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ReliaSoft SEP
Web portal for ReliaSoft applications

nCode

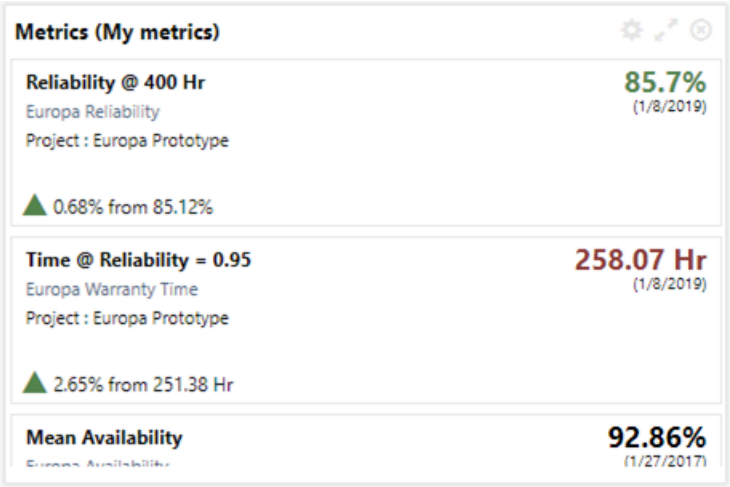
ReliaSoft

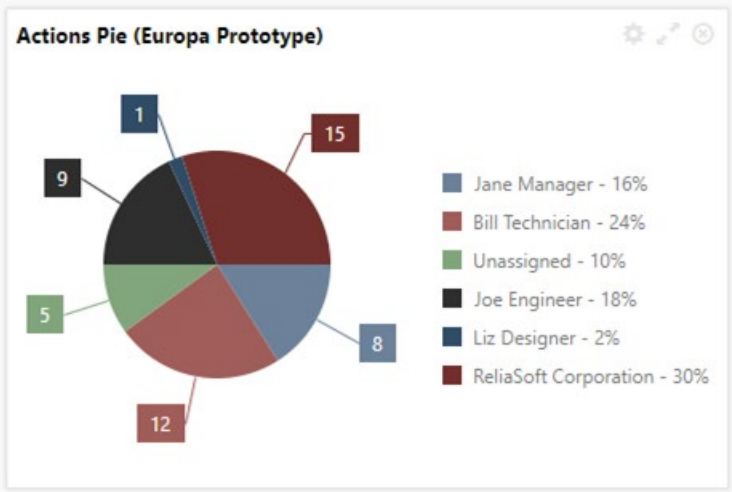
OMNICON

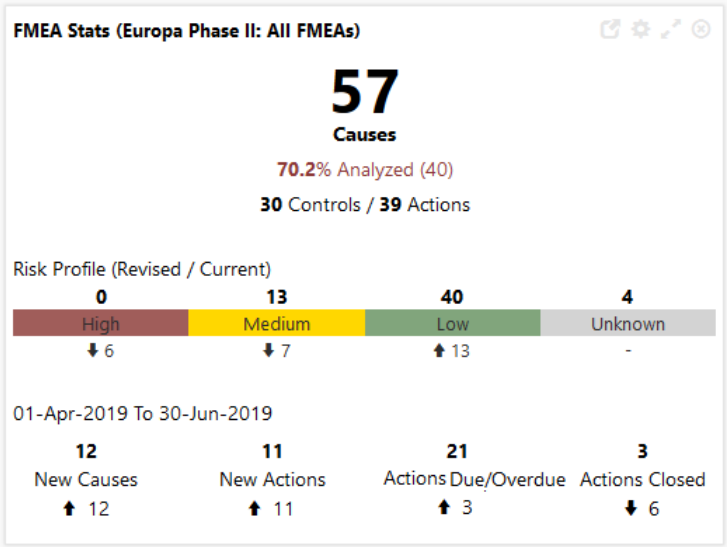
What is SEP?

SEP is a web portal for analyses performed in ReliaSoft applications

- Monitor KPI metrics
- Web access to FMEA stats, queries and data
- View results from Weibull++, BlockSim and other reliability analyses
- Drill-down to full details in desktop apps
- Track and update assigned actions







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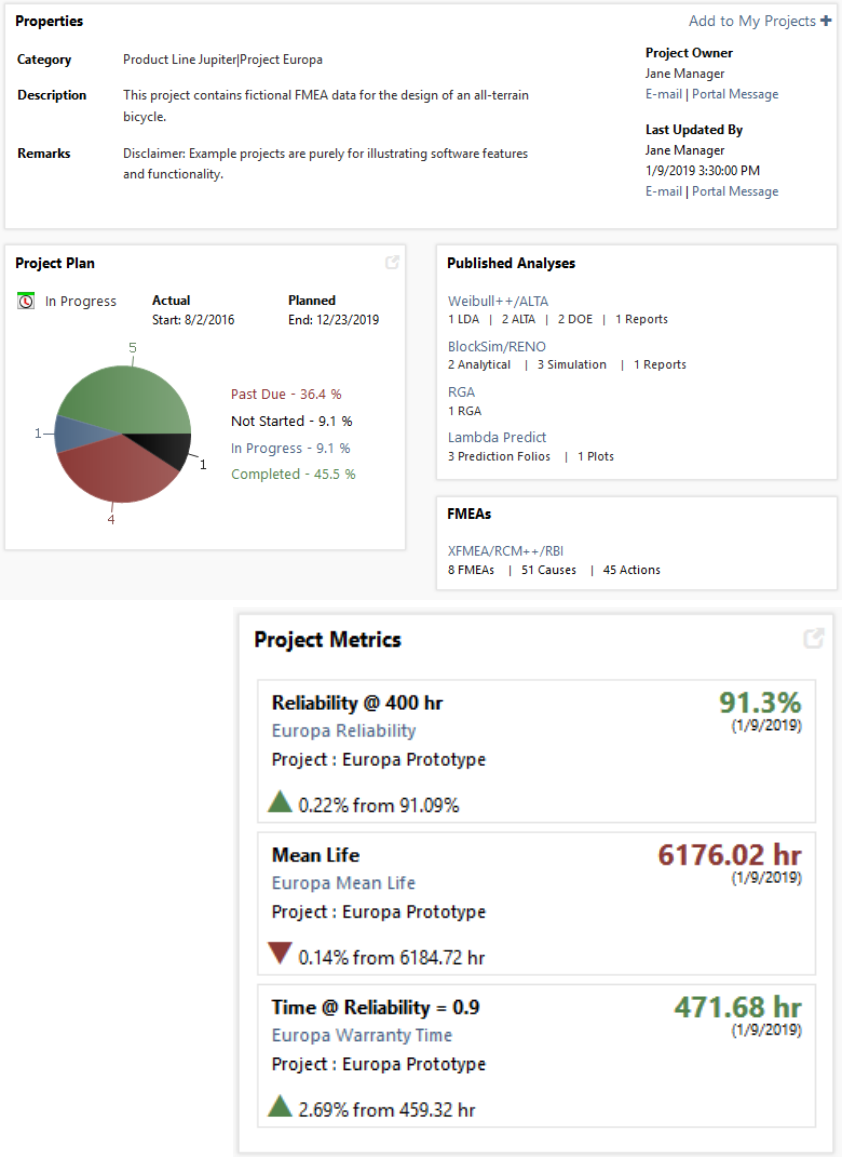
Who needs to use SEP?

- **Managers**
  - Track KPIs, reports and status of assigned actions
  - Monitor progress on FMEAs and sign off on completion
  - Monitor results from other reliability analyses

- **Engineers (ReliaSoft Desktop Users)**
  - Share your own results and stay up-to-date on analyses performed by others
  - Convenient mobile access when you need to present findings or update your assigned actions

- **Entire Organization**
  - Access lessons learned from FMEAs
  - View results from reliability data analyses and simulations
  - Update your assigned actions without having a ReliaSoft desktop application installed

Share reliability analysis results throughout the organization



Challenge: Individual analysts are performing a variety of reliability studies, but the latest results and metrics are not accessible to colleagues who don't have the software installed

Solution: SMEs use **Weibull++/ALTA, RGA, BlockSim/RENO, Lambda Predict, XFMEA** and **XFRACAS** to perform the analyses

Managers and others use **SEP** to view selected results, reports and dashboards via any web-enabled device

