

REQUIREMENTS MANAGEMENT TOOL EVALUATION REPORT

Seilevel

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MAIN EVALUATORS & AUTHORS:



Joy Beatty



Megan Jackson
Stowe



Amanda Cardenas



David Reinhardt



Jonathan Bartlett

ADDITIONAL SUPPORTIVE EVALUATORS:

Rafael Alexandrian

Kell Condon

William Elliott

Joyce Grapes

EXECUTIVE SUMMARY

Seilevel has worked with many customers on selecting and deploying tools. We almost always use a tool, whether our customers are or not. Typically our customers are interested in this tool study because they are:

- **Desperate to get traceability for compliance reasons**
- **Concerned they need to do a better job cutting scope and managing dependencies**
- **Frustrated they have tool licenses but no one is using them, so maybe they bought the wrong tool**
- **Worried their requirements methodology isn't followed consistently**

Seilevel formally reviewed requirements management (RM) tools in 2007 and 2011. Over the course of the last eight years, it is remarkable how many new tools are on the market, how many are gone, and how much the products have changed. We are excited to see a shift in tools offering a more robust feature set that allows for faster completion and validation of requirements, such as:

- greater support of visual modeling
- stronger traceability analysis
- collaborative functionality for teams

In an effort to help the Business Analyst and Product Management communities make use of the research for their own tool evaluations, this paper presents the results of Seilevel's detailed analysis of the top 21 tools selected from the initial evaluation. We provide our assessment of each tool's identified strengths and limitations. We are pleased to present the final results in this report.





SEILEVEL'S REQUIREMENTS TOOL EVALUATION FROM 50,000 FEET

The need for requirements and business analysis tools has become ever-more prevalent in organizations today. Small businesses and large enterprises alike seek to deliver more business value, reduce rework, and eliminate budget overruns that happen all too frequently due to poor requirements management.

Organizations look to these tools to help control scope using traceability features, ensure stakeholders and team members are aligned on requirements through the use of visual models, or to keep an audit trail of all requirements activity to support more reuse and avoid version-control nightmares. Of course, selecting a tool is only the beginning of the journey – adoption of the tool is required for organizations to realize the benefits. Even the best tool in the world cannot resolve skill gaps, or an undeveloped or unused requirements methodology.

Since tool adoption is critical for achieving value, we have included evaluation criteria for non-functional aspects like usability and licensing models, as well as functionality ranging from fundamental to ‘delighter’ features (features we were delighted to use, but were not necessarily needed). We evaluated these tools from our own perspective at Seilevel, thinking about how we would approach the use of each tool on our own projects. Because of this, you will see a focus on criteria that supports traceability to objectives and visual modeling capabilities.

TOOLS EVALUATED

In the initial phase of our evaluation, we started with 175 tools for consideration. Through cursory review, we eliminated 130 and put 45 through the

MVP criteria. The top 21 tools from phase 1 were put through the full evaluation in phase 2. The 21 tools that we evaluated in depth are:

Tool (name and vendor)
Aha! , Aha! Labs
Blueprint , Blueprint Software Systems
Caliber , Micro Focus
Cockpit , Cognition
Cradle , 3SL
Enterprise Architect , Sparx Systems
in-STEP RED , microTool
Innoslate , SPEC Innovations
Innovator for Business Analysts , MID Gmbh
iRise integrated with JIRA , iRise and Atlassian
Jama , Jama Software
JIRA , Atlassian
Kovair Global Lifecycle/ALM solution , Kovair Software
Modern Requirements Suite of Tools (including InteGREAT Studio, InteGREAT4TFS, and SmartOffice4TFS), eDev Technologies
Polarion Requirements , Polarion Software
Serena Dimensions RM , Serena Software
TestTrack , Seapine Software
Team Foundation Server/Visual Studio Team Services , Microsoft
TopTeam Analyst , Techno Solutions
Visure Requirements , Visure Solutions
workspace.com , workspace.com

PRIORITIZATION

We refreshed our criteria from our prior tool studies based on how our teams are using tools now. We wrote user stories to represent what tasks we wanted to accomplish in each tool. Then we developed acceptance criteria as our evaluation criteria. Finally, we identified and prioritized 34 criteria as the

minimum viable product (MVP) for a requirements management (RM) tool that we would use. If a tool did not satisfy these basic criteria, we did not evaluate further. We then prioritized the remaining 173 criteria. All criteria were weighted using the following scale:

Weight	Feature Support
1	Delighter feature that is wonderful to have but not critical for an RM tool
2	Performance feature that is important to have and increases the efficiency of managing requirements
3	(MVP) Fundamental feature – low importance
5	(MVP) Fundamental feature – medium importance
8	(MVP) Fundamental feature – high importance for the tool to be effective in managing requirements

SCORING

Each tool was evaluated and scored against our full set of features using the following scale:

Score	Feature Support
0	No support
1	Only marginally supported with major workarounds required or very minimal functionality
2	Supported but minor workarounds required or comprehensive functionality missing
3	Fully supported in the tool

The total score for each criterion was calculated by multiplying an individual criteria's priority and the tool's score for that criteria.

$$\text{Criteria Score} = \text{Feature Priority Weight} \times \text{Tool's Feature Score}$$

The total score for each tool is the sum of all criteria scores. We ranked all tools based on total scores (out of a possible 1566 points).

LIMITATIONS OF THE STUDY

The process of selecting the right tool is unique to each organization, and therefore, evaluation and prioritization of criteria will vary based on an organization's needs. This means the scoring and ranking results could be very different based on changing the priorities of the criteria. During the evaluation, we created an editable file which hosts the raw data for criteria and scores, which can be manipulated to adjust criteria priorities. This report represents the top requirements management tools from Seilevel's perspective, not necessarily a holistic view from an industry perspective.

You can see based on the list of contributors to this study, we had multiple analysts evaluating the tools. While we made every effort to grade consistently based on our organization's approach to requirements, it is almost impossible to conduct a study like this and remove all subjectivity.

The tools were graded by individuals who spent an average of six hours using an actual version of the tool, testing functionality and learning to use it quickly with help documentation. It is very possible we might have missed some functionality in the evaluation. To mitigate this, we sent our preliminary scores to each vendor prior to publishing this report, so they had an opportunity to provide feedback on our assessment. We subsequently adjusted scores appropriately, taking into account features we were told we overlooked, while also accounting for the fact that we could not easily find the feature intuitively on our own from a usability perspective. In working with the various RM tool vendors, we had mixed success.

In some cases, it was challenging to get a trial copy or a demo from the vendor to see the supported

functionality, so we had to evaluate to the best of our ability based on whatever version of the tool to which we could get access. Understanding that, we absolutely welcome tool vendors and superusers to challenge any of our scoring that seems incorrect, and will update the published copy of this report accordingly.

