

Safran Risk: Latest Features and Short-Term Roadmap

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Agenda

Last Major Release (22.2.0),

Current Release (22.2.X)

Next Major Release (25.1)

New Schedule Health Module



Safran Risk Major Releases

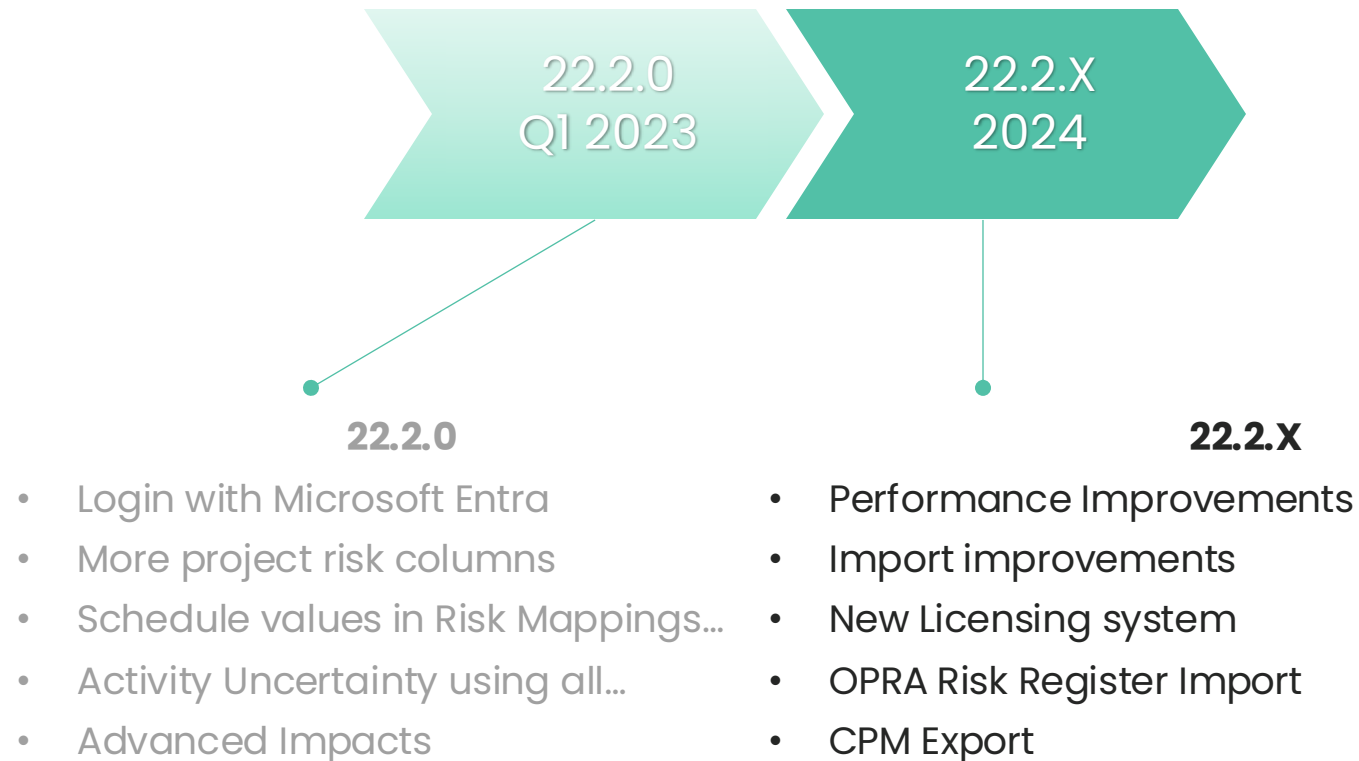


22.2.0
Q4 2023

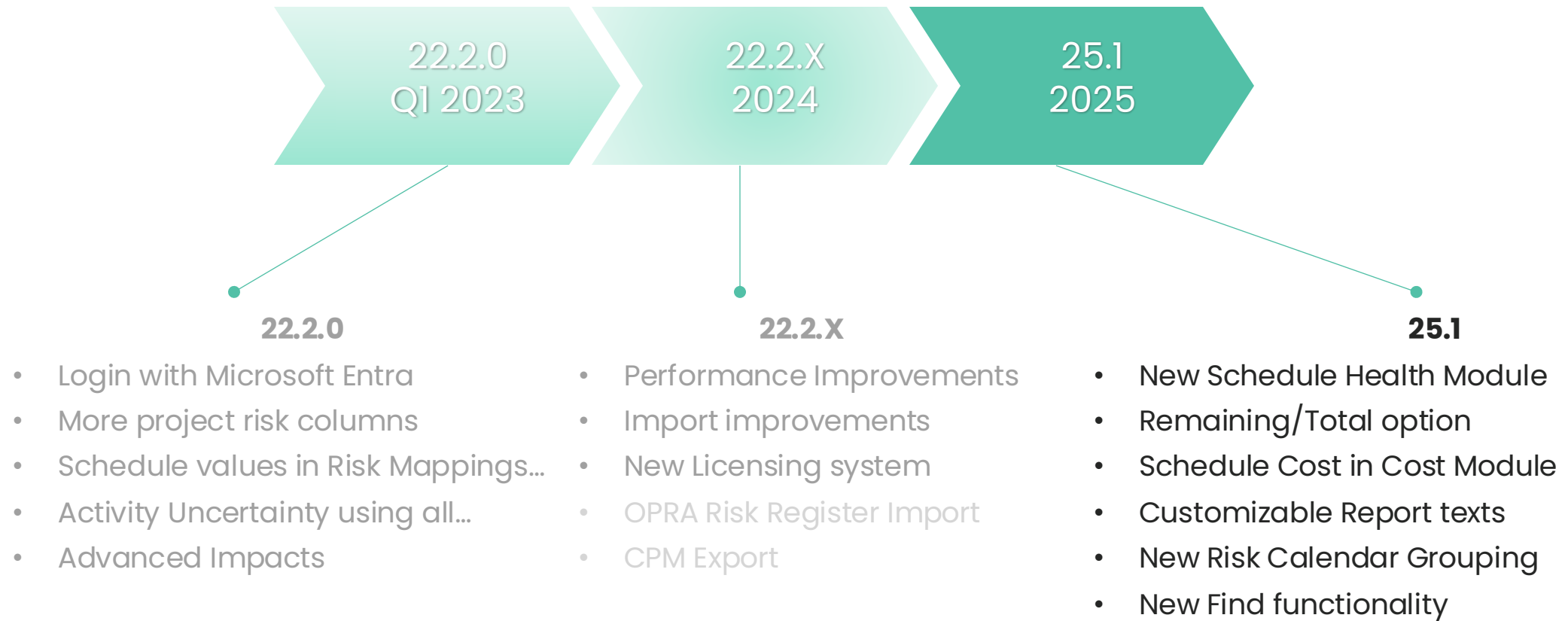
22.2.0

- Login with Microsoft Entra
- More project risk columns
- Schedule values in Risk Mappings screen
- Activity Uncertainty using all distributions
- Advanced Impacts

Safran Risk Major Releases



Safran Risk Major Releases



Major planned 25.1 Features

General

- Support for more user fields
- New Schedule Health Module
- New Find functionality
- New XER Export

Reports

- Duration Drivers
- Customizable texts
- Float tab in Distribution Graph
- Post analysis for Cost Module
- Remaining/Total option

Risk Inputs

- Schedule Cost in Cost Module
- Links in scripting / Probabilistic Links
- New Risk Calendar Grouping
- "ReCalc Cost" in scripting
- Cost as a percentage of total in a column in Cost Module
- Percentiles as columns in the Cost Module.
- Turn on/off uncertainties in the analyze tab
- Risk Picker/delete button in Risk Mapping tab
- Copy / Paste in cost structure