Value: Facilitates collaboration between different areas of expertise

Shares reliability analysis results throughout the organization

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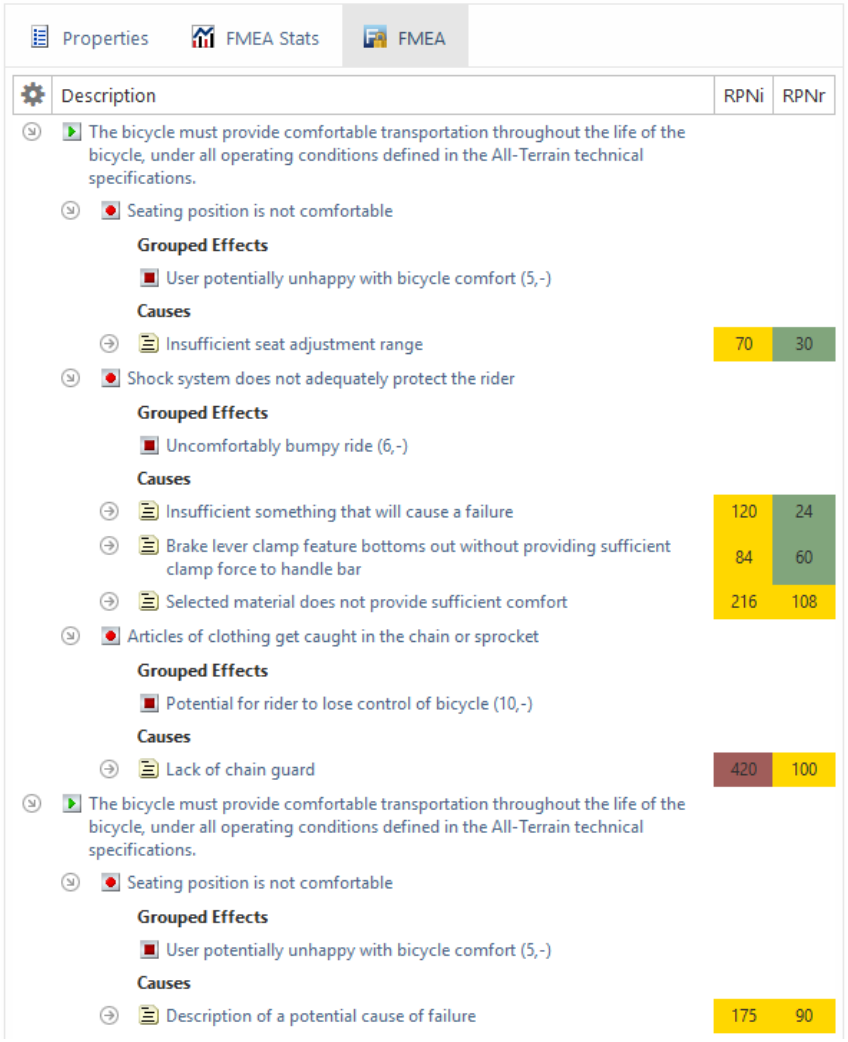
Share FMEA lessons learned throughout the organization



Challenge: Your organization makes a significant investment to perform FMEAs, but the valuable lessons learned are not easily accessible to all personnel who need the information

Solution: FMEA teams use **XFMEA** to perform the analysis

Managers and others use **SEP** to view and query the most up-to-date analyses

Value: More effective knowledge sharing leads to better products and better customer service

Potential cost savings when you implement **XFMEA**, **SEP** and **Aqira** with **Prenscia Access**

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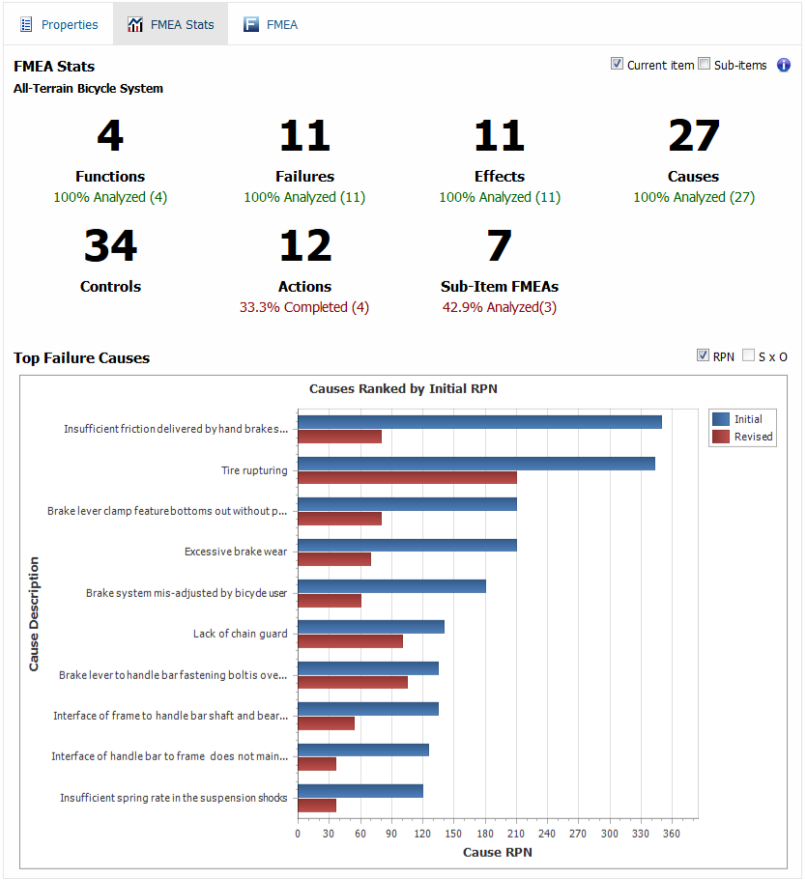
Managers track progress from multiple FMEA teams



Challenge: Your organization has multiple teams working on different FMEAs and managers need to stay up-to-date on the potential risks, assigned actions and whether the analyses will be completed on time

Solution: FMEA teams use **XFMEA** to perform the analysis

Managers use **SEP** to review summaries and sign off on completed projects via any web-enabled device

Value: Convenient tools to monitor progress leads to better program management

Effective management of FMEA activities leads to improved designs and less risk

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Web dashboard for reliability analysis

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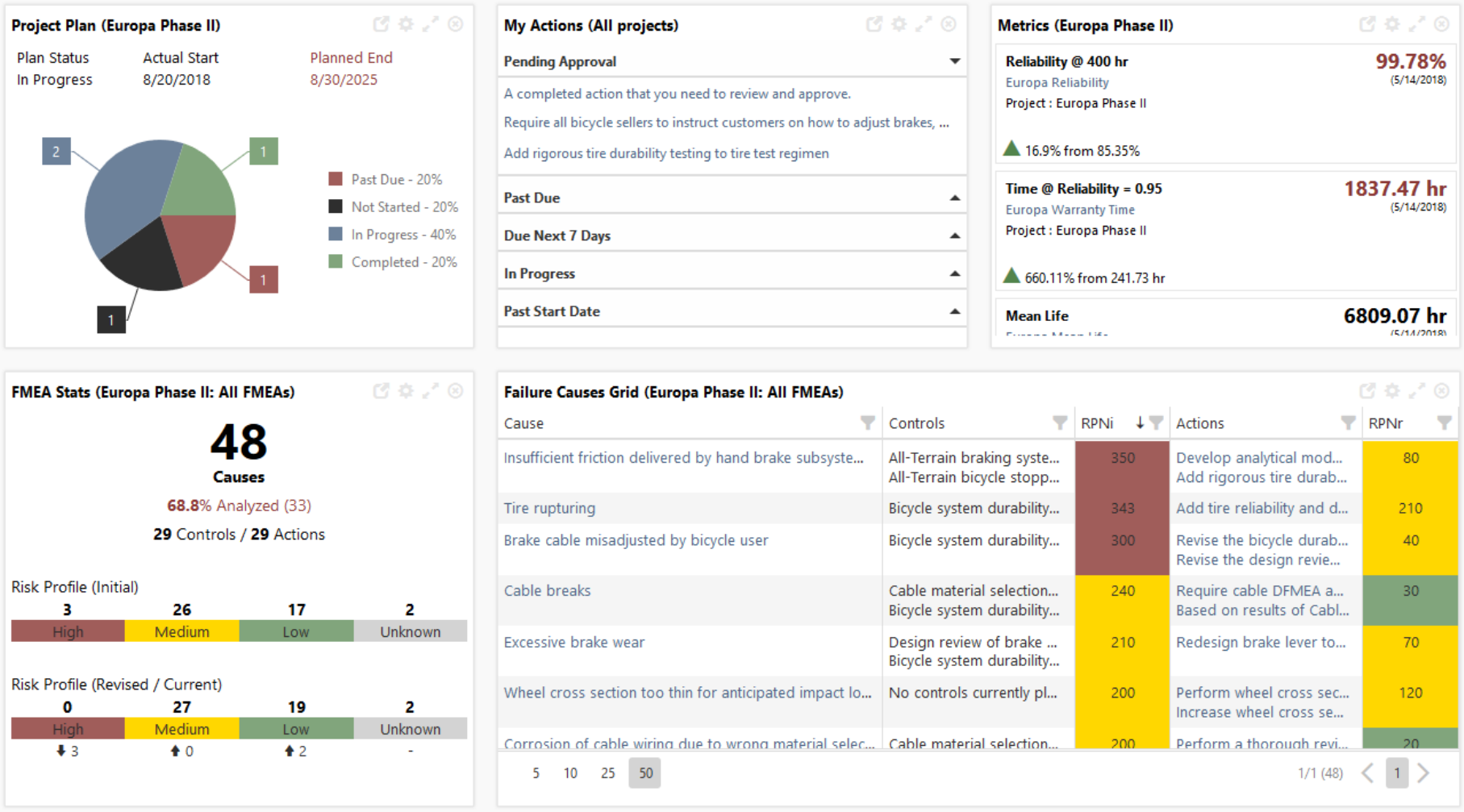
Web dashboard

