the right to invoke the Expression Builder dialog.
Initiator	If you want to assign an initiator to this task, then optionally enter a name (for example, jcooper) or click the XPath Expression Builder icon to display the Expression Builder dialog for dynamically specifying an initiator.
	The initiator is the user who initiates a task. The initiator can view their created tasks from Oracle BPM Worklist and perform specific tasks, such as withdrawing or suspending a task. If not specified, the initiator defaults to the task owner specified in the Create Human Task Dialog - Advanced Tab.
Priority	Select a priority value between 1 (the highest) and 5. This field is provided for user reference and does not make this task a higher priority during runtime. The default value that displays is based upon your selection for this task definition from the Priority list of the General page in the Human Task Editor.
Task Parameters	Displays a list of task parameters and associated BPEL variables. Click the Browse icon in the BPEL Variable column to assign a variable or XPath expression for the specific task parameter. You must map only the task parameters that carry input data. For output data that is filled in from the worklist, you do not need to map the corresponding variables.
	Note: If you have not yet defined the message attributes of the payload data for your task in the Add Task Parameter dialog of the Data page of the Human Task Editor, the Browse icon does not display.

"Specifying Task Parameters" in Developing SOA Applications with Oracle SOA Suite

3.38 Abrupt Completion Details Dialog

Use to specify conditions under which to complete the task early, regardless of the other participants in the workflow.

For example, assume an expense report goes to the manager, and then the director. If the first participant (manager) rejects it, you can end the workflow without sending it to the next participant (director).

Element	Description
Available	Select appropriate outcomes and click the > button. To select all, click the >> button. The outcomes that display are based upon your selections in the Outcomes dialog of the General page of the Human Task Editor.
Selected	Displays the selected outcomes.
Routing Condition	Click the XPath Expression Builder icon to display the Expression Builder dialog for dynamically creating a condition under which to complete this task early. For example, if a user submits a business trip expense report that is below a specific amount, no approval is required by their manager.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.39 Edit Dialog

Use to change the stage name. This name is added to the front of the participant type name.

A stage is a way of organizing the approval process for blocks of participant types. Within each stage you can have one or more participant type blocks in sequence or in parallel.

Element	Description
Stage Name	Enter the new name for the stage.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.40 Configure Assignment Dialog - Routing Page

Use to configure assignment and routing policy features.

Element	Description
Route task to all participants, in order specified	Select from the list to have a task reviewed by all selected participants. This is known as default routing because the task is routed to each of the participants in the order in which they appear. This type of routing differs from state-machine based routing using advanced business rules.
Allow all participants to invite other participants	Select for each task assignee to invite additional participants into the workflow before routing it to the next assignee in the workflow. This functionality is equivalent to the ad hoc workflow pattern of pre-10.1.3 Oracle BPEL Process Manager releases. This applies when there is at least one participant. In this case, each user selects users or groups as the next assignee when approving the task in Oracle BPM Worklist.
Complete task when a participant chooses: <outcome></outcome>	Select to invoke the Abrupt Completion Details dialog for specifying conditions under which to complete the task early, regardless of the other participants in the workflow.



Element	Description
Enable early completion in parallel subtasks	 Select this option for use in the following environments: Multiple stages and groups of participants perform subtasks in parallel. A participant in one group approves or rejects a subtask, which causes the other participants in that same group to stop acting upon the task. However, this does not cause the other parallel group to stop acting upon subtasks. That group continues taking actions on tasks. For example, assume there are two parallel subgroups, each in separate stages. One group acts upon lines of a purchase order. The other group acts upon headers of the same purchase order. If a participant of the first group rejects a line, all other task participants in the first group stop acting upon tasks. However, the second parallel group continues to act upon headers in the purchase order. In this scenario, the entire task does not complete early.
Complete parent tasks of early completing subtasks	 Select this option for use in the following environments: Multiple stages and groups of participants perform subtasks in parallel. A participant in one group approves or rejects a subtask, which causes the other participants in that same group to stop acting upon the task. This also causes the other parallel group to stop acting upon subtasks. For example, assume there are two parallel subgroups, each in separate stages. One group acts upon lines of a purchase order. The other group acts upon headers of the same purchase order. If a participant of the first group rejects a line, all other task participants in the first group stop acting upon tasks. In addition, the second parallel group stops acting upon headers in the purchase order. In this scenario, the entire task completes early.
Use Advanced Rules	Select from the list to use advanced routing rules to create complex workflow routing scenarios. This enables you to start the Oracle Business Rules Designer with a preseeded repository containing all necessary fact definitions. A template rule dictionary is generated for specifying the routing behavior.
Use External Routing	Select from the list to invoke the External Routing Service dialog for configuring an external routing service that dynamically determines the participants in the workflow. If you select this option, you are prompted to acknowledge that using external routing data causes all defined stages to be deleted.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.41 Configure Assignment Dialog - Assignment Page

Use to specify the user, group, or application role to whom a task is assigned if an error in assignment has occurred.

The error assignee can perform one of the following actions:

Ad hoc route

Route the task to the actual users assigned to the task. Ad hoc route allows the task to be routed to users in sequence, parallel, and so on.

Reassign

Reassign the task to the actual users assigned to this task.

Error task

Indicate that this task cannot be rectified.



Element	Description
Reviewers	Displays the reviewers assigned to this task.
Add icon	Click to add additional review participants into the workflow.
Error Assignees	Displays the participants to receive notifications when an error occurs with this workflow. The default assignee is weblogic.
Add icon	Click to add error assignees.
Payload Display For Parallel Participants	If you are using parallel participant types, you can specify where to store the subtask payload with the following options.
Use server settings	The SharePayloadAcrossAllParallelApprovers System MBean Browser boolean property in Oracle Enterprise Manager Fusion Middleware Control Console determines whether to share the payload of subtasks in the root task. By default, this property is set to true. If set to true, the All task participants share the same payload (better performance and less storage space) option is used. If this property is set to false, the Each parallel participant has a local copy of the payload option is used.
All task participants share the same payload (better performance and less storage space)	The payload for the subtasks is stored in their root task. This means that the payload of the root task is shared across all its subtasks. Internally, this option provides better performance and storage space consumption. Less storage space is consumed because the payload of the root task is shared across all its subtasks.
Each parallel participant has a local copy of the payload	Each subtask has its own copy of the payload. Internally, this option provides lesser performance and storage space consumption because more storage space is consumed.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.42 Edit Notification Message Dialog

Use to specify the notification message received by the user or group participating in the task.

This message alerts users about changes in the state of a task.

Element	Description
Notification	Enter the message or click the XPath Expression Builder icon to display the Expression Builder dialog for dynamically entering the message. You can also mix static text and dynamic expressions in the same message. To include dynamic text, place your cursor at the appropriate point in the text and click the XPath
Message	Expression Builder icon on the right to invoke the Expression Builder dialog. This message is used for all channels: email, voice, instant messaging (IM), and SMS. The actual channel used is based on the notification preferences you set up in the worklist notification preferences tab. For email, the task form is also sent along with this notification. Attachments and actions are also sent based on the checkboxes selected in the Advanced tab of the Notification page of the Human Task Editor.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite



3.43 Create Human Task Dialog

Use to create a human task service component in the SOA composite application.

A human task service component describes the tasks for users or groups to perform as part of an end-to-end business process flow. The tasks are accessed through Oracle BPM Worklist during process runtime.

After creation, double-click the human task icon in the SOA Composite Editor to start the Human Task Editor. This editor enables you to specify details such as task outcome, payload, assignment and routing policy, Nameexpiration and escalation policy, notification settings, and so on. These details are saved in a metadata task configuration file with a .task extension.

Element	Description
Name	Enter a name. Upon completion, a .task file with this name is created in the Application Navigator.
Namespace	Use the default namespace path or enter a custom path.
Create Composite Service with SOAP Bindings	Select this checkbox if you want to create the human task service component as a standalone component in the SOA Composite Editor. This creates a human task service component that is automatically connected (wired) to an inbound simple object access protocol (SOAP) web service binding component.
	If you want to create a human task service component that you later associate with a BPEL process service component, do not select this checkbox. The human task service component is created as a component that you explicitly associate with a BPEL process service component.

Related Topics

"Creating Human Tasks" in Developing SOA Applications with Oracle SOA Suite

3.44 Select an Application Role Dialog

Use to select an application role.

Application roles are used by secured applications and are specific to an application. These roles are seeded by applications in the farm policy store during application registration. Application roles are also created in the context of end users accessing the application.

Application roles consist of users or other roles grouped logically for application-level authorizations. These roles are application-specific and are defined in the application Java policy store rather than the identity store. These roles are used by the application directly and are not necessarily known to a Java EE container.

Application roles define policy. Java permissions can be granted to application roles. Therefore, application roles define a set of permissions granted to them directly or indirectly through other roles (if a role is granted to a role). The policy can contain grants of application roles to enterprise groups or users. In the jazn-data.xml file of the file-based policy store, these roles are defined in <app-role> elements under <policy-store> and written to system-jazndata.xml at the farm level during deployment. You can also define these roles after deployment using Oracle Enterprise Manager Fusion Middleware Control Console. You can set a task owner or approver to an application role at design time if the role has been previously deployed.



Element	Description
Application Server	Select the type of application server that contains the application role or click the Create icon to launch the Create Application Server Connection wizard and create a new application server connection.
Application	Select the application that contains the application roles (for example, soa-infra for the SOA Infrastructure application or b2bui for Oracle B2B).
Available	Select appropriate application roles and click the > button. To select all, click the >> button.
Selected	Displays the selected application roles. To remove a role, select it and click the > button. To remove all, click the >> button.
Name	Displays the application role selected in the Available column.
Description	Provides a description of the application role.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.45 Task Parameters Dialog

Use to assign a variable or XPath expression to a specific task parameter.

You must map only the task parameters that carry input data. For output data that is filled in from the worklist, you do not need to map the corresponding variables.

Element	Description
From	Select a type from which to copy the contents. The dialog refreshes based on your selection and prompts you for additional information.
Туре	
Variable	Expand the tree and select a variable, its part type (for example, a payload), and its XPath expression contents (for example, ns1:PurchaseOrder). As you select the XPath , it also displays in the XPath field at the bottom of the dialog. This type is the default selection.
Expression	Enter an XPath expression. Enter this expression through one of the following methods:
	• Press Ctrl+Space in this field to start the XPath Building Assistant. Press Esc when complete. How?
	Click the XPath Expression Builder icon to create an expression in the Expression Builder dialog
XML Fragment	Assign a literal XML value to a destination. The type of the literal value must be the type of the destination.
Partner Link	Do not select this option; this option is not applicable to task message attribute assignments.
Show Detailed Node Information	This field only displays for variables. Select an element and click this checkbox to display detailed information about the variable.
XPath	Displays the XPath query as you select it.

Related Topics

"Associating Human Tasks with BPEL Processes" in *Developing SOA Applications with Oracle SOA Suite*



3.46 Add Task Parameter Dialog

Use to define the message attributes of the payload data for your task.

Based on your selections, an XML schema definition is created for the task payload (the data in the task).

Element	Description
Source	Click the icon to launch the Task Parameters page for selecting a parameter source.
Туре	Click the Search icon to select an XML schema simple type or project schema file. This option is the default selection.
Element	Click the Search icon to select a project schema file.
Parameter Name	Accept the default name of Payloadnumber or enter a custom name. This field only displays if Type is selected.
Editable via worklist	Select this checkbox to enable users to edit payload data in Oracle BPM Worklist. For example, the approver in the application may change the amount approved in an expense request and add a justification.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.47 Assignee Validation Browser Dialog

Use to identify and resolve validation errors during human task design.

Element	Description
Errors	The solution to the problem
Problem description	Displays a description of the validation error that occurred.
The solution to the problem	Displays a solution to the problem.

Related Topics

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.48 Vote Outcome Dialog

Use to enter group voting details between two parallel participant types. The outcome for the final task is chosen based on the selected default outcome and consensus percentage.

Element	Description
Vote Outcome	You can specify a voted-upon outcome that overrides the default outcome selected in the Default Outcome list. This outcome takes effect if the required percentage is reached. Outcomes are evaluated in the order listed in the table.
Voted Outcomes table	Click the Add icon to add additional columns.



Element	Description
Voted Outcomes	Select an outcome for the task (for example, Any , ACCEPT , REJECT , or any other outcome specified in the Outcomes dialog).
	The Any outcome enables you to determine the outcome dynamically at runtime. For example, if you select Any and set the outcome percentage to 60, then at runtime, whichever outcome reaches 60% becomes the final voted outcome. If 60% of assignees vote to reject the outcome, then it is rejected.
Outcome Type	Select a method for determining the outcome of the final task.
	 By Expression: Dynamically specify the details with an XPath expression. By Percentage: Specify a percentage value that determines when the outcome of this task takes effect.
Value	Specify a value based on your selection in the Outcome Type column.
	 If you selected By Expression, click the Browse icon to the right of the field to display the Expression Builder dialog for creating an expression. If you selected By Percentage, enter a percentage value required for the outcome of this task to take effect (for example, a majority vote (51) or a unanimous vote (100)). For example, assume there are two possible outcomes (ACCEPT and REJECT) and five subtasks. If two subtasks are accepted and three are rejected, and the required acceptance percentage is 50%, the outcome of the task is rejected
Default Outcome	Select the default outcome for this task to take effect if the consensus percentage value is not satisfied. This happens if there is a tie or if all participants do not respond before the task expires. The default outcomes that display are based upon your selections in the Outcomes dialog of the Human Task Editor. You can also select By Expression to use the XPath Expression Builder.
Immediately trigger voted outcome when minimum percentage is met	If selected, the outcome of the task can be computed early with the outcomes of the completed subtasks, enabling the pending subtasks to be withdrawn. For example, assume four users are assigned to act on a task, the default outcome is APPROVE , and the consensus percentage is set at 50. If the first two users approve the task, the third and fourth users do not need to act on the task, since the consensus percentage value has already been satisfied. This option is automatically selected.
Wait until all votes are in before triggering outcome	If selected, the workflow waits for all responses before an outcome is initiated.
Share attachments and comments	Select this checkbox if you want all group voters or workflow participants to share comments and attachments for this task. This option is typically used when users must collaborate, such as collectively producing a proposal or a design. This information typically displays in Oracle BPM Worklist.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite

3.49 Custom Form Wizard - Row - Column Page

Use to select the payload fields that you want to display in the body.

Element	Description
Available - Selected	Move all or part of the payload to the Selected list and reorder the fields as needed.



"How to Register the Library JAR File for Custom Page Templates" in *Developing SOA Applications with Oracle SOA Suite*

"How To Create a Task Form Using the Custom Task Form Wizard" in *Developing SOA Applications with Oracle SOA Suite*

3.50 Custom Form Wizard - Body Page

Use to set the body page layout by specifying the number of rows and columns.

For this page, the body facet dictates the layout of the page.

Element	Description
Panel Title	Enter a title that describes the body panel.
Number of Columns	Select the number of columns for row 1. For a simple form, you may want to select the same number as you entered for the number of header columns. If you select 0 , no body page is generated.
Add/Delete Rows	Click the Add (+) button to add more rows. For each new row, you can also specify the number of columns. Each row can have its own column layout. For each row-column pair, a body page is created, labeled Row n Column n.

Related Topics

"How to Register the Library JAR File for Custom Page Templates" in *Developing SOA Applications with Oracle SOA Suite*

"How To Create a Task Form Using the Custom Task Form Wizard" in *Developing SOA* Applications with Oracle SOA Suite

3.51 Custom Form Wizard - Footer Page

Use to select the footer components that you want to display in the footer.

For this page, the comments, attachments, and history facets dictate the layout of the page.

Element	Description
Panel Title	Enter a title that describes the footer panel. This field displays if you selected Custom Page Templates on the Custom Form Wizard - Name and Definition page.
Display in N Columns	Enter the number of display columns. If you want each component of the footer to display in its own column, then enter the same number as the number of footer components you move into the Selected list. If you select 1 , but select two footer components, both appear in one column.
Available - Selected	Move some or all of the footer components to the Selected list and reorder the components as needed. This section displays if you selected Custom Page Templates on the Custom Form Wizard - Name and Definition page.
	If you selected Default Page Templates on the Custom Form Wizard - Name and Definition page, the comments, attachments, and history facets are automatically selected. Deselect the checkbox of facets that you do not want to include in your task form.



"How to Register the Library JAR File for Custom Page Templates" in *Developing SOA Applications with Oracle SOA Suite*

"How To Create a Task Form Using the Custom Task Form Wizard" in *Developing SOA Applications with Oracle SOA Suite*

3.52 Custom Form Wizard - Header Page

Use to select the fields to display in the header and how to divide the header into columns.

For this page, the actions facet dictates the layout of the page.

Element	Description
Include in title bar	Select the following action facets to display in the title bar:
Other actions (menu)	Select this option to list the system actions that are possible for the task, such as Request Information, Reassign, Renew, Suspend, Escalate, and Save.
Outcomes (buttons)	Select this option to display buttons for task actions that are defined in the human task, such as setting task outcomes (for example, Resolved and Unresolved for a help desk request).
Display in n Columns	Select the number of display columns. If you want each header label to display in its own column, then enter the same number as the number of headers you move into the Selected list. If you select 1, but select 7 headers, all 7 headers appear in one column.
Select Header contents and order	Move header facets to the Selected list and reorder them as needed.

Related Topics

"How to Register the Library JAR File for Custom Page Templates" in *Developing SOA Applications with Oracle SOA Suite*

"How To Create a Task Form Using the Custom Task Form Wizard" in *Developing SOA Applications with Oracle SOA Suite*

3.53 Custom Form Wizard - Name and Definition Page

Use to create a task form using ADF page templates and standardized task regions. A task form is used to display the contents of a task defined in a human task component in a user's worklist.

Page templates let you define entire page layouts, including values for certain attributes of the page. When pages are created using a template, they all inherit the defined layout. When you make layout modifications to the template, all pages that consume the template automatically reflect the layout changes.

Oracle SOA Suite page generation supports six facets that display in the wizard (actions, attachments, body, comments, header, and history)



Element	Description
Form Name	Enter the name of the form (.jspx file) that is generated at the end of the wizard. The default name, Humantasknumber_Form, is provided if you do not provide a name. Ensure that valid characters are used in the name. Spaces are not permitted.
Task Flow Name	Enter a name for the ADF task flow that is generated at the end of the wizard.
Page Templates	Select the page template to use for the content of your task flow.
	After selecting this option, you can select the template to use from the dropdown list (either nontabbed, default templates or tabbed templates in which the payload and comments, attachment, and history sections are displayed on separate tabs).
None	Select to create a task form that does not use a page template. The wizard generates a task form with a header, body (one or more), and footer, and provides for tabular formatting into columns and rows. This is the default selection.
Default Page Template	Select to create a task form that does not use a page template. The wizard generates a task form with a header, body (one or more), and footer, and provides for tabular formatting into columns and rows. This is the default selection.
Custom Page Template	Select to use custom page templates that you define.
Library Name	Specify the library name (for example, MyTemplatesLibrary.jar) to use. You must have already registered the custom library JAR file in the Create Library dialog in Oracle JDeveloper.
Library Name	Specify the template class path in the JAR file (for example, templates/ MyTemplate.jspx) to use. You must have already registered the custom library JAR file in the Create Library dialog in Oracle JDeveloper.

"How to Register the Library JAR File for Custom Page Templates" in *Developing SOA Applications with Oracle SOA Suite*

"How To Create a Task Form Using the Custom Task Form Wizard" in *Developing SOA Applications with Oracle SOA Suite*

3.54 Custom Form Wizard - Summary Page

Use to view the selected header, body, and footer components to include in the task form.

Related Topics

"How to Register the Library JAR File for Custom Page Templates" in *Developing SOA Applications with Oracle SOA Suite*

"How To Create a Task Form Using the Custom Task Form Wizard" in *Developing SOA Applications with Oracle SOA Suite*

3.55 Edit Summary Field Dialog

Use to edit an existing summary field from a human task definition.

Element	Description
Туре	Select the type of the summary field expression.



Element	Description
Name	Enter a name to identify the summary field.
Value	Click the Edit button to select a value from the task payload.
Editable	Select to make the summary field editable to the end user of the Human Task.

Creating Human Tasks in Developing SOA Applications with Oracle SOA Suite



4 Oracle Mediator Context Sensitive Help Topics

This chapter covers the following technology area: Oracle Mediator.

4.1 Add Validation Dialog

Use the Add Validation dialog to specify a file to use for validating a message part. How?

Element	Description
Part	Select the message part that you want to validate.
File	Enter the path and file name to be used for validating the message part, or click the Select schematron file icon to browse to and select a schematron (.sch) file.
Туре	Displays the type of validation.

Related Topics

Working with Cross References in Developing SOA Applications with Oracle SOA Suite

4.2 Assign Value Dialog

Use the Assign Value dialog to manipulate data, such as assigning the value of a property, expression, or constant to another property or expression. How?

Element	Description
From	Select a type from which to assign the value.
Property	Select this option to assign the value of a property to another property or expression. Select a predefined message property from the dropdown list or enter any user-defined property name.
Expression	Select this option to assign the value of an XPath expression to another property or expression. Click the Invoke Expression Builder icon to open the Expression Builder where you can create an XPath expression.
Constant	Select this option to assign a literal value to a property or an expression.
То	Select a type to which to assign the value.
Property	Select this option to assign the value to a property. Select a predefined message property from the dropdown list or enter any user-defined property name to which you want to assign the value.
Expression	Select this option to assign the value to an XPath expression. Click the Invoke Expression Builder icon to open the Expression Builder where you can create an XPath expression.

Related Topics

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*



4.3 Assign Values Dialog

Use the Assign Values dialog to create, modify, or delete assignment expressions. How?

Element	Description
Add a new value assignment icon	Click this icon to create an assignment expression by using the Assign Value dialog.
Edit a value assignment icon	Click this icon to edit an assignment expression by using the Assign Value dialog.
Delete the value assignment icon	Click this icon to delete an assignment expression.
From	Displays the property, expression, or constant whose value is to be assigned.
	The From expression is an XPath expression based on the input message. The input message differs depending on how the Assign Value dialog is invoked. If the dialog is invoked on the routing rule request, then the input message is the schema of the initial request message. If the dialog is invoked from a routing rule reply (sync, fault, or callback), then the input is the schema of the reply.
То	Displays the property or expression to which the value is to be assigned.
	The To expression is an XPath expression based on the output message. The output message differs depending on how the Assign Value dialog is invoked. If the dialog is invoked on the routing rule request, then the output message is the schema of the target message. If the dialog is invoked from a routing rule reply (sync, fault, or callback), then the output message is the schema of the reply.

Related Topics

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

4.4 Callback Timeout Transformation Map Dialog

Use the Callback Timeout Transformation Map dialog to create a transformation for a callback response message, with timeout, by using the XSLT Mapper tool. How?

A callback message can consist of multiple parts. If the callback message has multiple parts, a separate panel for each message part is displayed.

Element	Description
Transformation to Event or Part	Displays the event or message part to which the source message will be transformed. If the target schema for the data transformation involves an event, then the title of this field changes to Transformation to Event.
Use Existing Mapper File	Select to use or modify an existing mapper file for transformation. Click the Browse Mappings icon to select a mapper file or click the Edit Mapping icon to update an existing file.
Create New Mapper File	Select this to create a new mapper file. Enter a name for the file or accept the default value.

Related Topics

Creating an XSLT Map in Developing SOA Applications with Oracle SOA Suite

How to Create Transformations in Developing SOA Applications with Oracle SOA Suite



4.5 Callback Transformation Map Dialog

Use the Callback Transformation Map dialog to create a transformation for a callback response message by using the XSLT Mapper tool. How?

A callback message can consist of multiple parts. If the callback message has multiple parts, then a separate panel for each message part is displayed.

Element	Description
Transformation to Event or Part	Displays the event or message part to which the source message will be transformed. If the target schema for the data transformation involves an event, then the title of this field changes to Transformation to Event.
Use Existing Mapper File	Select to use or modify an existing mapper file for transformation. Click the Browse Mappings icon to select a mapper file or click the Edit Mapping icon to update an existing file.
Create New Mapper File	Select this to create a new mapper file. Enter a name for the file or accept the default value.