EVALUATION RESULTS

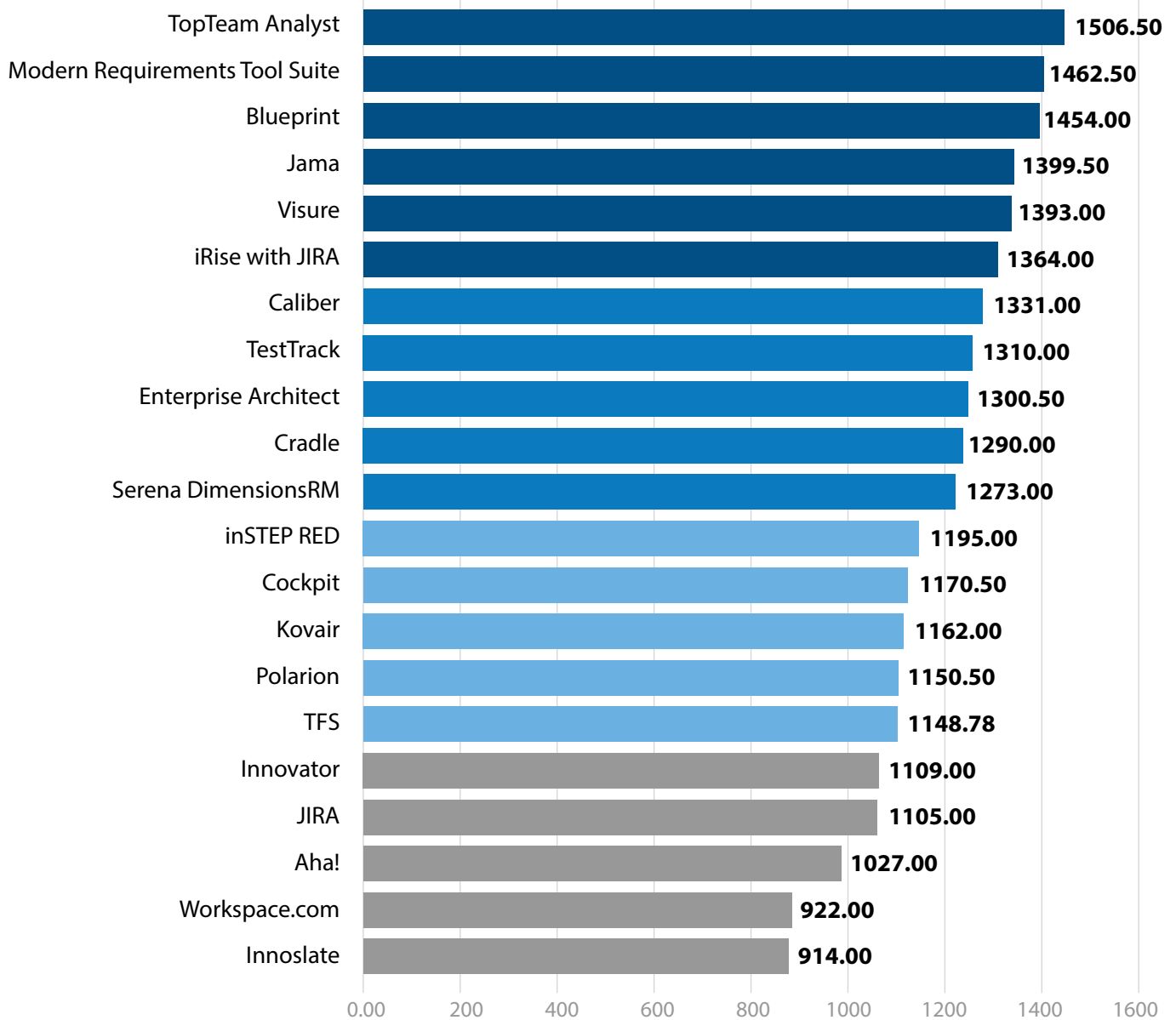
Every tool has its strengths and weaknesses; we have included a brief synopsis of our research for 21 of the tools within this report. The overall ranking of the top 21 tools evaluated is shown in the following diagram.

Tweaking the priorities or adding / removing some criteria in the [scorecard](#) will likely change the ranking order of these tools. Keep in mind that based on an organization's needs, any one of these tools could be re-ordered to the top of the list. For example, the top 3 tools all held the 1st place position at some point during this study, and they all scored quite closely in the final round.

Additionally, it is important to note that Seilevel does not receive compensation from any tool vendor for the development of this evaluation, nor are we business partners with any tool in this report. Throughout the evaluation process, we have made every effort to maintain objectivity across all tools, and ensure each tool is graded consistently across all criteria sets.

Requirements Management Tool Scores

Total Score (1566 is the max)





TOPTEAM Analyst

TopTeam really blew us away. The most delightful part about evaluating this product was that within the sample dataset for new users who tested TopTeam, there is a section for requirements models with a full set of Seilevel's sample Requirements Modeling Language (RML) model templates! From business objectives models to business data diagrams and even data flow diagrams, the fact that it has samples of these models out of the box demonstrates how well it can support our requirements methodology.

From the start, it was clear TopTeam focused heavily on the user experience around managing requirements. You can select from roles like Business User, Product Manager, Customer, QA Manager or Team Lead, and each has different views and dashboards unique to that role. The tool can accomplish pretty amazing tasks in a very intuitive way, including automatically generating diagrams

from textual requirements. The sub-objects within the visual models in this tool are intelligently recognized as objects so traceability can be easily managed. Creation of high-fidelity mock-ups is supported, along with the ability to simulate activities within a screen.



It was very easy to find many of the features we were looking for, including the Admin module which allows you to completely customize your data model, define the relationship rules around traceability, and define workflows to support your requirements process.

Every phase of Seilevel's requirements lifecycle is supported, with key features for review and approval; baseline management; traceability reporting; requirements-health reporting; management of tasks through sprints and burndowns; and version control with simple deletion and recovery. The extensive help documentation is also impressive.

Issue tracking, release management and baselines are all managed intuitively from the repository explorer. Overall, this product offers a robust set of features that will allow our Business Analysts and Product Managers to seamlessly use the tool.

TopTeam Analyst Strengths:

- Impressive modeling and mock-up capabilities, with strong support of the Seilevel RML model set
- Create burndowns and manage sprint/release execution with the agile module
- Easily manage baselines and document versions
- Robust collaboration with Review Package wizard to help manage approvals
- Comprehensive test management, with the ability to quickly generate test cases based off defined use cases or processes
- Intuitive Admin module for requirements architecture, traceability and workflow rules
- Process Guidance feature ensures team members

have reliable tasks and hints to follow when executing on a particular methodology

- Comprehensive document management allows teams to design custom templates and generate requirements documents or status reports very quickly, containing full sets of visual models
- Thorough help documentation and user support

TopTeam Analyst Limitations:

- Limited other application lifecycle management (ALM) tool integrations available out of the box
- Limitations with managing stack ranking/priority with requirements

MODERN REQUIREMENTS SUITE OF TOOLS

InteGREAT Studio, InteGREAT4TFS, and SmartOffice4TFS

Modern Requirements also offers a set of fabulous requirements management products that align very well to the Seilevel methodology, making it one of our favorites! Instead of having one comprehensive tool with a host of features offered to every user, eDev Technologies offers a few different tools that sit on top of TFS with modules that can be selected and used based on your needs. Together, all modules in the suite offer a comprehensive and complementary set of functionality. Their licensing model allows the ability to choose only the necessary components for your users, making it a palatable solution for many organizations.

Overall, we scored the suite of tools together for the stack ranking, but also scored each component of the suite individually for reference.

