

## Requirements ranking in the EXPERTIES background

### Experties: Beginner

Rank	Requirements	Values
1	A hierarchical navigation view (where are we in the tree of maps/submaps)	44
2	Exporting UCM scenarios to DOORS (in DXL)	43
3	Movable labels for UCM stub IN/OUT segments	41
4	Exporting UCM scenarios to XML	40
5	Movable labels for GRL contribution labels	40
6	Movable labels for GRL satisfaction labels	40
7	The inclusion of a textual use case editor	39
8	Exporting UCM scenarios to UML sequence diagrams	39
9	Multi-line labels in UCM responsibilities and components	39
10	Exporting URN reports in MS Word (e.g. RTF)	39
11	Exporting UCM models to UML use case diagrams	38
12	Displaying the result of the traversal of multiple scenarios	38
13	Exporting UCM models to UML activity diagrams	37
14	Collapsing GRL actors and their content	37
15	Collapsing UCM components and their content	37
16	Copying/pasting part of UCM diagrams across models	37
17	Copying/pasting part of UCM diagrams across diagrams in the same model	37
18	Copying/pasting part of GRL diagrams across diagrams in the same model	37
19	Copying/pasting part of GRL diagrams across models	36
20	Automated combination and execution of each scenario in group A with each scenario in group B (or potentially, each scenario in the model with all other scenarios)	36
21	Exporting URN reports to one flat HTML file (instead of current multi-file, hierarchical HTML documents)	35
22	Indicating order of plug-in	35

### Experties: Intermediate

Rank	Requirements	Values
1	Showing GRL conflict resolutions and other decisions in the Problems view	35
2	Indicating order of plug-in traversal where one or more plug-ins of a stub are traversed multiple times during the execution of one scenario	35
3	Collapsing GRL actors and their content	35
4	Collapsing UCM components and their content	35
5	Exporting UCM models to UML activity diagrams	33
6	Exporting UCM models to UML use case diagrams	33
7	Coverage analysis of multiple scenarios	33
8	A hierarchical navigation view (where are we in the tree of maps/submaps)	33
9	Exporting UCM scenarios to XML	32
10	Visual user-defined comments (post notes) for UCM diagrams	32
11	Performance annotations	31
12	Local variables for plug-ins in scenario definitions	31
13	Local variables for components in scenario definitions	31
14	GRL strategies integrated with UCM scenario definitions	31
15	Closable panels/tabs for URN models with a large number of diagrams	31
16	Usable auto-layout of GRL diagrams	31
17	Multi-line labels in UCM responsibilities and components	30
18	Time concept in URN	30
19	Copying/pasting part of GRL diagrams across diagrams in the same model	30
20	Meta-information (tagged values) attached to URN elements	29
21	Exporting UCM scenarios to UML sequence diagrams	29

### Experties: Expert

Rank	Requirements	Values
1	jUCMNav's Web site shall include examples (GRL with strategies, UCM with scenarios, models integrating GRL and UCM)	62
2	jUCMNav's documentation shall cover GRL strategy usage	60
3	Copying/pasting part of UCM diagrams across diagrams in the same model	59
4	Copying/pasting part of GRL diagrams across diagrams in the same model	59
5	Saving URN models to metamodel-independent XML-based file format	58
6	Loading URN models from metamodel-independent XML-based file format	58
7	User-defined links between GRL and UCM elements	58
8	Reference to "parent" component in UCM plug-ins	58
9	The use of resizable fonts for URN models	57
10	Exporting URN images in SVG format (Scalable Vector Graphics)	56
11	Centered labels in GRL intentional elements	56
12	GRL dependencies between actors - expanding/hiding actor details	54
13	Copying/pasting part of UCM diagrams across models	53
14	GRL numerical contributions (beyond current help, make, hurt ...)	53
15	jUCMNav's documentation shall cover GRL model editing	53
16	Movable labels for GRL contribution labels	52
17	Adding labels (yellow triangle) to GRL elements when URN links are defined	52
18	Usable auto-layout of GRL diagrams	52
19	Exporting UCM models to BPEL (Business Process Execution Language)	51
20	jUCMNav's Web site shall include training material (exercises and solutions) for	51