Planned future Features

General

- Import of MSP master projects

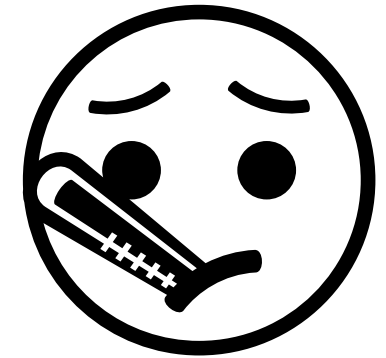
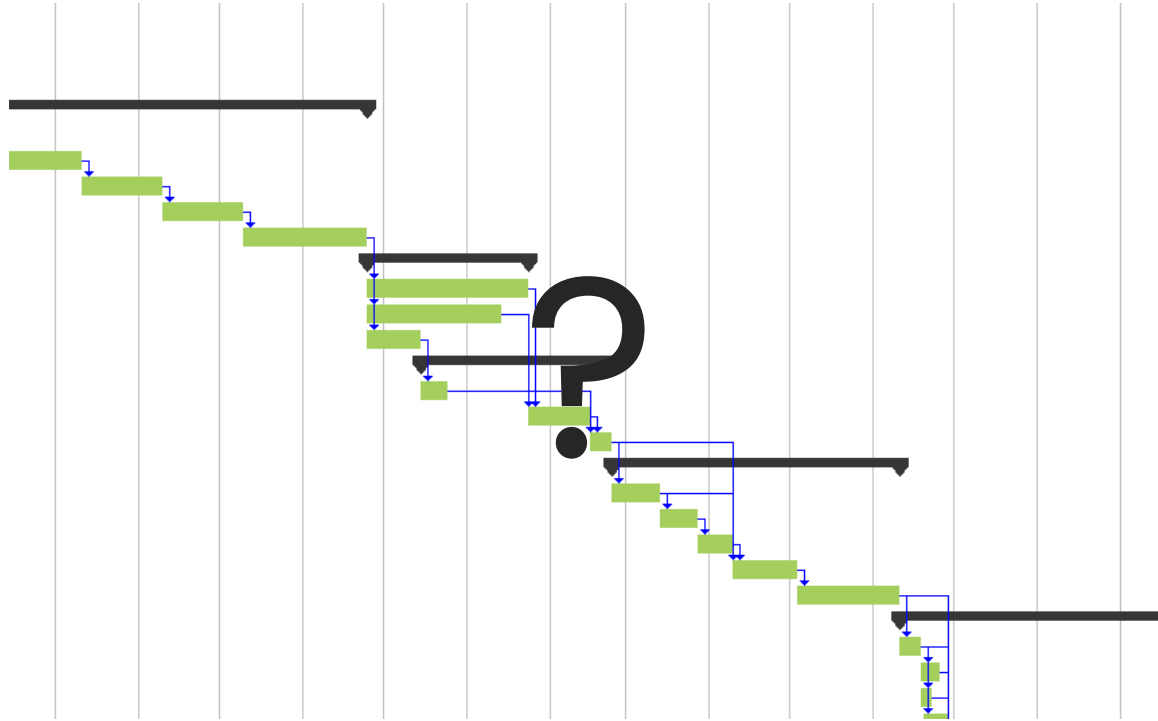
Risk Inputs

- Resource Risk
- Define risk impact in weeks or months
- Turn on /off uncertainties in the analyze tab

Reports

- Customizable annotations in the Distribution Comparison
- More control of exclusion in in sensitivity analysis
- Filter drivers to children of summary

Schedule Health



Schedule Health

Current offering

Properties - Schedule Health

Name: Untitled Owner: DBA

Remarks:

Titles Report Warnings/Thresholds

Include Fields as

☐ 14 pts. Assessment ☐ Standard Tripwire ☒ User Defined ☐ Include AoS (Effort Driven) ☐ Include "Hammocks"

Critical Path Length Index Methods

☐ Project Total Float ☐ End-Activity Total Float

☐ Project Float, Set end ☐ End Activity Float, Set end

Baseline Execution Indices

☒ Start ☐ Finish

Performance Indices

☒ CPI ☒ SPI ☒ TCPI ☒ TC

Activity Count

Total Number ☒ Activities ☒ Milestones ☒ Critical (Float <= 0) ☒ Logic

Completed ☒ ☒ ☒ ☒

Planned to Complete ☒ ☒ ☒ ☒

Completion Ratio ☒ ☒ ☒ ☒

Hits ☒ ☒ ☒ ☒

Misses ☒ ☒ ☒ ☒

Remaining/incomplete ☒ ☒ ☒ ☒

Schedule Status

☒ Current Start ☒ Remaining time ☒ Act. w. Neg. Float ☐ Act. without resources

☒ Current Finish ☐ Act. w. Float: 44 ☐ Act. w. Dur. > 44 ☐ Milest. compl. out of seq.