InteGREAT Studio Overview

The power tool behind the Modern Requirements suite is InteGREAT Studio, which scored 1414 on its own. The set of knowledge objects available out of the box is quite impressive, and includes things like goals, objectives, success criteria, risks, assumptions, processes, process steps, systems, components and many more. The way you build types of specifications (like a Vision specification, a Stakeholder specification, a Process specification, a Data specification) helps you to iteratively build up your requirements story, all while seamlessly

hooked into TFS.

With the Power Panel, managing traceability is very intuitive. The tool contains full requirements modeling capabilities, including a full module to create high-fidelity prototypes, and can integrate with models created in Visio. The Power Panel also includes a collaboration pane where team members can engage in back and forth discussion on a single object, but the overall review and approval capability in the Studio itself is limited.



SmartOffice4TFS Overview

SmartOffice4TFS, which scored 1356 on its own, includes a pack of four Microsoft Office extensions that bi-directionally integrate with TFS (using Word, Excel, Visio and Outlook). If you are an Office user, SmartOffice4TFS is really nice because it allows you to work on your backlog seamlessly in applications you already use on a regular basis. The Visio add-in will automatically recognize every shape on a page as a potential object, and you selectively choose which to add as work items in bulk. Then you can author related requirements right there as you brainstorm from your model.

With Word, you can create organizational document templates that can be updated with the click of a button, so you never have to spend effort manually updating old documents. Excel includes traceability reporting that allows you to easily identify orphans based on set queries. The Outlook add-in allows you to create new work items from an e-mail, link e-mails to issues and requirements, and share items in your backlog.

InteGREAT4TFS Overview

InteGREAT4TFS, which scored 1323 on its own, is the web application of the suite. This tool contains Simulation, Baselining, Traceability, and SmartOffice Library components that fill the gaps the other two components are lacking. Stakeholder engagement functionality is more advanced than the other Modern Requirements tools, with the option to select mock-ups, screens, and simulations for stakeholder review.

The Baseline module enables you to baseline a collection of objects and generate change reports

to track updates. Elements within mock-ups are easily traced to requirements objects, and requirements objects can be drafted directly from the model. Within the Traceability module, not only can you explore relationship comparisons to track coverage, but you can actually create or modify existing relationships by clicking on intersecting points, automatically generating requirements traceability matrices. This could save a tremendous amount of time if you have a large group of requirements to trace to other existing objects.

Modern Requirements Strengths:

- Provides convenient and lightweight extensions for TFS/Visual Studio Team Services back end, which is useful if the development team is already using it
- Organizations can select which modules are needed for them, and only buy modules needed for each user (e.g. power analysts use the Studio, UX designers could just use InteGreat4TFS to generate mock-ups, stakeholders could just use SmartWord4TFS or the InteGREAT4TFS web app to engage in reviews)
- Easy to create low and high-fidelity mock-ups with full traceability to your textual requirements, and when collaborating on design, stakeholders can simulate the actual experience of designs before approving them for build
- Can create fully customized reports so you can always publish up-to-date documentation easily with little doc management overhead
- Comprehensive data model includes virtually every object we would use at Seilevel
- Can manage a backlog from four separate Microsoft Office applications seamlessly, and can model or write requirements directly in Visio, Word, or Excel and bring the data into the tool
- With Word, even users that don't have the tool can use track changes to make suggested edits, and the author can accept changes and then publish changes to easily update the backlog after reviews; a free SmartWord Reviewer capability supports discussions and feedback right within the Word UI

Modern Requirements Limitations:

- Not every feature is available in every module, so you may have to switch between the web application, Microsoft Office applications and the desktop application to fully manage your end-to-end process
- Review functionality as it exists now is not as comprehensive as other tools
- Figuring out how to create your templates in Word the right way can be confusing
- Performance can be slow, particularly when running large traceability reports
- Though you can baseline sets of requirements, there does not appear to be a simple way to revert sets of objects back to previous baselines



BLUEPRINT

We are also really enamored with Blueprint. Blueprint has truly thought of every aspect of the requirements management lifecycle, from identifying requirements in preliminary stages using high-level visual models to elaborating acceptance criteria with high-fidelity mock-ups available right in the tool.

Stakeholders can engage early and often through participation in requirements discussions and requirements review packages. Blueprint offers built-in content packages that can be used to get a head-start on projects, and they even have an impressive sample set of non-functional requirements for teams to reference.

Blueprint Strengths:

- Comprehensive modeling capabilities including process flows, visual use cases, and high-fidelity mock-ups
- Robust traceability suite with visualizations and impact analysis to ensure changes are managed appropriately and no requirements are missed
- Central review capability so baselines and approvals can be managed within the tool
- Highly flexible data model, with a set of base objects that can be adapted using custom attributes for a totally unique instance that can meet your organization's needs
- Intuitive integrations with Microsoft Word, Excel and Visio for item imports, exports and customized document templates for seamless documentation consumption
- Convenient integration with Visio for importing models, including intelligent object recognition
- Microsoft Word integration with intelligent recognition of requirements patterns and automatic parsing of objects from old documentation

With robust modeling capabilities available directly in the tool, you can easily create visual use cases, process flows, state diagrams, business data diagrams and more from within the tool interface.

Relationship management through the traceability explorer also makes it very easy to interactively relate elements of visual models to requirements and to track coverage to find requirements gaps.

Blueprint would need to be integrated with another development-focused tool like Rally or TFS to manage tasks, burndowns and estimates, but for the requirements management piece of the product, Blueprint does pretty much everything. However, their integration with task management tools (JIRA, TFS, Rally) is truly bi-directional, which is an important capability that sets Blueprint apart.



Blueprint Limitations:

- No task management or estimation features
- Cannot easily manage ranking or prioritization of a backlog within the tool – would need to integrate with another solution
- Would need to integrate with a development-focused tool like Rally or TFS to track progress against work items



4TH PLACE JAMA

One of Jama's main benefits is the complete flexibility to customize the object data model and relationship rules, which allows you to really make the tool your own. With an intuitive Admin module, you can create requirements architectures and relationship rules by selecting from your list of objects, defining possible relationships between them, and then visualize the architecture rules readily in your project dashboard.

The traceability feature, with coverage analysis and custom dashboard widgets, makes it easy for your team to achieve a complete set of requirements. The full review center is great; it has the ability to add approval, rejection or specific feedback to a set of selected items, and track review activity (including time tracker per reviewer) on collections

Jama Strengths:

- Completely flexible data model with ability to easily create custom item types and attributes, and govern the relationship rules around the items
- Can follow any development approach, with agile highly supported with iteration planning for sprints and releases
- Review Center feature is among the best on the market today and is very intuitive for stakeholders to use
- The robust roles and permissions setup process is simple to update and manage

of requirements objects. While task management is not very robust, the tool does support release and iteration management. You can create release objects to assign work items to, and manage the collections of a work item for a release together, which makes it very adept for teams following an agile methodology.

The tool has built-in modeling capabilities, but they are not very robust. Sub-objects are not dynamic within a visual model (the models are stored simply as images), so you can't recognize elements within the model as individual objects for complete traceability. You would have to manually add them by loading sub-objects and then forming the relationship yourself (so keeping visual models and textual requirements in sync is very difficult).