## Requirements ranking in the EXPERTIES background

### Experties: Beginner

Rank	Requirements	Values
	traversal where one or more plug-ins of a stub are traversed multiple times during the execution of one scenario	
23	Adding "Negate all others" (else) to conditions in UCM OR-forks and stubs	35
24	Local variables for components in scenario definitions	35
25	Interactive selection (by user) of alternatives in non-deterministic locations when executing a UCM scenario	34
26	Reorder the GRL diagrams/UCM maps (in the Outline and in the multipage editor)	34
27	String data type for scenatio definitions	33
28	URN hyperlinks (to/from URLs)	33
29	Distinguishing UCM plug-in maps that are the same instance from those that are different instances	33
30	The selectable visualization of GRL graphical and textual contribution/satisfaction labels globally	33
31	Exporting URN model information to HTML (in addition of images)	33
32	Exporting URN reports in PS/PDF	33
33	GRL numerical contributions (beyond current help, make, hurt ...)	33
34	UCM exception mechanism (definitions and handling)	33
35	Code completion for UCM responsibility/condition code editor	33
36	User-defined links between GRL and UCM elements	33
37	Local variables for plug-ins in scenario definitions	33
38	jUCMNav shall include help for all its wizards	33
39	Saving URN models to metamodel-independent XML-based file format	32
40	Loading URN models from metamodel-independent XML-	32

### Experties: Intermediate

Rank	Requirements	Values
22	Copying/pasting part of UCM diagrams across diagrams in the same model	29
23	Copying/pasting part of UCM diagrams across models	29
24	A component tree view (showing the containment relationships in components)	28
25	Exporting URN reports to one flat HTML file (instead of current multi-file, hierarchical HTML documents)	28
26	UML class diagrams for describing domain models	28
27	Semantic variations for UCM traversal (AND-joins, timers, waiting places, ...)	28
28	Copying/pasting part of GRL diagrams (images) to external tools such as Word without using the export wizard.	28
29	Collapse/expand all in the Outline view	28
30	Exporting UCM models to BPMN (Business Process Modeling Notation)	27
31	Exporting UCM models to BPEL (Business Process Execution Language)	27
32	Aspect-oriented concepts and notation for UCM	27
33	Exporting GRL strategies to HTML	27
34	Importing UCM models from ASP.NET code	27
35	UCM component stacks	27
36	User-defined links between GRL and UCM elements	27
37	Displaying the result of the traversal of multiple scenarios	27
38	Copying/pasting part of UCM diagrams (images) to external tools such as Word without using the export wizard.	27
39	UCM dynamic components (slots) and dynamic responsibilities	27
40	UCM component classes and instances	27
41	Movable labels for GRL contribution labels	27
42	The application of UCM reengineering patterns	26

### Experties: Expert

Rank	Requirements	Values
	creating and analyzing URN models	
21	Usable auto-layout of UCM diagrams	51
22	Meta-information (tagged values) attached to URN elements	50
23	Exporting UCM models to BPMN (Business Process Modeling Notation)	50
24	The duplication of UCM diagrams	49
25	The duplication of GRL diagrams	49
26	Extracting a stub with a plug-in from a selection of UCM elements (refactoring)	49
27	UCM events on start points, waiting places, and timers	48
28	GRL strategies integrated with UCM scenario definitions	48
29	Exporting GRL strategies to HTML	47
30	The application of UCM reengineering patterns	47
31	Exporting UCM scenarios to UML sequence diagrams	47
32	Exporting UCM scenarios to Message Sequence Charts	47
33	Cropping images to eliminate surrounding white space during export	46
34	Showing GRL conflict resolutions and other decisions in the Problems view	46
35	UCM exception mechanism (definitions and handling)	46
36	Aspect-oriented concepts and notation for UCM	46
37	Aspect-oriented concepts and notation for GRL	46
38	Distinguishing UCM plug-in maps that are the same instance from those that are different instances	46
39	Exporting URN model information to HTML (in addition of images)	45
40	Optional rectangles around images during export	45
41	UCM component classes and instances	45