No. of Activities

☒ Out of Sequence ☐ Added after baseline ☐ "Pr"-activities ☐ "Non-existing" (Ignore)

☐ AoS (effort-driven) ☐ Hammocks ☐ Slipped more than 21 days

Statistics

☐ Activity Duration (0, 1-10, 11-20, 21-60, >60) ☐ Float Statistics (0, 0, 1-10, 11-22, 23-44, >44) ☐ Link (SS, S)

New Report Open Report... Save Save As... Preview

Report: Sch Project Count

Metric	
Indices	
BEI - Start	
CPI - Cost Performance Index	
SPI - Schedule Performance Index	
TCPI - To-Complete Performance Index	
TCPI / CPI	
Activity count	
Total Number of Activities	27
Completed Activities	0
Activities Planned Complete	0
No. of "Hits"	0
No. of "Misses"	0
Milestone Count	
Total Number of Milestones	2
Completed Milestones	0
Milestones Planned to be Completed	0
Remaining Milestones	0
Critical Activity Count	
Critical Activities	22
Logic	
Start Activities (No Predecessor)	1
Finish Activities (No Successors)	1
Number of Links	35
No. of non FS - links	0
No. of Links with Positive Delay (Lead)	0 2.0
Schedule Status	
Current Start	0
Current Finish	0
Remaining Time in days	0
Activities with Negative Float	0
Modifications	
CMODS	
BREVS	
More Activity count	
Out of Sequence Activities	0

Prepared by Safran Project Prepared

Home Risk Calendars Schedule Schedule Warnings 44 Project Risks Risk Mapping Cost Correlations Analyse Distribution Graph Drivers Sensitivity Analysis Scatter Plot PCF Distribution Comparison Critical Path Map

Open Items Accepted Items All Items Export

Schedule Warnings

ActivityName	Description	Warning	Accept	Notes
3810	Mobilise Flexlay/Subsea Construct	Constrained activity with Start No Earlier Than constraint	<input type="checkbox"/>	
1030	Project team (FPSO)	Constrained activity with Start No Earlier Than constraint	<input type="checkbox"/>	
1290	Project team (HO)	Constrained activity with Start No Earlier Than constraint	<input type="checkbox"/>	
1300	Project team (Subsea)	Constrained activity with Start No Earlier Than constraint	<input type="checkbox"/>	
START	START model	Constrained activity with Must Start On constraint	<input type="checkbox"/>	

Lags (47 items)

ActivityName	Description	Warning	Accept	Notes
1060	Rig Recommendation & Investor	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
1080	Reservoir Planning	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
1340	Detailed Well & Completion Desig	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
1380	Set-up Logistics Base and Vessels	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
1400	Issue Bridging /Interface Docume	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
4790	Application for Discharge	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
1430	Draft Drilling, Testing & P&A Prog	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
1450	Site & Well Specific Risk Assesse	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
1530	Final Drilling & Completion Progr	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
1540	Pre-Spud Meeting (office / site)	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6350	Award Subsea Production System	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
4820	SPS Central Detailed Design Engin	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
4910	Detailed Installation Engineering	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
2030	Procurement of Control Umbilicals	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
3130	Engineering & Design of Gas Expo	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
5360	FPSO Topsides Detailed Engineeri	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
5580	FPSO Hull Detailed Engineering	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
5340	FPSO Topsides Procurement	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
2540	FPSO Hull Construction Engineeri	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6040	Power Generation Module Lifting	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6050	Oil Metering Module Lifting on H	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6060	Utility Module Lifting on Hull	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6070	Dehydration & PW Module Lifting	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6110	HP Compression Module Lift on H	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6120	Oil Separation Module Lift on Hull	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6130	Seawater Treatment Module Lift o	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6140	HP Compression Module Lift on H	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6150	Chemical Injection Module Lift on	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6160	Oil Stabilisation Module Lift on Hu	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
5870	Bronze Pad Installation	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
5990	Upper Turret Lifting on Hull	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
6010	Gantry Structure Lifting on Hull	Lag exceeds acceptable. Activity durat	<input type="checkbox"/>	
5960	FPSO Tank Strength test	Lag exceeds acceptable. Activity duration is 3d, and lag duration is 2d	<input type="checkbox"/>	
6360	FPSO Install Pramo Pump	Lag exceeds acceptable. Activity duration is 29d, and lag duration is 36d	<input type="checkbox"/>	