- Personalized home page features a configurable, at-a-glance **web dashboard** for the reliability metrics, FMEAs, actions and reports you're tracking in SEP



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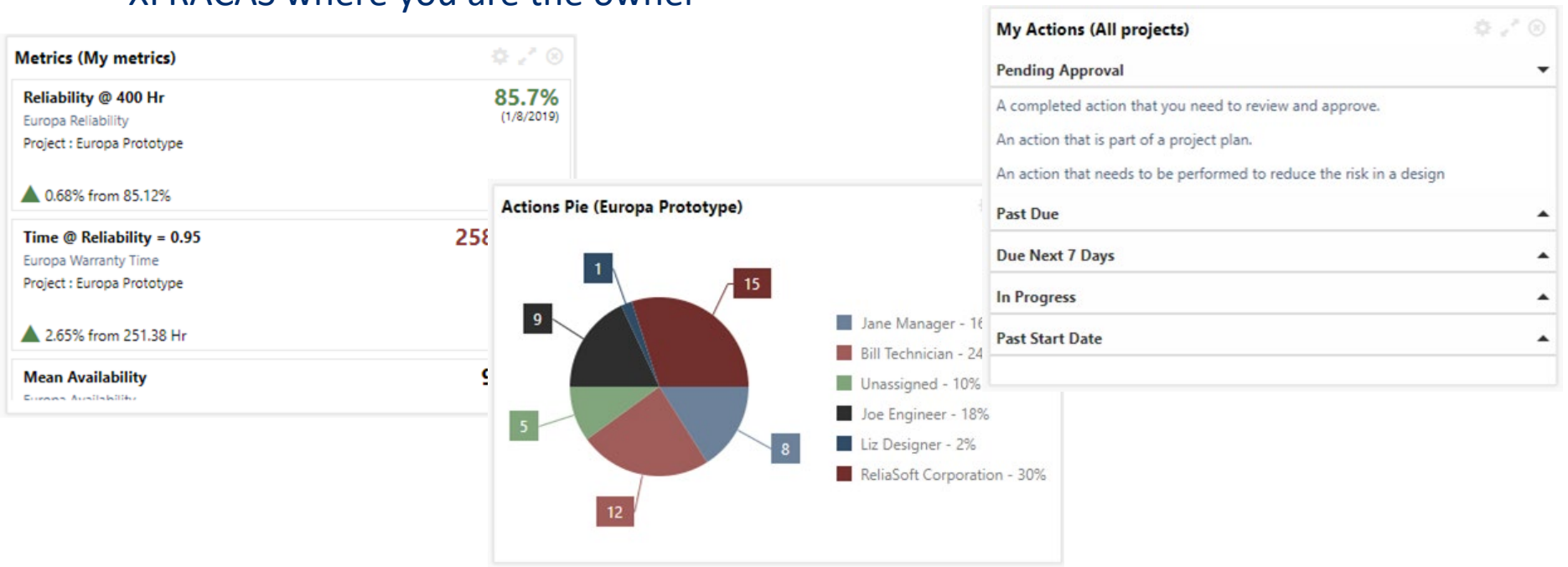
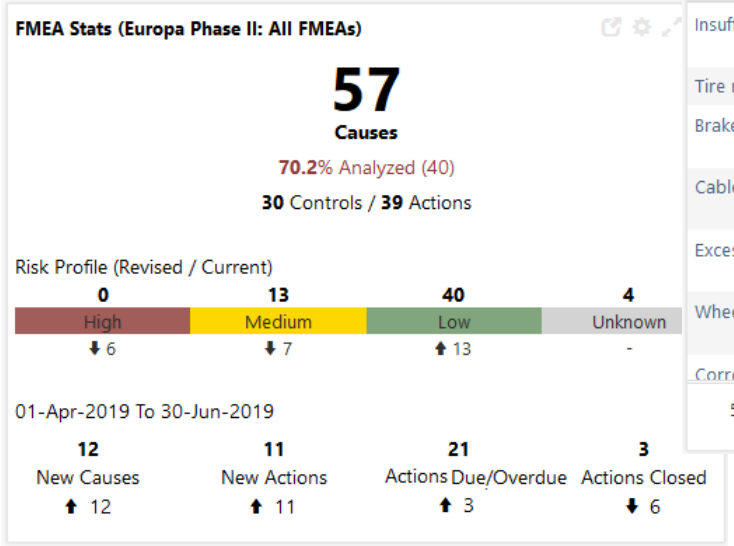
Dashboard tiles – KPIs and actions

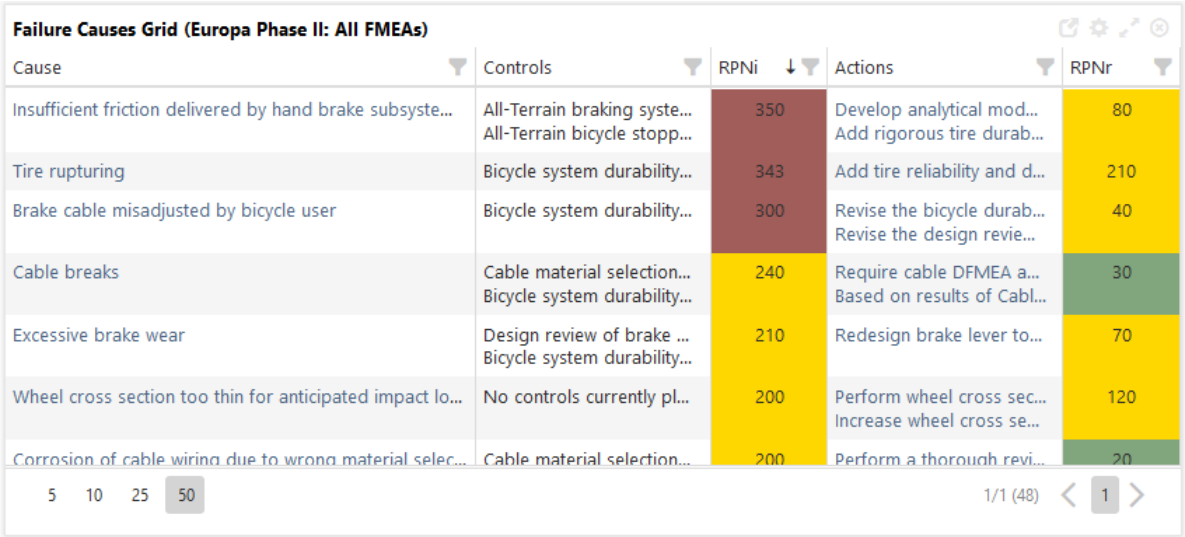
- **Metrics** – track key performance indicators such as Reliability, Mean Life, Warranty Time or Expected Failures
- **Actions Grids and Pie Charts** – track assignments based on completion status, due date or person responsible
- **My Actions –** quick access to the pending actions that are relevant to you
- **FRACAS Incidents and Actions** – monitor unclosed incidents and open actions in XFRACAS where you are the owner



Dashboard tiles - FMEAs

- **Failure Cause Grids** – prioritized list of potential failure causes with the controls and actions that mitigate the risk
- **FMEA Stats and Grids** – at-a-glance metrics for an FMEA or combined from a group FMEAs, such as:
  - Record counts and % analyzed
  - Risk profiles and % reduction in RPN
  - New risks and actions in a specified time period (this quarter, last 30 days, …)