## Requirements ranking in the EXPERTIES background

### Experties: Beginner

Rank	Requirements	Values
	based file format	
41	Meta-information (tagged values) attached to URN elements	32
42	jUCMNav's documentation shall cover GRL model editing	32
43	Exporting URN diagrams in PS/PDF	32
44	UCM empty responsibilities	32
45	Semantic variations for UCM traversal (AND-joins, timers, waiting places, ...)	32
46	Copying/pasting part of UCM diagrams (images) to external tools such as Word without using the export wizard.	31
47	Copying/pasting part of GRL diagrams (images) to external tools such as Word without using the export wizard.	31
48	Collapse/expand all in the Outline view	31
49	jUCMNav's Web site shall include training material (exercises and solutions) for creating and analyzing URN models	31
50	GRL strategies integrated with UCM scenario definitions	31
51	UCM stub references (separate from stub definition)	31
52	Arrow to empty-point transformation in UCM diagrams	31
53	Merging URN models	30
54	A scripting language for batch execution and tool interworking	30
55	Viewing only the result of a UCM scenario traversal	30
56	Optional rectangles around images during export	30
57	The automatic deletion of unused UCM components and responsibilities	30
58	Links to an Architecture Description Language (ADL)	29
59	jUCMNav's documentation shall cover GRL strategy usage	29
60	jUCMNav's Web site shall include examples (GRL with strategies, UCM with	29

### Experties: Intermediate

Rank	Requirements	Values
43	jUCMNav's Web site shall include training material (exercises and solutions) for creating and analyzing URN models	26
44	UCM scenario/map flattening (expand stubs)	26
45	Highlighting of start/end points and in/out-paths when moving from stub to plug-in map and back	26
46	Exporting UCM scenarios to Message Sequence Charts	26
47	Movable labels for GRL satisfaction labels	26
48	Loading UCM models from old UCMNav files	26
49	Reference to "parent" component in UCM plug-ins	26
50	GRL numerical contributions (beyond current help, make, hurt ...)	26
51	Extracting a stub with a plug-in from a selection of UCM elements (refactoring)	25
52	Merging URN models	25
53	Sorting of diagrams in the Outline view	25
54	Aspect-oriented concepts and notation for GRL	25
55	String data type for scenatio definitions	25
56	UCM component parameterization in stubs/plug-ins	25
57	Viewing only the result of a UCM scenario traversal	25
58	Exporting URN reports in PS/PDF	24
59	Reorder the GRL diagrams/UCM maps (in the Outline and in the multipage editor)	24
60	Exporting UCM scenarios to DOORS (in DXL)	24
61	Loading URN models from metamodel-independent XML-based file format	24
62	Saving URN models to metamodel-independent XML-based file format	24
63	jUCMNav's Web site shall include examples (GRL with strategies, UCM with	24