Also, no integration with Visio or other modeling tools is available, so you would have to copy and paste images if you wanted to manage modeling in another tool but still store the objects in Jama for traceability analysis.

Jama Limitations:

- The tool includes a decent modeling tool, but models are only recognized as images and sub-objects aren't intelligently identified, so it requires a lot of manual work to get to true granular traceability (e.g. user story to process step)
- Not really built for task tracking with burndowns
- Very limited mock-up capabilities (could only create very low-fi prototypes with their diagramming tool)
- Parent-child relationships aren't automatically created when sub-objects are created; you have to take extra steps to build a formal relationship when creating a sub-object from another object



5TH PLACE VISURE

Visure supports user-defined views, full traceability, requirements re-use, verification and acceptance tests, and requirements baselining, among other fundamental features. Out of the box, the tool comes with several different views and built-in workflows already configured, including a document template view that allows you to see and edit a document before it's exported. With check in/

Visure Strengths:

- Editable document view of requirements
- Superb requirements check out/check in functionality
- Workflow management
- Functionality from a separate tool can be integrated to identify requirements with ambiguous verbiage

check out functionality, items do not automatically lock upon opening as they do in other tools, so multiple users can view a single item at the same time without checking it out. Beyond the out-of-box configuration, you can define a custom workflow for your requirements process and have the tool enforce it for project users, which could certainly support higher adoption of your organization's requirements methodology. While the tool's document management and flexible workflow features scored this tool towards the top of our list, Visure lacks the ability to create visual models or facilitate task management. It does support a number of integrations with other tools for ALM.

Visure Limitations:

- No model creation capabilities
- No task management ability
- Glossary is difficult to find and utilize



6TH PLACE IRISE INTEGRATED WITH JIRA

iRise is a collaborative prototyping tool that allows users to create, review, and update code-free prototypes and mock-ups, while defining requirements within the same tool. While iRise on its own lacks some core RM capabilities, it can integrate with almost any major ALM, requirements management, test, or issue management tool, such as TFS, JIRA, Jama, Blueprint, IBM or HP.

iRise was integrated with JIRA during this evaluation. iRise complements JIRA in providing the sophisticated visual modeling capabilities that JIRA on its own lacks, and with JIRA's object management features, the tools work quite well together. In addition to high-fidelity prototypes, iRise supports the creation of requirements models like organizational charts, process flow diagrams, and data flow diagrams. iRise is a powerful solution for teams that rely heavily on design-centric elicitation, as you can create requirements directly in iRise while collaborating on visual models or mock-ups.

Granular traceability is easy as you can intuitively

tie your requirements to any element within a requirements model or on a screen. The tool includes convenient document generation features, allowing teams to show textual requirements and their related visual components together. With the two-way JIRA integration, analysts and designers can manage requirements from either tool, or comment across tools for collaboration. While you can bulk import requirements objects from Excel, iRise can only retain models from other tools as a flat image.

iRise Strengths:

- Users can easily design working prototypes and mock-ups without coding
- Requirements can be quickly documented and traced to objects within models
- Integrates almost seamlessly with JIRA (and other tools) to create a robust RM solution

Defining custom requirements types and specifying the attributes is possible in iRise, but requires changing the schema that is used. In order to integrate iRise with other tools, another tool (TaskTop) must be used to create the bridge and map data fields. As a stand-alone RM tool, iRise might be sufficient for small-team development projects or agile projects, but the RM functionality is too limited for larger organizations or projects requiring structured approval workflows.

iRise Limitations:

- Limited capabilities as a stand-alone requirements management tool
- Integrating tools requires an additional tool specifically for the integration
- The tool would not be useful for projects not using models or mock-ups



Caliber is one of the more intuitive tools to pick up and learn on the front end. With its familiar Windows-format UI design and layout, it is easy to know how to create requirements and links without needing to do any upfront research. Additionally, the

Caliber Strengths:

- One of the best automatic traceability matrix generators of all tools reviewed
- Ability to create visual models and mock-ups
- Minimal learning curve on functionality
- Comprehensive requirements capture with easy access to history, discussions, traceability, responsibilities and key attributes

visual layout of requirements information is easy to navigate and comprehensive, with a separate section for discussions. Requirements are also very easy to find and reorder using the tool's "Find" and "Move" directional buttons.

Several things limited this tool's scoring potential, such as its inability to import from Excel. Additionally, while this tool allowed for many relationships types to exist for a project, the ability to create new relationship types it is not as intuitive as many other tools we evaluated.

- Thorough functionality for adding documentation, managing and organizing requirements
- Ability to add a tag as part of automatic requirement IDs (ex. REQ###, TASK###, etc.)

Caliber Limitations:

- Unintuitive relationship type creation
- No Excel export/import

8TH PLACE TESTTRACK

Seapine touts TestTrack as an “insanely flexible” ALM solution – and they aren’t kidding! We love that unlike many solutions that offer extensive customizations, TestTrack is a very easy-to-use tool that allows users to have absolute control over their requirements architecture. Not only can users create unlimited custom requirements objects and specify the data fields (including field formats and rules) for those objects, they can also fully customize the relationships and hierarchy between objects.

Users can define relationship types and specify which relationships can be used between different object types (with object and relationship definitions

TestTrack Strengths:

- Requirements architecture is very flexible without custom development or scripting
- Tool utilizes traceability matrices to help identify missing or orphan requirements
- Can be used for issue, test case and requirements management because it is part of an ALM solution
- Easy and intuitive, which helps drive user adoption

created directly in the UI rather than through the back end or complex schema). The tool also has helpful reporting and dashboard features for tracking project progress and metrics, the ability to collaborate with team members inside the tool, and the advantage of being a full ALM solution. This reduces the need to integrate with other tools for issue and test management.

TestTrack’s biggest drawback is the inability to create visual models within the tool. Images of models can be attached or pasted in a requirement’s description, which allows models and mock-ups to be populated into the requirements documents. However, this means models have to be edited externally and updated in the tool so requirements cannot be mapped to individual objects within models.

TestTrack Limitations:

- Visual models and mock-ups cannot be created or edited within RM tool
- For organizations ONLY looking for a new RM solution - TestTrack may not integrate with other issue or testing tools



9TH PLACE ENTERPRISE ARCHITECT

Enterprise Architect is a pretty comprehensive modeling tool above all else and is more commonly targeted at systems or design-level analysis. The tool supports a large majority of our criteria, like the ability to create models within the tool and a comprehensive glossary.

The plug-ins for Word and Excel have thorough import and export of requirements functionality. Also, this is one of the few tools we evaluated that actually has an auto-save feature!

What hindered the tool’s score is its lack of intuitiveness. For example, the only way to create tasks is via a calendar. Additionally, changing attributes and customizing fields looks like it might require some behind-the-scenes scripting.