Change Register Linked Documents XER Export Checks Interface Check DB Updates Timer Setup SQL Queries Access Level User Locking Data Save & DB Support Access

2014 Mar 04 05 14 19 24 29 Apr 03 08 13 18 23 28 May 03 08 13 18 23 28 Jun 02 07 12 17 22 27 Jul 02 07 12 17 22 27 Aug 01 06 11 16 21 26 Sep 01 05 10 15 20 25 Oct 01 05 10 15 16 21

XER Export Checks - (Total Number Of Warnings : 2)

Case	Description
Analyse Option	No Conflict
Calendar	No Working Hour Conflict

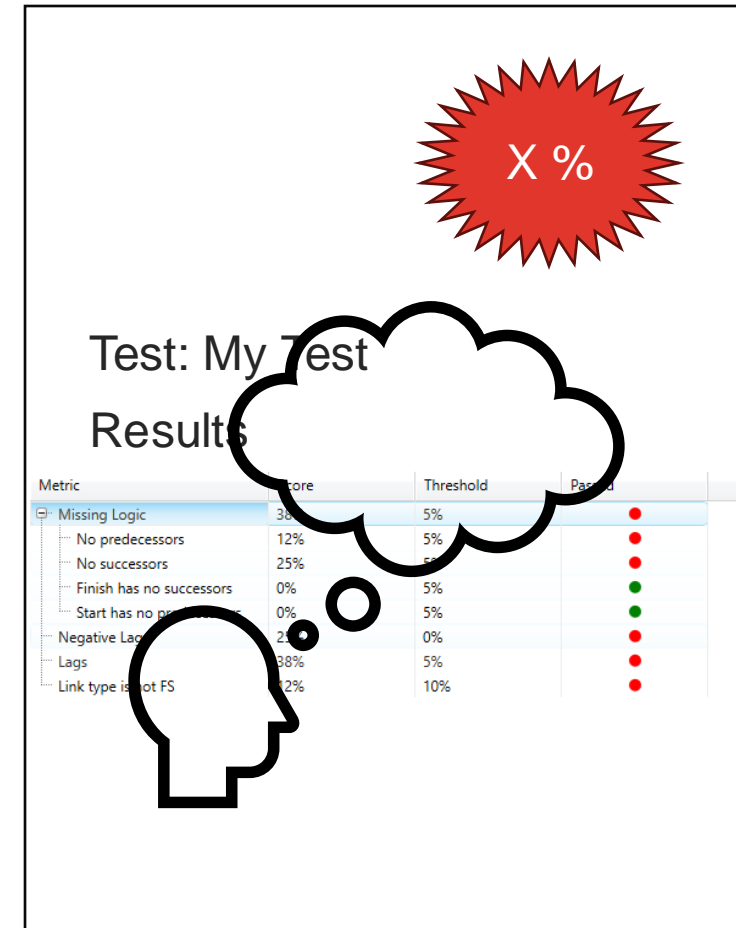
Activity ID	Description
FS Link : Activity/Finish Milestone	
R0150	Final on site testing
FS Link : Start Milestone/Activity	
A0100	Project Start

Set Active Filter Show Warning: Refresh Goto Close

Schedule Health

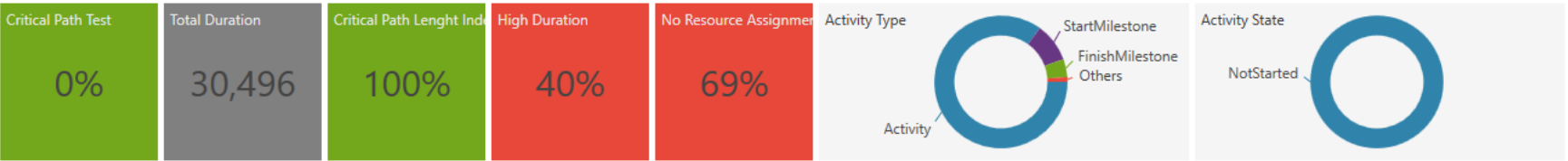
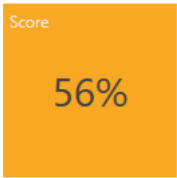
Design goals for new version

- Simple Set up
- Clear overview / Overall score
- Ability to drill down
- Built around the concept of metrics. One test consists of a number of metrics
- Ships with predefined metrics and predefined tests.
- Ability to define your own tests
- Ability to define your own metrics.