### Experties: Expert

Rank	Requirements	Values
42	Groups of stubs which share the same plug-in instance and optional merging of plug-in bindings for those stubs	45
43	Exporting URN diagrams in PS/PDF	44
44	Exporting UCM scenarios to XML	44
45	Copying/pasting part of GRL diagrams across models	43
46	Definition of root map for a feature/use case plus automatic listing of all plug-in maps reached from the defined root map	43
47	Importing GRL models from the OpenOME tool (OME uses the same file format)	43
48	Copying/pasting part of UCM diagrams (images) to external tools such as Word without using the export wizard.	43
49	Copying/pasting part of GRL diagrams (images) to external tools such as Word without using the export wizard.	43
50	Time concept in URN	43
51	Collapsing GRL actors and their content	43
52	Highlighting of start/end points and in/out-paths when moving from stub to plug-in map and back	42
53	Merging URN models	42
54	Responsibility to stub transformation in UCM diagrams	41
55	A hierarchical navigation view (where are we in the tree of maps/submaps)	41
56	The selectable visualization of GRL graphical and textual contribution/satisfaction labels globally	41
57	Movable labels for GRL satisfaction labels	40
58	A central repository with locking mechanism for concurrent development of URN models	40
59	The automatic identification of top-level UCM maps	40
60	The combined deletion of definition and of all references of a UCM	39

## Requirements ranking in the EXPERTIES background

### Experties: Beginner

Rank	Requirements	Values
	scenarios, models integrating GRL and UCM)	
61	Showing GRL conflict resolutions and other decisions in the Problems view	29
62	Coverage analysis of multiple scenarios	29
63	UCM dynamic components (slots) and dynamic responsibilities	29
64	Importing UCM models from ASP.NET code	29
65	Reference to "parent" component in UCM plug-ins	28
66	Taking the direction of the UCM path into account when adding a branch to a stub or a fork	28
67	Exporting UCM to Fit Nesse test goals	28
68	The application of UCM reengineering patterns	28
69	The duplication of UCM diagrams	28
70	The duplication of GRL diagrams	28
71	UCM scenario/map flattening (expand stubs)	28
72	Importing UCM models from .NET code	28
73	Closable panels/tabs for URN models with a large number of diagrams	27
74	Adding labels (yellow triangle) to GRL elements when URN links are defined	27
75	Performance annotations	27
76	The combined deletion of definition and of all references of a UCM component, UCM responsibility, GRL actor, GRL intentional element	27
77	Time concept in URN	27
78	A component tree view (showing the containment relationships in components)	26
79	GRL dependencies between actors - expanding/hiding actor details	26
80	Loading UCM models from old UCMNav files	26

### Experties: Intermediate

Rank	Requirements	Values
	scenarios, models integrating GRL and UCM)	
64	UCM stub references (separate from stub definition)	24
65	UCM events on start points, waiting places, and timers	24
66	Movable labels for UCM stub IN/OUT segments	24
67	Exporting URN images in SVG format (Scalable Vector Graphics)	23
68	Exporting URN diagrams in PS/PDF	23
69	Usable auto-layout of UCM diagrams	23
70	UCM exception mechanism (definitions and handling)	23
71	Changing group for a strategy/scenario	22
72	Sorting of diagrams in the Strategies/Scenarios view	22
73	Importing UCM models from .NET code	22
74	Groups of stubs which share the same plug-in instance and optional merging of plug-in bindings for those stubs	22
75	Automated combination and execution of each scenario in group A with each scenario in group B (or potentially, each scenario in the model with all other scenarios)	22
76	The selectable visualization of GRL graphical and textual contribution/satisfaction labels globally	21
77	A central repository with locking mechanism for concurrent development of URN models	21
78	Distinguishing UCM plug-in maps that are the same instance from those that are different instances	20
79	The inclusion of a textual use case editor	20
80	UCM empty responsibilities	20
81	Copying/pasting part of GRL diagrams across models	20
82	jUCMNav's documentation shall cover GRL model editing	19
83	The duplication of GRL	19