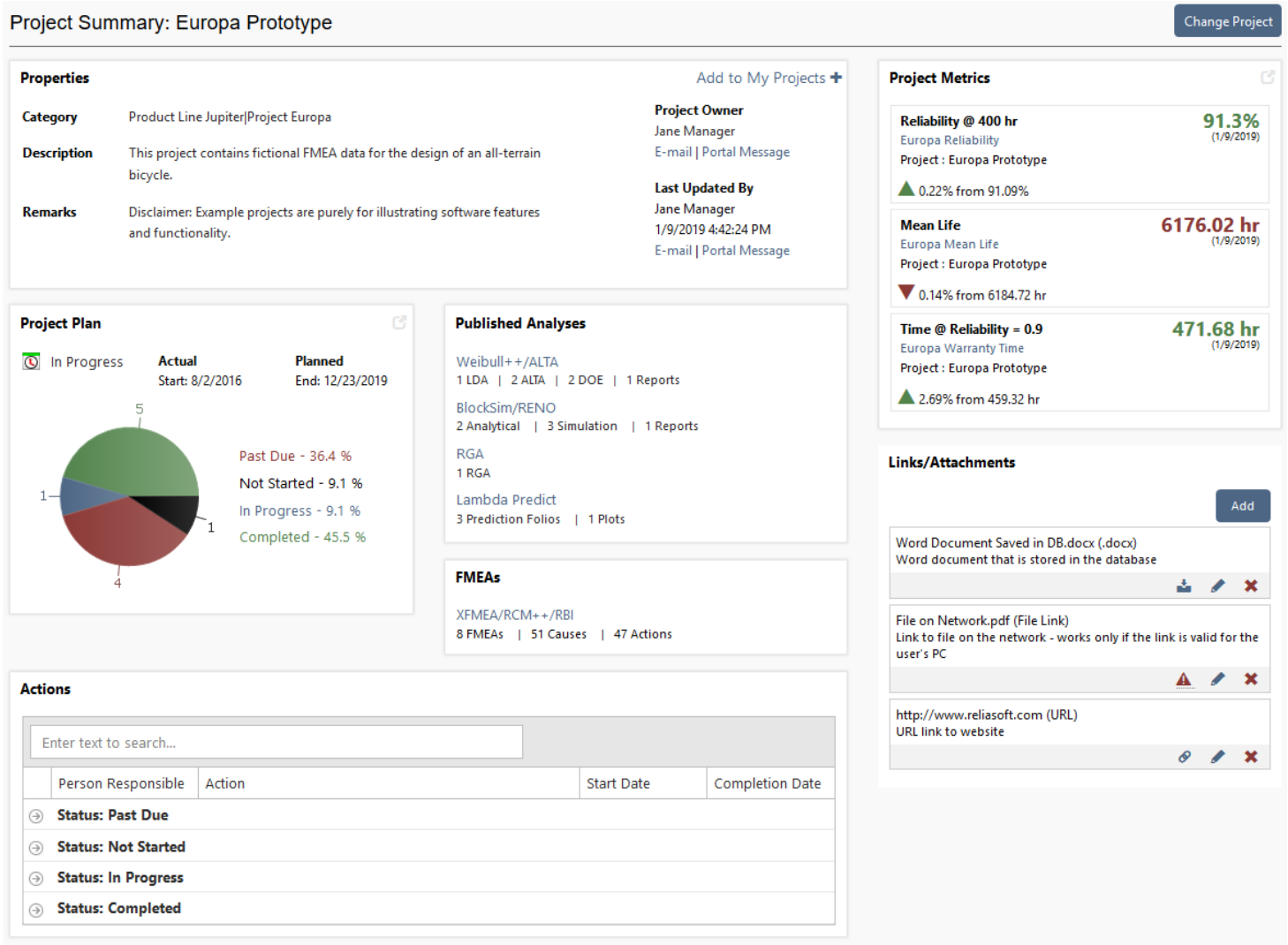




Reliability analysis summaries, metrics and reports

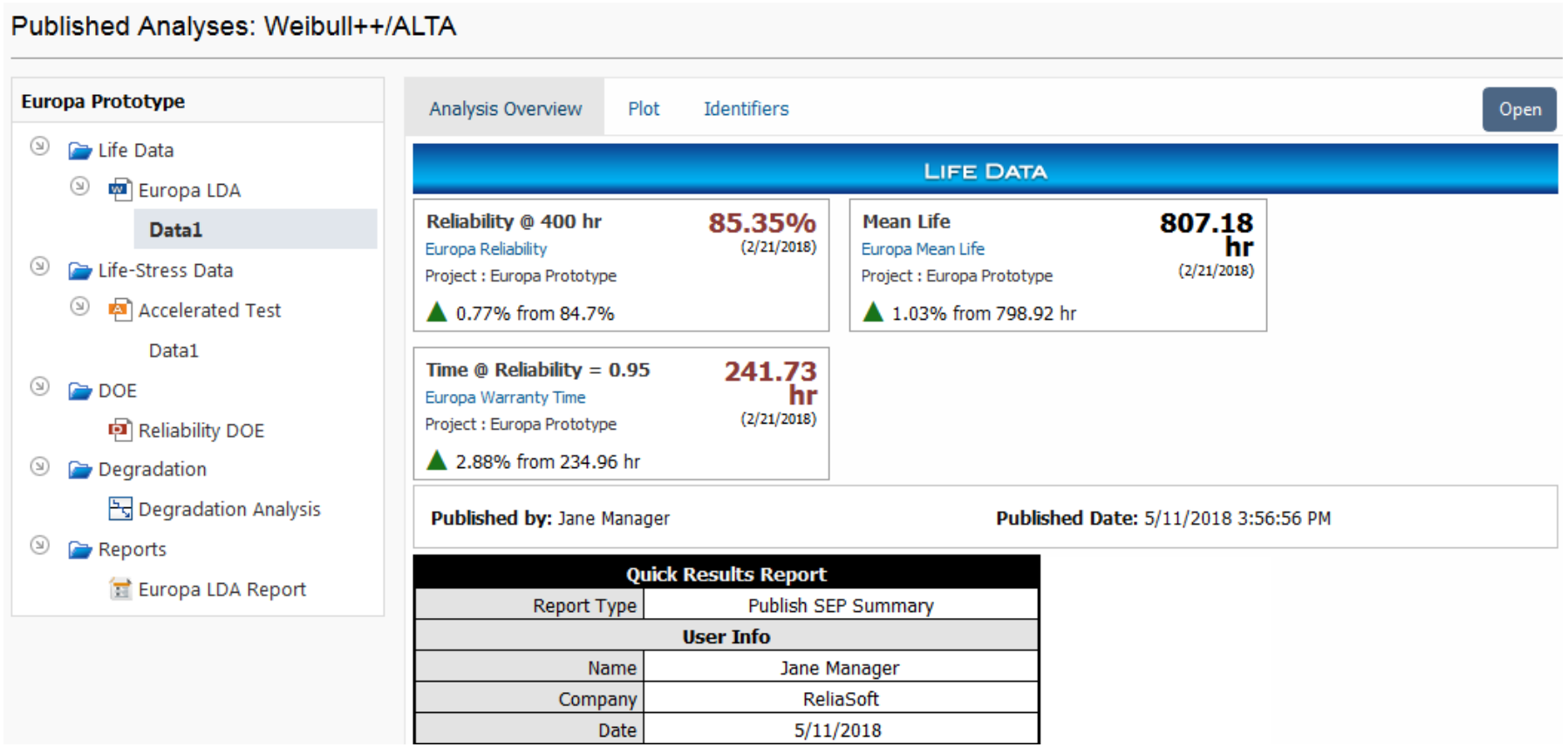
Project summaries

- At-a-glance summaries for ReliaSoft analysis projects you have permission to view



Published analysis summaries, reports and metrics

- For reliability analyses performed in **Weibull++**, **ALTA**, **RGA**, **BlockSim**, **RENO** or **Lambda Predict**, analysts can decide which results and metrics to make available via the web



Track FMEA progress and share lessons learned

FMEA dashboard tiles

- Configurable dashboard tiles help to monitor potential failure causes identified via FMEAs and track progress on assigned actions that will mitigate the risk

FMEA Stats (Europa Phase II: All FMEAs)

57
Causes

70.2% Analyzed (40)

30 Controls / **39** Actions

Risk Profile (Revised / Current)

0	13	40	4
High	Medium	Low	Unknown
⬇ 6	⬇ 7	⬆ 13	-

01-Apr-2019 To 30-Jun-2019

12	11	21	3
New Causes	New Actions	Actions Due/Overdue	Actions Closed
⬆ 12	⬆ 11	⬆ 3	⬇ 6

Failure Causes Grid (Europa Phase II: All FMEAs)

Cause	Controls	RPNi	Actions	RPNr
Insufficient friction delivered by hand brake subsyste...	All-Terrain braking syste... All-Terrain bicycle stopp...	350	Develop analytical mod... Add rigorous tire durab...	80
Tire rupturing	Bicycle system durability...	343	Add tire reliability and d...	210
Brake cable misadjusted by bicycle user	Bicycle system durability...	300	Revise the bicycle durab... Revise the design revie...	40
Cable breaks	Cable material selection... Bicycle system durability...	240	Require cable DFMEA a... Based on results of Cabl...	30
Excessive brake wear	Design review of brake ... Bicycle system durability...	210	Redesign brake lever to...	70
Wheel cross section too thin for anticipated impact lo...	No controls currently pl...	200	Perform wheel cross sec... Increase wheel cross se...	120
Corrosion of cable wiring due to wrong material selec...	Cable material selection...	200	Perform a thorough revi...	20