New Schedule Health (Beta)

DCMA 14 Test Analyze Project



d		Description	Score
Project			56%
Summary A			50%
1260	Project Sanction		86%
1310	Stable Oil Production		71%
1060	Rig Recommendation & Investment Board Paper		71%
1090	Prepare main Drilling programme Draft		57%
1110	Falling objects & Safe Area Study & Report		64%
1170	Draft SIMOPS Guidelines		79%
1200	Develop Drillex & Opex Economics input		71%
1150	Identify & prepare Wells LLI AFE		79%
1000	Rig Contract Evaluation		71%
4690	Readiness Review		86%
4770	Relief Well Plan		57%
4780	Set-up Required Service Contracts		57%
1420	HAZID		79%
1450	Site & Well Specific Risk Assessment		79%
1480	Agree Drilling Success Ratio Scorecard Goals		71%
1510	Application for Well Registration		79%
1540	Pre-Spud Meeting (office / site)		71%
4660	Drill 17-1/2 in. Sections		79%
4590	Drill PROD-3		79%
4570	Drill INJ-2		79%
4550	Complete INJ-1		79%
1320	Project Completion		71%
3630	Delivery Period for 2 off WI Trees		79%
1750	Manufacture, Test & Delivery of Central Subsea Tre		64%
1870	Design & Fabricate Integrated WI Manifold/Temple		64%
3600	Delivery of Hubs & Connectors		64%
2030	Procurement of Control Umbilicals		64%
3150	Procurement of Gas Export Line Pipe		57%
1800	Design & Fabricate SSIV Structure		57%

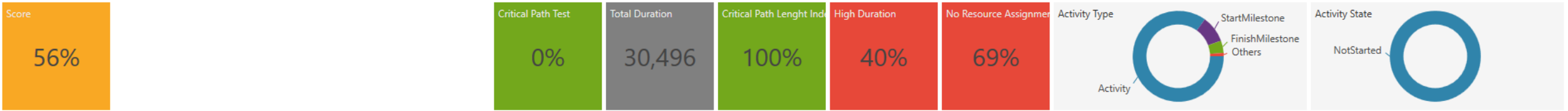
Test Results for Project						
Metric	Activity Issues	Value	Threshold	PassStatus	Weight	
All Metrics	681					
Critical Path Test	0	0%	< 0%	●	3	
Invalid Dates	0	0%	< 5%	●	3	
Negative Lags	0	0%	< 0%	●	3	
Total Duration		30,496				
Link type not FS	86	21%	< 10%	●	3	
Critical Path Length Index (CPLI)	0	100%	> 95%	●	3	
High Duration	101	40%	< 5%	●	3	
No Resource Assignments	173	69%	< 0%	●	0	
Lags	98	39%	< 5%	●	3	
ALAP	0	0%	< 5%	●	3	
Hard Constraints	1	0%	< 5%	●	3	

Activities and Links with issues					
Id	Description	Issue Type	Message	Accept	Comment
1120	Evaluate pre-Installation of Rig Moo	Link type not FS	1060 -> 1120	<input type="checkbox"/>	
1090	Prepare main Drilling programme Dr	Link type not FS	1080 -> 1090	<input type="checkbox"/>	
1100	Wellbore Stability Analysis	Link type not FS	1080 -> 1100	<input type="checkbox"/>	
1130	Xmas tree contract Kick-Off Meeting	Link type not FS	1140 -> 1130	<input type="checkbox"/>	
4770	Relief Well Plan	Link type not FS	1340 -> 4770	<input type="checkbox"/>	
1370	Scour Study / Riser Analysis / Moorin	Link type not FS	1340 -> 1370	<input type="checkbox"/>	
4780	Set-up Required Service Contracts	Link type not FS	1380 -> 4780	<input type="checkbox"/>	
4790	Application for Discharge	Link type not FS	1400 -> 4790	<input type="checkbox"/>	
4720	All drilling complete	Link type not FS	4650 -> 4720	<input type="checkbox"/>	
1880	Design & Fabricate ICU Structure	Link type not FS	4820 -> 1880	<input type="checkbox"/>	
1890	Design & Fabricate SSIV Structure	Link type not FS	4820 -> 1890	<input type="checkbox"/>	
3740	Procurement of Infield Flowlines	Link type not FS	2030 -> 3740	<input type="checkbox"/>	
2060	Procurement of Flexible Risers	Link type not FS	2030 -> 2060	<input type="checkbox"/>	
2030	Design & Fabricate SSIV Structure	Link type not FS	2030 -> 2030	<input type="checkbox"/>	