Related Topics

Creating an XSLT Map in Developing SOA Applications with Oracle SOA Suite

How to Create Transformations in Developing SOA Applications with Oracle SOA Suite

4.6 Create Mediator Dialog

Use the Create Mediator dialog to create a Mediator Component. How?

A Mediator component enables you to route data between service consumers and service providers.

Element	Description
Name	Enter a name for the Mediator component.
Directory	Specify a directory to store the Mediator file. You can also click the Browse button to select a directory.
	The directory must be the current project directory or one of its subdirectories. If the specified directory does not exist, Oracle JDeveloper creates it.
Template	Select a template on which you want to base the new Mediator component. A template provides a basic set of default files for the Mediator component. The options following the template field in the dialog vary, depending on the template selected.
Define Interface Later	Select this option to create an empty Mediator component with no interface defined. You can later define the interface in the SOA Composite Editor or Mediator Editor by defining the services or subscribing to events.
Asynchronous Interface	Select this option to create a Mediator component for asynchronous interaction. When you select this template, the WSDL file and the ports for the request message (Port Type) and the response message (Callback Port Type) are defined for the Mediator component.



Element	Description
Create Composite Service with SOAP Bindings	Select this checkbox to create a Mediator component that is automatically connected to an inbound SOAP service-binding component. If you do not select this checkbox, then the Mediator component is created as a standalone component in the SOA Composite Editor. You can explicitly associate the Mediator component with a service later.
Input	Accept the default input XSD schema or click Browse Input Elements icon to select a different schema for the input message. By default, singleString schema is used for the input message.
Output	Accept the default output XSD schema or click Browse Output Elements icon to select a schema definition file for the output message. By default, singleString schema is used for the output message.
Synchronous Interface	Select this option to create a Mediator component for synchronous interaction. When you select this template, the WSDL file and the port (Port Type) for the request and the response message are defined for the Mediator component.
Create Composite Service with SOAP Bindings	Select this checkbox to create a Mediator component that is automatically connected to an inbound SOAP service-binding component. If you do not select this checkbox, then the Mediator component is created as a standalone component in the SOA Composite Editor. You can explicitly associate the Mediator component with a service later.
Input	Accept the default input XSD schema or click Browse Input Elements icon to select a different schema for the input message. By default, singleString schema is used for the input message.
Output	Accept the default output XSD schema or click Browse Output Elements icon to select a schema definition file for the output message. By default, singleString schema is used for the output message.
One-Way Interface	Select this option to create a Mediator component for one-way interaction.
Create Composite Service with SOAP Bindings	Select this checkbox to create a Mediator component that is automatically connected to an inbound SOAP service-binding component. If you do not select this checkbox, then the Mediator component is created as a standalone component in the SOA Composite Editor. You can explicitly associate the Mediator component with a service later.
Input	Accept the default input XSD schema or click Browse Input Elements icon to select a different schema for the input message. By default, singleString schema is used for the input message.
Interface Definition from WSDL	Select this option to define the services of a Mediator component from a WSDL file. A WSDL file describes the interface of a Mediator component such as schemas and operations.
Create Composite Service with SOAP Bindings	Select this checkbox to create a Mediator component that is automatically connected to an inbound SOAP service-binding component. If you do not select this checkbox, then the Mediator component is created as a standalone component in the SOA Composite Editor. You can explicitly associate the Mediator component with a service later.
WSDL File	Specify the URL of the WSDL file. Click the Find existing WSDLs icon to select an existing WSDL file or click the Generate WSDL from schema(s) icon to generate a WSDL file.
Port Type	Select a port type. The Port Type dropdown list is populated based on the ports defined in WSDL file.
Callback Port Type	Select a callback port type. The callback port is required in case of asynchronous interactions. The Callback Port Type lists all the ports defined in your WSDL file.
Subscribe to Events	Select this option to create a Mediator component for subscribing to a business event that is raised when a situation of interest occurs.



Element	Description
Edit Event Filter Expression	Click to specify an XPath expression to filter an event.
Subscribe to a new event	Click to subscribe to an event.
Delete the event description	Click to unsubscribe from an event.
Event	Displays the name of the subscribed event.
Consistency	Select a level of delivery consistency for the event. If you select one and only one , there is exactly one delivery guaranteed. The event delivery is conducted in a global transaction. If you select guaranteed , at least one delivery is guaranteed. Event delivery is conducted in a local transaction.
Durable	If you select yes , events are retained even if the subscriber is not running. If you select no , events are dropped if the subscriber is not running.
Run as Publisher	Enter a security role under which an event subscription is run. By default, event subscription runs under the security of the event publisher \$publisher.
	If you select yes , the subscriber has the event publisher's security identity. If you select no , the subscriber does not have the event publisher's security identity.
Filter	Double-click to specify a filter expression for the subscribed event. This selection launches the Expression Builder dialog.
Click to View Selection Description	Click to view the description of the selected template.

Creating a Mediator Component in Developing SOA Applications with Oracle SOA Suite

4.7 Create WSDL Dialog

Use the Create WSDL dialog to generate a Web Services Description Language (WSDL) file for the Mediator component. A WSDL file describes the interface of a Mediator component such as schemas and operations. How?

Element	Description
File Name	Enter a unique name for the WSDL file.
Directory	Enter the path and directory where you want to store the WSDL file. This must be in the current project directory or one of its subdirectories. If the specified directory does not exist, Oracle JDeveloper creates it.
Namespace	Enter a namespace address for the WSDL file, for example, http://oracle.com/sca/mediator/Customer/CustomerData/CutomerRouter . This is defined as the tns namespace in the WSDL file.
Port Type	Enter a name for the port type in the WSDL file that contains the operation to use. The port type name can only contain alphabetic and numeric characters; do not use spaces or special characters in this name. The first character cannot be a number.
Operation	Enter the name of the action to perform. The operation name can only contain alphabetic and numeric characters; do not use spaces or special characters in this name. The first character cannot be a number.
Interface Type	Select the type of interface to implement in the WSDL file. Options include One- Way Interface, Synchronous Interface, and Asynchronous Interface.

Element	Description
Generate partnerlinkType extension	For BPEL projects only, select this option to generate the partner link type extension automatically.
Input	Specify the schema for the input message. Click Add a new message part to add a new schema.
Output	Specify the schema for the output message, which is the response message in synchronous communication. Click Add a new message part to add a new schema.
Fault	Specify the schema for the fault message, which is returned in case of an error in synchronous communication. Click Add a new message part to add a new schema.
Callback	Specify the schema of the callback message, which is returned in asynchronous communication.
Port Type	Enter a name for the port type in the WSDL file that contains the operation to use. The port type name can only contain alphabetic and numeric characters; do not use spaces or special characters in this name. The first character cannot be a number.
Operation	Enter the name of the action to perform. The operation name can only contain alphabetic and numeric characters; do not use spaces or special characters in this name. The first character cannot be a number.
Input	Specify the schema for the input message. Click Add a new message part to add a new schema.

Generating a WSDL File in Developing SOA Applications with Oracle SOA Suite

4.8 Decision Services Browser

Use the Decision Services Browser to select a decision (business rule) component. Expand the directory structure until you see the operation within the decision service you want to use.

Related Topics

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

4.9 Create Decision Service Component

Use the Create Decision Service Component dialog to create a decision service component to override a static routing rule.

Element	Description
Component Name	Specify a name for the Decision Component. The Decision Component contains business rules, used to override a static routing rule.
Service Name	Specify a name for the Decision Service service.

Related Topics

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*



4.10 Define Service Dialog

Use the Define Service dialog to specify a Web Services Description Language (WSDL) file for a mediator component created with the **Define Interface Later** template. How?

A WSDL file describes the interface of a mediator component such as schemas and operations.

Element	Description
WSDL File	Specify the URL of the WSDL file. Click the Find Existing WSDLs icon to select an existing WSDL file or click the Generate WSDL from Schema(s) icon to generate a WSDL file from a schema.
Port Type	Select a port type from the dropdown list. This list is populated based on the ports defined in your WSDL file.
Callback Port Type	Select a callback port type from the dropdown list. This list is populated based on the ports defined in your WSDL file. A callback port is the port to which the reply is sent in an asynchronous interaction.

Related Topics

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

4.11 Create Domain Value Map Dialog

Use the Create Domain Value Map dialog to create a new Domain Value Map (DVM) for overriding a routing rule. How?

Element	Description
DVM Name	The name of the DVM file to create. This file should have a . ${\tt dvm}$ extension.
Directory	The absolute path to the directory where you want to store the new DVM file.

Related Topics

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

4.12 Event Chooser Dialog

Use the Event Chooser dialog to subscribe to an event. How?

Element	Description
Event Definition File	Click the Browse for event definition (edl) files icon to select an event definition (.edl) file that contains the business event to which you want to subscribe. Otherwise, click the Create new event definition (edl) file icon to create a new (.edl) file.
Event	Displays all the events defined in the event definition file. Select the event to which you want to subscribe.
Туре	Displays the namespace URI for the event selected in the Event field.


Getting Started with Oracle Mediator in Developing SOA Applications with Oracle SOA Suite

4.13 Subscribed Events Dialog

Use the Subscribed Events dialog to subscribe to or unsubscribe from an event. How?

Element	Description
Edit Event Filter Expression	Click this icon to specify an XPath expression to filter an event.
Subscribe to a new event	Click this icon to subscribe to an event.
Delete the event subscription	Click this icon to unsubscribe from an event.
Event	Displays the name of the subscribed event.
Consistency	Select a level of delivery consistency for the event. If you select one and only one , there is exactly one delivery guaranteed. The event delivery is conducted in a global transaction. If you select guaranteed , at least one delivery is guaranteed. Event delivery is conducted in a local transaction.
Durable	If you select yes , events are retained even if the subscriber is not running. If you select no , events are dropped if the subscriber is not running.
Run as Publisher	Enter a security role under which an event subscription is run. By default, event subscription runs under the security of the event publisher \$publisher.
	If you select yes , the subscriber has the event publisher's security identity. If you select no , the subscriber does not have the event publisher's security identity.
Filter	Double-click to specify a filter expression for the subscribed event. This selection launches the Expression Builder dialog.

Related Topics

Modifying a Mediator Component in Developing SOA Applications with Oracle SOA Suite

4.14 Event Transformation Map Dialog

Use the Event Transformation Map dialog to create a transformation for a message using the XSLT Mapper tool. This dialog is displayed for the Mediator component subscribing to an event. How?

Element	Description
Transformation to event	Displays the message part to which the source event message will be transformed.
Use Existing Mapper File	Select this to use or modify an existing mapper file for transformation. Click the Browse Mappings icon to select a mapper file or click the Edit Mapping icon to update an existing file.
Create New Mapper File	Select this to create a new mapper file. Enter a name for the file or accept the default value.

Related Topics

Creating an XSLT Map in Developing SOA Applications with Oracle SOA Suite



4.15 Fault Transformation Map Dialog

Use the Fault Transformation Map dialog to create a transformation for a fault message using the XSLT Mapper tool. How?

Element	Description
Transformation to part	Displays the message part to which the source event message will be transformed.
Use Existing Mapper File	Select this to use or modify an existing mapper file for transformation. Click the Browse Mappings icon to select a mapper file or click the Edit Mapping icon to update an existing file.
Create New Mapper File	Select this to create a new mapper file. Enter a name for the file or accept the default value.
Include Request in the Reply Payload	Select this to access the request message. When you select this option, an <i>\$initial</i> variable is created which contains the original message.

Related Topics

Creating an XSLT Map in Developing SOA Applications with Oracle SOA Suite

4.16 Mediator Editor

The Mediator Editor provides a visual layout of a Mediator component. Use the Mediator Editor to define the services or event subscriptions for a Mediator component and also to define the routing rules. How?

The Mediator Editor is displayed when you perform one of the following actions:

- Double-click the Mediator component in the SOA Composite Editor.
- Double-click the .mplan file name in the Application Navigator.

The Mediator Editor arranges the Mediator component details in the following sections:

- Mediator
- Routing Rules

The fields in these sections vary based on the template that you select while creating the Mediator component.

Mediator

The Mediator section defines the Mediator component and its corresponding service. It includes the following information:

Element	Description
Name	Displays the name of the Mediator component.
WSDL URL	The location of the Mediator component WSDL file.
Port Type	The port type to use in the Mediator component.
Callback Port Type	The callback port type to use in the Mediator component.
Resequence Level	Select the level at which resequencing is performed for the Mediator component. Resequencing can be done at either the operation or service component level.



Routing Rules

The Routing Rules section lets you create and configure routing, validation, and transformation rules for the Mediator component. In this section, you can associate the Mediator component with either a WSDL operation or with event subscriptions. A single Mediator component supports only a WSDL service or an event subscription. More.

Element	Description
Event Subscriptions	The events to which the Mediator component is subscribed. Click Add Event Subscriptions to subscribe to an event. If your Mediator component supports event subscriptions, then you can create only static routing rules.
Operations	The WSDL operations performed by the Mediator component. You can add the following types of routing rules for the WSDL operations:
	 Static routing rule, which invokes a service or triggers an event Dynamic routing rule, which includes a decision component and a dynamic external reference

Related Topics

Getting Started with Oracle Mediator in Developing SOA Applications with Oracle SOA Suite

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

Resequencing in Oracle Mediator in Developing SOA Applications with Oracle SOA Suite

4.17 Override Routing Dialog

Use the Override Routing dialog to specify whether to use a Domain Value Map (DVM) or a decision component to override the routing rule. How?

Element	Description
Use Domain Value Map	Select this option if you want to select or create a DVM to use for the override.
Location	Click the Search icon to browse to and select an existing DVM file, or click the Add icon to create a new DVM file. Click the Edit icon to open the DVM inthe DVM editor.
Key Domain	The domain/column against which to search the DVM.
Value Expression	An expression specifying the value for the Key Domain. Click Invoke Expression Editor to build an expression.
Override Feature	Lists the mediator routing rule properties whose values can be overridden. For example, the Filter Operation, the Target Operation, or the EndpointURI.
	The override features available depend upon the target of your routing rule. For example, if the target is a Web Service, then override features like the EndpointURI , the Target Service , and Target Port are available.
Override Domain	Lists the domain names, in the DVM, corresponding to the various mediator routing rule properties.
	The domain names usually have names similar to the mediator routing rule properties that they override. For example, the domain corresponding to Filter Operation is called Filter, by default.
Use Decision Component	Select this option if you want to select or create a decision component, or business rule, to use for the override.



Element	Description
Decision Component	Click the Search icon to browse for and select an existing decision component, or click the Add icon to create a new decision component.
Service	Displays the decision service name. This is the service name for the business rule service component.
Operation	Displays whether the decision component uses stateful or stateless operation. More

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

4.18 Edit Mediator Override DVM Dialog

Use the Edit Mediator Override DVM dialog to edit a Domain Value Map (DVM) table. A DVM is used to dynamically override a mediator routing rule. How?

Element	Description
Name	Specifies the name of the DVM.
Description	Optional description for the DVM used to override a routing rule.
Map Table	The DVM table comprising of domain names (columns) and domain values (rows). A domain name corresponds to a mediator routing rule property that can be overridden. A domain value corresponds to the mediator routing rule property value.
Add Domain/Values	Click the Add icon identified by the green plus (+) sign. Select Add Domain Values to add a new row to the DVM table. Select Add Domain to add a new column to the DVM table.
Edit Domain/Values	Select a row and click the Edit icon to edit the domain values corresponding to the row. This brings up the Edit Mediator Override Row dialog.
	Select a column and click the Edit icon to edit the domain name and qualifier settings. This brings up the Edit Domain dialog.
Remove Domain/	Select a row and click the Delete icon to delete the row from the DVM table.
Values	Select a column and click the Delete icon to delete the domain from the DVM table.

Related Topics

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

4.19 Edit Mediator Override Row Dialog

Use the Edit Mediator Override dialog to edit a single Domain Value Map (DVM) row. A DVM is used to dynamically override a mediator routing rule. How?

The fields displayed correspond to the domains defined in your DVM. Each domain corresponds to a mediator routing rule property. For example, the Filter domain may correspond to the routing rule filter expression. The Transform domain may correspond to the routing rule transformation.



Enter values for the domain values that you wish to override. Some of the domains may have wizard buttons on the right to help you fill in the appropriate value for the domain.

Related Topics

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

4.20 Refresh WSDL Dialog

Use the Refresh WSDL dialog to specify a new or modified WSDL file for a Mediator service component. How?

A WSDL file describes the interface of a Mediator component such as schemas and operations. You can modify the WSDL file for a service by adding or removing operations.

Element	Description
WSDL File	Specify the URL of the WSDL file. Click the Find Existing WSDLs icon to select an existing WSDL file or click the Generate WSDL from Schema(s) icon to generate a WSDL file.
Port Type	Select a port type from the dropdown list. This list is populated based on the ports defined in your WSDL file.
Callback Port Type	Select a callback port type from the dropdown list. This list is populated based on the ports defined in your WSDL file. A callback port is the port to which the reply is sent in an asynchronous interaction.

Related Topics

Modifying a Mediator Service Component in *Developing SOA Applications with Oracle SOA Suite*

4.21 Reply Transformation Map Dialog

Use the Reply Transformation Map dialog to create a transformation for a response message using the XSLT Mapper tool. How?

The response message can consist of multiple parts. If the response message has multiple parts, then a separate panel for each message part is displayed.

Element	Description
Transformation to event or part	Displays the event or message part to which the source message will be transformed.
Use Existing Mapper File	Select this option to use or modify an existing mapper file for transformation. Click the Browse Mappings icon to select a mapper file or click the Edit Mapping icon to modify an existing file.
Create New Mapper File	Select to create a new mapper file. Enter a name for the file or accept the default value.
Include Request in the Reply Payload	Select this check box to access the request message. When you select this option, an \$initial variable is created which contains the original message.

Related Topics

Creating an XSLT Map in Developing SOA Applications with Oracle SOA Suite



4.22 Request Transformation Map Dialog

Use the Request Transformation Map dialog to transform a request message using XSLT or XQuery. How?

A request message can consist of multiple parts. If the request message has multiple parts, then a separate panel for each message part is displayed.

Element	Description
To Part	Displays the event or message part to which the source message will be transformed.
Mapper File	Click the Browse Mappings icon to select a mapper file (XSLT or XQuery). Alternatively, click the Create Mapping icon to create a new transformation map.
	Select a mapper file, and click the Edit Mapping icon to edit the file.
	Click Delete to remove the selected transformation file. This does not delete the transformation file itself.

Related Topics

Creating an XSLT Map in Developing SOA Applications with Oracle SOA Suite

4.23 Create Transformation Map Dialog

Use the Create Transformation Map dialog to specify the XSLT or XQuery file to use for the transformation. How?

Element	Description
Туре	Select whether to use XSLT or XQuery-based transformation.
File Name	Specify a name for the XSLT(.xsl) or XQuery(.xqy) transformation file.
Directory	Click Browse to select a directory for the transformation file. The default directory is the SOA/Transformations directory located in your project directory.
External Variables	This section appears if you select XQuery under Type. Use this section to add external variables (or parameters) for your XQuery function.
Add Variable	Click the Add Variable icon to add a new external variable or parameter to your XQuery transformation function. This brings up the Add External Variable dialog.
Update Variable	Select a row and click the Update Variable icon to update an external variable or parameter in your XQuery transformation function. This brings up the Update External Variable dialog.
Delete Variable	Select a row and click the Delete Variable icon to delete the external variable or parameter from your XQuery transformation function.

Related Topics

Creating an XSLT Map in Developing SOA Applications with Oracle SOA Suite

4.24 Add/Update External Variable Dialog

Use the Add/Update External Variable dialog to add or update an external variable, or parameter, for your XQuery transformation function. How?



Element	Description
Name	Specify a name for the external variable or parameter.
Schema	Click Browse to select a schema for the external variable. You can select from the project schema files, simple types, or project wsdl files.
	Alternatively, click Define Schema for Native Format to generate an XSD for native format.
Element	Select the schema element corresponding to the selected Schema.
From	Under From, choose how to map the value for the external variable. Select one of the following:
	Property: Lists the properties that you can select from.
	• Expression: Enables you to build an expression using mediator implicit variables, properties, and a list of functions that you can use in the expression. You can click the Invoke Expression Builder icon to launch the expression builder.
	• Constant: Enables you to specify a literal value for the external variable.
	• XML Fragment: Enables you to specify XML data for the external variable.

Creating an XSLT Map in Developing SOA Applications with Oracle SOA Suite

4.25 Target Services Dialog

Use the Target Services dialog to specify the next service to which a Mediator component should send the message. All services defined in the SOA Composite application are displayed, from which you can select a service.

Related Topics

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

4.26 Target Type Dialog

Use the Target Type dialog to specify a target type for the next service to which an Oracle Mediator component should send the message. How?

Select one of the following options:

Element	Description
Existing Service	Select this option to send the message to a service that is already defined. When you select this option and click OK , the Target Services dialog appears with a list of existing services.
Generate Reference	Select this option if you want to define the web service to which messages are sent. When you select this option and click OK , the Web Service Creation dialog appears.
Publish Event	Select this option if the Oracle Mediator should trigger an event. When you select this option and click OK , the Event Chooser dialog appears.
Echo Reply	Select this option to echo a response back to the initial caller.

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

4.27 Request Transformation Map Dialog

Use the Request Transformation Map dialog to transform a request message using the XSLT Mapper tool. How?

A request message can consist of multiple parts. If the request message has multiple parts, then a separate panel for each message part is displayed.

Element	Description
Transformation to event or part	Displays the event or message part to which the source message will be transformed.
Use Existing Mapper File	Select this option to use or modify an existing mapper file for transformation. Click the Browse Mappings icon to select a mapper file or click the Edit Mapping icon to modify an existing file.
Create New Mapper File	Select to create a new mapper file. Enter a name for the file or accept the default value.

Related Topics

Creating an XSLT Map in Developing SOA Applications with Oracle SOA Suite

4.28 Update Validation Dialog

Use the Update Validation dialog to modify a validation expression. How?

Element	Description
Part	Select the message part that you want to validate from the dropdown list.
File	Click the Select schematron file icon to select a schematron ($.sch$) file to be used for validating the message part.
Туре	Displays the type of validation.

Related Topics

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

4.29 Validations Dialog

Use the Validations dialog to validate a message based on a schematron and to create, modify, or delete message validation expressions. How?

Element	Description
Add a new validation	Click this icon to open the Add Validation dialog, where you can specify the message part and schematron file to be used for validation.



Element	Description
Edit a validation	Click this icon to open the Update Validation dialog, where you can modify the message part and the schematron file to be used for validation.
Delete a validation	Click this icon to delete the validation expression.
Part	Displays the message part to be validated.
Validation File	Displays the schematron (.sch) file to be used for validating the message part.
Туре	Displays the type of validation.

Creating Oracle Mediator Routing Rules in *Developing SOA Applications with Oracle SOA Suite*

4.30 Add Message Part Dialog

Use the Add Message Part dialog to specify the schemas for the input, output, fault, and callback messages. How?

Element	Description
Part Name	Enter a name for the message part.
URL	Enter the URL of the XSD file or click the Browse for schema file icon to select an XSD file.
Schema Element	Select a schema element from the dropdown list.

Related Topics

Generating a WSDL File in Developing SOA Applications with Oracle SOA Suite

4.31 Update Message Part Dialog

Use the Update Message Part dialog to modify the schemas for the input, output, fault, and callback messages. How?

Element	Description
Part Name	Enter a name for the message part.
URL	Enter the URL of the XSD file or click the Browse for schema file icon to select an XSD file.
Schema Element	Select a schema element from the dropdown list.

Related Topics

Generating a WSDL File in Developing SOA Applications with Oracle SOA Suite

4.32 Add Translation Dialog

Use the Add Translation dialog to specify the translation details of inbound data from native to XML or outbound data from XML to native. How?



Element	Description
Input	When translating from native, this is the native input. Click the icon to the right of the Input field to invoke the Expression Builder dialog. Remember to cast the input string expression as string(). For example, string(\$in.request/inpl:singleString)
	When translating to native, this in prepopulated with the name of the intermediate input variable. You can optionally change the name of the intermediate input variable.
NXSD Schema	Click the Browse button to select an existing NXSD schema file. Alternatively, click the Define Schema button adjacent to the Browse button to invoke the Native Format Builder dialog.
Element	Select the element from the NXSD schema.
Output	When translating from native, this in prepopulated with the name of the intermediate output variable. You can optionally change the name of the intermediate output variable.
_	When translating to native, this is the native output. Click the icon to the right of the Output field to invoke the Expression Builder dialog.