### Experties: Expert

Rank	Requirements	Values
	component, UCM responsibility, GRL actor, GRL intentional element	
61	Reorder the GRL diagrams/UCM maps (in the Outline and in the multipage editor)	39
62	Semantic variations for UCM traversal (AND-joins, timers, waiting places, ...)	39
63	Exporting UCM models to UML activity diagrams	38
64	Exporting UCM models to UML use case diagrams	37
65	Visual user-defined comments (post notes) for UCM diagrams	37
66	UCM component parameterization in stubs/plug-ins	37
67	Exporting UCM to Fit Nesse test goals	37
68	UCM stub references (separate from stub definition)	36
69	The generalization and refactoring of the model import API	36
70	Diff of URN models (beyond Eclipse's XML diff)	36
71	Multi-line labels in UCM responsibilities and components	35
72	Performance annotations	35
73	Loading UCM models from old UCMNav files	35
74	Collapsing UCM components and their content	35
75	UCM scenario/map flattening (expand stubs)	35
76	Exporting URN reports in PS/PDF	34
77	Exporting URN reports to one flat HTML file (instead of current multi-file, hierarchical HTML documents)	34
78	Closable panels/tabs for URN models with a large number of diagrams	33
79	The inclusion of a textual use case editor	33
80	Movable labels for UCM stub IN/OUT segments	33

## Requirements ranking in the EXPERTIES background

### Experties: Beginner

Rank	Requirements	Values
81	UCM component stacks	26
82	UCM events on start points, waiting places, and timers	26
83	Extracting a stub with a plug-in from a selection of UCM elements (refactoring)	26
84	Responsibility to stub transformation in UCM diagrams	26
85	Exporting UCM scenarios to Message Sequence Charts	26
86	Exporting GRL strategies to HTML	25
87	Cropping images to eliminate surrounding white space during export	25
88	Exporting UCM models to TTCN-3 test cases	25
89	Collapse/expand all in the Strategies/Scenarios view	24
90	Exporting URN images in SVG format (Scalable Vector Graphics)	24
91	Definition of root map for a feature/use case plus automatic listing of all plug-in maps reached from the defined root map	24
92	The use of resizable fonts for URN models	23
93	Exporting UCM models to BPMN (Business Process Modeling Notation)	23
94	Exporting UCM models to BPEL (Business Process Execution Language)	23
95	UCM component parameterization in stubs/plugin-ins	22
96	UML class diagrams for describing domain models	22
97	Aspect-oriented concepts and notation for UCM	22
98	Exporting UCM models to CSM (Core Scenario Model)	22
99	UCM component classes and instances	21
100	Aspect-oriented concepts and notation for GRL	21
101	The generalization and refactoring of the model import API	21
102	Highlighting of start/end	20

### Experties: Intermediate

Rank	Requirements	Values
	diagrams	
84	Exporting UCM models to TTCN-3 test cases	18
85	Code completion for UCM responsibility/condition code editor	18
86	Importing GRL models from the OpenOME tool (OME uses the same file format)	18
87	Centered labels in GRL intentional elements	18
88	Exporting UCM to Fit Nesse test goals	18
89	URN hyperlinks (to/from URLs)	18
90	jUCMNav's documentation shall cover GRL strategy usage	18
91	Adding "Negate all others" (else) to conditions in UCM OR-forks and stubs	18
92	GRL dependencies between actors - expanding/hiding actor details	18
93	Exporting URN reports in MS Word (e.g. RTF)	18
94	The use of resizable fonts for URN models	17
95	Exporting UCM models to CSM (Core Scenario Model)	17
96	Interactive selection (by user) of alternatives in non-deterministic locations when executing a UCM scenario	17
97	Taking the direction of the UCM path into account when adding a branch to a stub or a fork	17
98	jUCMNav shall include help for all its wizards	17
99	Exporting URN model information to HTML (in addition of images)	17
100	Definition of root map for a feature/use case plus automatic listing of all plug-in maps reached from the defined root map	16
101	Links to an Architecture Description Language (ADL)	16
102	Diff of URN models (beyond Eclipse's XML diff)	16
103	Collapse/expand all in the Strategies/Scenarios view	16