Enterprise Architect Strengths:

- Visual modeling capabilities
- Word and Excel import and export capabilities
- Comprehensive glossary - one of the best reviewed - which automatically highlights words within requirements and makes for easy access to definitions
- Risks, assumptions and constraints can easily be captured at a requirement level
- Spelling and grammar check for the whole requirements database

Enterprise Architect Limitations:

- Folders (the basis of organization) can become cluttered and busy very quickly
- The tool looks dated and lacks some intuitive capabilities which could hinder adoption
- Generating some metrics is possible, but requires a script to setup
- Does not fully utilize a rich text formatting copy and paste



Cradle features convenient plug-ins for Microsoft Word, Excel, Project and Visio users. The Visio plug-in has the ability to import users from an organizational chart and create user accounts based on it, which could save a ton of time in user access management!

Other useful features include the ability to check

spelling before saving an object, baseline selected elements of your project, and identify words or acronyms that should be avoided due to ambiguity. As an added bonus, this ambiguity monitoring can be updated to include custom words and phrases unique to your organization's patterns.

The tool does support the creation of requirements models, but does not support any high-fidelity prototyping. While there do not appear to be many integrations available with Cradle, other modules seem to offer ALM functionality within it. For the purposes of this report, we did not evaluate that functionality.

Cradle Strengths:

- Word, Excel, Project and Visio plug-ins allow users to continue working in familiar tools
- Create accounts from organizational charts
- Baseline functionality for any level of elements of a project
- Create burndown charts to track tasks
- Create requirements models directly in the tool
- Additional ALM capabilities available as part of the same tool for more seamless integration

Cradle Limitations:

- Limited ability to integrate with other tools you might already be using
- Field-level configuration is not very intuitive
- Modeling functionality does not provide ability to create mock-ups or high-fidelity prototypes



11TH PLACE

SERENA DIMENSIONS RM

Serena Dimensions RM stands out as a contender in this study due to the flexible requirements architecture and robust traceability features offered. Users can define a custom requirements architecture schema, specify requirements objects, the attributes for those objects, and all of the potential relationships between objects. The relationships schema itself is created using a visual model, making it easy to ensure all relationships are properly defined.

Once users create relationships, they can also view a “link browser” that contains a diagram of all links to/from a requirement or within a set of requirements. Although Dimensions RM does not have basic requirements modeling capabilities, there is a workaround (albeit cumbersome) using customized class objects and the linking function. The tool also contains traceability reporting features to ensure there are not any orphaned or missed requirements.

Serena Dimensions RM’s audit trail feature is great! When looking at previous versions, the tool identifies baselines, shows which attributes were changed with

their values before and after, and allows the user to make any previous version of an object or document the current version.

Dimensions also has a vast selection of graphical reports that can be generated, reducing the need to export to Excel to create pivot tables. It can also bulk import requirements from Word or Excel, but the field mapping is not very flexible. If the external file is missing a required field or the data field values do not align with the field format in Dimensions, the import fails, and there is no way to map to an alternative value or edit the incorrect/missing fields.

The biggest drawback of Dimensions RM is the steep learning curve. The tool is configured using Categories, Containers and Classes to organize requirements, which can be confusing to new users. Navigating through the rich editing features is difficult, and the user interface is not very intuitive. Although the ability to customize the tool’s schema is a highlight, the complexity of the process definitely requires support from a Serena case manager. To overcome this, structured training or tutorials can help organizations ensure user adoption. Serena offers a variety of ALM and BPM solutions, but Dimensions can integrate with other tools as well, including Enterprise Architect and HP Quality Center.

Dimensions RM Strengths:

- Highly customizable requirements architecture, including objects, relationship types and traceability rules
- Amazing traceability linking and visualization capabilities
- Impressive out-of-the-box reporting options and ability to create documentation within the tool

Dimensions RM Limitations:

- Steep learning curve due to complex schema configuration and counter-intuitive user interface
- Multiple pop-up windows to complete tasks in web application
- Limited free learning resources available online

in-STEP RED[®]

12TH PLACE IN-STEP RED

microTool offers several requirements management tools – objectIF RM, in-STEP BLUE and in-STEP RED. objectIF RM was evaluated in Phase 1 because of its modeling capabilities, but in-STEP RED is actually a better candidate for Phase 2. in-STEP RED and objectIF RM are both requirements management tools with modeling and visualization capabilities.

in-STEP RED also has an excellent set of project management features, which are included in the Phase 2 evaluation criteria. (in-STEP BLUE is primarily focused on project management and lacks requirements modeling functionality.) in-STEP RED and objectIF RM have some of the best functionality for linking requirements to one another. Relationship types are easy to define and links can be made by

in-STEP RED Strengths:

- Robust set of tracing functionality, with multiple methods for creating relationships
- Ability to use models for and alongside requirements documentation
- Auto-save feature
- Rich project and task management functionality

either viewing a requirement in a list or by drawing relationships between requirements in a diagram.

When visualizing relationships between requirements, the user can see the requirements' descriptions, not just their IDs, which makes it easy to gain context from the diagram without having to open and close each object. The tool is customizable and allows the Admin to store up to 10 different architecture templates that can be used on various projects. It also has an auto-save feature.

Another cool feature is the ability to export requirements to Excel, make changes, and then import requirements back into the tool and specify whether updates are made based on Requirement IDs or Titles. in-STEP RED has a couple of key limitations though; for example, it does not integrate with other tools. The learning curve is also higher than some of its competitors because of the UX design. Seeking support from microTool to initially set up and learn how to use all of the features is highly recommended.

in-STEP RED Limitations:

- Unable to integrate with other tools
- High learning curve for tool structure and utilizing all features

COCKPIT 13TH PLACE COCKPIT

Cockpit supports a lot of the fundamental requirements management functionality included in our criteria. The primary users of Cockpit are medical

device and pharmaceutical companies, many of whom seek a pre-configured template approach to ensure they meet rigorous FDA and ISO standards as part of their compliance efforts. Its ability to send, receive and manage requirement reviews is superior to a majority of the other tools we reviewed.

With the right permissions, a requirement can be sent to a reviewer who can then either approve or move back to editing. The comment feature is also very impressive as it allows users to strikethrough or highlight requirements, and comment on these edit marks. This tool also incorporates an auto-save feature that allows continual work within the tool with little worry of losing any work recently completed.

Cockpit Strengths:

- Review and approval workflow capabilities
- Templates support rigorous requirements compliance against audit standards for medical device equipment
- Admin ability to manage flexible requirements hierarchy with many possible object types

The tool supports various “voices” to ensure teams think about end users and stakeholders appropriately. Overall the tool lost points due to its limited visualization capabilities. While you are not able to do much modeling directly in the tool, it does have a very nice work item visualization option where you can see and manipulate the layout of an object and all of the items it impacts.

Cockpit Limitations:

- It can be time consuming to figure out how to navigate in the tool and utilize its many features effectively
- Very limited visualization and modeling capabilities
- Graphs, charts and UI feels outdated

KOVAIR

14TH PLACE KOVAIR

Kovair offers a full ALM Studio solution that can be used in its entirety or for specific aspects of development projects. The tool can easily be used for both agile and waterfall methodologies, right out of the box.

Importing requirements into Kovair from Word or Excel is straightforward, with the ability to pick which fields to include, map fields from the imported file to the fields within the tool, and specify default values for fields that aren't included in the imported file.