Working with Cross References in Developing SOA Applications with Oracle SOA Suite

4.33 Assign Source Literal Dialog

Use the Assign Source Literal dialog to specify a literal value, which can be assigned to a target node.

Element	Description
Literal	Enter a literal value, which can be assigned to a target node.
Literal is XML fragment	Select if the literal value is a valid XML fragment.

Related Topics

Working with Cross References in Developing SOA Applications with Oracle SOA Suite

4.34 Choose Target Service Dialog

Use the Choose Target Service dialog to select the target service from the set of WSDL services.

Element	Description
WSDL Location	Displays the location of the WSDL file.
Service	Select the WSDL service or interface. A service groups a set of related ports together.

Related Topics

How to Create Dynamic Routing Rules in Developing SOA Applications with Oracle SOA Suite



4.35 Choose Target Port Dialog

Use the Choose Target Port dialog to select the target port from the set of WSDL ports.

Element	Description
WSDL Location	Displays the location of the WSDL file.
Service	Select the WSDL service or interface. A service groups a set of related ports together
Port	Select a port for the specified service. The port specifies a single endpoint, combining a binding and a network address.

Related Topics

How to Create Dynamic Routing Rules in Developing SOA Applications with Oracle SOA Suite

4.36 Choose Target Operation Dialog

Use the Choose Target Operation dialog to select the target operation from the set of WSDL operations.

Description
Displays the location of the WSDL file.
Displays the port type for the operation. A port type groups a set of operations into a logical service unit.
Select the target operation from the set of available WSDL operations.

Related Topics

How to Create Dynamic Routing Rules in Developing SOA Applications with Oracle SOA Suite



Oracle Business Rules Context Sensitive Help Topics

5.1 Add Source Schema Dialog

Use to import XML schema declarations for use in the data model and with rules when you use Rule Designer to create rules. This step enables you to create of list of JAXB classes and select the classes to import into the data model.

Element	Description
Schema Location	Specifies the location of the XML schema. Click Browse File System to use the SOA Resource Lookup dialog to navigate and select XML Schema.
JAXB Classes Directory	Specifies the location of the XML schema. Click Browse File System to use the SOA Resource Lookup dialog to navigate and select XML Schema.
Target Package	Specifies the name of the package that contains the JAXB 2.0 generated classes.
Preserve Directory Structure for Imported Schemas	Preserves the directory structure when schemas are imported.

Related Topics

Working with XML Facts in Designing Business Rules with Oracle Business Process Management

5.2 Edit Value Set Dialog

Use the Edit Value Set dialog to view, edit, delete, or to add Lists of Values value sets, and to set the values in the value set.

Use the Condition Value Set dialog to view, edit, or to add a List of Values value set for the associated decision table condition.

Element	Description
Name	Displays the value set name. You can enter a value to change the value set name.
Form	Displays the value set form. There are two possible forms: LOV for List of Values and Enum for Enumerated types.
Data Type	Selects or displays the value set data type.
Include Disallowed Values in Tests	Click Create to add a value and click Delete to delete value. Click Move Up to move a value up or Move Down to move a value down. In a decision table, the order of the values associated with a condition determines the order of the condition cells; thus the order of the rules is defined by the order of the values and you can control rule ordering in a decision table by changing the relative position of the values in List of Values value set that is associated with a condition.
Value	Enter value of the value.



Element	Description
Alias	Enter the name of the value.
Allowed in Actions	Select to specify that the value is allowed in actions. Select Allowed in Actions for valid values and deselect for invalid values.
Description	Enter the value description.

Working with Facts and Value Sets in *Designing Business Rules with Oracle Business Process Management*

5.3 Edit Range Value Set Dialog

Use the Edit Value Set Name dialog to create or edit a List of Ranges value set, and to define the range values in the value set.

Use the Condition Value Set dialog to view, edit, or to add a List of Ranges value set for the associated decision table condition.

Element	Description
Name	Enter the value set name.
Data Type	Selects or displays the value set data type.
Include Disallowed Values in Tests	Select to show either all values in decision tables or only the values with the Allowed in Actions field selected.
Range Values	Click Add value to add a range value. Select a value then click Delete Range Value to delete a value.
Endpoint	Shows the value endpoint value.
Included Endpoint	Selects included endpoint or not. The value can be one of "Less Than or Equal" range position or "Less Than" range position.
Allowed in Actions	Specifies if the value is excluded from valid values in the value set. Allowed in Actions is selected for valid values and unselected for invalid values.
Range	Specifies the range values.
Alias	Specifies a name for the range.
Description	Specifies a description for the range.

Related Topics

Working with Facts and Value Sets in *Designing Business Rules with Oracle Business Process* Management

5.4 Value Sets Tab

Use to view, edit, delete, or to add value sets.

To add a value set, from the dropdown menu next to the **Create** icon select **Value Set** to add a list of values LOV value set or **Range Value Set** to add a ranges value set.

Element	Description
Name	Shows the value set name. Enter a value to change the name.
Data Type	Displays the value set data type.
Form	Displays LOV for a List of Values value set and Ranges for a List of Ranges value set. Displays Enum for a list of enumerated types that is imported from either Java or XML.
Description	Shows the value set description. Enter a value to add or edit the description.

Working with Facts and Value Sets in *Designing Business Rules with Oracle Business Process Management*

5.5 Choose Value Set Type Dialog

Use to add value sets.

Element	Description
List of Ranges	Select to add a list of ranges value set.
List of Single Values	Select to add a list of values LOV type value set.

Related Topics

Working with Facts and Value Sets in *Designing Business Rules with Oracle Business Process* Management

5.6 Create Business Rules Dialog - Advanced

Use to display the business rules component service name.

Element	Description
Service Name	Displays the rules service name for the current business rules dictionary.

Related Topics

Working with a Dictionary and Dictionary Links in *Designing Business Rules with Oracle Business Process Management*

5.7 Create Business Rules Dialog - General

Use to create an Oracle Business Rules dictionary and start working with Rules Designer.

Element	Description
Create Dictionary	Create a dictionary.
Import Dictionary	Import a dictionary to use as the source when you create a dictionary.
Move Datamodel to this Dictionary	Select to move the datamodel to the dictionary you are creating.



Element	Description
Name	Enter the dictionary name.
Package	Enter the package name.
Project	Displays the project name.
Import Existing Dictionary	This is optional to bring up the SOA Resource Lookup dialog that lets you locate, select, and import a dictionary. This is displayed only if you select Import Dictionary option.
Inputs/Outputs	To add an input or an output from the dropdown menu next to the Add icon, select either Input to add an input or Output to add an output. This creates XML Facts from the selected input and output items and adds them to the data model. Select an input or an output and click Delete to delete a selected input or output. Click Move Up to move selected value up. Click Move Down to move selected value down.
Stateless	The option is available when you add Business Rules to BPEL process. Select for stateless operation.
Expose as Composite Service	The option is available when you create a new composite with Business Rules. Select to Expose the Rule Component as Composite Service.

Working with Dictionaries and Dictionary Links in Designing Business Rules with Oracle Business Process Management

Adding Business Rules to a BPEL Process in *Developing SOA Applications with Oracle SOA* Suite

Adding Business Rules to a SOA Composite Application in *Developing SOA Applications with Oracle SOA Suite*

5.8 Create Java Fact Dialog

Use to add a classpath and add complete classes or any static variables, properties, or methods that you select to the business model.

The default Rules Designer classpath includes several packages: java, javax, and org. These packages contain classes that Rules Designer lets you import from the Java runtime library (rt.jar). Rules Designer does not let you remove these classes from the Classes area (the associated classpaths are not shown in the Classpath area).

Element	Description
Class Path	Lists the available classpaths. Click Add to use the Choose Directory/Jar dialog to browse to and to select additional classpaths to add to the Classpath list. Select a classpath and click Delete (Remove from Classpath) to remove the classpath. Select a classpath and click Clear Classpath to clear the classpath.
Classes	Browse and expand the classes tree to find the classes you want to include as Java facts in the business model. Select the checkbox next to the class you want to import into the business model. Click Refresh to refresh the view.
Add Project Library to Classpath	Select to add the classpath to the project classpath.



Working with Java Facts in *Designing Business Rules with Oracle Business Process Management.*

5.9 Imported Dictionaries

Displays the dictionary that was imported with the dictionary import operation or the create dictionary from imported dictionary operation.

Related Topics

Working with Dictionaries and Dictionary Links in Designing Business Rules with Oracle Business Process Management

5.10 Localize Files

Use to create a dictionary using an existing dictionary as the source, and to copy associated schema xsd files to the dictionary.

Element	Description
Maintain original directory structure for imported files	Keep directory structure.

Related Topics

Localizing Names of Resources in Oracle Business Rules in Designing Business Rules with Oracle Business Process Management.

5.11 Create Ruleset Dialog

Use to create a ruleset in a dictionary.

Before you can create a rule using Rules Designer, you create a rule set. A rule set is a container for rules.

Element	Description
Name	Enter the ruleset name or accept the default value shown.
Description	Enter an optional description for the ruleset or accept the default description.

Related Topics

Working with Rulesets in Designing Business Rules with Oracle Business Process Management.

5.12 Edit Decision Function Dialog

Use to edit and define a decision function.



Element	Description
Name	Enter the decision function name.
Rule Firing Limit	Select unlimited or enter and select a value for the rule firing limit. This option sets the maximum number of steps (rule firings). Using this option and specifying a value other than unlimited can help you debug certain rule design problems and can help prevent java.lang.OutOfMemoryError errors at runtime.
Will Be Invoked As A Webservice	Select to specify that the Decision Function is invoked as a web service.
Service Name	Specifies the service name for the Decision Function.
Check Rule Flow	Select to provide validation messages to ensure that facts of the appropriate type are either explicit inputs to the Decision Function or are asserted by rules in the flow. Checking is not always possible.
Stateless	Select to specify the Decision Function is stateless.
Rule Sets on Stack Once	Select to specify Rule Sets on Stack Once. This checkbox only appears if the business rules algorithm in the preferences is set to non-Rete.
Available	Shows the available rulesets and Decision Functions.
Selected	Shows the selected rulesets and Decision Functions. Use Move Up and Move Down to change the stack order of the selected ruleset or the Decision Function.
Description	Enter the description for the decision function.

Inputs Tab

Provides a list of Decision Function inputs. Click Add Input to add inputs. Click Delete Input to delete an input. Select an input and click Move Up to move the input up. Select and input and click Move Down to move the input down.

Element	Description
Name	Enter the input name.
Fact Type	Select the input type.
Tree	When Tree is selected, the Decision Function uses assertTree to assert the Fact. When Tree is unselected, the Decision Function uses assert to assert the Fact.
List	When List is selected the input is a List of the specified type. When List is selected the parameter in the input table is a List.

Outputs Tab

Provides a list of Decision Function outputs. Click Add Output to add outputs. Click Delete Output to delete an output. Select an output and click Move Up to move the output up. Select and input and click Move Down to move the output down.

Element	Description
Name	Enter the output name.
Fact Type	Select the output type.
Tree	When Tree is selected, the Decision Function uses assertTree to assert the Fact. When Tree is unselected, the Decision Function uses assert to assert the Fact (Tree only applies for output facts when Decision Functions are nested).
List	When List is selected the output fact is specified as a List of the specified type, for example List[OutputFactType]. When List is unselected, the output Fact is specified using the type.

Initial Actions Tab

In the **Initial Actions** tab, you can add actions that could be used to change input facts before they are asserted, change the ruleset stack, set the effective date, or even assert output facts. These actions could be used instead of rules, or to "set up" the environment for running rules.

You can add any required action ranging from assert, call, modify to even programming structs such as if, else, elseif, while, for, if(advanced), and while(advanced).

Rulesets and Decision Functions Tab

Use the shuttle buttons to move available Decision Functions and Rulesets from the Available area to the Selected area. Select a ruleset or Decision Function and use Move Selected Values to move selected items. Use Move All Values to move all values between lists.

Related Topics

Working with Decision Functions in *Designing Business Rules with Oracle Business Process Management.*

5.13 Set Effective Date Dialog

Use to specify the effective date for a Ruleset, a Rule, or a decision table. The effective date is one of: Always Valid, From, or To.

Element	Description
Always Valid	This is the value when both From and To are unselected.
From	Checkbox and fields in the Set Effective Date dialog displays the date or start time or both. Select the checkbox and enter the start date and time in the specified fields.
То	Checkbox and fields in the Set Effective Date dialog displays the date or end time or both. Select and enter the end date and time in the specified fields.
Set Date (calendar) icon	Select to choose dates from a calendar.
Date	Select to specify a date only, without a time.
Time	Select to specify a time only, without a date.
Both	Select to specify both a date and a time.

Related Topics

Using Effective Dates in Designing Business Rules with Oracle Business Process Management.

Working with Rulesets in Designing Business Rules with Oracle Business Process Management.

5.14 Conflict Resolution Dialog

Use to resolve conflicts between conflicting rules in a decision table.



Element	Description
Rule	Displays the rule with conflicting rules that are shown in the conflict resolution table.
Conflicting Rule	Lists one or more rules that conflict with the currently selected rule. The currently selected rule is listed in the Conflict Resolution dialog.
Resolution	Select this column to view a dropdown to select a resolution method for the conflict.
Conflict	The selected rule conflicts with the rule shown in the conflicting rule row.
NoConflict	The selected rule does not conflict with the rule shown in the conflicting rule row.
Override	The selected rule overrides the rule shown in the conflicting rule row.
OverriddenBy	The selected rule is overridden by the rule shown in the conflicting rule row. When you select OverriddenBy, the rule shown in the conflicting rule row is updated include the Override, and the selected rule conflict is resolved.
RunBefore	The selected rule runs before the rule shown in the conflicting rule row. When you select RunBefore, the selected rule RunBefore row is updated and the conflict is conflict is removed
RunAfter	The selected rule is run after the rule shown in the conflicting rule row. When you select RunAfter, the selected rule conflict is resolved, and the RunBefore list for the conflicting rule is updated to resolve the conflict.

Performing Operations on Decision Tables in *Designing Business Rules with Oracle Business Process Management*.

5.15 Gap Analysis Dialog

Use to find gaps in a decision table and when gaps are found use to remove the gaps by selecting the rules to add to the decision table.

Element	Description
Select All	Select this icon to add all the missing rules shown in the Gap Analysis dialog.
Unselect All	Select this icon to unselect all the missing rules shown in the Gap Analysis dialog.
New Rules Trade	The new rules table shows the new rules required to fill gaps found in the decision table. Use this area to view and to select individual rules to add to the decision table.

Related Topics

Performing Operations on Decision Tables in *Designing Business Rules with Oracle Business Process Management*.

5.16 Rule Sets Page

Use the Rule Sets page to display and edit ruleset information and to add, edit, and delete the general (IF/THEN) rules, verbal rules, and decision tables associated with a ruleset.

Note that the Verbal Rules tab is not displayed if Business Process Management is not installed.

The Rule Sets page includes the following tabs:

- Overview tab
- General Rules tab
- Verbal Rules tab
- Decision Table tab

Expand the ruleset to show the ruleset Name, Description, Effective Date, and Active fields.

Overview tab

Use the Overview tab to edit rule set properties, and to view, edit and delete rules and decision tables.

The Overview tab includes the following sections:

- Rule Set Properties
- General Rules lists the General Rules in the ruleset
- Decision Tables lists the decision tables in the ruleset
- Verbal Rules lists the Verbal Rules in the ruleset

Rule Set Properties

Element	Description
Name	Ruleset name. Enter or edit text to specify the ruleset name.
Edit Translation Bundles (Name)	Click to update resource bundles for the Name field. The Bundle Editor dialog is displayed.
Effective Date	Sets when the ruleset is active. Use to identify that the ruleset is always active, or that the ruleset is restricted based on a time and date range, or a starting or ending time and date.
Active	Select to make ruleset active. When Active is not selected, Rules Designer does not validate the ruleset.
Description	Ruleset description. Enter or edit text in the text area to change the description associated with the ruleset.
Edit Translation Bundles (Description)	Click to update resource bundles for the Description field. The Bundle Editor dialog is displayed.

General Rules

Use the General Rules list of the Overview tab to view, add, select for editing, and delete general rules in the ruleset.

Element	Description
General Rules	Lists the general rules in the ruleset.
Create	Click to create a new general rule.
Edit	Click to edit the currently selected general rule. The General Rules tab opens with the selected general rule displayed for editing.
Delete	Deletes the currently selected general rule.
Refresh	Click to refresh the contents of the list.

Decision Tables

Use the Decision Tables list of the Overview tab to view, add, select for editing, and delete decision tables in the ruleset.

Element	Description
General Rules	Lists the decision tables in the ruleset.
Create	Click to create a new decision table.
Edit	Click to edit the currently selected decision table. The General Rules tab tab opens with the selected decision table displayed for editing.
Delete	Deletes the currently selected decision table.
Refresh	Click to refresh the contents of the list.

Verbal Rules

Use the Verbal Rules list of the Overview tab to view, add, select for editing, and delete verbal rules in the ruleset.

Element	Description
General Rules	Lists the verbal rules in the ruleset.
Create	Click to create a new verbal rule.
Edit	Click to edit the currently selected verbal rule. The General Rules tab opens with the selected verbal rule displayed for editing.
Delete	Deletes the currently selected verbal rule.
Refresh	Click to refresh the contents of the list.

General Rules tab

Use the General Rules tab to view, create, edit, and delete general (IF/THEN) rules.

If the General Rules tab contains no general rules, click Create Rule to create a general rule.

Element	Description
Show / Hide Filter Query	Click to show or hide the Filter Query for the general rule.
Filter On	Click to filter the displayed general rules based on the Filter Query.
Create	Click to create a new general rule.
Delete	Deletes the currently selected general rule.
Move Up	Click to move the currently selected item up.
Move Down	Click to move the currently selected item down.
Show Structure	Click to show the structure of general rules in a tree format. Click a rule to jump to it. The selected rule is expanded to show details.
Expand All Rules	Click to show the details for all general rules.
Collapse All Rules	Click to hide the details for all general rules.
Toggle Display of Insertion Areas	Click to show or hide insertion areas. For example, when insertion areas are displayed, the IF area shows the '<insert test="">'</insert> prompt.
Filter Query	Use this area to construct a query to filter which rules are displayed. Click $\ensuremath{\textit{Filter On}}$ to engage the filter.
	The general rules are displayed in the tab. Each general rule has the following elements:



Element	Description
Expand / Collapse	Click to show or hide the details for the general rule.
Show / Hide Advanced Settings	Click to show or hide the advanced settings for the general rule.
Rule Name	Click to edit the general rule name. Any validation warnings are shown with red underlines.
Description	Click to edit the general rule description.
Advanced Settings	
Advanced Mode	Click to enable advanced editing in the Insertion Area.
Tree Mode	Click to enable tree mode in the Insertion Area.
Rule Active	Select to make general rule active. When Active is not selected, Rules Designer does not validate the decision table.
Logical	Enable or disable logical dependence between the facts that trigger a rule and the facts asserted by a rule.
Priority	Select the general rule priority. Choices range from Highest to Lowest.
Effective Date	Controls when the general rule is active. Use to identify that the general rule is always active, or that the general rule is restricted based on a time and date range, or a starting or ending time and date.
Rule contents	The general rule contents are displayed in this panel under IF and THEN headings. Edit the general rule by inserting tests and actions and specifying parameters by clicking on operands and selecting values.

Verbal Rules tab

Use the Verbal Rules tab to view, create, edit, and delete verbal rules.

If the Verbal Rules tab contains no verbal rules, click **Create Verbal Rule** to create a verbal rule.

Element	Description
Add	Click to add a verbal rule.
Delete	Click to delete the currently selected item.
Move Down	Click to move the currently selected item down.
Move Up	Click to move the currently selected item up.
Expand All Rules	Click to show the details for all verbal rules.
Collapse All Rules	Click to hide the details for all verbal rules.
Toggle Display of Insertion Areas	Click to show or hide insertion areas. For example, when insertion areas are displayed, the IF area shows the '<insert test="">'</insert> prompt.
	The verbal rules are displayed in the tab. Each verbal rule has the following elements:
Expand / Collapse	Click to show or hide the details for the verbal rule.
Show / Hide Advanced Settings	Click to show or hide the advanced settings for the verbal rule.
Rule Name	Click to edit the verbal rule name. Hover over the name to display validation warnings.
Description	Click to edit the verbal rule description.



Element	Description
Advanced Settings	
Effective Date	Controls when the verbal rule is active. Use to identify that the verbal rule is always active, or that the verbal rule is restricted based on a time and date range, or a starting or ending time and date.
Priority	Select the decision table priority. Choices range from Highest to Lowest.
Active	Select to make the verbal rule active. When Active is not selected, Rules Designer does not validate the rule.
Rule contents	The rule contents are displayed in this panel under IF and THEN headings. Edit the rule by inserting tests and actions and specifying parameters by clicking on operands and selecting values.

Decision Table tab

Use the Decision Tables tab to view, create, edit, and delete decision tables. The Decision Table tab for a ruleset is shown only if the ruleset has at least one decision table in it.

Element	Description
Show / Hide Advanced Settings	Click to show or hide the advanced settings.
Show / Hide Patterns/Tests	Click to show or hide the tests area.
Toggle Display of Insertion Areas	Click to show or hide insertion areas. For example, when insertion areas are displayed, the tests area shows the ' <insert test="">' prompt.</insert>
Decision Table	Click the decision table name to edit the name.
Name	Hover over the name to show validation warnings (if Rule Active is selected).
Advanced Settings	
Advanced Mode	Click to enable advanced editing in the Insertion Area.
Tree Mode	Click to enable tree mode in the Insertion Area.
Rule Active	Select to make decision table active. When Active is not selected, Rules Designer does not validate the decision table.
Logical	Enable or disable logical dependence between the facts that trigger a rule and the facts asserted by a rule.
Allow Gaps	Determines if validation messages are reported when gaps (missing rules) are detected in a Decision Table.
Order Rules by Bucket	When selected, Rules displayed in table are ordered by bucket. This is automatically selected when Prevent Moving Table Columns is selected.
Priority	Select the decision table priority. Choices range from Highest to Lowest.
Conflict Policy	Select the conflict policy from Manual, Auto override (the most specific rule wins) and Ignore (what fires last wins).
Effective Date	Controls when the decision table is active. Use to identify that the decision table is always active, or that the decision table is restricted based on a time and date range, or a starting or ending time and date.
Description	Enter or edit a description for the decision table.
Tests	Enter test information. Click Show / Hide Patterns / Tests to toggle visibility of this element.
Decision Table	

Element	Description
Add	Click and from the dropdown list select Rule to add a rule, Condition to add a condition, and Action to add an action. The available actions shown are dependent on the mode and can include assert new, assign, call, modify, retract, assert, assert tree, expression, return, and throw. When Advanced Mode is selected, more options are available.
Delete	Click to delete the currently selected item.
Move Up	Click to move the currently selected item up.
Move Down	Click to move the currently selected item down.
Prevent Moving Table Columns	Click to prevent columns from being moved. When selected, Order Rules By Bucket is also selected.
Move Decision Table Rule to the Left	Click to move the currently selected rule left.
Move Decision Table Rule to the Right	Click to move the currently selected item down.
Compact Table	Compacts the decision table by merging conditions of rules with identical actions. Merging two or more condition cells adds all buckets in the cells to a single cell, and removes all but one of the cells. If one of the cells represents "do not care", then the merged cell represents "do not care". Select Merge Selected Cells from the dropdown list to merge cells. Select Compact Table to compact the entire table. Select Span Table to cause the selected condition to span the table. Select Span Selected Cells to cause currently selected cells to span the table.
Split Table	The split table operation creates a rule for every combination of buckets across the conditions. Split can be applied to an entire decision table or to a single condition row. Additionally, split may be performed on an individual condition cell. Select a cell and from the dropdown list select Split Selected Cell to split the cell, or Split Table to split the entire table. You can also Unspan Table or Unspan Selected Cells .
Gap Analysis	Click to find gaps and present the Gap Analysis dialog in which you can fix any gaps that are found.
	A gap is a "missing" rule in a decision table. A decision table has a gap if there is a combination of buckets, one from each condition, that is not covered by an existing rule. Rules Designer provides Gap Analysis icon to check for gaps.
	reports a validation warning when a gap is found.
Toggle Display of the Conflict	Rules in a decision table conflict when they overlap and have different actions. Two rules overlap when at least one of their condition cells has a value in common.
Resolution Table	Overlap is common when a decision table contains "do not care" condition cells. Overlap without conflict is common and harmless.
	Click Show Conflicts to display conflicts in the Conflict Resolution row in the decision table. Use the Advanced Settings Conflict Policy list to specify that where possible, conflicts are manually resolved, automatically resolved, or ignored.
Align Columns	Click to align the conditions, conflicts, and actions table columns.
Resize All Columns To The Same Width	Click to resize the columns in the conditions, conflicts, and actions tables to the same width.
Cell Text Truncation	Click to left-align or right-align the text values in cells and truncate text that doesn't fit on the other side of the cell. This is useful when a decision table cell text is too long to be completely displayed.