5 10 25 50 1/1 (48) 1

All Actions (Europa Phase II)

Description	Status	Person Res...	Planned Start	Planned ...
Test E98745	Past Due	Liz Designer	4/2/2018	4/2/2018
Revise Bicycle system stability testing to inclu...	Past Due	Bill Technician	3/19/2018	3/19/2018
Change pedal material to higher coefficient o...	Past Due	Joe Engineer	3/5/2018	3/8/2018
Develop analytical model to simulate the All-T...	Past Due		3/5/2018	3/5/2018
Perform FEA on spring mechanism and make ...	Past Due	Joe Engineer	2/23/2018	3/2/2018
Add pedal feel to overall bicycle design revie...	Completed - L...	Joe Analyst	3/1/2018	3/1/2018
Another action that needs to be started soon.	Past Due	Jane Manager	11/20/2017	2/24/2018

5 10 25 50 1/2 (96) 1 2

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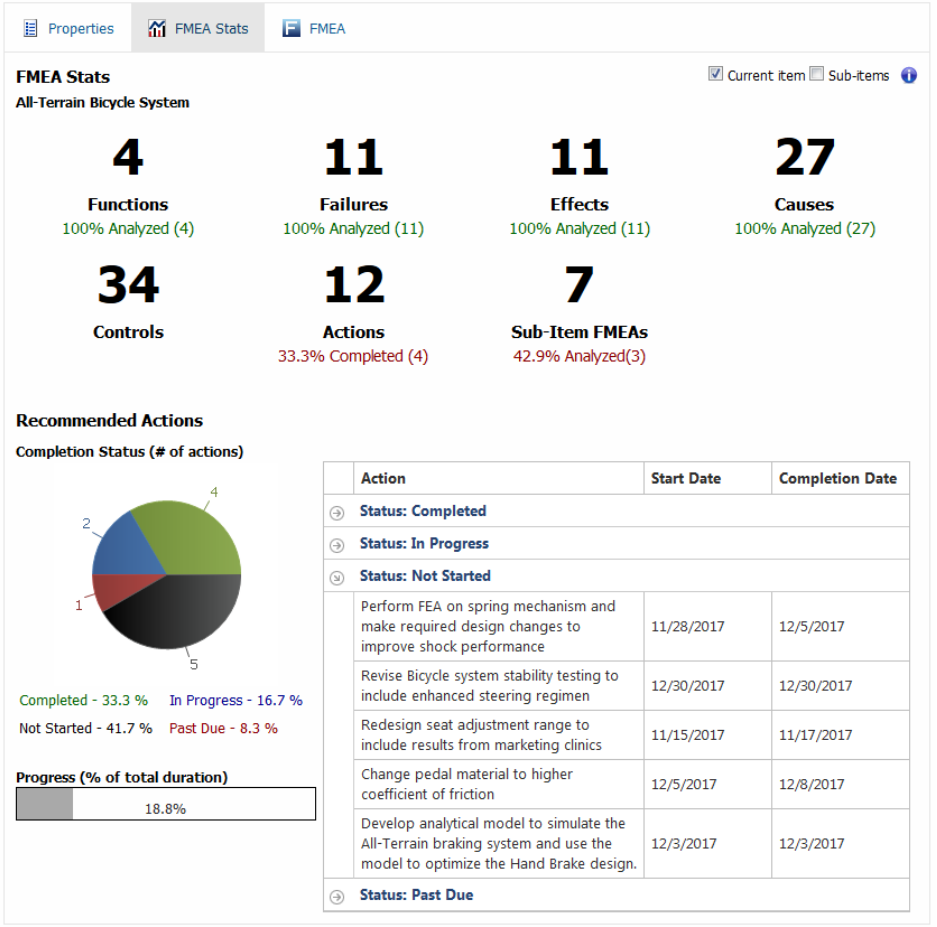
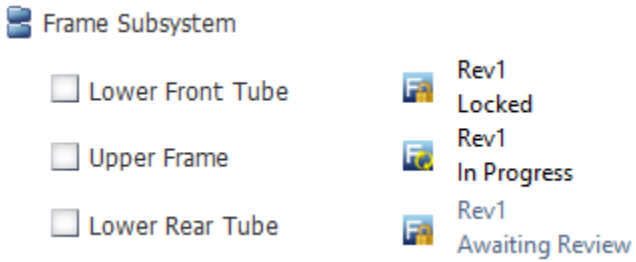
Web summaries for FMEAs

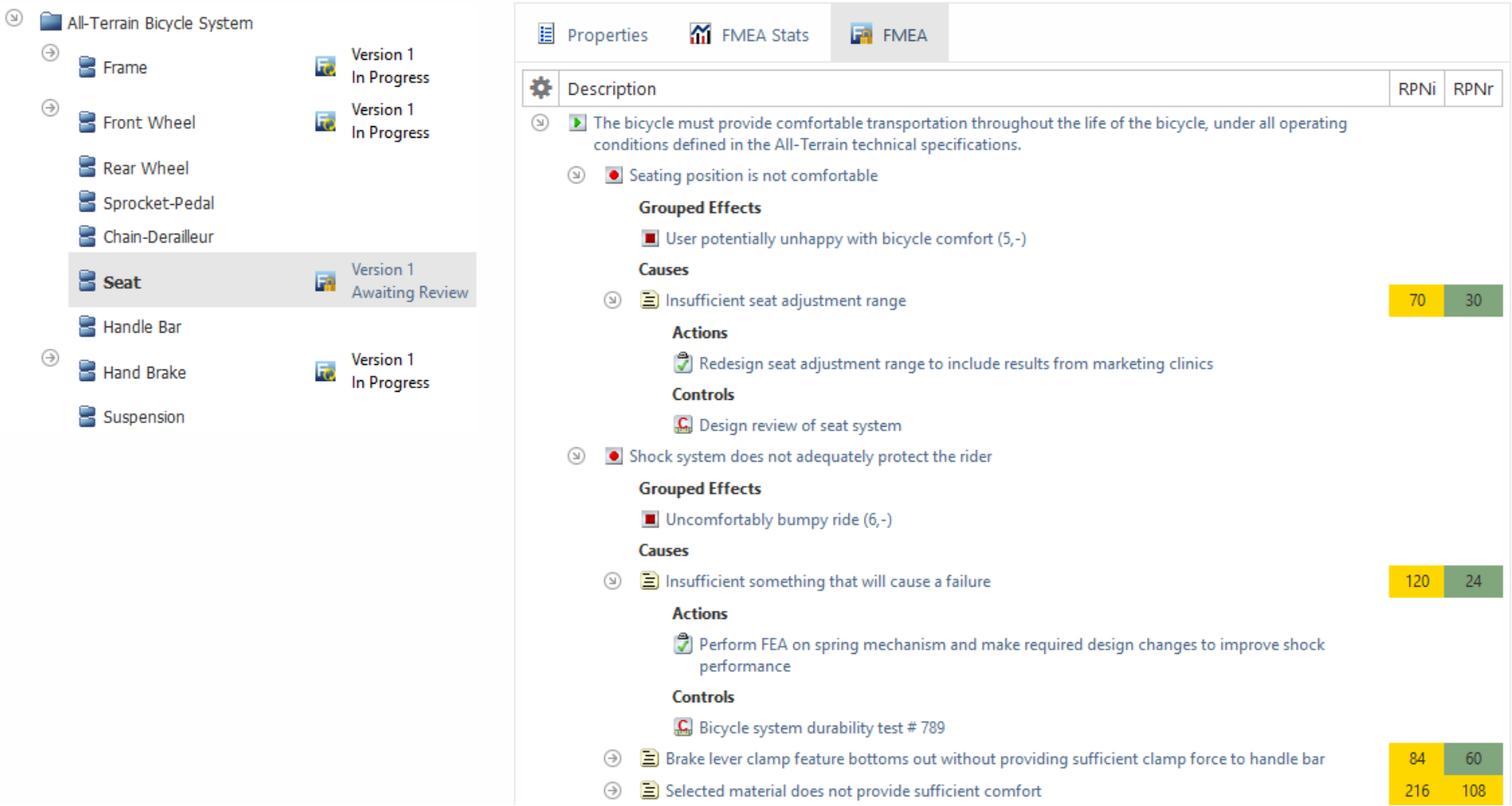
- Convenient web summaries help managers and others track progress for each FMEA
- Key stats and charts at-a-glance:
  - # of functions and failure causes, with % analyzed
  - Top failure causes
  - Assigned actions, with % complete
- Approve change log versions via any web-enabled device