The tool allows users to view traceability diagrams that show the relationships between objects and

version diagrams, illustrating the version history, as well as create models directly linked with a requirement. Allowing users to edit relationships between objects while viewing the relation diagrams would be a nice feature that the tool does not have. Working in the tool can take longer than desired because there is a high number of clicks required to complete most tasks. Clicking an item to view or edit it opens a new window (within the tool) with each click, which can also be time consuming.

Although Kovair offers a lot of features, it is difficult to capitalize on all of the available features. The tool is not very intuitive to use and one of the least user-friendly for configuring requirements types and relationships. Users need to receive support assistance to configure the tool and initially learn how to use the tool. Compared to other tools, the help and learning resources available online are limited.

Kovair Strengths:

- Models can be created directly from requirements objects within the tool
- Releases, requirements, tests, defects, and changes can all be managed within one tool
- Import and export capabilities for Word, Excel, and PDF files
- Relationships between various object types can be viewed in relation diagrams or matrices

Kovair Limitations:

- Requires a significant time investment to learn how to navigate in tool and customize features
- Help and learning materials are minimally useful
- Models have to be created from a requirement object, rather than as a stand-alone object
- Cannot merge duplicate objects or restore deleted objects



15TH PLACE POLARION

Polarion is stronger than most tools when it comes to capturing tasks and task components, such as estimated time remaining on requirements work.

Polarion Strengths:

- Modeling component that allows for mock-up creation
- Standard traceability matrix view
- Task management is pre-defined in the tool

Polarion has a very intuitive modeling component built into the tool, with the ability to create screen mock-ups. One of its standard views includes a traceability matrix, which makes creating and viewing relationship links very simple.

Overall this tool did not score higher because adding or updating field components and document templates is done through scripting (XML), which is difficult for many users. Also, the capability to filter requirements into useful sets is limited.

Polarion Limitations:

- XML is required to create and edit document templates and fields
- Limited filtering capabilities
- No ability to add relationship types for the traceability links

16TH PLACE TEAM FOUNDATION SERVER / VISUAL STUDIO TEAM SERVICES

TFS, or Visual Studio Team Services as it's known in the cloud, is not on its own a very strong requirements management tool, but it can certainly work. Three development process templates come out of the box, and there are enough item types to accommodate most requirements methodologies.

Microsoft now offers process customization features even for the cloud instance, so users are able to overcome challenges around tool flexibility that made teams reluctant to convert to the cloud in the past.

We evaluated this tool with the latest cloud instance (Visual Studio Team Services). Visual Studio Team Services is okay if you are looking for a simple tool to start applying good requirements practices. There are add-ins and extensions available which we review in

other sections (InteGreat4TFS and SmartOffice4TFS) that make this tool a really competitive candidate for seamless requirements management.

On its own, it mostly serves as a development management tool, with task management, defect

management and burndown charts available. There is a powerful query function, but you have to think ahead about how to name different requirements and related object types in order to find them easily.

TFS / Visual Studio Team Services Strengths:

- Manages development and requirements in one place
- Task and issue management with complete burndown charts
- Robust querying capabilities and integration with the Team Explorer add-in means you can work in Excel and grab slices of the data that you want easily
- Intuitive drag and drop interface for backlog management

TFS / Visual Studio Team Services Limitations:

- There is not a good way to separate out visual models and other artifacts where you can easily see them and have them for traceability – and visual models are captured by pasting an image into an object
- Can become difficult to navigate the backlog as it grows (though you can use queries for organization)
- Creating relationships can be done in bulk, but it is time consuming, and there are no good ways to identify gaps in requirements



Innovator

17TH PLACE INNOVATOR

This tool has an interesting approach to requirements management, with a focus on utilizing a visual display for most artifacts. This makes the modeling component of the tool very useful. It is possible

to trace requirements to individual elements of a diagram or model. It also automatically checks spelling and grammar and has a comprehensive set of plug-ins for document management.

The major challenge of this tool is its learning curve. Since it focuses more on visual displays of requirements, it lacks the familiarity of being able to regularly use a list-view of requirements. Basically requirements are created only from diagrams which makes creating links between requirements and other elements, such as issues and tasks, very difficult.

Innovator Strengths:

- Being able to link requirements to an element of a model
- Document management application
- Automatically locks people out of any requirement that is currently being edited

Innovator Limitations:

- Higher learning curve due to visual display of all elements
- No ability to revert back to previous versions of requirements

JIRA

18TH PLACE

JIRA

JIRA is not a traditional requirements management tool. It began as an issue tracking tool and has evolved into a very popular project management tool for agile development teams. It allows you to create projects with Scrum and Kanban boards, track progress across multiple sprints, and even manage portfolio planning.

Out of the box, JIRA is configured for agile projects, and Admin users can create and configure new “issue types” (requirements) to accommodate more traditional requirements architectures. They can also configure project schemas with any combination of issue types. The ability to have multiple projects using different project schemas is handy for organizations who want a single requirements management tool as they transition to agile but still have active waterfall projects.

Although custom data fields can be created, the process is not as intuitive as some other tools and has limited flexibility. Adding new requirements within JIRA can be cumbersome because the user has to open a new window if they want to populate more

than just the title and summary. However, it does allow bulk imports from Excel. The import process allows the user to select which columns to import, specify which fields they map to, and even map field values to values in drop down lists.

JIRA also has a rich dashboard with a lot of reports and graphs that can be easily generated and shared to track project progress. JIRA lost a significant number of points due to the inability to create models or mock-ups within the tool and the limited traceability functionality. Images and files can be attached to requirements, but the file size is limited and models have to be maintained in other tools. This key drawback can be resolved by integrating JIRA with other tools that do have modeling capabilities.

Although JIRA allows users to define custom relationships and trace requirements to one another, the tool lacks a sufficient view of traceability when looking at groups of requirements. With the exception of the “epic” each object is related to, all relationships are grouped together in a single field when requirements are exported to Excel. This means one cannot distinguish which requirements are related to a requirement, and which are blocking or blocked by it. There is also no option to view a diagram of the requirements hierarchy. JIRA does integrate with many other tools, including a dozen other products and hundreds of add-ons available.

JIRA Strengths:

- Out-of-the-box agile configuration for agile projects
- Common features are easy to use and there is a large selection of learning materials available
- Integrates well with other tools and has a vast library of add-ons available
- Large selection of project management reports
- Good for organizations wanting to support agile and waterfall approaches

JIRA Limitations:

- Visual models and mock-ups cannot be created or edited
- Requirements traceability is limited
- The extensive selection of add-ons available may make it difficult for users to identify the best solution for their needs

19TH PLACE AHA!



Aha! is a relatively new tool in the requirements management space. What's unique about Aha! is that it focuses on setting the strategic underpinnings of a project before going after the core requirements management and timeline functionality that forms its output visuals. In fact, it is one of the strongest of these tools that supports portfolio management.

When you first use Aha!, you define the market, prime competitors, vision and mission. The tool strongly encourages use of its own methodology by

limiting available data objects. You must structure your data as one of: product, product line, initiative, goal, feature, requirement or release. This can either be seen as a limitation or a reduction in complexity for defining a requirements framework.

Readily adaptable to agile methodologies, Aha! offers familiar outputs once data has been entered, including: customizable pivot tables, a radial traceability diagram, and timeline charts. It allows the ability to overlay features on releases. While it has a fair amount of customization in terminology, its core focus on a release-centric approach can limit more complex strategic structures from being built.