Element	Description
Flip the Table Rows and Columns	Moves table row entries to columns and vice versa.
Refresh	Select to refresh the contents of the decision table.

Decision Table Area (With a Condition or Condition Cell Selected)

When a condition or a condition cell is selected, the following fields are displayed:

Element	Description
Cell Value Field	When a condition cell is selected, this field includes an indication of the cell name and a text entry area to enter a value for the condition cell.
Value Set Selection Dropdown	Provides a list of value set options for the condition.
Edit Value Set	Click to edit the currently selected value set.
Delete	Deletes the currently selected condition.

Conditions Area

The Conditions area in a decision table includes the condition rows. Each condition row has a condition expression and, for each rule, a condition cell.

You build condition expressions in Rules Designer. Usually, a condition expression is shown in a condition row and applies to a data model fact such as a Java Fact, an XML Fact, an RL Fact, or an ADF-BC fact.

A value set is associated with every condition expression. You can define the value set on the fly using a local value set or you can use a global value set. The value or the range for a given condition cell takes its value or range from one or more values in the associated LOV or Ranges value set.

In the Conditions area, double-click <insert-condition> to display the navigator to select or enter an expression.

Conflict Resolution

Rules Designer finds conflicts. Conflicts are displayed in the Conflict Resolution area in the decision table when you click Show Conflicts.

When the Conflict Policy option is set to manual, click on the cells in the decision table Conflict Resolution area to see conflicts. Rules Designer displays a conflict resolution dialog. Use it to resolve conflicts between rules in various ways:

- Override (Override and OverriddenBy): Override one rule with the other. This lets one rule fire. Override is a combines prioritization and mutual exclusion. Prioritization is transitive and not symmetric. Mutual exclusion is both transitive and symmetric. If A overrides C and B overrides C, then A or B runs before C but only one of A, B, or C runs.
- Run Before (RunBefore and RunAfter): Prioritizes the rules. This lets the two rules fire in a prescribed order. Prioritization is transitive and not symmetric. That is, if A runs before B runs before C, then A runs before C but B does not run before A. This uses a decision table runBefore list specifying that the rule that runs before has a higher priority than rules in the list.



- Ignore (NoConflict): Accept the conflict. This allows the two rules to fire in arbitrary order.
 For example, consider the following conflicting rules in a decision table:
 - rule1: everybody gets a 10% raise (as specified with a don't care value in a decision table condition cell)
 - rule2: employee with Top Performer set to true gets a 5% raise

In these rules, if rule2 overrides rule1, then a top performer gets a 5% raise, and everyone else gets a 10% raise. However, in the case where you would like to have both rules fire. Since it does not matter which rule fires first, and there is no conflict, then a top performer gets a 15.5% raise either way. In this case, use the NoConflict list to remove the conflict. Note that no conflict is what you get with IF/THEN rules with equal priorities, only you are not warned of a conflict and you must think hard if you want one rule to override the other.

Related Topics

Working with Rulesets and Rules in Designing Business Rules with Oracle Business Process Management

5.17 Business Rules Help

Use to create or modify rulesets, rules, or decision tables. Also use to view and modify data model components, including facts, functions, variables, value sets, dictionary links, or decision functions.

Related Topics

Working with Data Model Elements in Designing Business Rules with Oracle Business Process Management.

5.18 Dictionary Settings Dialog

Use to display the Oracle Business Rules dictionary settings for the current dictionary.

General Tab

Element	Description
Name	Displays the dictionary name for the current dictionary.
Alias	Displays the dictionary alias for the current dictionary. Enter a value to change the dictionary alias.
Package	Displays the dictionary package for the current dictionary.
Version	Displays the dictionary version for the current dictionary.
Description	Displays the description for the dictionary. Enter a description in the text entry area to update the dictionary description.
Schema Path Root	Displays the dictionary schema path root. You can also enter a value in the text entry area.

Service Tab

Element	Description
Name	.Enter service name.
Namespace	.Enter service namespace.



Element	Description
Configuration	.Enter service configuration.

Working with a Dictionary and Dictionary Links in *Designing Business Rules with Oracle Business Process Management*.

5.19 Edit Java Fact ClassName Dialog

Use to display and edit a Java Fact.

Element	Description
Class	The Java class associated with the Java Fact.
Alias	Text entry area to display or edit the alias associated with the Java Fact.
Super Class	Displays the super class.
Description	Enter a description for the Java Fact.
Visible	Specifies whether the Java Fact is visible in dropdown lists in Oracle JDeveloper.
Attributes	In the Attributes area you select the Java class Constructors, Properties, Methods, or Fields to display or edit.
Properties	Defines the properties for this Jaca class.
Alias	Property Alias
Visible	Show property in dialogs in Rules Designer.
Name	Property name.
Туре	Type of property.
Value Set	Value Set associated with the property.
List Content Type	When fact type is a list, this specifies the type for the list contents.
Fit Columns to Width	Adjust columns to fit the width of the page.

Related Topics

Working with Java Facts in Designing Business Rules with Oracle Business Process Management.

5.20 Decision Functions Tab

Use to create or edit decision functions. Decision functions provide for access to rules from either a web service, or from a Java program.

Decision Functions Table

To add a decision function, select **Create...** to create a decision function. Select a decision function and click **Edit...** to edit the decision function or **Delete** to delete the decision function. Click **Refresh** to refresh the decision functions table.



Element	Description
Name	Specifies the name for the decision function.
Description	Displays the decision function description. Enter text to change the description.
Web Service	Select to specify the decision function is a Web Service.

Working with Decision Functions in *Designing Business Rules with Oracle Business Process Management.*

5.21 Functions Tab

Use to add Oracle Business Rules functions for use in rule or decision table conditions and actions.

Functions Table

To add a function click the Create... icon. This creates a function where you define the function body using context sensitive menus. Select a function and click Delete to delete a function. Click Refresh to refresh the function table.

Click Test Function to test a function. The Test Function icon is only active for a function that has a boolean Return Type, takes no arguments, and the function body must be defined so that the function returns a boolean value. Also, you can only test a function when the dictionary does not have any validation warnings showing in the Business Rule Validation log. Otherwise the Test Function icon is not active (gray).

Element	Description
Name	Specifies the name for the RL function.
Return Type	Select the return type from the dropdown list.
Value Set	Select the value set to associate with the function.
Description	Enter the function description.

Arguments Table

Click **Add** to add an argument. Select an argument and click **Delete** to delete the argument. With multiple arguments, select an argument that is not the first argument and click **Move Up** to reorder the argument, or select an argument that is not the last argument and click **Move Down**.

Element	Description
Name	Enter the argument name.
Туре	Select the argument type.
Value Set	Select the argument value set. Value Sets are only shown in the dropdown list when value sets of matching type are available from the list of value sets.

Body Area

Use the function Body area to create the function body by selecting items to insert in the function from the context sensitive menus, or by entering values in the text entry area when you click a context sensitive area, such as <insert action>.

Related Topics

Working with Oracle Business Rules Functions in Designing Business Rules with Oracle Business Process Management.

5.22 Function Test Result Dialog

Use to test a function and display output from the test function. You can only test a function when the dictionary does not have any validation warnings or errors.

Element	Description
Output	Text area displays the output from running the test function.

Related Topics

Testing Decision Functions Using a Rules Function in Designing Business Rules with Oracle Business Process Management.

5.23 Editor Properties Dialog

Use to display the Oracle Business Rules editor properties.

Properties Table

Displays the available properties. These properties include:

- Select to use anti-aliased font in ruleset editor.
- Specify ruleset editor code font. Select the setting field and click the Font Chooser icon to display the Font Chooser dialog.
- Specify the ruleset editor IF/THEN block font. Select the setting field and click the Font Chooser icon to display the Font Chooser dialog.

Reset to Defaults

Restores default settings for each property.

Related Topics

Working with Dictionaries and Dictionary Links in Designing Business Rules with Oracle Business Process Management.

5.24 Facts Tab

Use to show the XML Facts table, Java Facts table, RL Facts table, and the ADF-BC Facts table. In Rules Designer you make business objects known to Oracle Business Rules using fact definitions in the data model.



For each table, click Create... to create a fact, or select an item in the table and then click **Edit...** to edit a fact, **Delete** to delete a fact, or **Refresh** to refresh the table. When the XML Facts table is shown, the Facts tab includes the Reload XML Facts from Updated Schemas icon; click this icon to reload the XML facts when the schemas are updated.

XML Facts Table

The XML Facts table shows the fields for each XML fact. Elements and types defined in XML Schema can be imported into the data model and can then be used to create rules and decision tables, just as with as with Java Fact Types and RL Fact types. The mapping between the XML Schema definition and the XML Fact types uses the Java Architecture for XML Binding (JAXB).

Element	Description
Alias	Displays the business rules data model alias for the XML fact.
Name	Displays the name of the XML element or XML complexType
Visible	Select to show the XML Fact in lists in Rules Designer.
XML Name	Displays the XML name for the XML fact
Generated Form	Displays the class that the XML fact was generated from when it was copied into the business rules data model.
Description	Enter or display the XML element or complexType description

Java Facts Table

The Java Facts table shows the fields for the Java facts available in the business model. A Java fact type allows selected properties and methods of a Java class to be imported to the Rules Engine so that rules can access, create, modify, and delete instances of the Java class. Importing a Java fact type allows the Rules Engine to access and use public attributes, public methods, and bean properties defined in a Java class (bean properties are preferable because they can be modified using the modify action).

Element	Description
Alias	Displays the alias for the property or method.
Class	Displays the class that the property or method is a part of.
Description	Enter or display the Java class description.

RL Facts Table

The RL Facts table shows the fields for each RL Fact. RL Facts are the only kind of facts that you can create directly and do not have an external source. All other types of Oracle Business Rules facts are imported. An RL Fact is similar to a relational database row or a JavaBean without methods. An RL Fact contains a list of properties of types available in the data model, either RL Fact, Java Fact, or primitive types. You can use RL Fact to extend a Java application object model by providing virtual dynamic types.

Element	Description
Name	Displays the name of the RL fact.
Description	Displays or provides a field to enter the RL fact description.
Super Class	Displays superclass for the RL fact.

ADF-BC Facts table

ADF Business Components Facts allow you to use ADF Business Components as Facts in rules and in decision tables. By using ADF Business Components Facts, you can assert view object graphs representing the business objects upon which rules should be based, and let Oracle Business Rules deal with the complexities of managing the relationships between the various related view objects in the view object graph. When an ADF Business Components view object is imported an ADF Business Components Fact Type is created which has a property corresponding to each attribute of the view object.

Element	Description
Alias	Displays the business rules data model alias for the ADF Business Components.
View Definitions	Displays the name of the RL fact. ADF Business Components Fact Types are instances of RL Fact Types.

Related Topics

Introduction to Working with Facts and Value Sets in *Designing Business Rules with Oracle Business Process Management*.

5.25 Globals Tab and Edit Global Name Dialog

Use to create a global variable for use with a rule or a ruleset. An Oracle Business Rules global is similar to a public static variable in Java. You can specify that a global is a constant or modifiable.

To add a global, click **Create...** this creates a global in the Globals table and shows the Edit Global Name dialog. Select a global in the Globals table and click Edit... to edit a global. Select a global and click **Delete** to delete a global. Click **Refresh** to refresh the global table.

Element	Description
Name	.Specifies the name for the global.
Description	Enter a description for the global.
Туре	Shows the global type. Use the dropdown list to select a type. The value specified must match the type if you want the global to validate without warnings or errors.
Value Set	Specifies the value set associated with the global.
Value	Use the text area to enter the value for the global. Click the Expression Builder icon to enter a global using the expression builder.
Constant	Specifies if the global is a constant. Selecting Constant specifies that the global is a constant. A constant is a string or numeric literal, a final whose value is a constant, or a simple expression involving constants and +, -, *, and /. Selecting Constant for a global optional. Note that values, value range endpoints, and ruleset filter values are always constant. This option is not shown in the Globals table. This option is shown in the Edit Global Name Dialog.
	Selecting Constant has three effects:
	You do not have to surround string literals with double quotes.Only constants appear in the expression value choice list.
	The expression value must be a constant to be valid.



Element	Description
Final	Specifies if the global is modifiable.
	 When you select Final the global is initialized once at runtime and cannot be changed. Also, you can use the global in a test in a rule (nonfinal globals cannot be used in a test in a rule).
	 When you deselect Final, this specifies that the global is modifiable, for instance, in an assign action.

Working with Globals in *Designing Business Rules with Oracle Business Process Management*.

5.26 Expression Builder Dialog

Use to visually design expressions for business rules.

Element	Description
Expression	This area displays the expression you are building.
	When you double-click items in the Variables navigation tree, the Operators area or the Functions navigation tree, this builds the expression in the Expression field. You can also create or edit expressions directly in the Expression area.
	Specify an argument for the selected function by placing the cursor inside the function in the Expression field and double-clicking expression or function to insert. For example, place the cursor inside the parentheses of test() and select the following a variable. This inserts the variable in the expression at the cursor position.
Undo Last Edit, Redo Last Edit,	The icons in the corner of the Expression Builder dialog enable you to perform the following tasks while building your syntax in the Expression field.
Clear Expression	• Click the left arrow icon (first icon above the Expression field) to undo your last edit.
	• Click the right arrow icon (second icon above the Expression field) to redo your last edit.
	 Click the page icon (third icon above the Expression field) to clear the Expression field.
Insert Into Expression	When you either double-click items that are selected in the Variables navigation tree, the Operators area or the Functions navigation tree, or you can select the items and build the expression in the Expression field by clicking Insert Into Expression .
Content Preview	Build an expression by single-clicking elements in the Variables , Operators , and Functions fields. For example, expanding and single-clicking Variables and then Test displays a preview version of the expression in the Content Preview field.
	When the expression is complete, double-click the last element or click Insert Into Expression to display it in the Expression text entry area.
Description	Single-clicking a function displays a detailed description (including syntax usage) in the Description field.
Customizable	Specifies that the expression is customizable.

Variables Tab

Select a variable from the list to build expressions.Single-clicking a variable displays a description in the Description field. A preview version of the variable also displays in the Content Preview field.

Insert a variable into the Expression field by double-clicking it or clicking Insert Into Expression.

Functions Tab

Select a function from the list to build expressions.Single-clicking a function displays a detailed description (including syntax usage) in the **Description** field. A preview version of the function also displays in the Content Preview field. The syntax usage describes the expected arguments for the selected function. These arguments can be variables, parts, elements, literals, or other functions. Insert a function into the Expression field by double-clicking it or clicking **Insert Into Expression**.

Operators Tab

Select an operator from the list to build expressions.Single-clicking an operator displays a preview version of the operator in the Content Preview field. Insert an operator into the Expression field by double-clicking it or clicking Insert Into Expression.

Constants Tab

Select a constant from the list to build expressions.

Related Topics

Working with the Expression Builder in Designing Business Rules with Oracle Business Process Management.

5.27 Create ADF-BC Fact Dialog

Use to select the connection details for a connection to a database and to specify the View Definition details for the ADF-BC fact.

Element	Description
Connection	Use to select the connection details for a connection to a database. A connection is a JDeveloper object that specifies the necessary information for connecting to a specific database as a specific user of that database.
View Definitions	Enter the View Definition Name.
Search Path	Use this area to select the directory search path.
	Click Add to Classpath to add a classpath to the search path. Select a classpath and click Remove from Classpath to remove the selected classpath. Click Clear all Classpaths to clear classpaths.

Related Topics

"Introduction to Working with ADF Business Components in *Designing Business Rules with Oracle Business Process Management*.



5.28 Edit RL Fact Name Dialog

Element	Description
Name	Displays the RL fact name. Enter a name to change the RL fact name.
Description	Displays the RL Fact description. Enter a description to change the description.
Super Class	Select a super class from the dropdown list.
Property	Click the Create icon to add properties. Select a property and click. Select a property and Delete to delete a property.
Name	Name of the property.
Туре	Type of the property.
Value Set	Value set associated with the property.
Initial Value	Initial value for the property.
List Content Type	When fact type is a list, this specifies the type for the list contents.
Fit Columns to Width	Adjust columns to fit the width of the page.

Use to display details for or edit an RL fact.

Related Topics

Working with RL Facts in *Designing Business Rules with Oracle Business Process Management.*

5.29 Create XML Fact Dialog

Use to add or update elements from an XML Schema in the data model. Facts that are already created are shown but are grayed out.

Element	Description
Source Schemas	Lists the available XML schemas. Click Add Source Schema to use the Add Source Schema dialog to locate schema to process to make available in the Target Classes area.
Target Classes	Browse and expand the tree nodes to find the classes you want to include as Java facts in the business model. Select the checkbox next to the class you want to import into the data model. Click Refresh to refresh the JAXB generated classes.

Related Topics

Working with XML Facts in Designing Business Rules with Oracle Business Process Management.

5.30 Edit ADF-BC Fact ViewDefinitionName Dialog

Use to edit ADF-BC facts.

Element	Description	
View Definition	Displays the View Definition Name.	



Element	Description
Alias	Enter the business rules data model alias for the ADF-BC fact.
Visible	Select the visibility for the ADF-BC fact for Rules Designer lists.
Properties	Shows details for the View Definition properties.
Alias	Displays the business rules data model alias for the property.
Name	Displays the name of the property.
Visible	Specifies if the property is visible.
Primary Key	Specifies if the property is a primary key.
Value Set	Specifies the associated value set.
Туре	Specifies the type for the property.
List Content Type	For fact type that is a list, this specifies the type for the list contents.
Fit Columns to Width	Adjust columns to fit the width of the page.

Working with Oracle Business Rules and ADF Components in *Designing Business Rules with* Oracle Business Process Management.

5.31 Edit XML Fact Name Dialog

Use to display or edit an XML Fact.

Element	Description
Name	Displays the name of the XML element or XML complexType.
Alias	Enter the alias for the XML Fact.
Super Class	Displays the super class for the object.
Description	Enter the description for the XML Fact.
XML Name	Displays the XML name for the XML fact.
Generated From	Displays the class that the XML fact was generated from when it was copied into the business rules data model.
Visible	Specifies whether the XML Fact is visible in dropdown lists in Oracle JDeveloper.
Support XPath Assertion	Specifies if XPath assertion is enabled for the fact. This option is provided for backward compatibility only. Normally it should not be used.
Attributes	In the Attributes area, select the Constructors, Properties, Methods, or Fields to display or edit. These are the properties, methods, and fields for the JAXB generated classes for the XML Fact.
Properties	Shows details for the XML Fact properties.
Alias	Displays the XML alias.
Visible	Show property in dialogs in Rules Designer. XML Facts often reference other XML Facts, forming a tree. You should make all the XML Fact Types visible that contain properties that you reference in rules.
Name	Property name.
Туре	Type of the property.
Value Set	Value set associated with the property.



Element	Description
List Content Type	If the fact type is a list, this specifies the type for the list contents.
Fit Columns to Width	Adjust columns to fit the width of the page.

Working with XML Fact in Designing Business Rules with Oracle Business Process Management.

5.32 Links Tab

Use to add, edit, delete, or view dictionary links.

When a dictionary has a link to another dictionary, the linked contents can be referred to in the current dictionary just as local dictionary contents but the linked dictionary cannot be updated unless you select the linked dictionary to update it.

Links Table

Click the **Create** icon to add a linked dictionary. From the dropdown list select Resource Picker... to add a linked dictionary with the SOA Resource Lookup dialog. From the dropdown list select Decision Point Dictionary to add the supplied Decision Point dictionary.

Select a linked dictionary and click the **Edit...** icon to edit the linked dictionary. Select a linked dictionary and click **Delete** to delete the link. Select Refresh to refresh the dictionary links table. Select **Dictionary Cache...** to display the dialog that lets you search, delete, or clear the dictionary finder cache.

Element	Description
Alias	Displays the dictionary link alias.
Name	Displays the dictionary name.
Package Name	Displays the dictionary package name component of the name.

Related Topics

Working with a Dictionary and Dictionary Links in *Designing Business Rules with Oracle Business Process Management*.

5.33 Dictionary Finder Cache Dialog

Use to search, delete, or clear the dictionary finder cache.

Click the **Search Path...** to display the dictionary finder search paths. Click **Delete** to delete a search path. Click **Clear** to clear the search path.

Element	Description
FQN	Displays the dictionary fully qualified name.
Dictionary	Displays the dictionary name.
Location	Displays the dictionary path.


Element	Description
Description	Displays the dictionary description

Working with a Dictionary and Dictionary Links in *Designing Business Rules with Oracle Business Process Management*.

5.34 Ruleset Page - Modify Action Properties Dialog

Use to set property values for facts modified in a rule action.

Element	Description
Name	Displays the property name.
Туре	Displays the property type.
Value	Enter a value for the property for the modified fact.
Constant	Select to specify that the property is a constant.

Related Topics

Creating Decision Tables in Designing Business Rules with Oracle Business Process Management.

5.35 Action Editor Dialog

Use to set the action form and different context sensitive values for a decision table action. Values shown on this page are context sensitive, depending on the form you select, and on the available facts associated with the action. Many forms are valid with advanced mode, and for each form this dialog is different.

Element	Description
Form	Select the action form from the dropdown list.
Value	Displays the currently selected form. Also shows parameters or properties.
Facts or Fact	Only shown with certain forms. When this is shown, select an available fact or facts for the action from the list.
Function	Only shown with certain forms. When Function is shown, select a function to use.
Target	Only shown with certain forms. When Target is shown, select the target Fact from the list.
Properties or Arguments	Displays a table with Property or Parameter Name , Type , Value , Parameterized and Constant fields. For each field enter the appropriate values or select the field. When you select parameterized, a cell is added for each rule in the decision table, and the property can be set on a per rule basis.
Always Selected	Use to specify that the property is always selected.

Related Topics

Creating Decision Tables in Designing Business Rules with Oracle Business Process Management.



5.36 Create Business Rules Data Control: Data Control Definition

Use to specify the variables and rules in a dictionary that are part of the data control.

Element	Description
Data Control Type	Select the data control type from the dropdown list.
Composite DN	Select the composite domain name.
Dictionary	Select a dictionary from the dropdown list.
Contents Area	Navigate and select variables and rulesets to include in the data control.
Select All Variables	Select all variables in the dictionary.
Deselect Variables	Deselect all variables.
Select All Rules	Select all rules in the dictionary. Note you cannot select decision tables for a data control.
Deselect Rules	Deselect all rules in the dictionary.

Related Topics

Working with Oracle Business Rules Data Control Unit in *Designing Business Rules with* Oracle Business Process Management.

5.37 Create Business Rules Data Control Wizard: Finish

Use to provide a summary of data control. This text area displays a list of the following:

- Included Variables
- Dictionary Name (fqnDictName)
- Data Control Name
- Runtime repository type specification
- Included rules
- Design Time Repository type and connection properties
- Run time connection properties for accessing the dictionary

Related Topics

Working with Oracle Business Rules Data Control in *Designing Business Rules with Oracle Business Process Management*.

5.38 Create Business Rules Data Control Wizard: Data Control Source

Use the Business Rules Data Control wizard when you want expose and modify a rule, a variable, or both in your application, as follows:

• Rule Modification: This allows you to modify attributes such as the alias, the description, the effective start and end dates, or customizable fields in a rule.