New Schedule Health (Beta)

DCMA 14 Test

Analyze Project



Id	Description	Score
Project		56%
Summary A		50%
1260	Project Sanction	86%
1310	Stable Oil Production	71%
1060	Rig Recommendation & Investment Board Paper	71%
1090	Prepare main Drilling programme Draft	57%
1110	Falling objects & Safe Area Study & Report	64%
1170	Draft SIMOPS Guidelines	79%
1200	Develop Drillex & Opex Economics input	71%
1150	Identify & prepare Wells LLI AFE	79%
1000	Rig Contract Evaluation	71%
4690	Readiness Review	86%
4770	Relief Well Plan	57%
4780	Set-up Required Service Contracts	57%
1420	HAZID	79%
1450	Site & Well Specific Risk Assessment	79%
1480	Agree Drilling Success Ratio Scorecard Goals	71%
1510	Application for Well Registration	79%
1540	Pre-Spud Meeting (office / site)	71%
4660	Drill 17-1/2 in. Sections	79%
4590	Drill PROD-3	79%
4570	Drill INJ-2	79%
4550	Complete INJ-1	79%
1320	Project Completion	71%
3630	Delivery Period for 2 off WI Trees	79%
1750	Manufacture, Test & Delivery of Central Subsea Tre	64%
1870	Design & Fabricate Integrated WI Manifold/Temple	64%
3600	Delivery of Hubs & Connectors	64%
2030	Procurement of Control Umbilicals	64%
3150	Procurement of Gas Export Line Pipe	57%
1800	Design & Fabricate SSIV Structure	57%

Test Results for 4780						
Metric	Activity Issues	Value	Threshold	PassStatus	Weight	
All Metrics	5					
Critical Path Test	0		< 0%		3	
Invalid Dates	0	0%	< 5%		3	
Negative Lags	0	0%	< 0%		3	
Total Duration		115				
Link type not FS	1	100%	< 10%		3	
Critical Path Lenght Index (CPLI)	0		> 95%		3	
High Duration	1	100%	< 5%		3	
No Resource Assignments	1	100%	< 0%		0	
Lags	1	100%	< 5%		3	
ALAP	0	0%	< 5%		3	
Hard Constraints	0	0%	< 5%		3	

Activities and Links with issues					
Id	Description	Issue Type	Message	Accept	Comment
4780	Set-up Required Service Contracts	Link type not FS	1380 -> 4780	<input type="checkbox"/>	
4780	Set-up Required Service Contracts	High Duration	Activity has a Duration of 115d	<input type="checkbox"/>	
4780	Set-up Required Service Contracts	No Resource Assignments	Activity has no resource assignment:	<input type="checkbox"/>	
4780	Set-up Required Service Contracts	Lags		<input type="checkbox"/>	
4780	Set-up Required Service Contracts	High Float	Activity has a Total Float of 405d	<input type="checkbox"/>	

New Schedule Health (Beta)

Tests Metrics

Name	Include Milestone	Number of Metrics
General Schedule Overview	<input checked="" type="checkbox"/>	12
Test BEI Metric	<input checked="" type="checkbox"/>	1
ACME Risk Standard Test B	<input checked="" type="checkbox"/>	15
Safran Risk Ready Test		
ACME Risk Standard Test A		
DCMA 14 Test		

Edit Schedule Health Test

Name: DCMA 14 Test

Metric	Description
Critical Path Test	Tests the critical path by delaying the first activit
Link type is SF	Link type is SF
Invalid Dates	Forecasted dates in the past or actual dates in th
Negative Lags	Link has a negative lag
Total Duration	
Link type not FS	Link type not FS
Start has no predecessors	Activity has no successors
Critical Path Lenght Index (CPLI)	Measures the critical path realism relative to the
High Duration	Duration is greater than 44 working days
No Resource Assignments	The activity has no resources or costs assigned
Lags	Link has a lag
ALAP	Activity is an ALAP activity
Link type is SS	Link type is SS
No predecessors	Activity has no predecessors
Hard Constraints	Activity has a hard constraint
Negative Float	Total float is negative
Missing Logic	Activity has missing logic
Link type is FF	Link type is FF
Filter Test	Testing filter
Baseline Execution Index (BEI)	The number of activities that were completed as
Finish has no successors	Activity has no successors
High Float	Total float greater than 44 days
No successors	Activity has no successors
Missed Tasks	These activites should have been completed by i