FMEA hierarchy

- Colleagues throughout your organization can view the latest FMEAs without a desktop application installed
- View full properties for all FMEA records

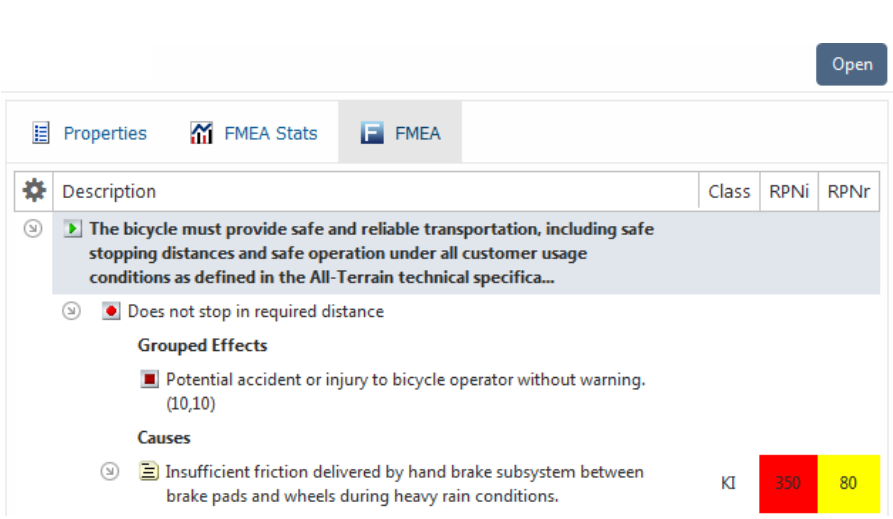


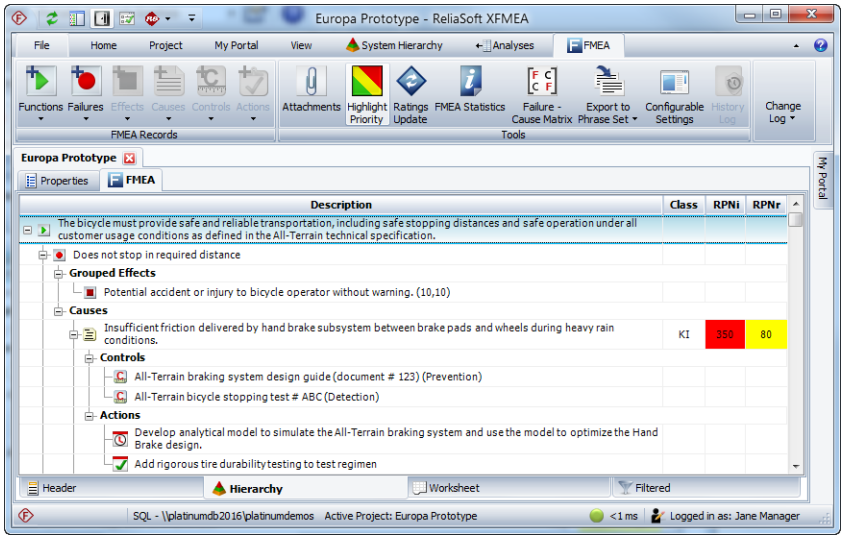
Drill down to the full analysis

- SEP makes it easy to open the full analyses in ReliaSoft desktop applications
- If your site is configured for **Remote ReliaSoft**, users can launch the applications on a remote server without having to install and update software on each client computer

Remote ReliaSoft – Requirements

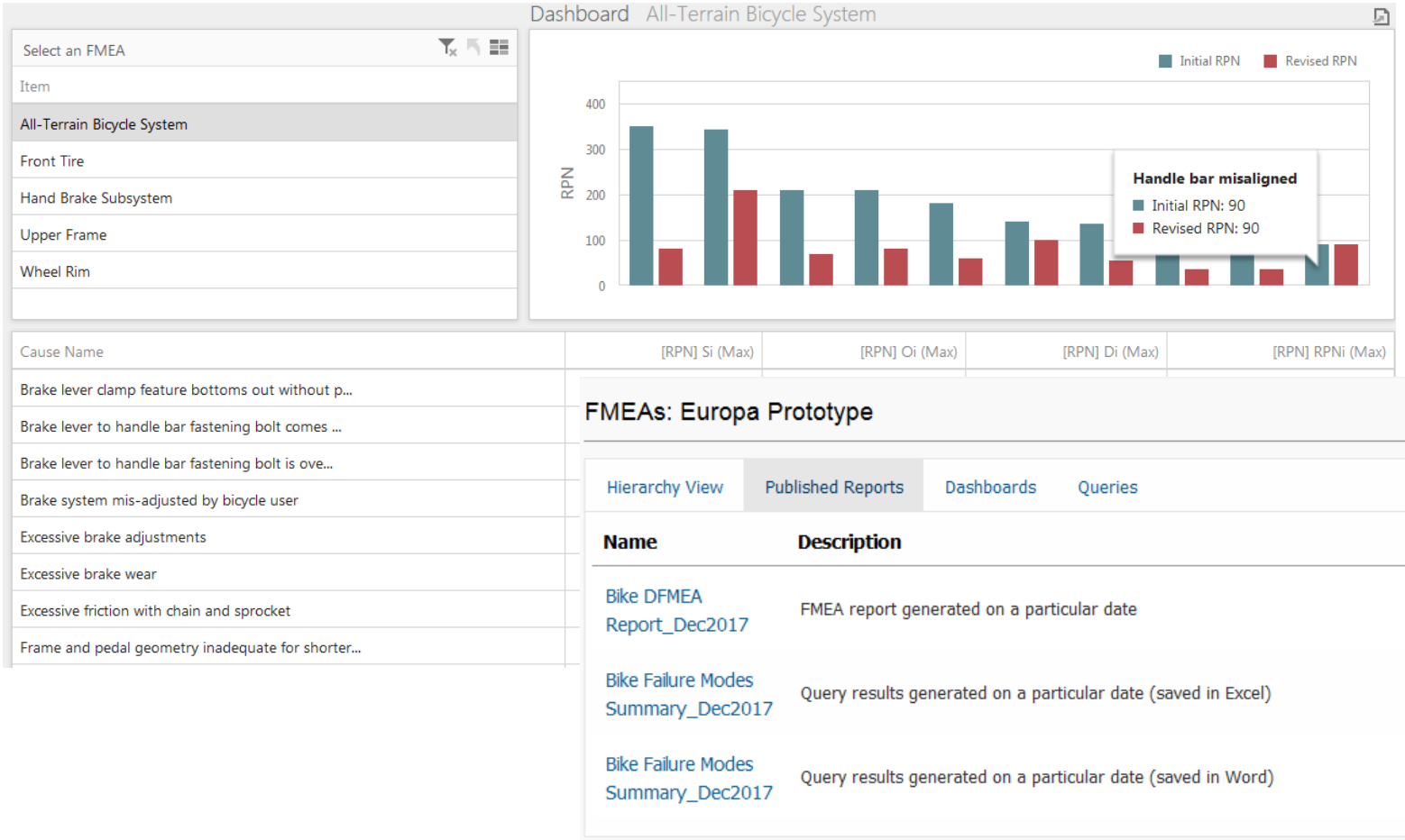
- At least one Windows server with Microsoft Remote Desktop Services (RDS)
- Sufficient RDS license seats (purchased from your preferred Microsoft vendor)
- ReliaSoft applications installed on RDS servers – token-based or floating license is recommended
- IT support to set up and maintain RDS servers





Web access to finalized report documents and desktop dashboards

- View or download finalized report documents that are saved with the project
- View custom reports created with the desktop app's built-in dashboard tool