Aha! Strengths:

- Customizable pivot table reports for all data objects
- Powerful timeline and traceability visualization
- Simple to set up and use right away, if their requirements architecture is sufficient
- Notebooks allow all visuals created in the tool to be exported as a document
- Portfolio management with release planning, goal planning, goal tracing to features, and releases

Aha! Limitations:

- Limited object types and customization constrains how you might implement Aha!, which may be an issue for organizations with specific structures and strategic concepts already in place
- Process for entering in data is slow and click-heavy
- Import capabilities are limited to only a small number of data objects

20TH PLACE WORKSPACE.COM

The ability to customize your requirements architecture within Workspace.com makes it stand out. You can add fields or attributes to requirements and easily configure those changes. Additionally, this tool is one of the stronger in bulk-editing of requirements attributes. It allows you to change something on a set of requirements without the need to change each individual requirement (e.g. changing the status on a set of requirements all at once).

Workspace.com Strengths:

- Creating and editing requirements fields and attributes
- Ability to edit requirements in bulk
- Great filtering and sorting of requirements
- Check in/check out feature to limit multiple people from editing a requirement at the same time

Workspace.com also has one of the more intuitive systems for creating and saving views of requirements. This tool has a few problem areas that ultimately hurt its score. One area in particular involved the inability to trace requirements to other requirements and create parent-child relationships. This process is not intuitive, requiring arrows to make parent-child relationships after the fact. It has export and import functions, but only in older versions of Microsoft Word.

Workspace.com Limitations:

- Dependency on outdated versions of Word
- Traceability capabilities are difficult to use and the report doesn't answer all of the obvious questions about links
- No Excel support

21ST PLACE INNOSLATE

Innoslate is a basic requirements management tool. It is very easy to add or hide different relationship types for linking requirements to one another. Creating new item types (requirements, use cases, etc.) is also very simple, so setting up a unique requirements architecture is relatively

straightforward. What limited the scoring potential for this tool was that it had minimal ability to create roles and permissions, which were basically limited to just read and write capability for the whole project. Additionally, a delayed review of this assessment by one of the Innoslate team members indicated some functionalities of the tool were available that we were unable to easily discover and evaluate during our initial testing.

Innoslate Strengths:

- Simple UI look that does not focus on obsessive use of folders
- Some modeling capabilities
- Recent notification section to see past updates
- Ability to create many different requirement links

Innoslate Limitations:

- Roles and permissions creation only works for projects that call for simple configurations
- Requirements IDs must be manually created and updated

CONSIDERATIONS IN SELECTING A TOOL: BEYOND FUNCTION

While our list of acceptance criteria focused largely on tool functionality, we also paid careful attention to certain non-functional aspects that are important to us as an organization (like availability in the cloud, data model customization, flexibility within or between agile and waterfall). A great way to adapt our evaluation template for your organization would be to identify your own non-functional criteria. Our experience is that many organizations do not know what types of questions to ask when evaluating tools. This list is meant to give you an idea of topics you might want to explore for tool evaluation in an enterprise environment.

- **License costs** – Most vendors were not comfortable with an external source publishing pricing for their tools, so there is no cost comparison included in this report. That said, make sure you have established

a business case or return on investment for deploying a tool so you can justify the expense.

- **Operational costs** – When evaluating costs, do not just look at the tool licensing fees; consider what other operational costs there might be, such as maintenance, upgrades and infrastructure fees. While some tools might have cheaper license fees, they could actually cost more to implement and maintain in the long term.
- **Operational considerations** – You might want to consider things like user management (active directory and local user creation, or even complex active directory scenarios if applicable). How often do upgrades get released, and is there a cost associated with them?



- **Cloud versions** – Depending on how you want to host the solution, evaluate whether a cloud solution has features and support equivalent to an on-premise solution, and if either is planned to be phased out.
- **Scalability** – In our evaluation, we could not rigorously test scalability, so look to the vendor to share real case studies of how their tools scale at 10,000 or even 1,000,000 requirements and 100 or 1,000 projects. You want to look for actual evidence of this, and ask for references to customers that have used a scaled version. Perhaps ask for the largest installation, or how many active concurrent users can be supported on a server. Find out if there is any capability to queue queries to run in the background for speed reasons.
- **Legacy data** – Since most projects start from existing requirements, notice how well tools import existing requirements, or interface with previously used requirements management tool solutions.
- **Adoption rates** – Ask for examples of IT and business stakeholders' adoption rates for the solution.
- **Integrations** – Ask for demonstrations of bi-directional integrations where you can alter data in either end of the integration and see the data passed.
- **Methodologies** – Determine which tools support the type of development environment you work in (waterfall and agile approaches).

HOW TO REUSE THE CRITERIA AND THE RESULTS

Seilevel's research criteria and evaluation results are intended to be used by the Business Analyst and Product Management community. The scores and results of our research can be used as-is in a [downloaded Excel scorecard](#). Note that the "Total Score" is based on the priorities Seilevel put on each criterion; the priority weighting should be updated to reflect your organization's needs in a requirements management tool. This will adjust the Total Weighted Score accordingly. In addition to the numerical scoring, we added notes about our evaluation when applicable, which may prove helpful in your own evaluation.

We hope that you will take our criteria and make it your own by downloading our template and modifying, adding or removing criteria as is relevant for your organization, and adjust prioritizations as you see fit. You could also simply take our list of criteria and evaluate a different tool with the [Excel scorecard](#).

Do not just use raw score results to make a decision on selecting your tool. Your intuition and end-user inputs should be weighted heavily – pick the one that not only meets your criteria, but feels right for you and your teams. Consider testing demo copies of a few of the highest scoring tools, and then select based on feedback from the testers.

CONCLUSION



We hope this detail is useful to select a tool, but we urge organizations to remember that the real value in using a tool is not in selecting one, but in getting users to adopt it. Remember, a tool is not a fix-all solution for broken requirements management processes in your organization or skills gaps in your staff. Before investing in the implementation of a tool, understand how you manage requirements today and where you can improve. Requirements best practices can be executed on post-it notes, in Excel, or in the best tool in the world – it just gets progressively easier as you move along the scale of technology.

But remember that a requirements management tool will not teach your team how to ask the right questions, or drive every decision based on business objectives, or understand how to tell a compelling story for your product that excites developers and users alike. Without the innovation and drive of your people and a value-driven framework for process execution, no requirements management tool will ever truly succeed.

COMPREHENSIVE TOOL LIST

The following tools were considered in our initial research to identify any requirements management tools. Most were evaluated against the MVP

criteria and subsequently eliminated from the more comprehensive evaluation.

There are many tools in this list that did not make the final evaluation, but are still excellent tools in the functionality they do provide.