Metric	Weight	Fatal	Dashboard
Critical Path Test	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Invalid Dates	3	<input type="checkbox"/>	<input type="checkbox"/>
Negative Lags	3	<input type="checkbox"/>	<input type="checkbox"/>
Total Duration	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Link type not FS	3	<input type="checkbox"/>	<input type="checkbox"/>
Critical Path Lenght Index (CPLI)	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High Duration	3	<input type="checkbox"/>	<input checked="" type="checkbox"/>
No Resource Assignments	0	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Lags	3	<input type="checkbox"/>	<input type="checkbox"/>
ALAP	3	<input type="checkbox"/>	<input type="checkbox"/>
Hard Constraints	3	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Negative Float	3	<input type="checkbox"/>	<input type="checkbox"/>
Missing Logic	3	<input type="checkbox"/>	<input type="checkbox"/>
Filter Test	3	<input type="checkbox"/>	<input type="checkbox"/>
Baseline Execution Index (BEI)	3	<input type="checkbox"/>	<input type="checkbox"/>
High Float	3	<input type="checkbox"/>	<input type="checkbox"/>
Missed Tasks	3	<input type="checkbox"/>	<input type="checkbox"/>

OK

Cancel

New Schedule Health (Beta)

Tests Metrics

Id		Description
Default Metrics		
Custom Metrics		
Filter Test		Testing filter
Total Duration		

Edit Metric

Id: Big Total Float

Description: Total flot is greater than 10 days

Calculation Type:
Activity Filter

Filtered Item Message:
Total float of {a.Id} is too high

Pass Threshold:
< 5%

Show as:
Percentage

Formula:
1.a.TotalFloat > 10

(1,4): e

DurationInDays

EarlyFinish

EarlyStart

FinishHasNoSuccessor

HasMFO

HasMSO

NumberOfFFPredeces

NumberOfSFPredeces

NumberOfSSPredeces

Predecessors

ResourceAssignments

StartHasNoPredecessc

Successors

OK










Cancel

Improvement Forum

All Categories / Improvement Proposals / Safran Risk

Safran Risk 6 Followers Add Topic

Sorted by: Recently updated Showing: Planned, Implemented Showing 29 topics

<input type="checkbox"/>	 Improvement - Layout & Filter changes / transition by Michael Hawley, 3 months ago - Last Reply by Fredrik Dahlberg, 10 days ago	1	1	Implemented
<input type="checkbox"/>	 Safran Risk - function similar to OPRA's "Spread the risk duration across multiple impacts" by Carlos Perez Martin, 2 years ago - Last Reply by Carlos Perez Martin, 3 months ago	5	1	Planned
<input type="checkbox"/>	 Date sort rather Alpha sort of Risk Dates in Link Column Lists by Santosh Bhat, 3 years ago - Last Reply by Santosh Bhat, 3 months ago	2	0	Implemented
<input type="checkbox"/>	 Improvement: Allow assignment of Administrative Access to Super Users by Amin, Zaid, 4 months ago - Last Reply by Fredrik Dahlberg, 3 months ago	1	0	Implemented
<input type="checkbox"/>	 Customize Distribution Graph Headings by Eric Ho, 4 months ago - Last Reply by Eric Ho, 4 months ago	2	0	Planned
<input type="checkbox"/>	 Improvement by Michael Hawley, 4 months ago	2	1	Planned
<input type="checkbox"/>	 Improvement by Robert, 4 months ago	1	0	Planned
<input type="checkbox"/>	 Improvement by Michael Hawley, 4 months ago	1	1	Planned
<input type="checkbox"/>	 Improvement by Michael Hawley, 4 months ago	1	1	Planned

Risk impact can now be spread over multiple activities

Changes of Layout no longer resets activity

Sensitivity Analysis on Durations



Thank you.

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