### Experties: Expert

Rank	Requirements	Values
81	Changing group for a strategy/scenario	33
82	Exporting URN reports in MS Word (e.g. RTF)	32
83	UML class diagrams for describing domain models	32
84	UCM component stacks	31
85	Taking the direction of the UCM path into account when adding a branch to a stub or a fork	31
86	Exporting UCM scenarios to DOORS (in DXL)	31
87	Coverage analysis of multiple scenarios	31
88	The automatic deletion of unused UCM components and responsibilities	30
89	Interactive selection (by user) of alternatives in non-deterministic locations when executing a UCM scenario	30
90	Exporting UCM models to TTCN-3 test cases	30
91	Indicating order of plug-in traversal where one or more plug-ins of a stub are traversed multiple times during the execution of one scenario	30
92	Viewing only the result of a UCM scenario traversal	30
93	jUCMNav shall include help for all its wizards	30
94	Displaying the result of the traversal of multiple scenarios	29
95	Local variables for components in scenario definitions	29
96	A component tree view (showing the containment relationships in components)	28
97	Exporting UCM models to CSM (Core Scenario Model)	28
98	A scripting language for batch execution and tool interworking	27
99	Sorting of diagrams in the Outline view	26
100	Adding "Negate all others" (else) to conditions in UCM OR-forks and stubs	26
101	Sorting of diagrams in the Strategies/Scenarios view	26



## **Requirements ranking in the EXPERTIES background**

### Experties: Beginner

Rank	Requirements	Values
	points and in/out-paths when moving from stub to plug-in map and back	
103	Importing GRL models from the OpenOME tool (OME uses the same file format)	20
104	Usable auto-layout of UCM diagrams	20
105	Usable auto-layout of GRL diagrams	20
106	A central repository with locking mechanism for concurrent development of URN models	20
107	Visual user-defined comments (post notes) for UCM diagrams	19
108	The automatic identification of top-level UCM maps	19
109	Groups of stubs which share the same plug-in instance and optional merging of plug-in bindings for those stubs	19
110	Changing group for a strategy/scenario	19
111	Centered labels in GRL intentional elements	18
112	Diff of URN models (beyond Eclipse's XML diff)	18
113	Importing UCM models from the Compact Trace Format (CTF)	18
114	Sorting of diagrams in the Strategies/Scenarios view	17
115	Sorting of diagrams in the Outline view	15

### Experties: Intermediate

Rank	Requirements	Values
104	The duplication of UCM diagrams	16
105	The combined deletion of definition and of all references of a UCM component, UCM responsibility, GRL actor, GRL intentional element	16
106	Cropping images to eliminate surrounding white space during export	16
107	Responsibility to stub transformation in UCM diagrams	15
108	Adding labels (yellow triangle) to GRL elements when URN links are defined	15
109	The automatic deletion of unused UCM components and responsibilities	15
110	Optional rectangles around images during export	15
111	Importing UCM models from the Compact Trace Format (CTF)	14
112	Arrow to empty-point transformation in UCM diagrams	13
113	The generalization and refactoring of the model import API	12
114	The automatic identification of top-level UCM maps	11
115	A scripting language for batch execution and tool interworking	10

### Experties: Expert

Rank	Requirements	Values
102	Collapse/expand all in the Outline view	25
103	String data type for scenario definitions	24
104	URN hyperlinks (to/from URLs)	24
105	UCM dynamic components (slots) and dynamic responsibilities	24
106	Automated combination and execution of each scenario in group A with each scenario in group B (or potentially, each scenario in the model with all other scenarios)	24
107	Arrow to empty-point transformation in UCM diagrams	23
108	Local variables for plug-ins in scenario definitions	23
109	Links to an Architecture Description Language (ADL)	23
110	Code completion for UCM responsibility/condition code editor	21
111	Collapse/expand all in the Strategies/Scenarios view	19
112	UCM empty responsibilities	18
113	Importing UCM models from .NET code	17
114	Importing UCM models from the Compact Trace Format (CTF)	16
115	Importing UCM models from ASP.NET code	15