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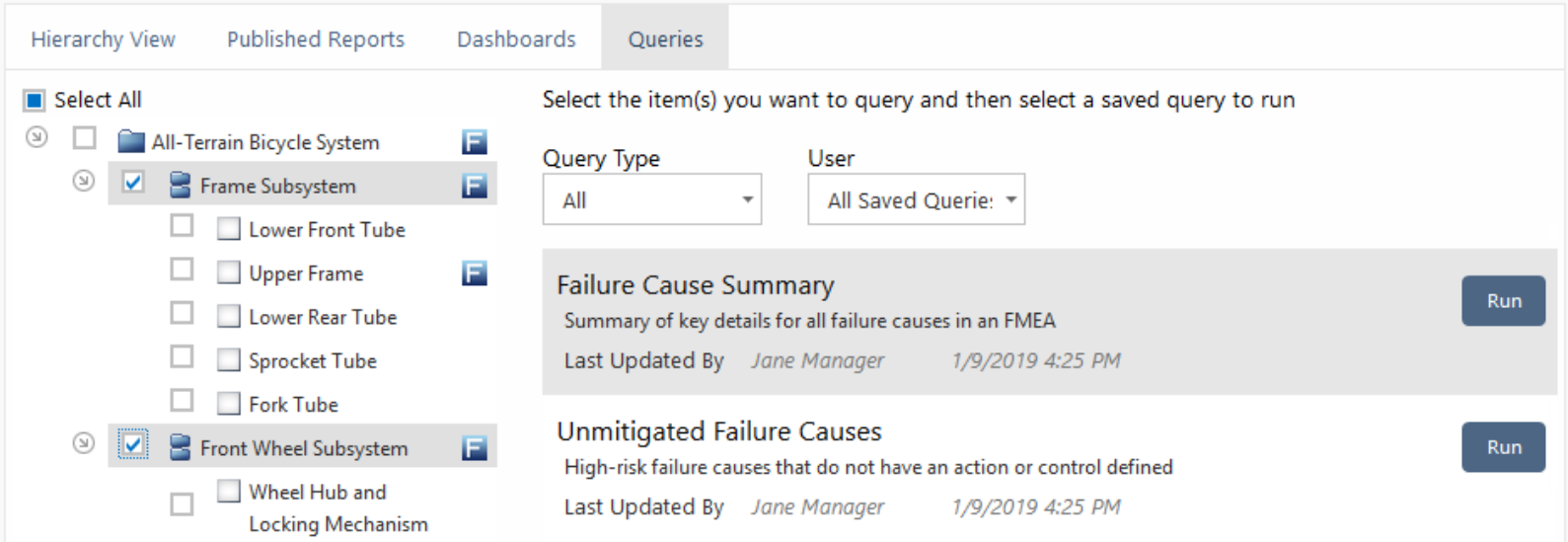
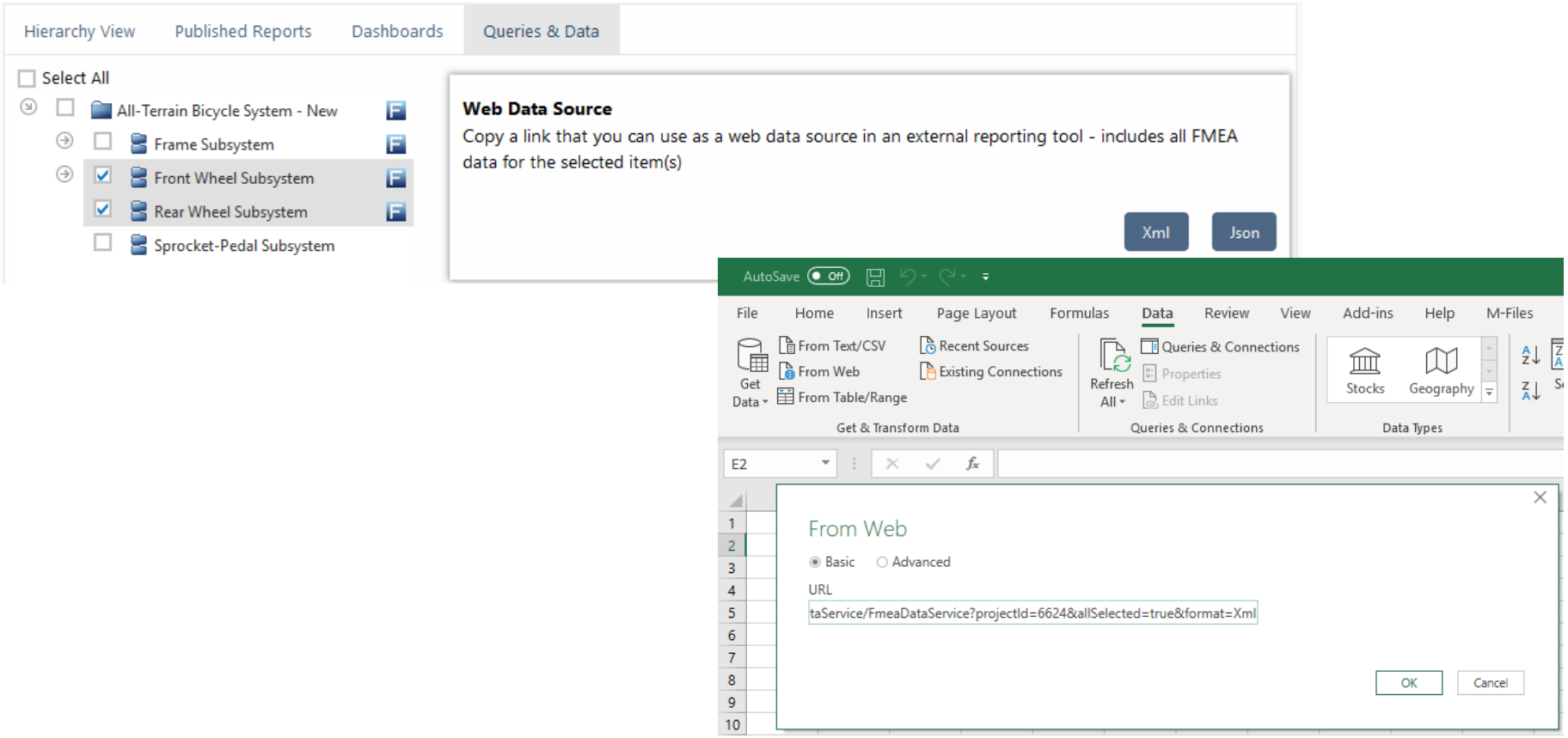
FMEA queries

- Queries provide enormous flexibility to get customized output based on the latest data from any FMEA, such as:
  - Actions that are incomplete
  - Effects with high severity
  - Failure causes with high risk (and no controls or actions to mitigate)
- Run saved queries via the web for any FMEA or group of FMEAs
- Download results to Excel



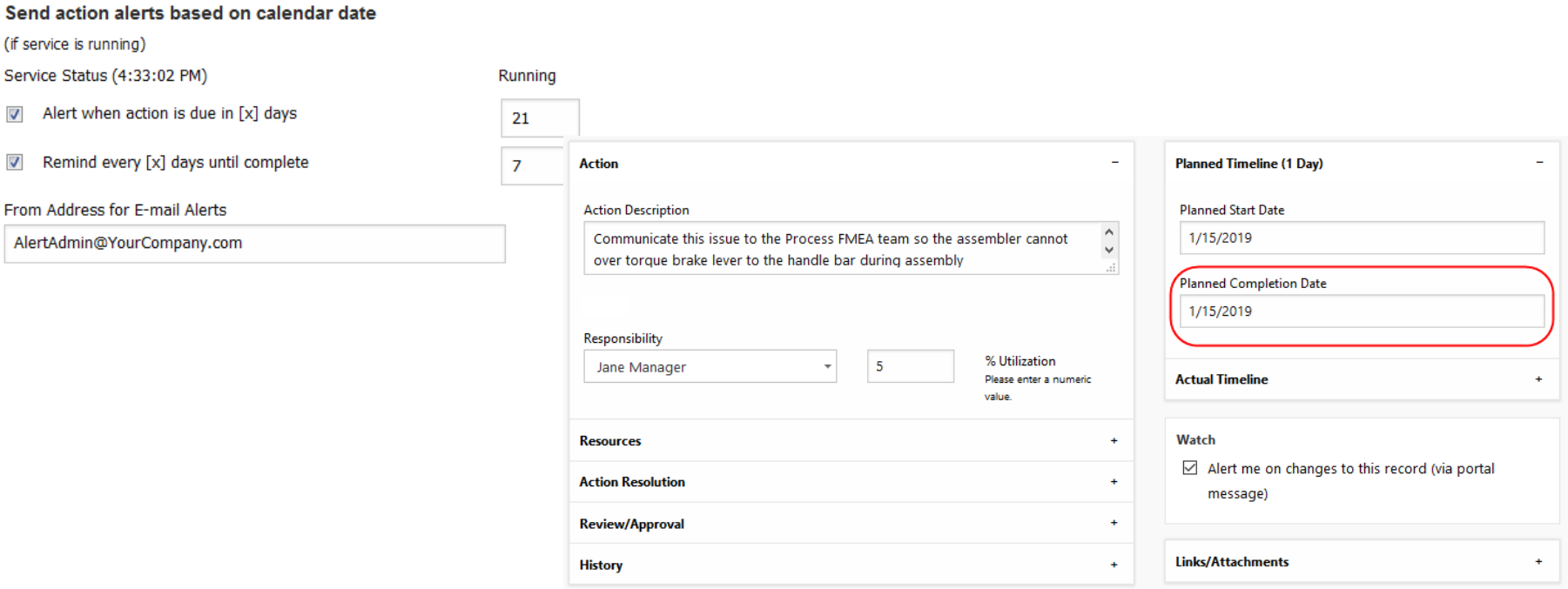
FMEA web data source for external reporting tools