 Variable Modification: This allows you to modify values of the variables defined in the data model part of an Oracle Business Rules dictionary.

Use the data control source page to specify a unique name for the data control.

Element	Description
Data Control Name	Enter the data control name.
Description	Enter the data control description.
Design Time Dictionary	
BPEL Rule Management Web Service	Use the specified MDS repository using the BPEL rule management web service to access the dictionary.
Dictionary stored in local file	Use a saved XML version of a dictionary.
Connection Parameters	Gives two choices depending on whether using a MDS Repository or a saved dictionary.
Host (only shown with BPEL Rule Web Service option)	Enter host name.
Port (only shown with BPEL Rule Web Service option)	Enter port.
File Location (only shown with Dictionary option)	Enter the dictionary location. Use Browse to navigate to find a dictionary.

Related Topics

Working with Oracle Business Rules Data Control in Designing Business Rules with Oracle Business Process Management.

5.39 Create Business Rules Data Control: Data Control Runtime Configuration

Use to choose an access method to obtain a dictionary at runtime.

Element	Description
Use Design Time Repository Connection Parameters	You can specify where to find the dictionary at runtime. Select to use the design time configuration to find the dictionary. Deselect to use either in MDS or a specified file to obtain the dictionary at runtime.
BPEL Rule Management Web Service	Select to use an MDS repository with the BPEL rule management web service to access the dictionary at runtime. With this option selected, in the Connection Parameters area, you enter values for the following fields:
Host	Enter host for Web Service.
Port	Enter port for Web Service.
Composite DN	Enter composite domain name.



Element	Description
Dictionary	Enter dictionary name.
Dictionary stored in local file	Select to use the specified dictionary location for the data control at runtime. With this option selected you also enter a value for the file location.
File Location	Enter the dictionary location.
Browse	Use to navigate to find a dictionary.
Test Connection	Use to test the connection to the specified data control dictionary.

Working with Oracle Business Rules Data Control in Designing Business Rules with Oracle Business Process Management.

5.40 Create Business Rules Data Control Wizard

Related Topics

Working with Oracle Business Rules Data Control in Designing Business Rules with Oracle Business Process Management.

5.41 Services tab

Use to add, edit, delete, or view decision services.

Related Topics

Working with a Dictionary and a Dictionary Link in Designing Business Rules with Oracle Business Process Management.

5.42 Create Decision Service

Use to create a Decision Service.

Element	Description
Name	Enter the Decision Service name.
Namespace	Enter the Decision Service namespace.
Available Rulesets/ Functions shuttle	Use to select the rulesets and functions to add to the decision service.
Selected Rulesets/ Functions shuttle	Use to select the rulesets and functions to add to the decision service.
Move Up icon	Use to change the order of rulesets and functions in the decision service.
Move Down icon	Use to change the order of rulesets and functions in the decision service.
Facts	Use to specify the facts for input and output to the decision service.
Expose as Composite Service	Select to specify that the decision service be exposed as a composite service.



Working with a Dictionary and a Dictionary Link in Designing Business Rules with Oracle Business Process Management.

5.43 RL Viewer Dialog

Use the RL Viewer Dialog to view the Rules Language definition of the selected rule set.

Element	Description
View	Select to view rule definitions in the Data Model, or from the rule sets in the dictionary.
RL Listing	The rule language definition of the rules is displayed in a read-only panel.

Related Topics

Rules Language Reference for Oracle Business Process Management Designing Business Rules with Oracle Business Process Management

5.44 Test Tab

Use the Test tab to run tests and view results.

The Test tab is organized in two sections:

- Test
- Results

Test

Use to set the parameters of your test.

Element	Description
Test Component	Select the component to be tested.
Test Case	Details of the test are specified in this panel. Its elements are listed below.
Draft Tests	Select the Draft Test check box to turn off the test validation.
Execute	Click to run the selected test.
Refresh	Click to refresh the selected page area.
Edit	
Name	Test case name.
Decision Function	Specifies the decision function.
Unfired Rules Are Errors	Click the Unfired Rules are Errors check box if unfired rules are treated as errors from the execution.
Description	Description of the test case. Optional.
Inputs	Input data for the test case. This information comes from the decision table.
Outputs	Output data from the test. This information comes from the decision table.
Delete	Click to delete the selected test case.



Results

Use to view the results of your test. After you run a test, a new tab is opened.

Element	Description
Result	Result of the test. For example, Passed, or Failed.
Diagnostic Comments	Information about the test.

Related Topics

Testing and Validating Business Rules in Designing Business Rules with Oracle Business Process Management

5.45 Create Template Dialog

Use the Create Template dialog to create a new test template in the Oracle Business Rules editor.

Element	Description
Name	Name of the new template.
Decision Function	This dropdown specifies the decision function to which the template will apply.
Description	Optional description of the test template.
Unfired Rules Are Errors	Check if unfired rules are treated as errors from the execution.
Inputs & Outputs	Use review the Input and Output documents for the test case. This is where you can edit values to specify the input and the expected output,
List View Tree View	Click List View or Tree View to toggle between the views.
Constant	Check the Constant check box and select a constant from the list.
Mark as Parameter	Check the Mark as Parameter check box for variable fields of the test template. Values for variable fields are entered when the template is consumed like when the template is tested or used to create a test case.

Related Topics

Testing and Validating Business Rules in Designing Business Rules with Oracle Business Process Management

5.46 Translations Tab

Use the Translations tab to manage dictionaries and resource bundles for your project to support multiple languages.

Element	Description
Dictionary Locale	Click to select the locale from this dropdown.
Create Resource Bundle	Click to add a resource bundle. The Create Resource Bundle dialog box displays. The added bundle shows as a new Resource Bundle Translations column.



Element	Description
Delete Resource Bundle	Click to delete the currently selected resource bundle.
# Unsaved Translations	Displays the number of unsaved edits in the Resource Bundle Translations table. If there aren't any, 0 is displayed.
Save Unsaved Translations	Click to save your edits in the Resource Bundle Translations table.
Turn Off Translation	Click to toggle the display of translations.
Resource Bundle Translations table	This table displays the text items to be translated, and a column for each dictionary locale they are translated into.
	Click the information icon to display the Resource Information dialog box. Hover over the information icon to display information for the item.
	Double-click a cell to edit it.
Fit Columns to Width	Click to fit the columns in the table to the width of the largest element of each column so that all the data in the table can be viewed in its entirety.

How to View and Edit Translations in *Designing Business Rules with Oracle Business Process* Management

5.47 Diff Dictionary Dialog

Use the Diff Dictionary dialog to locate and specify a rules dictionary and its version.

Element	Description
Dictionary	Specify the path to the diff dictionary.
Search	Click to perform a search for a diff dictionary.
Version	Specifies the version of the diff dictionary.

Related Topics

How to Compare or Merge Two or More Dictionaries in *Designing Business Rules with Oracle Business Process Management*

5.48 Diff Versions Dialog

Use the Diff Versions dialog to view and accept differences between different ruleset versions.

Element	Description
Version	Version of the ruleset.
Accept Diffs	Click to accept the differences between different versions.

Related Topics

How to Compare or Merge Two or More Dictionaries in Designing Business Rules with Oracle Business Process Management



5.49 Merge Dictionary Dialog

Use the Merge Dictionary dialog to locate and specify a merge dictionary and its version.

Element	Description
Dictionary	Specify the path to the merge dictionary.
Search	Click to perform a search for a merge dictionary.
Version	Specifies the version of the merge dictionary.

Related Topics

How to Compare or Merge Two or More Dictionaries in *Designing Business Rules with Oracle Business Process Management*

5.50 Data Explorer Tab

Use the Data Explorer tab to view the data model in the rules dictionary.

Element	Description
Show Only Visible Items	Click to show items in the Data Model table that have the Visible attribute selected.
Refresh	Click to refresh the contents of the Data Model table
Data Model table	Elements in the data model are displayed in a table.
	The Data Model table columns are listed below:
Data Model	Data model elements are displayed in a hierarchical tree. Click the expand icons next to compound elements to show their sub-components.
Visible	Click to select whether the element is visible or not.
Туре	Data type of the element.
Description	Element description.

Related Topics

How to View and Edit Explorer in *Designing Business Rules with Oracle Business Process Management*

5.51 Business Phrases Tab

Use the Business Phrases tab to view, create, and modify business phrases in your rules project.

Note that the Business Phrases tab is not displayed if Business Process Management is not installed.

The Business Phrases tab is arranged in the following sections:

- Phrase list
- Parameters
- Value



Mapping

Phrase list

Use the Phrase list to view and select business phrases included in the dictionary.

To cut, copy and paste, you can right-click on a business phrase, and select the appropriate action from the pop-up menu.

Element	Description
Search	Enter text to search business phrases on. The list of business phrases is filtered according to the search term.
Clear	Click the red x to clear the search term.
Refresh	Click to refresh the list of business phrases.
Create	Click to add a new business phrase.
	The Add button includes a dropdown. Choices include:
	• Test Business Phrase - add a business phrase to be used in the IF portion of a verbal rule
	 Action Business Phrase - add a business phrase to be used in the THEN portion of a verbal rule
Delete	Deletes the currently selected business phrase.
Business phrase list	Lists the business phrases included in the dictionary. Click a business phrase to display its details in the other Business Phrase panels.
	Information displayed for each business phrase in the list includes:
	• Value
	Form - Test Business Phrase or Action Business Phrase
	• Draft - select to mark the Business Phrase as a draft. No validation is done on draft business phrases.
	Sort the list by clicking on the column titles.
	Click a business phrase to select it and display its details.

Parameters

Use the Parameters section of the Business Phrases tab to view and edit parameters included in the selected business phrase.

Element	Description
Insert	Click to insert the currently selected parameter into the Value field for the currently selected business phrase.
Create	 Click to add a parameter. A new parameter is shown in the list The add parameter button includes a dropdown. Choices include: Value Variable Expression
Delete	Click to delete the currently selected parameter.



Element	Description
Parameter list	 Parameters are displayed in a table with the following columns: Name Form Type Value Set Sort the list by clicking on the column titles. Click a parameter to select it. Controls are displayed to allow editing of the parameter as follows:
Parameter columns	 Edit parameter values directly from the columns in the list: Name - text box for the parameter name. Double-click to edit. Form - choose from Value, Variable, Expression Type - choices change depending on the setting of Form. Value: standard data types, Variable: variables defined in the dictionary, Expression: mixture of standard data types and variables Value Set - choices change depending on the setting of Parameter Type. If there are no value sets, the dropdown appears empty

Value

Use the Value section of the Business Phrases tab to specify the definition of the business phrase. Add a parameter to the definition by selecting it in the **Parameters** list and clicking **Insert**.

Element	Description
Value	Enter text to define the business phrase.
Edit Translation Bundles	Click to edit translations for the phrase. The Bundle Editor dialog box is displayed.

Mapping

Use the Mapping section of the Business Phrases tab to view and edit the mapping for the selected business phrase. The mapping provides the logical definition of the business phrase.

Create and modify the mapping interactively by clicking on the placeholders in the mapping definition. Tests being with <insert test>. Actions begin with <insert action>.

For example, a new mapping for an action business phrase displays <insert action>. Click to select an action, such as assign. An assignment statement appears with placeholders <target> and <expression>. Click each of these to define the assignment.

Element	Description
Value	Enter text to define the business phrase.
Edit Translation Bundles	Click to edit translations for the phrase. The Bundle Editor dialog box is displayed.

Related Topics

Working with Rules in Designing Business Rules with Oracle Business Process Management



5.52 Create Resource Bundle Dialog

Use the Create Resource Bundle dialog to create a new resource bundle to support another language in your rules project.

Element	Description
Locale	Select the target locale to be supported, for example, French.

Related Topics

Developing Applications with Oracle JDeveloper in Designing Business Rules with Oracle Business Process Management

5.53 Decision Fact Map Dialog

Use the Decision Fact Map dialog to map input and output values such as variables to business rule facts in a BPEL process.

Element	Description
From	The From panel specifies details for the source values to be mapped to business rule facts.
Туре	 Select the type of value to map to the target business rule fact. Choose from: Variable Expression Literal Partner Link Property The following are displayed when Variable is selected for the Type.
Variable list	Select the source variable from the tree-like list.
Show Detailed Node Information	Click to show full paths for the nodes in the list.
XPath	XPath expression for the source variable.
	The following are displayed when Expression is selected for the Type.
XPath Expression Builder	Click to launch the Expression Builder Dialog.
Expression	Enter an expression for the source.
	The following is displayed when Literal is selected for the Type.
Literal	Enter a literal value for the source.
	The following are displayed when Partner Link is selected for the Type.
Partner Link	Select a partner link from the dropdown.
Create Partner Link	Click to create a new partner link. The Create Partner Link dialog is displayed.
Endpoint Reference	Select an endpoint reference from the dropdown.
	The following are displayed when Property is selected for the Type.
Variable	Displays the selected variable name.



Element	Description
Browse Variables	Click to browse for and select a variable.
Property	Displays the selected property.
Browse Properties	Click to browse for and select a property. The Property Chooser dialog is displayed
То	The To panel specifies details for the target business rule facts to which values are mapped.
Туре	Select the type of fact to map the source to. Choose from:
	Business Rule Facts
Business Rule Fact list	Select the target fact from the tree-like list.
Show Detailed Node Information	Click to show full paths for the nodes in the list.
XPath	XPath expression for the target fact.

Working with Facts and Value Sets in *Designing Business Rules with Oracle Business Process* Management

5.54 Create Test Suite Dialog

Use the Create Test Suite dialog to create a test suite.

Element	Description
Name	Specify a name for the test suite
Decision Function	Select the decision function for the test suite.
Description	Optionally provide a text description of the test suite.

Related Topics

Testing Rules in JDeveloper in Designing Business Rules with Oracle Business Process Management

5.55 Import From Excel Dialog

Use the Import From Excel dialog to import a decision table that you have created or edited in Excel.

Element	Description
File	Specify the Excel file to import.
Browse File System	Click to browse to the Excel file to import.
Perform Diff-Merge on Import	Select to perform a Diff-Merge upon import to view and accept differences between different ruleset versions.
Base Dictionary	Specify the base dictionary file to import.



Element	Description
Browse Dictionaries	Click to browse to the Dictionary to import.

Editing Decision Tables in Microsoft Excel in Designing Business Rules with Oracle Business Process Management

5.56 Export To Excel Dialog

Use the Export to Excel dialog to export decision tables to an Excel file. You can edit the content in Excel, and import it using the Import From Excel dialog.

Element	Description
Format	Specify the Excel file format. Choose from .xls or .xlsm.
File	Specify the Excel file to export.
Browse File System	Click to browse to the location in which to store the exported file.
Decision Tables	Lists the decision tables selected for export.
Browse Decision Tables	Click to select the decision tables to be exported. Decision tables selected in the Decision Table Browser are displayed in the Decision Tables list.
Delete	Removes the selected decision table from the Decision Tables list. The removed decision table will not be exported. This does not delete the decision table from your project.
Read Only Value Set	Check to make all value sets read-only in the exported Excel file. No Value Sets worksheet is created in the Excel workbook. Conditions have drop down menus from which values can be selected but no values can be added or removed.
Export	Exports the selected decision tables to an Excel file.

Related Topics

Editing Decision Tables in Microsoft Excel in Designing Business Rules with Oracle Business Process Management

SOA Composite Editor Test Mode Context Sensitive Help Topics

6.1 Event Messages Dialog

Use to initiate a composite test by raising or publishing an event.

You can publish the event to all components or a specific component. Use this option in environments in which components have subscribed to events.

Element	Description
Events	Select the event to publish. Your selection then displays in the text at the top of the dialog.
Publish Event To	Select to publish the event to all service components or a specific service component (for example, an Oracle Mediator service component).
Event Message	Enter the content to publish. The event message must conform to the definition in the event definition language (EDL) file. By publishing the event, you are trying to see if the event can be successfully subscribed to by service components.
Enter Manually	Click to manually enter message data in the Enter Value field.
Load From File	Click to access the Browse icon for loading message data from an XML file.
Generate Sample	Click to automatically generate a sample file for testing.
Save As	Click to save the sample file.
Delay	Enter the maximum amount of time to wait for the event to be available for subscription.

Related Topics

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.2 Create Test Suite Dialog

Use to enter a name for the test suite to create.

A test suite consists of test cases that you define.

Element	Description
Name	Enter a name for the test suite. The name you enter displays in the testsuites folder of the Application Navigator.

Related Topics

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*



6.3 Create Composite Test Dialog

Use to create a composite test in the test suite.

Composite tests enable you to perform automated testing at the higher SOA composite application level. In this type of testing, wires, service binding components, service components (such as BPEL processes), and reference binding components are tested.

Element	Description
Name	Enter a name for the composite test. The name you enter displays as an XML file in the testsuites folder > test_suite_name > tests folder of the Application Navigator.
Description	Enter a description of the composite test. This description displays during runtime in the Description column of the Unit Tests tab in Oracle Enterprise Manager Fusion Middleware Control.

Related Topics

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.4 Initiate Messages Dialog

Use to initiate the sending of client inbound messages into your SOA composite application.

Element	Description
Operation	Displays the operation type of the binding component service (for example, process or initiate).
Part	Select the type of inbound message to send (for example, a payload).
Value	Create a simulated message to send from a client in either of two ways:
Enter Manually	Click to display the Enter Value field for manually entering data. The Generate Sample button enables you to automatically create a sample file for testing. Click Save As to save the sample file.
Load From File	Click to access the Browse button for loading message data from a file. The file is added to the messages folder in the Application Navigator.
Delay	Enter the maximum amount of time to wait to initiate the sending of client inbound messages into your SOA composite application.

Related Topics

Creating the Contents of Test Cases in Developing SOA Applications with Oracle SOA Suite

6.5 Create Component Test Dialog

Use to create a new test case for a BPEL process service component.

This test case enables you to simulate the interaction between a BPEL process service component included in a SOA composite application and its web service partners before deployment in a production environment. The BPEL process service component test is included as part of the larger SOA composite application test case.



Element	Description
Enter New Test Name	Enter the name for the BPEL process service component test or accept the default value of BPEL_process_name_test <i>number</i> . Once you create the component test, folders for creating assertions, fast forwards on wait activities, and execution counts appear in the Structure window.

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Testing BPEL Process Service Components in *Developing SOA Applications with Oracle SOA Suite*

6.6 Assert Execution Count Dialog

Use to execute an activity a specified number of times. This provides a method for verifying that an activity executes the correct number of times (for example, ensuring that a while activity executes the correct number of times).

Element	Description
Activity Name	Click the Browse icon to specify the activity to execute. If you right-clicked a specific activity in test mode of Oracle BPEL Designer and selected Edit Activity Test Data , the name of the selected activity is already displayed.
Count	Specify a value for the number of times to execute this activity.

Related Topics

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Testing BPEL Process Service Components in *Developing SOA Applications with Oracle SOA Suite*

6.7 Fast Forward Dialog

Use to specify the amount of time to bypass the wait activity and move forward in the BPEL process service component test.

Element	Description
Activity Name	Click the Browse icon to specify the amount of time to bypass the wait activity. If you right-clicked a specific activity in test mode of Oracle BPEL Designer and selected Edit Activity Test Data , the name of the selected activity is already displayed.
Duration	Specify the amount of time to bypass the wait activity and move forward in the BPEL process service component test.

Related Topics

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*



Testing BPEL Process Service Components in *Developing SOA Applications with Oracle SOA Suite*

6.8 Assert Dialog

Use to assert a variable or a fault for a BPEL process.

Assertions enable you to validate a variable or a fault message in a BPEL process. Variable data assertions enable you to validate test data in a variable as a process is executed. This is done by extracting a value from a variable or an XML document and comparing it to an expected value.

Element	Description
Activity Name	Click the Browse icon to specify the activity to assert. If you right-clicked a specific activity in test mode of Oracle BPEL Designer and selected Edit Activity Test Data , the name of the selected activity is already displayed.
Assert Variable	Select to create a variable assertion in the BPEL process.
Assert Fault	Select to create a fault assertion in the BPEL process.
Target	Select the target (for example, a payload).
Compare By (for value comparisons)	For value comparisons, you compare the payload variable directly with the value (for example, <pre>\$inputVariable.payload/client:process/client:input).</pre>
String	Select to compare string values.
Pattern Match Using Java Regular Expressions	Select to compare a regular expression pattern (for example, $[0-9]$ *). Java Development Kit (JDK) regular expression (regexp) constructs are supported. For example, entering a pattern of $ab[0-9]$ *cd means that a value of $ab123$ cd or ab456cd is correct. An asterisk (*) indicates any number of occurrences.
Number	Select to compare numeric values.
Value	Enter a value based on your selection in the Compare By list.
Compare By (for payload XML comparisons)	For payload XML comparisons, you compare the content of the XML document (for example, the payload content in <pre>\$inputVariable</pre>).
XML Identical	Use when the comparison between the elements and attributes of the XML documents must be exact. If there is any difference between the two XML documents, the comparison fails. For example, the comparison fails if one document uses an element name of purchaseOrder, while the other uses an element name of invoice. The comparison also fails if the child attributes of two elements are the same, but the attributes are ordered differently in each element.
XML Similar	Use when the comparison must be similar in content, but does not need to exactly match. For example, the comparison succeeds if both use the same namespace Uniform Resource Identifier (URI), but have different namespace prefixes. The comparison also succeeds if both contain the same element with the same child attributes, but the attributes are ordered differently in each element. In both of these examples, the differences are considered recoverable, and therefore similar.
Parts	Select a part (for example, a payload).
Enter Manually	Click to manually enter message data in the Enter Value field. The Generate Instance Sample icon enables you to automatically generate a sample file for testing. Click the Save As icon to save the sample file.
Load from File	Click to access the Browse icon for loading message data from a file. The file is added to the messages folder in the Application Navigator.

Element	Description
Description	Enter an optional description.

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.9 Activity Test Data Dialog - Fast Forward Tab

Use to manage (create, update, and delete) the amount of time for which to bypass the selected wait activity and move forward in the BPEL process service component test.

Note: This tab is only displayed if there are wait activities in the BPEL process.

Element	Description
Activity Name	Displays the wait activity name.
Add icon	Click to specify a bypass value for the wait activity.
Edit icon	Click to edit a selected value.
Delete icon	Click to delete a selected value.
Duration	Displays the bypass value for the wait activity.

Related Topics

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Testing BPEL Process Service Components in *Developing SOA Applications with Oracle SOA Suite*

6.10 Activity Test Data Dialog - Asserts Tab

Use to manage (create, update, and delete) assertions for the selected activity.

Assertions enable you to validate a variable or a fault message in a BPEL process. Variable data assertions enable you to validate test data in a variable as a process is executed. This is done by extracting a value from a variable or an XML document and comparing it to an expected value.

Element	Description
Activity Name	Displays the name of the selected activity.
Add icon	Click to specify a variable or fault assertion for the activity.
Edit icon	Click to edit a selected assertion.
Delete icon	Click to delete a selected assertion.
Description	Displays the descriptions of the assertions for this activity. You specify a description when creating the assertion in the Assert dialog.



Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Testing BPEL Process Service Components in *Developing SOA Applications with Oracle SOA Suite*

6.11 Activity Test Data Dialog - Assertion Execution Count Tab

Use to manage (create, update, and delete) assertion counts for the selected activity.

Assertion counts enable you to execute an activity a specified number of times. This provides a method for verifying that an activity executes the correct number of times (for example, ensuring that a while activity executes the correct number of times).

Element	Description
Activity Name	Displays the name of the selected BPEL process activity.
Add icon	Click to specify an assertion execution count for the activity.
Edit icon	Click to edit a selected assertion execution count.
Delete icon	Click to delete a selected assertion execution count.
Count	Displays the assertion execution count for the activity.

Related Topics

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Testing BPEL Process Service Components in *Developing SOA Applications with Oracle SOA Suite*

6.12 Asserts and Emulates Dialog - Asserts Tab

Use to perform assertions on entire XML documents, part sections of XML documents, nonleaf elements, and leaf elements.