Top 21 Tools Evaluated in Phase 2: Alphabetized by Tool Name (Vendor)

Aha! (Aha! Labs Inc.)	Kovair ALM Studio (Kovair Software, Inc.)
Blueprint (Blueprint Software Systems)	Modern Requirements Suite of Tools (eDev Technologies)
Caliber (Micro Focus)	Polarion Requirements (Polarion Corporation)
Cockpit (Cognition)	Serena Dimensions RM (Serena Software Inc.)
Cradle (3SL Inc)	Team Foundation Server, Visual Studio Team System (Microsoft)
Enterprise Architect (Sparx Systems Pty Ltd.)	TestTrack (Seapine Software)
Innoslate (SPEC Innovations)	TopTeam Analyst (Techno Solutions Corporation)
Innovator for Business Analysts (MID GmbH)	Visure Requirements (Visure Solutions)
in-STEP RED (microTool)	workspace.com (workspace.com)
iRise (iRise)	
Jama (Jama Software)	
JIRA (Atlassian)	

Tools Evaluated in Phase 1 Only (in Addition to Phase 2 Tools): Alphabetized by Tool Name (Vendor)

Accept360 Requirements (Accept Software, Inc.)	Modelio Analyst (ModelioSoft)
Accompa (Accompa, Inc.)	objectiF RM (microTool)
agosense.requirements (agosense GmbH)	Psoda Requirements Management Module (Psoda)
Aligned Elements (Aligned)	Qpack Requirements Management (Orcanos)
Avenqo PEP (Avenqo GmbH)	reqPOOL Requirements Manager (reqPOOL)
Cameo Requirements (No Magic, Inc.)	ReQtest (ReQtest)
CaseComplete (Serlio Software)	RequirementONE (RequirementONE Inc)
codeBeamer (Intland Software)	RequirementPro (Enfocus Solutions Inc.)
DevSpec (TechExcel)	RMTrak (Prometeo Technologies)
Gatherspace (Gatherspace)	SpiraTeam (Inflectra Corporation)
IBM Rational DOORS Next Generation (IBM)	TraceCloud (TraceCloud.com)
Jalapeno (Capsicum)	Yonix by Yonix

Tools Considered But Not Selected for Phase 1 or Phase 2 Evaluation Based on MVP Criteria:
Alphabetized by Tool Name (Vendor)

Acclaro DFSS (Axiomatic Design Solutions, Inc)	in-STEP BLUE (microTool)
AccuRev (Micro Focus)	inteGREAT (eDev Technologies)
Agile Manager (HP)	iPlan Enterprise (iPlan Enterprise Pvt. Ltd)
agileSpecs (Rodalo GmbH)	iPlotz (iPlotz)
AgileZen (Rally Software)	Jive (Jive Software)
Agilian (Visual Paradigm International Limited)	Justinmind Prototyper (Justinmind)
Agility (AgileEdge)	Kanban Tool (Shore Labs)
Agilo (Agilo Software)	KanbanFlow (CodeKick AB)
Atlas (Micro Focus)	Kanbanize (Kanbanize)
Axiom (iConcur Software)	LeanKit (LeanKit)
Axosoft (Axosoft)	Leap SE Web (Leap Systems)
Axure RP (Axure Software Solutions, Inc)	LiteRM (ClearSpecs Enterprises)
Balsamiq Mockups (Balsamiq Studios, LLC)	LucidChart (Lucid Software Inc.)
Banana Scrum (Codesprinters)	MagicDraw (No Magic)
BaseCamp 3 (Basecamp)	Mingle (ThoughtWorks)
Business Optix (Business Optix)	MockupScreens (MockupScreens)
CA Agile Planning (CA Technologies)	MooD Platform (MooD Enterprises Ltd)
CASE Spec (Goda Software, Inc.)	Neuma CM (Neuma Technology Inc)
Change Management System (Elite Integrated Systems)	Objectiver (Respect-IT sa)
CORE (Vitech Corporation)	OmniGraffle (The Omni Group)
ENOVIA (Dassault Systèmes)	OneDesk Product Management (OneDesk)
Envision VIP (Future Tech Systems Inc.)	Pace (ViewSet Corporation)
Expression SketchFlow (Microsoft)	Parasoft Concerto (Parasoft)
Eylean (Eylean)	Pencil Project (Evolus)
Flairbuilder (FlairBuilder)	Personify Design Team Spec TFS (Team Solutions LLC)
Focal Point (UNICOM® Systems, Inc.)	Pidoco (Pidoco GmbH)
Gliffy (Gliffy, Inc.)	PivotalTracker (Pivotal Labs)
Google Docs (Google)	Planview (Planview, Inc.)
HotGloo (HotGloo GbR)	Pond (Floruit Labs)
IBM Rational RequisitePro (IBM)	Poseidon (Gentleware AG)
IBM Rational Rhapsody (IBM)	PREEvision (Vector)
Icscrum (Kagilum SAS)	ProjectCards (ProjectCards)
IdeaScale (IdeaScale)	Projectricity Requirements Tool (Projectricity)
IdeaShare (OpenCrowd)	ProR (The Eclipse Foundation)
igrafx BPM (iGrafx, LLC.)	PTC Integrity (PTC)

**(CONT.) Tools Considered But Not Selected for Phase 1 or Phase 2 Evaluation Based on MVP Criteria:
Alphabetized by Tool Name (Vendor)**

QFDcapture (International TechneGroup Incorporated)	ScrumWorks Pro (CollabNet)
Quality Center Requirements Management (Hewlett Packard Enterprise Development LP)	ServiceNow (ServiceNow)
Rally Community Edition (Rally Software Development Corp.)	SilverCatalyst (Silver Stripe Software)
Rally Enterprise Edition (Rally Software Development Corp.)	SmartDraw (SmartDraw, LLC)
RaQuest (Sparx Systems)	SOX2 RM (Engineers Consulting GmbH)
Raven for Microsoft Office (RavenFlow)	Spigit (Spigit, Inc.)
RDD-100 (Holagent Corporation)	Statestep (Statestep)
ReMA (Accord Software & Systems)	SwiftKanban (Digite' Inc.)
ReqDB (Requirements Management, LLC)	Targetprocess (Taucraft Limited)
ReqEdit (ReqTeam)	Teamcenter Requirements Management (Siemens)
ReqSuite (OSSENO Software GmbH)	TeamPulse (Telerik)
Reqtify (Dassault Systèmes)	Together (Micro Focus)
Rtime (SDLC Services)	TrackStudio (TrackStudio Ltd.)
Requirements Assistant (Sirius)	Troux Architect (Troux Technologies, Inc.)
Requirements Hub (Select Hub)	Verametric (verametric.com)
Requirements Tracing System (Bandwood Pty Ltd)	VersionOne (VersionOne, Inc.)
ReqView (Eccam s.r.o.)	VisibleThread (VisibleThread)
RMsis (Optimizory)	Visual Requirements (Lucid Models Software)
rmtoo (Andreas Florath)	Visual Use Case (TechnoSolutions Corporation)
RQA (The Reuse COMPANY)	XTie-RT Requirements Tracer (Teledyne Brown Engineering)
Scrumwise (Scrumwise)	YAKINDU Requirements (itemis AG)
	Yodiz (Yodiz)

Tools That Are No Longer Supported:

DesignTrack	Requirements Definer
Dolphin	RESDDES from Jenz & Partner
EdgeRM	ScenarioPlus (Ian's) for Doors
FeaturePlan	SecTro
IBM Rational Focal Point (6.6.1.1)	Sofea Profesy
jUCMNav	SpeedDev RM
Optimal Trace	Storyboarding
PTESY	TeamDefine for Caliber