- SEP offers a web service that returns all data for a selected FMEA or group of FMEAs
- If you have a specialized reporting need that is not directly supported, you can use SEP as a web data source in an external reporting tool such as Excel or Power BI



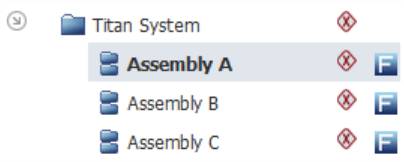
Service triggers alerts based on action due date

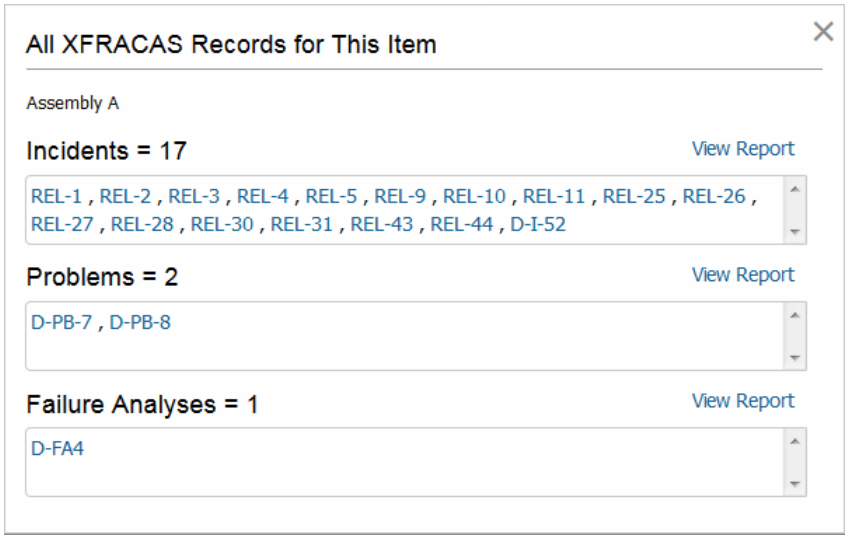
- ReliaSoft desktop applications can send alerts when an action is **created**, **modified** or **ready to be reviewed**
- If the service is running on the SEP web server, it can trigger additional alerts based on the **action due date**
  - Send an alert __ days before the action is due
  - Then send a reminder every __ days until the action is complete

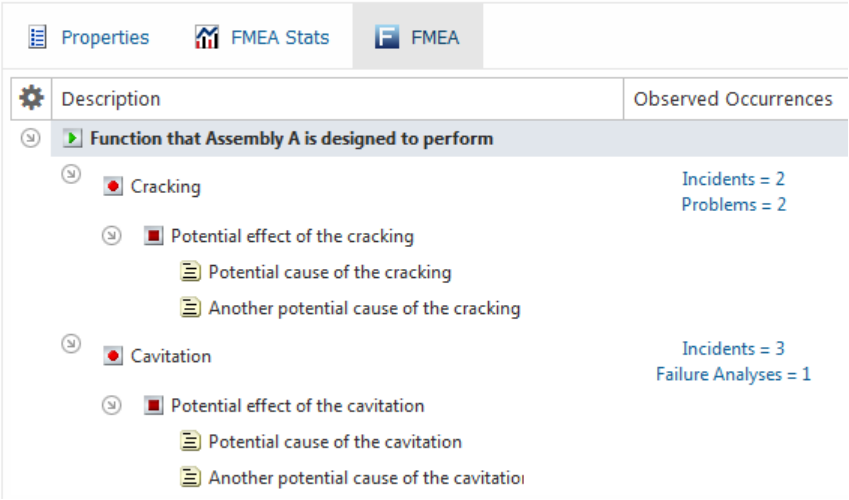


Link to field failure data in XFRACAS

- Utilizing FRACAS data when performing FMEAs saves time and leads to more effective risk assessment
- SEP makes it easy to view field failure reports in XFRACAS
  - Same “observed occurrences” quantities that are available in desktop applications
  - In addition, the website links to all FRACAS records that may be relevant for a part

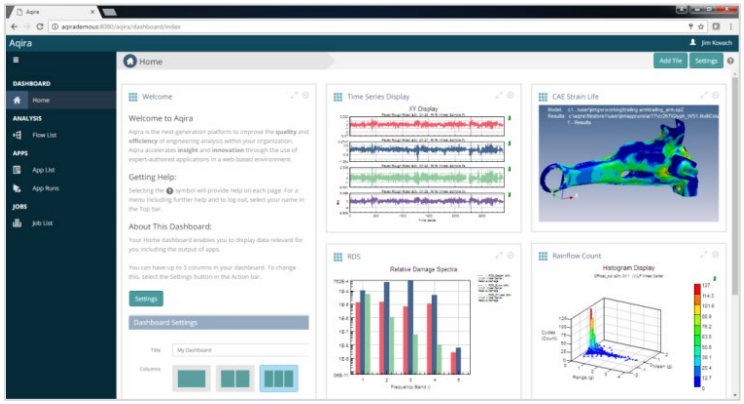






Implement together with Aqira

- nCode Aqira by HBM Prenscia allows your organization to manage and share nCode fatigue and durability analyses



- Implementing **Aqira**, **SEP** and **XFMEA** together offers cost savings for some FMEA customers

Aqira SEP XFMEA

- Aqira users can access SEP without an SEP license seat

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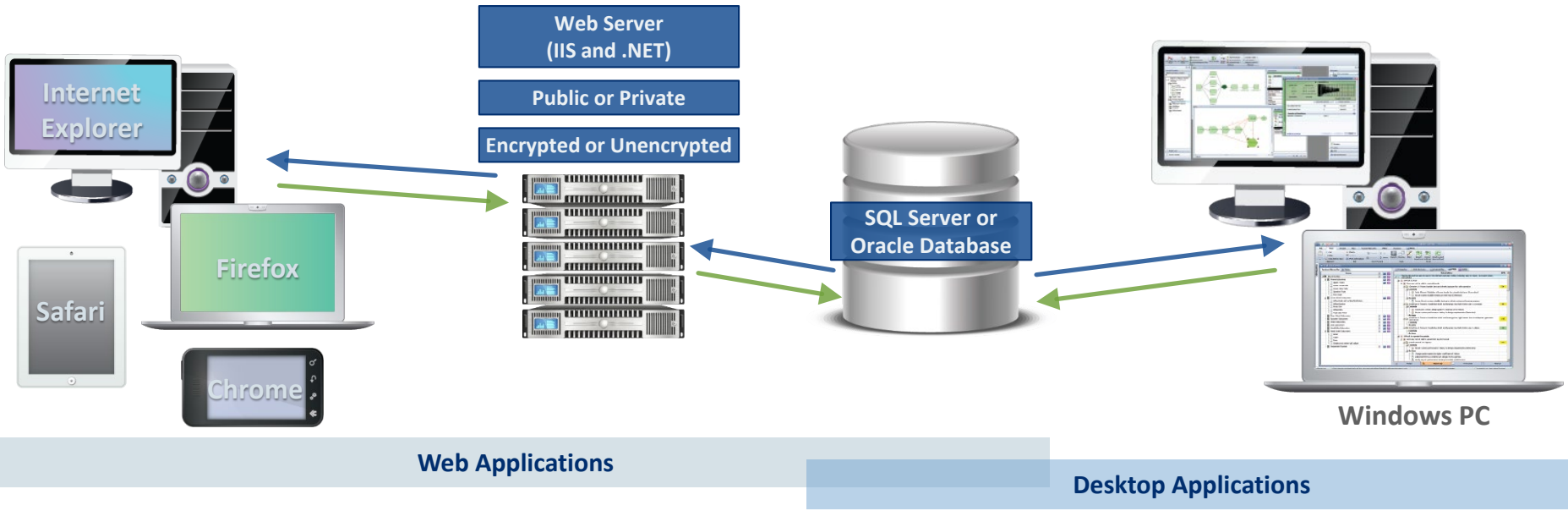
- View FMEAs across an organization using a web browser
- Track progress on completing assigned actions
- Access reliability analysis results from any web-enabled device

What's required to implement SEP?

- A ReliaSoft enterprise repository (on Oracle or SQL Server)
  - Analysis data from any or all of the ReliaSoft applications (XFMEA, Weibull++, XFRACAS, …)
- A Windows web server with IIS and .NET 4.6
- IT support to:
  - set up and maintain the website
  - maintain the database and enable users to connect



www.hbmprenscia.com

HBM Prenscia Inc.

Phone: +1.520.886.0410

Toll Free: 1-888-886-0410

sales@hbmprenscia.com