Assertions enable you to validate test data as a process is executed. This is done by either:

- Extracting a value from a leaf element and comparing it to the expected value
- Extracting the values of nonleaf elements, part sections of XML documents, or an entire XML document and comparing them to expected values

Element	Description
Operations	Displays the operation types of the binding component (for example, initiate). If multiple operations are displayed, you can optionally create multiple actions for each operation.
Add icon	Click to add an assert.
Edit icon	Click to edit a selected assert.
Delete icon	Click to remove a selected assert.
Assert Type	Displays the type of assert (input, output, callback, or fault).



Element	Description
Assert Target	Displays the target type selected (entire XML document, part section of XML document, nonleaf element, or leaf element).

Editing the Contents of Test Cases in Test Mode in the SOA Composite Editor in *Developing* SOA Applications with Oracle SOA Suite

6.13 Create Assert Dialog

Use to select the type of assertion to perform. If the operation supports only input messages, the **Assert Input** button is enabled. If the operation supports both input and output messages, the Assert Input and **Assert Output** buttons are enabled.

Element	Description
Assert Input	Select to create an assertion in the inbound direction.
Assert Output	Select to create an assertion in the outbound direction.
Assert Callback	Select to create a callback assertion.
Assert Fault	Select to assert a fault into the application flow.
Callback Operation	Select the type of callback to assert. This field only displays if you select Assert Callback .
Fault	Select the type of fault to assert (for example, NegativeCredit). This field only displays if you select Assert Fault .
Assert Target	Displays the type of assert target you selected (either an entire XML document, part section of a message, nonleaf element, or leaf element).



Element	Description
Compare By	Select the type of comparison to perform. The selections that display are based upon the type of assertion you selected.
	For leaf element assertions, select the type of comparison:
	string: Compares string values
	number: Compares numerical values
	 pattern-match: Compares a regular expression pattern (for example, [0-9]*). Java Development Kit (JDK) regular expression (regexp) constructs are supported. For example, entering a pattern of ab[0-9]*cd means that a value of ab123cd or ab456cd is correct. An asterisk (*) indicates any number of occurrences.
	For entire XML document assertions, part section assertions, or nonleaf assertions, specify the strictness of the comparison.
	• XML Identical: Used when the comparison between the elements and attributes of the XML documents must be exact. If there is any difference between the two XML documents, the comparison fails. For example, the comparison fails if one document uses an element name of purchaseOrder, while the other uses an element name of invoice. The comparison also fails if the child attributes of two elements are the same, but the attributes are ordered differently in each element.
	 XML Similar: Used when the comparison must be similar in content, but does not need to exactly match. For example, the comparison succeeds if both use the same namespace Uniform Resource Identifier (URI), but have different namespace prefixes. The comparison also succeeds if both contain the same element with the same child attributes, but the attributes are ordered differently in each element.
	In both of these examples, the differences are considered recoverable, and therefore similar.
Assert Value	If you selected to perform a variable assertion, enter the value you are expecting.
Message Parts	If you selected to perform an assertion of an entire XML document, part section of a message, or nonleaf element, enter the following details:
Part	Select the message part containing the fault (for example, payload).
Value	Create a simulated fault message to return from a web service partner in either of two ways:
Enter Manually	Click to manually enter message data in the Enter Value field. The Generate Sample button enables you to automatically generate a sample file for testing. Click Save As to save the sample file.
Load From File	Click to access the Browse icon for loading message data from a file. The file is added to the messages folder in the Application Navigator.
Description	Enter an optional description.

Editing the Contents of Test Cases in Test Mode in the SOA Composite Editor in *Developing* SOA Applications with Oracle SOA Suite

6.14 Create Emulate Dialog

Use to simulate the behavior of the following components with which your SOA composite application interacts during execution:

Internal service components inside the composite



• Binding components outside the composite

Instead of invoking another service component or binding component, you can specify a response from the component or reference.

Note: The creation of more than one emulation is supported only if one emulation is for an output message and the other is for a callback message.

Element	Description
Emulate Output	Select to simulate a message returned from a synchronous web service partner. Selecting this option causes the Output Message field to display.
Output Message	Displays the output message of the selected service component.
Emulate Callback	Select to simulate a callback message returned from an asynchronous web service partner. Selecting this option causes the Callback Operation and Callback Message fields to display.
Callback Operation	Select the callback operation (for example, onResult).
Callback Message	Displays the callback message name of the asynchronous process.
Emulate Fault	Select to simulate a fault message returned from an asynchronous web service partner. Selecting this option causes the Fault and Fault Message fields to display.
Fault	Select the fault type to return from a partner (for example, NegativeCredit).
Fault Message	Displays the message name.
Part	Select the message part containing the output, callback, or fault (for example, a payload). If the message contains multiple parts (for example, payload1, payload2, and payload3), you must create separate emulations for each part.
Value	Create a simulated output, callback, or fault message to return from a web service partner in either of two ways:
Enter Manually	Click to manually enter message data in the Enter Value field. The Generate Sample button enables you to automatically generate a sample file for testing. Click Save As to save the sample file.
Load From File	Click to access the Browse icon for loading message data from a file. The file is added to the messages folder in the Application Navigator.
Duration	Enter the maximum amount of time to wait for the output, callback, or fault message to be delivered from the web service partner.

Related Topics

Editing the Contents of Test Cases in Test Mode in the SOA Composite Editor" in *Developing* SOA Applications with Oracle SOA Suite

6.15 Select Assert Target Dialog

Use to select levels of assertions. Assertions enable you to validate test data as a process is executed.

There are four levels of assertions:

- Entire XML document message: If selected, the values of an entire XML document message are compared to the expected values. An example is a loan service request message, which consists of parts, nonleaf elements, and leaf elements.
- Part section of message: If selected, the values of a part section of a message are compared to the expected values. An example is a payload part of an entire XML document message.



- Nonleaf element: If selected, the values of an XML fragment are compared to the expected values. An example is a loan application, which includes the leaf elements SSN, email, customerName, and loanAmount.
- Leaf element: If selected, the value of a selected string or number element is compared to an expected value. An example is the SSN of a loan application.

Note: If the message contains multiple parts (for example, payload1, payload2, and payload3), you must create separate assertions for each part.

Element	Description
Select Assert Target	Browse the assert target tree and select an assertion level. For a leaf element, you may compare a customer name or loan amount in a loan request to a specific value. For an entire XML document, part sections of a document, or nonleaf element, you may compare the element values to the expected element values. For example, compare the exact contents of an entire loan request XML document to another document.
Selected Assert Target	Displays the path of the selected assert target.

Related Topics

Editing the Contents of Test Cases in Test Mode in the SOA Composite Editor in *Developing* SOA Applications with Oracle SOA Suite

6.16 Test Mode of SOA Composite Editor

The test mode of the SOA Composite Editor enables you to create, deploy, and run test cases that automate the testing of SOA composite applications. Test cases enable you to simulate the interaction between a SOA composite application and its web service partners prior to deployment in a production environment. This helps to ensure that a process interacts with web service partners as expected by the time it is ready for deployment to a production environment.

Test cases consist of process initiations, emulations, and assertions. You add these actions to test cases in the test mode of the SOA Composite Editor. You create process initiations to initiate client inbound messages into your SOA composite application. You create emulations to simulate output, callback, and fault data that your SOA composite application receives from web service partners. You create assertions to validate test data in an entire XML document, part section of a message, nonleaf element, or leaf element as a process is executed.

The test mode sections of the SOA Composite Editor enable you to perform specific design tasks.

Element	Description
Exposed Services swimlane services	Double-click the service to initiate the sending of inbound client messages to the SOA composite application. You create process initiations to initiate client inbound messages into your SOA composite application.
Components section service components	Double-click the wire of the SOA composite application area to create emulations and assertions. You create emulations to simulate data that your SOA composite application receives from web service partners. You create assertions to validate test data as a process is executed.



Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.17 Asserts and Emulates Dialog - Emulates Tab

Use to simulate the behavior of the components with which your SOA composite application interacts during execution.

You can simulate behavior with internal service components inside the composite application and binding components outside the composite application. Instead of invoking another service component or binding component, you can specify a response from the component or reference.

Note: The creation of more than one emulation is supported only if one emulation is for an output message and the other is for a callback message.

Element	Description
Operations	Displays the operation types of the binding component (for example, initiate). If multiple operations are displayed, you can optionally create multiple actions for each operation.
Add icon	Click to add an emulation.
Edit icon	Click to edit a selected emulation.
Delete icon	Click to remove an emulation.
Emulate Type	Displays the type of emulation (output, callback, or fault).
Emulate Target	Displays the target type emulation (output, callback, or fault message).

Related Topics

Editing the Contents of Test Cases in Test Mode in the SOA Composite Editor in *Developing* SOA Applications with Oracle SOA Suite

6.18 Create Composite Test Wizard - Test Name and Suite Page

Use to specify a composite test name, description, and test suite name.

You can create, deploy, and run test cases that automate the testing of SOA composite applications. Test cases enable you to simulate the interaction between a SOA composite application and its partners before deployment in a production environment. This helps to ensure that a process interacts with the partners as expected when it is ready for deployment to a production environment.

Element	Description
Test Name	Enter a name for the test. If a test suite does not exist, this field is empty.
Description	Enter an optional description of the test. After deployment, the description is displayed in the Description column of the Test Results Editor in Oracle JDeveloper and the Test Cases page of the Unit Tests tab in Oracle Enterprise Manager Fusion Middleware Control.

Element	Description
Test Suite	Select an existing test suite or click the icon to create a new test suite in the Create Test Suite dialog.
	Test suites consist of a logical collection of one or more test cases. Each test case contains a set of commands to perform as the test instance is executed. The execution of a test suite is known as a test run. Each test corresponds to a single SOA composite application instance.

Creating Test Suites and Test Cases with the Create SOA Composite Test Wizard in Developing SOA Applications with Oracle SOA Suite

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.19 Create Composite Test Wizard - Service and Operation Page

Use to specify the service binding component and operations to include in the test.

Element	Description
Service	Select the service binding component to test.
Operation	Select the operation.
Callback Operation	Optionally select the callback (response) operation.

Related Topics

Creating Test Suites and Test Cases with the Create SOA Composite Test Wizard in Developing SOA Applications with Oracle SOA Suite

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.20 Create Composite Test Wizard - Input Message Page

Element	Description
Part	Select the message part containing the input (for example, payload). If the operation input message has multiple parts, then specify each message part by changing the part name, one by one.
	For each message part, you can either enter the XML document contents manually or you can load the document from an XML file.
Value	Create a simulated input message to send to a web service partner:
Enter Manually	Click to manually enter input message data.
Enter Value	Enter an XML fragment value.
Generate Sample	Click to automatically generate a sample file from the message part schema for testing. You can edit the schema values.

Use to specify the input message to invoke when the test is run.



Element	Description
Save As	Click to save the sample file for later use by the same test or other tests in the same test suite.
Load From File	Click to load input message data from a file.
File	Enter the sample file name in which to save message data.
Browse	Click to load message data from a file. The file is added to the messages folder in the Application Navigator.
Save As	Click to save the sample file for later use by the same test or other tests in the same test suite.
Save	Click to save the file.

Creating Test Suites and Test Cases with the Create SOA Composite Test Wizard in Developing SOA Applications with Oracle SOA Suite

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.21 Create Composite Test Wizard - Output Message Page

Use to specify the output message expected from the operation or callback operation.

Element	Description
From	Select the external web service from which to receive the message.
Part	Select the message part containing the output (for example, payload). If the operation output message has multiple parts, then specify each message part by changing the part name, one by one.
	For each message part, you can either enter the XML document contents manually or you can load the document from an XML file.
Value	Create a simulated output message to return from a web service partner:
Enter Manually	Click to manually enter output message data.
Enter Value	Enter an XML fragment value.
Generate Sample	Click to automatically generate a sample file from the message part schema for testing. You can edit the schema values.
Save As	Click to save the sample file for later use by the same test or other tests in the same test suite.
Load From File	Click to load output message data from a file.
File	Enter the sample file name in which to save message data.
Browse	Click to load message data from a file. The file is added to the messages folder in the Application Navigator.
Save As	Click to save the sample file for later use by the same test or other tests in the same test suite.
Save	Click to save the file.

Related Topics

Creating Test Suites and Test Cases with the Create SOA Composite Test Wizard in Developing SOA Applications with Oracle SOA Suite Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.22 Specify Test Server Dialog

Use to specify the server for running test suites and individual tests within test suites.

When complete, you can view test results in Oracle JDeveloper.

Element	Description
SOA Server	Enter the server name.
Do not ask again, save it in Tools -> Preferences -> SOA	Deselect to save the specified server in the Preference dialog available by selecting Preferences > SOA from the Tools main menu.

Related Topics

Creating Test Suites and Test Cases with the Create SOA Composite Test Wizard in Developing SOA Applications with Oracle SOA Suite

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.23 Test Run Dialog

Use to specify the test run name, the tests to run, and the time to wait for tests to complete running before timing out.

The execution of a test suite and individual tests within a test suite is known as a test run. After completing this dialog, if the SOA composite application has not been deployed or has changed since its last deployment, you are prompted to redeploy it. After redeployment, the selected tests suites and individual tests are run.

Element	Description
Name	Specify the test run name.
Test	Select the test suites and the individual tests within test suites to run.
Timeout (seconds)	Specify the time to wait for tests to complete running before timing out.

Related Topics

Creating Test Suites and Test Cases with the Create SOA Composite Test Wizard in Developing SOA Applications with Oracle SOA Suite

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.24 Test Results Editor

Use to view test suite results.

The Test Results Editor is per test server and composite DN. The test server URL (SOA server hostname and port number) and composite DN are displayed in the top right corner of the

page to indicate the context. The editor tab name is in the form of Test Results: *SOA_composite_application*.

The Test Results Editor is arranged in the following sections:

- Test Runs
- Test Cases
- Assert Results

Test Runs

The Test Runs section enables you to select a test run to view its test cases in the Test Cases section. Each test run can have multiple test cases.

The Test Runs section shows the current test run and its status if you just submitted a test run. If you just queried the test server for test runs in the Query Test Runs dialog, this section shows all test runs matching your query criteria.

Element	Description
Test Query Runs icon	Click to invoke the Query Test Runs dialog to specify the test run to display. If you do not specify criteria, all test runs are displayed.
Name	Displays the name of the test run.
Status	Displays the status of the test run (either passed or failed). The status is passed if all test cases in the test run passed. Otherwise, the status is failed, which means at least one test case failed.
Success	Displays the success rate percentage of test runs.
Test Cases	Displays the total number of tests run.
Passed	Displays the number of tests passed.
Failed	Displays the number of tests failed.
Erred	Displays the number of tests in error.
Running	Displays the number of tests currently running.
Start Time	Displays the time at which the test run started.
End Time	Displays the time at which the test run ended.

Test Cases

The Test Cases section enables you to select an assertion to view its results in the Assert Results section. The Test Cases section shows all test cases and the statuses of the selected test run from the Test Runs section.

Element	Description
Test	Displays the test case name. Click the name to invoke the test mode of the SOA Composite Editor.
Status	Displays the status of the test.
Suite	Displays the suite of which the test is a part.

Assert Results

The Assert Results section enables you to select a location from which to view or edit the assertion. The Assert Results section shows all assertion results of the selected test case in the Test Cases section.



Element	Description
Location	Location of the assertion. It is the wire source (service or reference) for an assertion of type wire, and the component (BPEL) activity name for an assertion of type component. Click the location of the assertion to invoke the test mode of the SOA Composite Editor.
Status	Status of the assertion (either passed or failed). The status is passed if the actual value matches the expected value.
Expected Value	Displays the expected value of the assertion:
	 If it is a simple value assertion of an XML fragment, a simple value is displayed. If it is an XML value assertion, a hyperlink to the Assertion XML dialog is provided to show a comparison between the expected and actual XML values. You specified the expected input value on the Create Composite Test Wizard - Input Message page.
Actual Value	Displays the actual value of the assertion:
	 If it is a simple value assertion of an XML fragment, a simple value is displayed. If it is an XML value assertion, a hyperlink to the Assertion XML dialog is provided to show a comparison between the expected and actual XML values. You specified the expected output value on the Create Composite Test Wizard - Output Message page.
Error Message	Displays an error message if the status is failed.
Туре	Type of assertion, either a wire or component. Wire indicates an assertion on a composite wire, while a component indicates an assertion within a BPEL process server component.
Description	Description of the assertion you entered when created.

Creating Test Suites and Test Cases with the Create SOA Composite Test Wizard in *Developing SOA Applications with Oracle SOA Suite*

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.25 Query Test Runs Dialog

Use to query test runs from the test server by specifying search criteria. If you do not specify criteria, all test runs are displayed.

Element	Description
Name	Specify a test run name.
Start Time	Click to specify the start time for test runs.
End Time	Click to specify the end time for test runs.

Related Topics

How to Deploy and Run a Test Suite from Oracle JDeveloper in *Developing SOA Applications* with Oracle SOA Suite



6.26 Assertion XML Dialog

Use to view and compare the expected and actual results of an XML document assertion in a test run.

Element	Description
Expected XML	Displays the expected results of the XML document.
Actual XML	Displays the actual results of the XML document.

Related Topics

Creating Test Suites and Test Cases with the Create SOA Composite Test Wizard in Developing SOA Applications with Oracle SOA Suite

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.27 Trigger onAlarm Dialog

Use to trigger an onAlarm on a pick activity.

Element	Description
Activity Name	Click the Browse icon to select the activity. If you right-clicked a specific activity in test mode of Oracle BPEL Designer and selected Edit Activity Test Data , the name of the selected activity is already displayed.
OnAlarm	Select the onAlarm branch.
Do Before Activity	Select the activity that the onAlarm should go before.
Do Belore Activity	Select the activity that the onAlarm should go before.

Related Topics

Creating Test Suites and Test Cases with the Create Component Test Wizard in *Developing* SOA Applications with Oracle SOA Suite

Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

6.28 Activity Test Data Dialog - Trigger OnAlarms Tab

Use to manage (create, update, and delete) the onAlarm for the selected activity.

Element	Description
Activity Name	Displays the name of the selected activity.
Add icon	Click to specify an onAlarm on the activity.
Edit icon	Click to edit a selected onAlarm.
Delete icon	Click to delete a selected onAlarm.
OnAlarm	Displays the activity.
Do Before Activity	Click to enable.



Automating Testing of SOA Composite Applications in *Developing SOA Applications with Oracle SOA Suite*

Testing BPEL Process Service Components in *Developing SOA Applications with Oracle SOA Suite*



Oracle Business Activity Monitoring Context Sensitive Help Topics

7.1 Adapter Configuration Wizard - JNDI Name Page

Use to configure the Oracle BAM Adapter.

JNDI Name: Specify the JNDI name for the Oracle BAM Server connection factory.

Note:

The Oracle BAM Adapter deployment descriptor must associate this JNDI name with the configuration properties required by the adapter to access the Oracle BAM Server.

Related Topics

Developing SOA Applications with Oracle SOA Suite, "Introduction to Integrating Oracle BAM with SOA Composite Applications"

7.2 Snapshot Dialog

Use the Snapshot Dialog to configure a snapshot for the monitoring object. The snapshot tells the BPEL process at what point to evaluate the monitoring object and publish data.

Element	Description
Activity Name	Choose an activity from the list, or click the Browse icon to see a tree of all the activities available in the BPEL process. The activity name will appear in the list of snapshots associated with this monitoring object in the Structure window.
Evaluation Events	Choose one or more evaluation events. The evaluation event specifies at what point within the activity the monitoring object will be evaluated.
Related Topics	
Business Indicator Dialog	

Counter Dialog

BPEL Process Dialog

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"



7.3 Adapter Configuration Wizard - Data Object Operation and Keys Page

Use to configure the Oracle BAM Adapter.

Element	Description
Data Object	Click Browse to open the BAM Data Object Chooser dialog. Select a data object from the navigation tree.
Operation	Select an operation from the list.
Insert	Adds new rows to the data object
Update	Inserts new data into existing rows in a data object. You must select a key from the Available column to update rows in a data object.
Delete	Removes rows from the data object. You must select a key from the Available column to delete rows in a data object.
Upsert	nserts new data into existing rows in a data object if the rows exist. If the row does not exist a new row is created. You must select a key from the Available column to upsert rows in a data object.
Operation Name	Enter a unique display name for the operation.
Enable Batching	Select to enable batch transmissions to the Oracle BAM Server.
Available and Selected	Select a key field from the data object in the Available list and move it to the Selected list using the arrow keys. A key is required when the Upsert, Update, or Delete operation is selected.

Related Topics

BAM Data Object Chooser Dialog

Developing SOA Applications with Oracle SOA Suite, "Introduction to Integrating Oracle BAM with SOA Composite Applications"

7.4 Create or Edit Oracle BAM Data Control Wizard - Aggregates Page

Use the Create or Edit Oracle BAM Data Control Wizard - Aggregates Page to create aggregates on fields in the Oracle BAM Data Control query. How? topicid:SOASE959

Element	Description
Fields	Select a field to summarize on in the Fields list. This causes the list of Summary Functions to enable only the valid functions for the selected field's datatype.
Summary Functions	Select one or more Summary Functions to display in a chart or graph.
Summary Values	Displays the all of the summary function and field combinations that were selected in Fields and Summary Functions .

Related Topics

Developing SOA Applications with Oracle SOA Suite, "Creating Oracle BAM Data Control Queries"



7.5 Create or Edit Oracle BAM Data Control Wizard - Calculated Fields Page

Use the Create or Edit Oracle BAM Data Control Wizard - Calculated Fields Page to create calculated fields in the Oracle BAM Data Control query. How? topicid:SOASE947

Element	Description
Calculations List	The calculations list contains all of the calculated fields you created. Fields created here will appear as selectable fields in the fields list and the other pages in the wizard so that you can create calculations, groups, filters, and aggregates on them and include them in tables.
	By default an empty calculation (Calculation1) appears here. There are some controls located above this list that you can use to add new calculations, rename them, and delete them.
Calculation Builder Box	This box displays the calculation as you build it. You can position the cursor in the box and enter expressions, or use the fields and expressions lists at the bottom of the page to enter elements into the calculation.
Field Controls	The fields list and Insert Field button allow you to select fields from the Oracle BAM data object to use in your calculations. Select a field from the list and click Insert Field . Any calculated fields you create will appear in the list.
Expression Controls	The expressions list and Insert Expr button allow you to select from the list of valid expressions to build your calculation. Select an expression from the list and click Insert Expr .
Grouping Controls	The Group By button and field allow you to select a field to group by in the calculations page. This is useful if you are building a flat query and wish to group your list by a particular column value.
Keypad Controls	The keypad controls located at the bottom right of the page present you with options for entering numbers and symbols in your expression. You can also enter any of these numbers and symbols by typing directly into the calculation builder box.

Related Topics

Developing SOA Applications with Oracle SOA Suite, "Creating Oracle BAM Data Control Queries"

7.6 Create or Edit Oracle BAM Data Control Wizard - Filters Page

Use the Create or Edit Oracle BAM Data Control Wizard - Filters Page to filter data from the Oracle BAM Data Control query. How? topicid:SOASE949

Element	Description
Add Filter Entry	Click to add a filter entry to the currently selected header.
Add Header	Click to add a header to the filter expression. The header will appear as a subheader of the currently selected header.
Filter Expression	Displays the filter expression as it is constructed of headers and filter entries.

Developing SOA Applications with Oracle SOA Suite, "Creating Oracle BAM Data Control Queries"

7.7 Create or Edit Oracle BAM Data Control Wizard - Groups Page

Use the Create or Edit Oracle BAM Data Control Wizard - Groups Page to group data in the Oracle BAM Data Control query. How? topicid:SOASE957

Element	Description
Group Fields	Select any fields that you wish to group data by. Selecting a field of type datetime will enable the Time Groups options.
Sorting	Choose the sort order for any of the selected fields.
Time Groups	Configure Time Groups options for fields of type datetime. How? topicid:SOASE958
Use Time Series	Select to create a chart where time groups are arranged in chronological order. A single Time Unit and Quantity are selected to create appropriate sized groups in the series.
Use Time Groups	Select to create a chart where data is grouped in regular time intervals. For example, data can be grouped by days of the week. Any data gathered on a Monday would be aggregated in the Monday data point on a chart. Select one or more Time Units to group by. A Quantity can be configured or a default of 1 is assigned to the time unit.

Related Topics

Developing SOA Applications with Oracle SOA Suite, "Creating Oracle BAM Data Control Queries"

7.8 Metric Dialog

Use the Metric Dialog to configure metrics for business indicators. Define a metric to evaluate an expression or variable when the business indicator is encountered in the BPEL process.

Element	Description
Name	Enter a name for the metric. The name will appear in the list of business indicators in the Structure window.
Data Type	Choose a data type from the list.
XPath	Enter an expression in the field. The expression can refer to variables known to this activity in the BPEL process.

Related Topics

Business Indicator Dialog

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"

Developing SOA Applications with Oracle SOA Suite, "How to Configure Business Indicators"



7.9 Create or Edit Oracle BAM Data Control Wizard - Name Page

Use the Create or Edit Oracle BAM Data Control Wizard - Name Page to name the Oracle BAM Data Control and specify the query type.

Element	Description
BAM Data Control Name	Enter a descriptive display name for the Oracle BAM data control.
Directory Name	Specifies where the data control metadata XML files will be saved.
Data Object	Displays the Oracle BAM data object on which the data control query will be constructed.
Query Type	Select an appropriate query type. Group Query is effective for grouped data such as that found in charts and graphs. Flat Query is effective for displaying lists of data. More topicid:SOASE945
Collapsed	Select this checkbox to collapse a group query into a flat table. The data structure returned is flat like a flat query instead of hierarchical.
New records position	Select whether the new records are added to the beginning or end of the graph. In a list view At the beginning displays new rows inserted at the top of a list, and At the end displays new rows inserted at the bottom of a list. In a bar chart, At the beginning displays new bars inserted on the left side of the graph, and At the end displays new bars inserted on the right side of the graph.
Connect to BAM using ADF credentials	Select to connect to Oracle BAM Server at runtime using the credentials in the ADF application containing the Oracle BAM data control. This feature takes advantage of row level security provided by Oracle BAM Server by using the ADF application user's identity to display only the data that the user is permitted to see. To use this feature, both Oracle BAM Server and the ADF server must use the same credential store. When this feature is disabled (unchecked), the runtime connects to Oracle BAM Server using the credentials provided in the Oracle BAM connection, specified in Oracle JDeveloper or Oracle Enterprise Manager Fusion Middleware Control Console.

Related Topics

Developing SOA Applications with Oracle SOA Suite, "Creating Oracle BAM Data Control Queries"

Developing SOA Applications with Oracle SOA Suite, "Creating Security Filters"

olink:SOASE914

7.10 Create or Edit Oracle BAM Data Control Wizard -Parameters Page

Use the Create or Edit Oracle BAM Data Control Wizard - Parameters Page to create parameters within the Oracle BAM Data Control query. How? topicid:SOASE1948

Parameters are used to pass values to filters on the Filters page of the Oracle BAM Data Control wizard.


Element	Description
Parameters List	The parameters list at the top of the wizard page displays parameters created for this data control query. Click Add to create a new parameter.
Name	Enter a unique display name for the parameter.
Туре	Select a data type from the list that matches the data type of the value you want to represent with the parameter. A table of Java type and Oracle BAM type mappings follows this table.
Enable Default Value	To enter a default value for the parameter, select one of the available defaults, or enter a value in the field.
ALL	Returns rows containing all values.
NULL	Returns rows containing null values.
BLANK	Returns rows containing blank string values.

Java Type	Oracle BAM Type
java.lang.String	String
java.util.Date	DateTime, Timestamp
java.lang.Double	Float
java.lang.Integer	Integer
java.lang.Long	Decimal
	Field*

*The Field parameter type is used in charts for creating groups. The parameter allows the user to choose which field in the data object to group by. More olink:SOASE957

Related Topics

Developing SOA Applications with Oracle SOA Suite, "Creating Oracle BAM Data Control Queries"

7.11 Evaluation Event Chooser Dialog

Use the Evaluation Event Chooser Dialog to choose an event within a BPEL process activity at which to evaluate a monitoring object.

You choose one or more evaluation events from the Evaluation Event Chooser.

Related Topics

Business Indicator Dialog

Counter Dialog

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"

Developing SOA Applications with Oracle SOA Suite, "How to Configure Business Indicators"



7.12 Create or Edit Oracle BAM Data Control Wizard - Record Fields Page

Use the Create or Edit Oracle BAM Data Control Wizard - Record Fields Page to choose which records to include in the Oracle BAM Data Control query. More topicid:SOASE948

Element	Description
ALL	Select to include all of the available fields in the query.
Fields	Select fields individually to include them in the query.
Sorting	Select a sort order from the list to sort the query by a particular field.
Move Up/Move Down	Use to arrange the fields in the order you would like them displayed. The topmost field will be displayed as the leftmost column in a table.

Related Topics

Developing SOA Applications with Oracle SOA Suite, "Creating Oracle BAM Data Control Queries"

7.13 BAM Data Object Chooser Dialog

Use the BAM Data Object Chooser Dialog to select the data object in the Oracle BAM Server in which you want to publish the sensor variable data.

Note:

You must create a connection to Oracle BAM Server in the Application Resources in order to browse and select data objects. How? olink:SOASE85350

Element	Description
Create Oracle BAM Server Connection Icon	The icon in the upper right corner of the dialog opens the Create Oracle BAM Connection wizard so that you can create a new connection to an Oracle BAM Server resource on the fly. How? topicid:SOASE85351
Oracle BAM Data Object Explorer Navigation Tree	Expand and select the specific data object with which to associate the sensor. If you have not yet created any Oracle BAM Server connections, you do not see any connection node.
	Click the connection icon in the upper right corner to start the Create BAM Server Connection wizard to create a new Oracle BAM Server connection. Expand the connection node to see the available data objects.
	The data objects are published in WSDL files by Oracle BAM Server. The data objects in the server are in hierarchical form. Expand the tree until you can see the data object nodes. Select a data object to which you want the sensor to map and click OK.
Data Object	Displays the data objects selected in the BAM Data Object Explorer navigation tree.
Show Detailed Node Information	Select an element in the navigation tree and click this check box to display detailed information.



Developing SOA Applications with Oracle SOA Suite, "Integrating BPEL Sensors Using Oracle BAM Sensor Action"

Developing SOA Applications with Oracle SOA Suite, "Defining Data Objects"

7.14 BAM Connection Wizard or BAM Connection Properties Dialog - Connection Page

Use the BAM Connection Wizard or BAM Connection Properties Dialog - Connection Page to specify the connection information about the hosts on which Oracle BAM Web Applications and Oracle BAM Server components are installed.

Note:

Oracle BAM connections made in Oracle JDeveloper 11g can only connect to Oracle BAM 11g.

Element	Description
BAM Web Host	Enter the name of the host on which Oracle BAM Server Web Applications are installed. Depending on your organization's security policy, the fully-qualified host name may be required. For example:
	bam.us.acme.com
BAM Server Host	Enter the name of the host on which Oracle BAM Server is installed. Depending on your organization's security policy, the fully-qualified host name may be required. For example:
	bam.us.acme.com
User Name	Enter the Oracle BAM administrator user name.
Password	Enter the Oracle BAM administrator password.
HTTP Port	Enter a port number or accept the default value of 9001.
JNDI Port	Enter a port number or accept the default value of 9001.
Use HTTPS	Select this check box to use secure HTTP (HTTPS) to access Oracle BAM components.

Related Topics

BAM Connection Wizard

Developing SOA Applications with Oracle SOA Suite, "Creating a Design Time Connection to an Oracle BAM Server"

7.15 BAM Connection Wizard or Edit Oracle BAM Connection Properties Dialog - Name Page

Use the BAM Connection Wizard or Edit Oracle BAM Connection Properties Dialog - Name Page to enter a display name for the Oracle BAM connection.

Note:

In order to create a connection, you must have already installed the Oracle BAM components on hosts that are accessible on your network.

Element	Description
Create Connection In	Select the appropriate location for the connection. A connection can be created in either the Application Resources or the Resource Palette.
	Select Application Resources if the connection should be available to the current open application. Select Resource Palette if the connection should be generally available to any application in Oracle JDeveloper.
	If an Oracle BAM connection resource is required to create an Oracle BAM Sensor Action in a BPEL process, or a BAM Adaptor in a SOA composite application, the connection must be created in the Application Resources pane.
	Oracle BAM connections created in the Resource Palette will be copied into the Application Resources pane if the connection is used to create Oracle BAM Data Controls.
Connection Name	Enter a descriptive display name for the Oracle BAM connection.

Note:

After you finish creating this connection, the name cannot be changed.

Related Topics

BAM Connection Wizard

Developing SOA Applications with Oracle SOA Suite, "Creating a Design Time Connection to an Oracle BAM Server"

7.16 BAM Connection Wizard or BAM Connection Properties Dialog - Test Connection Page

Use the BAM Connection Wizard or BAM Connection Properties Dialog - Test Connection Page to test your connection to Oracle BAM Server.

Element	Description	
Test Connection	Click to test your connection.	



Element	Description
Status	Displays the status of the test connection. If your connection was successful, the following message appears for all of the tests:
	success
	Click Finish to complete Oracle BAM Server connection creation or click Next to access the Finish dialog.
	The following message appears if any of the tests fail:
	Failed
	If any of the tests fail, make appropriate corrections and retry. Ensure that Oracle BAM Server is running and accessible from the network. Make appropriate corrections and retry. If your server is currently down or inaccessible, but you are certain that the connection information specified is correct, you can still complete the dialogs in this wizard.

Note:

Although you can create multiple connections, you can use only one connection in a single Oracle BPEL Process Manager project.

Related Topics

BAM Connection Wizard

Developing SOA Applications with Oracle SOA Suite, "Creating a Design Time Connection to an Oracle BAM Server"

7.17 BAM Connection Wizard

Use the BAM Connection Wizard to create a connection to Oracle BAM server components.

You use this connection for browsing and selecting Oracle Business Activity Monitoring (Oracle BAM) data objects to map to Oracle BPEL Process Manager sensor variables or Oracle BAM Data Controls.

In Oracle BPEL Process Manager sensor variables, this mapping enables the data objects to capture the data in sensor variables. This sensor variable data can then be published in reports in Oracle BAM.

In Oracle BAM Data Controls, the mapping enables the data control to query the data object and bring real-time information to the application of which it is a part.

Connection information is automatically deployed during the normal deployment process.

Note:

Oracle BAM connections made in Oracle JDeveloper 11g can only connect to Oracle BAM 11g.



Developing SOA Applications with Oracle SOA Suite, "Creating a Design Time Connection to an Oracle BAM Server"

7.18 Create or Edit Sensor Action Dialog

Use the Create or Edit Sensor Action Dialog to manage (create or edit) BAM sensor actions.

You create Oracle BAM sensor actions to publish sensor data directly to data objects on Oracle BAM Server. You must have performed one of the following tasks before you can create an Oracle BAM sensor action:

- Created an Oracle BAM connection in the Application Resources pane of the current JDeveloper application. How?
- Created a variable sensor. Since you map the sensor data to Oracle BAM Server data objects, only one variable is allowed for the sensor. If the variable has message parts, then there should be only one message part. This variable must not be defined inline in the WSDL. Only XSD element definitions are supported. How?
- Created an activity sensor containing exactly one sensor variable. How?

Note:

Oracle BAM sensor actions can only be created from the Structure window by right-clicking Sensor Actions and selecting Create then choose BAM Sensor Action.

Element	Description
Action Name	Enter a unique and recognizable name for the sensor action.
Enable	Select to enable the sensor action. When disabled no sensor action data is sent to Oracle BAM.
Sensor	Select a BPEL sensor to monitor. This is a sensor that you previously created for mapping sensor data to a data object in Oracle BAM Server. The data is published in data objects on the Oracle BAM Server. This list only displays sensors that have one sensor variable of an element type or a message type with one message part. The sensor variable data is captured in data objects on Oracle BAM Server.
Data Object	Click the Browse icon to open the BAM Data Object Chooser dialog, and select the data object in Oracle BAM Server in which you want to publish the sensor variable data.
	If you have not already created a connection to Oracle BAM Server in order to select data objects, click the icon in the upper right corner of the BAM Data Object Chooser dialog.
	Data objects are published in WSDL files. You must have an accessible connection to Oracle BAM Server in order to select data objects.
BAM Operation and Keys	Select the operation to perform.
Operation	Select to Delete , Update , Insert , or Upsert a row in the Oracle BAM Server database. Upsert first attempts to update a row if it exists. If the row does not exist, it is inserted.

Element	Description
Available Keys	If you selected Delete , Update , or Upsert , you must also select a column name in the Oracle BAM Server database to use as a key to determine the row with which this sensor object corresponds. A key can be a single column or a composite key consisting of multiple columns. Select a key and click the > button. To select all, click the >> button.
Selected Keys	Displays the keys selected.
Map File	Provide a file name to create a mapping between the BPEL sensor (selected in the Sensor list) and Oracle BAM Server data object (selected in the Data Object list). You can also invoke a mapper dialog by clicking the Create Mapping icon (second icon) or Edit Mapping icon (third icon).
	<i>Note:</i> After you click the Create Mapping icon (second icon) or Edit Mapping icon (third icon), or click OK on this dialog, you must explicitly save the Oracle BPEL Process Manager file.
Filter	Enter an XPath expression to filter sensor action data that is sent to Oracle BAM. At runtime the XPath expression entered in the field is evaluated, and it must return true for the sensor action to be fired.
	Enter filter logic as a boolean expression. A filter enables you to monitor sensor data within a specific range. For example, you may want to monitor loan requests in which the loan amount is greater that \$100,000. In this case, you can enter an expression such as the following:
	boolean(/s:actionData/s:payload/s:variableData/s:data/ autoloan:loanAmount > 100000)
BAM Connection Factory JNDI	Specify the JNDI name for the Oracle BAM Server connection factory.
Enable Batching	The data cached by default by the Oracle BAM component of the Oracle BPEL Process Manager runtime is flushed (sent) to Oracle BAM Server periodically. The Oracle BAM component may decide to send data prior to a batch time out if the cache has a number of data objects between automatically defined upper and lower limit values.
	Disable batching by unselecting this check box.
	The decision to periodically send the data is based on upper and lower limit parameter settings in the Fusion Middleware Control.

BAM Connection Wizard

BAM Data Object Chooser Dialog

Developing SOA Applications with Oracle SOA Suite, "Integrating BPEL Sensors Using Oracle BAM Sensor Action"

7.19 BPEL Process Dialog

Use the BPEL Process Dialog to display all of the BPEL process activities available in a tree. You can choose an activity to use within a monitoring object snapshot.

Related Topics

Interval Dialog

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"



Developing SOA Applications with Oracle SOA Suite, "How to Configure Business Indicators"

7.20 Monitoring Configuration Dialog

Use the Monitoring Configuration Dialog to configure activity, scope, and human workflow time interval monitoring.

Element	Description
Enable Activity Monitoring	Select to enable and configure activity monitoring.
Mode	Choose a mode from the list.
	• The All Activities option captures start and end time data for every activity in the BPEL process, including individual activities, scopes, and human tasks. An activity starts when the activation event for the activity is begun, and it ends when the completion event is finished.
	• The Scopes and Human Tasks Only option captures start and end time data for every scope and human task defined in the BPEL process. A scope starts when the first activity activation event within the scope is begun, and it ends when the final activity completion event within the scope is finished. A human task activity starts when the activation event for the human task activity is begun, and it ends when the completion event in the human task activity is finished.
	• The Human Tasks Only option captures start and end time data for every human task activity defined in the BPEL process.

Related Topics

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"

7.21 Business Indicator Dialog

Use the Business Indicator Dialog to configure business indicator monitoring objects in a BPEL process.

Element	Description
Name	Enter a name for the business indicator. The name will appear in the list of business indicators in the Structure window.
Enabled	Enable or disable a business indicator. By default, business indicators are enabled. If you disable a business indicator by deselecting this checkbox, the business indicator does not publish data.
Metrics	Define a metric to evaluate an expression or variable when the business indicator is encountered in the BPEL process. Click the green plus icon to configure a metric. Metrics have a name, data type, and XPath expression.
Name	Enter a name for the metric. The name will appear in the list of metrics belonging to this business indicator in the Structure window.
Data Type	Choose a data type from the list.
XPath	Enter an expression in the field. The expression can refer to variables known to this activity in the BPEL process.

Element	Description
Snapshots	Create a snapshot to associate the business indicator with one or more activities in the BPEL process. The snapshot tells the BPEL process at what point to evaluate the business indicator XPath expression. To create a snapshot, click the green plus icon.
Activity Name	Choose an activity from the list. The activity name will appear in the list of snapshots associated with this business indicator in the Structure window.
Evaluation Events	Select a snapshot in the table and click Edit to choose one or more evaluation events. The evaluation event specifies at what point within the activity the business indicator will be evaluated.

Evaluation Event Chooser Dialog

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"

Developing SOA Applications with Oracle SOA Suite, "How to Configure Business Indicators"

7.22 Business Indicators Dialog

Use the Business Indicators Dialog to create, enable/disable, edit, and delete business indicators.

To create a business indicator, click the green **plus** sign icon. A business indicator is added to the list.

To enable/disable the business indicator select/deselect the checkbox.

You can rename a business indicator by selecting the **Name** field and entering a different name.

Element	Description
Business Indicators	Select a business indicator in the list to edit or delete it. To edit the business indicator click the Edit icon (pencil). To delete it click the Delete icon (red x).

Related Topics

Business Indicator Dialog

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"

Developing SOA Applications with Oracle SOA Suite, "How to Configure Business Indicators"

7.23 Select Business Indicators Dialog

Use the Select Business Indicators Dialog to choose a previously configured business indicator and associate it with an activity in the BPEL process. Press Shift-click to select multiple business indicators.

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"

Developing SOA Applications with Oracle SOA Suite, "How to Add Existing Monitoring Objects to Activities"

7.24 Counter Dialog

Use the Counter Dialog to configure counter monitoring objects in a BPEL process.

Element	Description
Name	Enter a name for the counter. The name will appear in the list of counters in the Structure window.
Enabled	Enable or disable a counter. By default, counters are enabled. If you disable a counter by deselecting this checkbox, the business indicator does not publish data.
Snapshots	Create a snapshot to associate the counter with one or more activities in the BPEL process. The snapshot tells the BPEL process at what point to record that the counter was reached. To create a snapshot, click the green plus icon.
Activity Name	Choose an activity from the list. The activity name will appear in the list of snapshots associated with this counter in the Structure window.
Evaluation Events	Select a snapshot in the table and click Edit to choose one or more evaluation events. The evaluation event specifies at what point within the activity the counter will be triggered.

Related Topics

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"

Developing SOA Applications with Oracle SOA Suite, "How to Configure Counters"

7.25 Counters Dialog

Use the Counters Dialog to create, enable/disable, edit, and delete counters.

To create a counter, click the green **plus** sign icon. A counter is added to the list.

To enable/disable the counter select/deselect the checkbox.

You can rename a counter by selecting the **Name** field and entering a different name.

Element	Description
Counters	Select a counter in the list to edit or delete it. To edit the counter click the Edit icon (pencil). To delete it click the Delete icon (red x).

Related Topics

Counter Dialog

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"



Developing SOA Applications with Oracle SOA Suite, "How to Configure Counters"

7.26 Select Counters Dialog

Use the Select Counters Dialog to choose a previously configured counter and associate it with an activity in the BPEL process. Press Shift-click to select multiple counters.

Related Topics

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"

Developing SOA Applications with Oracle SOA Suite, "How to Add Existing Monitoring Objects to Activities"

7.27 Interval Dialog

Use the Interval Dialog to configure interval monitoring objects in a BPEL process. An interval captures the amount of time to go from one activity to another in the BPEL process. The start and end times are captured and used to calculate the interval.

Element	Description
Name	Enter a name for the interval. The name will appear in the list of intervals in the Structure window.
Enabled	Enable or disable an interval. By default, intervals are enabled. If you disable an interval by deselecting this checkbox, the business indicator does not publish data.
Start Activity	The start activity defines the beginning of the interval.
	Choose an activity from the list, or click the Browse icon to see a tree of all available activities in the BPEL process.
Evaluation Events	Select one evaluation event from the list. The evaluation event specifies at what point within the activity the interval starts.
End Activity	The end activity defines the end of the interval.
	Choose an activity from the list, or click the Browse icon to see a tree of all available activities in the BPEL process.
Evaluation Events	Select one evaluation event from the list. The evaluation event specifies at what point within the activity the interval ends.
Associated References	Select an indicator reference from the list to capture time stamps and evaluations of a business indicator at the start and end of the interval. Items will appear in this list only if a business indicator has been previously defined in the BPEL process.

Related Topics

BPEL Process Dialog

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"

Developing SOA Applications with Oracle SOA Suite, "How to Configure Intervals"

7.28 Intervals Dialog

Use the Intervals Dialog to create, enable/disable, edit, and delete intervals.

To create an interval, click the green **plus** sign icon. An interval is added to the list.

To enable/disable the interval select/deselect the checkbox.

You can rename an interval by selecting the **Name** field and entering a different name.

Element	Description
Intervals	Select an interval in the list to edit or delete it. To edit the interval click the Edit icon (pencil). To delete it click the Delete icon (red x).

Related Topics

Interval Dialog

Developing SOA Applications with Oracle SOA Suite, "How to Create BPEL Process Monitoring Objects"

Developing SOA Applications with Oracle SOA Suite, "How to Configure Intervals"



Oracle B2B Context Sensitive Help Topics

8.1 B2B Configuration Wizard - Welcome Page

Use the wizard to add a B2B binding component to an SOA composite application. How?

Oracle B2B is an e-commerce gateway that enables the secure and reliable exchange of transactions between an organization and its external trading partners. Oracle B2B is a component of Oracle SOA Suite. Oracle B2B and Oracle SOA Suite are designed for e-commerce business processes that require process orchestration, error mitigation, and data translation and transformation within an infrastructure that addresses the issues of security, compliance, visibility, and management.

Related Topics

User's Guide for Oracle B2B, "Getting Started with Oracle B2B"

Developer's Guide for Oracle SOA Suite, "Developing SOA Composite Applications with Oracle SOA Suite"

8.2 B2B Configuration Wizard - Service Name Page

Use this page to specify a name for the B2B service. How?

Element	Description
Service Name	Enter a name for the B2B service.

Related Topics

Developer's Guide for Oracle SOA Suite, "Developing SOA Composite Applications with Oracle SOA Suite"

8.3 B2B Configuration Wizard - B2B Integration Type Page

Use the B2B Integration Type Page to select the B2B integration type. How?

Select one of the following types:

Element	Description
Default	Use this option to generate a B2B WSDL for the SOA composite to communicate with Oracle B2B directly.
AQ	Use this option to generate an AQ Adapter WSDL and JCA file for the SOA composite to communicate with Oracle B2B through AQ queues.
JMS	Use this option to generate a JMS Adapter WSDL and JCA file for the SOA composite to communicate with Oracle B2B through JMS queues.



Developer's Guide for Oracle SOA Suite, "Developing SOA Composite Applications with Oracle SOA Suite"

8.4 B2B Configuration Wizard - Application Server Connection Page

Use the Application Server Connection Page to create an application server connection from the New Gallery dialog before you start the B2B Configuration Wizard. How?

The Application Server Connection Page provides the following:

Element	Description
AppServer Connection	Select an application server connection.
Add	Use this option to launch the Application Server Connection Wizard.
Edit	Use this option to edit an application server connection.
Delete	Use this option to delete an application server connection.
User Name	This user name was created for the application server connection.
Host Name	This string is the host name and RMI port for the server instance.
SOA Server	The SOA servers configured and running in Weblogic are displayed here when you select an application server connection. After you select an SOA server, the SSL or HTTP port is retrieved and the B2B web service URL is generated for retrieving document definitions
Test B2B	Use this option to test B2B server connectivity.

Related Topics

Developer's Guide for Oracle SOA Suite, "Developing SOA Composite Applications with Oracle SOA Suite"

8.5 B2B Configuration Wizard - Operation Page

Use the Operation Page to select an operation to send a document to a partner or to receive a document from a partner through Oracle B2B. How?

The Operation Page provides the following:

Element	Description
Send	Use this option for an outbound operation.
Receive	Use this option for an inbound operation.

Related Topics

Developer's Guide for Oracle SOA Suite, "Developing SOA Composite Applications with Oracle SOA Suite"



8.6 B2B Configuration Wizard - Specify Document Definition Handling Page - Basic Tab

Use this option to import the schema from Oracle B2B.

Related Topics

Developer's Guide for Oracle SOA Suite, "Developing SOA Composite Applications with Oracle SOA Suite"

8.7 B2B Configuration Wizard - Specify Document Definition Page

Use the Specify Document Definition Page to enter a document definition name to search on or select a document definition from the tree structure. How?

The Specify Document Definition Page provides the following:

Element	Description
Search	Use this option to select a document definition from the B2B metadata repository.
Refresh	Use this option to retrieve the document definition list from the B2B server.
B2B Configuration	Use this option to open a browser to Oracle B2B, using the connection specified on the Application Server Connection page.
Use Routing ID	Check this box if you want to select a document definition for this service based on a document routing ID. All document definitions with the same document routing ID are routed to this service.

Related Topics

Developer's Guide for Oracle SOA Suite, "Developing SOA Composite Applications with Oracle SOA Suite"

8.8 B2B Configuration Wizard - Specify Root Element Page

Use the Specify Root Element Page to select a root element from the list (for schemas that contain more than one root element). How?

Related Topics

Developer's Guide for Oracle SOA Suite, "Developing SOA Composite Applications with Oracle SOA Suite"

8.9 B2B Configuration Wizard - Finish Page

Use the Finish Page to complete adapter type configuration.

When complete, a WSDL file named after the service name you entered on the B2B Configuration Wizard - Service Name Page appears in the Application Navigator.



User's Guide for Technology Adapters, "Types of Oracle JCA Adapters"

8.10 B2B Configuration Wizard - Specify Document Definition Handling Page - Advanced Tab

Use the Specify Document Definition Handling Page - Advanced Tab to select one of the following methods for handling the document definition:

Element	Description
Document Definition Schema	Select one of the available document definition schema options.
Import Schema from B2B	Use this option to import the schema from Oracle B2B (the same option as on the Basic tab).
Refer to Schema in B2B Repository	Use this option to refer to a schema in the B2B repository through the Metadata Service (MDS) URL. You must select an MDS connection or create a new one to access the B2B repository. If you create a new MDS connection, use the MDS Connection Wizard. When you select a document definition, an MDS URL is generated to link to the schema in the B2B repository. The selected application server connection refers to a specific B2B instance. The MDS connection used by the specific B2B instance must match the selected MDS connection to avoid inconsistent document definitions.
	When referring to schema in a B2B Repository, an MDS connection is required only for referring to a schema in a remote MDS, but not if the schema is referred to within the local shared MDS repository. For referring to B2B schemas b2bException and b2bAck in the local shared MDS, you do not need to select an MDS connection. You can select the MDS option and click Next to navigate to the Document Definition page where you can select b2bException or b2bAck, or other B2B schemas that exist in the local shared MDS.
Browse Resource Schema	Use this option to browse for a schema using the SOA Resource Browser.
Opaque	Use this option to handle any type of data (for example, Positional Flat File) when the content is passed through in base-64 encoding. No schema is specified.
anyType	Use this option to handle any type of XML data.
Attachment Support	Select this option (available for the Default integration type only) so that the B2B WSDL file includes a message part for the attachment.

Related Topics

Developer's Guide for Oracle SOA Suite, "Developing SOA Composite Applications with Oracle SOA Suite"

8.11 B2B Configuration Wizard - JMS Provider Page

Use the JMS Provider Page to select one of the following JMS providers:

Element	Description
Oracle Enterprise Messaging Service (OEMS)	OEMS is built on JMS and the J2EE Connector Architecture (JCA), which enables you to develop and integrate distributed applications in a service-oriented architecture (SOA) environment. This messaging platform provides service for message persistence and recovery. Select Oracle WebLogic JMS or Oracle Advanced Queuing .
Third Party	Select this option to persist messages in a third-party JMS provider, such as Tibco JMS or IBM WebSphere MQ JMS.

User's Guide for Technology Adapters, "Types of Oracle JCA Adapters"

8.12 B2B Configuration Wizard - Service Connection Page

Use the Service Connection Page to select an application server connection or create a new one.

Element	Description
AppServer Connection	Select an application server connection.
Add	Use this option to launch the Application Server Connection Wizard.
Edit	Use this option to edit an application server connection.
Delete	Use this option to delete an application server connection.
User Name	This user name was created for the application server connection.
Host Name	This string is the host name and RMI port for the server instance.

Related Topics

Developer's Guide for Oracle SOA Suite, "Developing SOA Composite Applications with Oracle SOA Suite"

8.13 B2B Configuration Wizard - Produce Operation Parameters Page

Use the Produce Operation Parameters Page to enter the following message production parameters:

Element	Description
Destination Name	Enter the JNDI name of the queue or topic to produce the message or click Browse to select a name. The value of this field is typically the JNDI name.
Message Body Type	Select the message body (payload) type:
Text Message	Use this option when the payload is a string.
Bytes Message	Use this option when the payload is an array of primitive bytes.
MapMessage	Use this option when the payload is used to send name-value pairs
Delivery Mode	Select a message delivery mode:



Element	Description
Persistent	Use this option for messages that are persisted to a file system or database.
Non-Persistent	Use this option for messages that are not persisted and are typically held in process memory only.
Priority	Select a priority value, with 9 representing the highest priority and 0 representing the lowest priority.
Time to Live	Enter a value that indicates the life span of the message. If no subscribers consume the message in the given time, then the message is not delivered. There is no limit. A value of 0 indicates that there is no expiration time.
JNDI Name	Displays the JNDI name based on your selection in the Destination Name field.

User's Guide for Technology Adapters, "Oracle JCA Adapter for JMS"

8.14 B2B Configuration Wizard - Operation Parameters - Select Destination Page

Use the Select Destination Page to select the queue or topic destination name for the OEMS JMS Provider selected in the B2B Configuration Wizard - JMS Provider Page dialog.

You can select a queue or topic from different schemas.

The Select Destination Page provides the following:

Element	Description
Destination Type	Select a destination type to be displayed in the Destinations navigation tree:
	 Select All Types to display all queue and topic destinations.
	• Select Queues to display all available queues through which to exchange messages. Each message is delivered to only one receiver (known as point-to-point domain).
	• Select Topics to display all available topics to which to send messages. These messages are read by many subscribing clients (known as the publish-subscribe model).
Destination Name	Enter a name for which to search in the Destinations navigation tree, and then click Search . You can enter a full or partial name. For example, select All Types from the Destination Type list and enter:
	jo
	Click Search. This displays the following output:
	jobstore
	Click Show All to show all available queues and topics for your JMS provider.
Destinations	Displays available destinations based on the search criteria you specified. Select an appropriate destination, and then click OK . Your selection is added to the Destination Name field.

Related Topics

User's Guide for Technology Adapters, "Oracle JCA Adapter for JMS"



8.15 B2B Configuration Wizard - Consume Operation Parameters Page

Use the Consume Operation Parameters Page to enter message consumer parameters.

The Consume Operation Parameters Page provides the following:

Element	Description
Destination Name	Enter the JNDI name of the queue or topic to consume the message or click Browse to select a name.
Message Body Type	Select the message body (payload) type:
Text Message	Use this option when the payload is a string.
Bytes Message	Use this option when the payload is an array of primitive bytes.
MapMessage	Use this option when the payload is used to send name-value pairs.
Message Selector	Specify filtering logic that enables you to receive messages that match certain criteria. Enter an expression between 1 and 255 characters in length. Use SQL92 syntax in this field. The JMS server uses these criteria to filter messages received by this consumer. This works with variables defined in standard JMS headers and user-defined properties. You cannot use variables or elements that are in the payload of the message.
	For example, you can enter logic such as:
	 JMSPriority > 3. Based on this, messages with a priority greater than 3 are consumed; all other messages are rejected. JMSType = 'car' AND color = 'blue' AND weight > 2500 Country in ('UK', 'US', 'France')
Use MessageListener	This option is available only if you have selected the Third Party option in the B2B Configuration Wizard - JMS Provider Page dialog. Select true or false .
Durable Subscriber ID	This option is available only if you have selected the Third Party option in the B2B Configuration Wizard - JMS Provider Page dialog. Enter an ID for receiving messages from a JMS topic. If you do not specify an ID, then you must have an active subscription session to receive messages. If you specify an ID for topics, then you receive messages even if you do not currently have an active subscription session. When a durable subscriber is disconnected from the JMS server, the server stores messages. When the durable subscriber reconnects, the server sends the unexpired messages that accumulated.
JNDI Name	This option is available only if you have selected any of the available options from the Oracle Enterprise Messaging Service (OEMS) list in the B2B Configuration Wizard - JMS Provider Page dialog. It displays the JNDI name based on your selection in the Destination Name field.
Enable Streaming	Select this option to enable support to stream payload. When you enable this feature, the payload is streamed to a database instead of getting manipulated in SOA run time as in a memory DOM. You use this feature while handling large payloads.
	For more information, refer to .

Related Topics

User's Guide for Technology Adapters, "Stream Payload Support"

User's Guide for Technology Adapters, "Oracle JCA Adapter for JMS"

8.16 B2B Configuration Wizard - Third Party JMS Connection Page

Use the JMS Connection Page to enter JMS connection information:

Element	Description
JMS Connection JNDI Name	Use the default Java Naming and Directory Interface (JNDI) name or specify a custom name. This name is used to connect to the JMS server during runtime.

Related Topics

User's Guide for Technology Adapters, "Oracle JCA Adapter for JMS"

8.17 B2B Configuration Wizard - JMS Connection Page

Use the JMS Connection Page to enter JMS connection information:

Element	Description
JMS Connection JNDI Name	Use the default Java Naming and Directory Interface (JNDI) name or specify a custom name. This name is used to connect to the JMS server during runtime.

Related Topics

User's Guide for Technology Adapters, "Oracle JCA Adapter for JMS"

8.18 B2B Configuration Wizard - Service Connection Page

Use the Service Connection Page to specify the database connection details.

The Service Connection Page provides the following:

Element	Description
Connection	Select a database connection or create a new one.
Add	Click to create a new database connection.
Edit	Click to edit the selected database connection.
Browse	Click to browse IDE database connections, which are the database connections that you have created in the Resource Palette or the Database Navigator.
JNDI Name	Use the default Java Naming and Directory Interface (JNDI) name or specify a custom name. This connection enables you to configure the adapter during design time and to connect to the database server during runtime.
Data Source	Enter the JNDI name that is used to look up the data source in data-sources.xml. If you are using data-sources.xml to get the connection, then this name is required.
XA Data Source	Select this option if the data source name is an XA data source. An XA data source can participate in an XA global transaction that can span multiple resources. In this transaction, the application server acts as the coordinating transaction manager with multiple databases (or other resources such as JMS), each of which is involved in a single transaction. If selected, the adapter becomes part of the XA transaction. Otherwise, it is a local transaction.



User's Guide for Technology Adapters, "Oracle JCA Adapter for AQ"

8.19 B2B Configuration Wizard - Queue Name Page

Use the Queue Name Page to enter queue name details.

The Queue Name Page provides the following:

Element	Description
Database Schema	Select a database schema. The <default schema=""> selection is the schema owned by the connection user. In general, only schemas and queues that the connection user has privileges to see are displayed.</default>
Queue Name	Enter the queue name or click Browse to display the Select Queue dialog, where you can search for queue names in the selected database schema. Only queues for B2B of the type IP_MESSAGE_TYPE are available.

Related Topics

User's Guide for Technology Adapters, "Oracle JCA Adapter for AQ"

8.20 B2B Configuration Wizard - Queue Parameters Page

Use the Queue Parameters Page to enter queue parameter details. The fields that appear are based on the message direction (inbound dequeuing or outbound enqueuing) that you selected.

The Queue Parameters Page provides the following:

Element	Description
Recipients	Enter the list of recipients separated by commas. If you do not enter a recipient, then the message is sent to all subscribers of the queue. This field can be overridden on a per message basis by setting the RecipientList field in the outbound header. The default value is b2buser .
	This field appears for send (enqueue) operations.
Consumer	Enter the name of the agent subscribing to the queue. This field is required and is limited to 30 characters. The default value is b2buser .
	This field appears for receive (dequeue) operations.
Message Selector Rule	Enter optional filtering logic for messages to dequeue based on the message properties or message content (for example, priority < 5 or tab.user_data.amount > 10000). This field is a standard AQ feature.
	If a rule is supplied, then an agent using the consumer name and the message selector rule are created in the queue. The consumer name must be a new agent name, because the adapter does not change the message selector rule of a previously created agent. No validation is performed on the logic you enter.
	This field appears for receive (dequeue) operations.



Element	Description
Dequeue Condition	Enter a Boolean expression similar to the WHERE clause of a SQL query. This expression can include conditions on message properties, user data properties (object payloads only), and PL/SQL or SQL functions. If more than one message satisfies the dequeue condition, then the order of dequeuing is indeterminate, and the sort order of the queue is not honored.
	This field appears for receive (dequeue) operations.

User's Guide for Technology Adapters, "Oracle JCA Adapter for AQ"



Oracle B2B for Healthcare Context Sensitive Help Topics

INSTRUCTIONS FOR 12g HELP AUTHORS: Use the sections of this template to create and deliver your page-level, reference-style topics that are hooked up to dialogs, pages or other UI, through help buttons or icons. Templates are provided for UIs organized by sections or tabs, as well as simple UIs.

Note that the HelpTOC attribute of the chapter title and all the topics in this chapter are set to TopicOnly. This means that these topics will NOT appear in the help TOC, but they will be created as separate HTML help topic files.

9.1 Healthcare Configuration Wizard - Welcome Page

Use the Welcome Page to add a healthcare binding component to an SOA composite application.

Oracle SOA Suite for healthcare integration enables the secure and reliable exchange of transactions between healthcare systems. It is designed for healthcare transactions that require process orchestration, error mitigation, and data translation and transformation within an infrastructure that addresses the issues of security, compliance, visibility, and management.

Click Next to get started.

Related Topics

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

9.2 Healthcare Configuration Wizard - Service Name Page

Use the Service Name Page to enter a name for the healthcare service.

Related Topics

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

9.3 Healthcare Configuration Wizard - Healthcare Integration Type Page

Use the Healthcare Integration Type Page to select one of the following types:

Element	Description
Default	Use this option to generate a Healthcare WSDL for the SOA composite to
	communicate with Oracle Healthcare directly.



Element	Description
JMS	Use this option to generate a JMS Adapter WSDL and JCA file for the SOA composite to communicate with Oracle Healthcare through JMS queues.

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

9.4 Healthcare Configuration Wizard - Application Server Connection Page

Use the Application Server Connection Page to select an existing application server connection or create a new application server connection from the Create Application Server Connection wizard.

Element	Description
AppServer Connection	Select an existing application server connection.
Add	Use this option to launch the Application Server Connection Wizard and create a new connection.
Edit	Use this option to edit an existing application server connection.
Delete	Use this option to delete an existing application server connection.
User Name	The user name defined for the application server connection. To change this value, you need to edit the application server connection.
Host Name	The host name for the server instance. To change this value, you need to edit the application server connection.
SOA Server	The SOA servers configured and running in Weblogic appear here when you select an application server connection. After you select an SOA server, the SSL or HTTP port is retrieved and the healthcare integration web service URL is generated for retrieving document definitions.
Test Healthcare	Use this option to test healthcare integration server connectivity.

Related Topics

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

9.5 Healthcare Configuration Wizard - Operation Page

Use the Operation Page to select an operation to send a document to an endpoint or to receive a document from an endpoint through Oracle SOA for healthcare integration.

Element	Description
Send	Use this option for an outbound operation.
Receive	Use this option for an inbound operation.



Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

9.6 Healthcare Configuration Wizard - Document Definition Handling Page - Basic Tab

Use the Document Definition Handling Page - Basic Tab to imports the schema from Oracle SOA Suite for healthcare integration.

Related Topics

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

9.7 Healthcare Configuration Wizard - Specify Document Definition Page

Use the Specify Document Definition Page to enter a document definition name to search on, or select a document definition from the tree structure.

Element	Description
Search	Use this option to select a document definition from the healthcare metadata repository.
Refresh	Use this option to retrieve the document definition list from the healthcare server.
Healthcare Configuration	Use this option to open a browser to Oracle SOA Suite for healthcare integration, using the connection specified on the Application Server Connection page.

Related Topics

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

9.8 Healthcare Configuration Wizard - Document Definition Handling Page - Advanced Tab

Use the Document Definition Handling Page - Advanced Tab to select one of the following methods for handling the document definition:

Element	Description
Document Definition Schema	Select one of the following document definition schema options:
Import Schema from Healthcare	Select this option to import the schema from Oracle SOA Suite for healthcare integration (the same option as on the Basic tab).



Element	Description
Refer to Schema in HL Repository	Select this option to refer to a schema in the healthcare repository through the Metadata Service (MDS) URL. You must select an MDS connection or create a new one to access the healthcare repository. If you create a new MDS connection, use the MDS Connection Wizard. When you select a document definition, an MDS URL is generated to link to the schema in the healthcare repository. The selected application server connection refers to a specific healthcare instance. The MDS connection used by the specific healthcare instance must match the selected MDS connection to avoid inconsistent document definitions.
	When referring to a schema in a healthcare Repository, an MDS connection is required only for referring to a schema in a remote MDS, but not if the schema is referred to within the local shared MDS repository.
Browse Resource Schema	Select this option to browse for a schema using the SOA Resource Browser.
Opaque	Select this option to handle any type of data (for example, Positional Flat File) when the content is passed through in base-64 encoding. No schema is specified.
anyType	Select this option to handle any type of XML data. You do not need to specify a schema for this.
Attachment Support	Select this option (available for the Default integration type only) so that the Healthcare WSDL file includes a message part for the attachment.

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

9.9 Healthcare Configuration Wizard - JMS Provider Page

Use the JMS Provider Page to select the following JMS providers:

Element	Description
Oracle Enterprise Messaging Service (OEMS)	OEMS is built on JMS and the J2EE Connector Architecture (JCA), which enables you to develop and integrate distributed applications in a service- oriented architecture (SOA) environment. This messaging platform provides service for message persistence and recovery. Select Oracle WebLogic JMS or Oracle Advanced Queuing .

Related Topics

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

User's Guide for Technology Adapters, "Oracle JCA Adapter for JMS"

9.10 Healthcare Configuration Wizard - Service Connection Page

Use the Service Connection Page to select an application server connection or create a new one.



Element	Description
AppServer Connection	Select an application server connection.
Add	Use this option to launch the Application Server Connection Wizard and create a new connection.
Edit	Use this option to edit an existing application server connection.
Delete	Use this option to delete an existing application server connection.
User Name	The user name defined for the application server connection. To change this value, you need to edit the application server connection.
Host Name	This string is the host name and RMI port for the server instance. To change this value, you need to edit the application server connection.

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

User's Guide for Technology Adapters, "Oracle JCA Adapter for JMS"

9.11 Healthcare Configuration Wizard - Produce Operation Parameters Page

Use the Produce Operation Parameters Page to enter message production parameters:

Element	Description
Destination Name	Enter the JNDI name of the queue or topic to produce the message or click Browse to select a name. The value of this field is typically the JNDI name.
Message Body Type	Select the message body (payload) type:
Text Message	Use this option when the payload is a string.
Bytes Message	Use this option when the payload is an array of primitive bytes.
MapMessage	Use this option when the payload is used to send name-value pairs
Delivery Mode	Select a message delivery mode:
Persistent	Use this option for messages that are persisted to a file system or database.
Non-Persistent	Use this option for messages that are not persisted and are typically held in process memory only.
Priority	Select a priority value, with 9 representing the highest priority and 0 representing the lowest priority.
Time to Live	Enter a value that indicates the life span of the message. If no subscribers consume the message in the given time, then the message is not delivered. There is no limit. A value of 0 indicates that there is no expiration time.
Unit Of Order	Specify a unit name. All messages from this unit will be processed sequentially in the order they were created. This option is available only if you select Oracle Weblogic JMS in the Healthcare Configuration Wizard - JMS Provider Page dialog.
JNDI Name	Displays the JNDI name based on your selection in the Destination Name field.

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

User's Guide for Technology Adapters, "Oracle JCA Adapter for JMS"

9.12 Healthcare Configuration Wizard - Operation Parameters - Select Destination Page

Use the Select Destination Page to select the queue or topic destination name for the OEMS JMS Provider selected in the Healthcare Configuration Wizard - JMS Provider Page dialog.

You can select a queue or topic from different schemas.

The Select Destination Page provides the following:

Element	Description
Destination Type	Select a destination type to be displayed in the Destinations navigation tree:
	Select All Types to display all queue and topic destinations.
	• Select Queues to display all available queues through which to exchange messages. Each message is delivered to only one receiver (known as point-to-point domain).
	• Select Topics to display all available topics to which to send messages. These messages are read by many subscribing clients (known as the publish-subscribe model).
Destination Name	Enter a name for which to search in the Destinations navigation tree, and then click Search . You can enter a full or partial name. For example, select All Types from the Destination Type list and enter:
	јо
	Click Search. This displays the following output:
	jobstore
	Click Show All to show all available queues and topics for your JMS provider.
Destinations	Displays available destinations based on the search criteria you specified. Select an appropriate destination, and then click OK . Your selection is added to the Destination Name field.

Related Topics

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

User's Guide for Technology Adapters, "Oracle JCA Adapter for JMS"

9.13 Healthcare Configuration Wizard - Consume Operation Parameters Page

Use the Consume Operation Parameters Page to enter message consumer parameters:

Element	Description
Destination Name	Enter the JNDI name of the queue or topic to consume the message or click Browse to select a name.
Message Body Type	Select the message body (payload) type:
Text Message	Use this option when the payload is a string.
Bytes Message	Use this option when the payload is an array of primitive bytes.
MapMessage	Use this option when the payload is used to send name-value pairs.
Message Selector	Specify filtering logic that enables you to receive messages that match certain criteria. Enter an expression between 1 and 255 characters in length. Use SQL92 syntax in this field. The JMS server uses these criteria to filter messages received by this consumer. This works with variables defined in standard JMS headers and user-defined properties. You cannot use variables or elements that are in the payload of the message.
	For example, you can enter logic such as:
	 JMSPriority > 3. Based on this, messages with a priority greater than 3 are consumed; all other messages are rejected. JMSType = 'car' AND color = 'blue' AND weight > 2500 Country in ('UK', 'US', 'France')
JNDI Name	This option displays the JNDI name based on your selection in the Destination Name field.
Enable Streaming	Select this option to enable support to stream payload. When you enable this feature, the payload is streamed to a database instead of getting manipulated in SOA run time as in a memory DOM. You use this feature while handling large payloads.

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

User's Guide for Technology Adapters, "Stream Payload Support"

User's Guide for Technology Adapters, "Oracle JCA Adapter for JMS"

9.14 Healthcare Configuration Wizard - Finish Page

Use the Finish Page to complete adapter type configuration.

When complete, a WSDL file named after the service name you entered on the Healthcare Configuration Wizard - Service Name Page appears in the Application Navigator.

Related Topics

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"



9.15 Healthcare Configuration Wizard - Specify Root Element Page

Use the Specify Root Element Page to select a root element from the list (for schemas that contain more than one root element).

Element	Description
Root Element	Select from the list of root elements that are included in the selected document definition.

Related Topics

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

9.16 Healthcare Configuration Wizard - Root Element Page

Use the Root Element Page to select a root element from the list (for schemas that contain more than one root element).

Related Topics

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

9.17 Healthcare Configuration Wizard - Document Definition Details Page

Use the Document Definition Details Page to configure the document definition parameters.olink:HFPUG1732

Element	Description
Retry Count	The maximum number of attempts to resend a message.
Retry Interval	The period of time in minutes between attempts to resend a message.
FA Handling	An indicator of how functional acknowledgments are generated. Select one of the following options: None , Yes , or No .
Func. Acknowledgement	Select this option to enable the functional acknowledgment for success or error criteria.
Validation	Select this option to validate the document against the configured ECS file.
Translation	Select this option to translate from XML to native format and back. This allows correlation of the message with the functional acknowledgment.

Related Topics

Healthcare Integration User's Guide for Oracle SOA Suite, "Working with the Oracle Healthcare Adapter"

