Introduction

The Requirements Management Database has been designed for maximum flexibility in order to fit a broad range of project management processes and methodologies. The purpose of this whitepaper is to provide an example – illustrating how the Requirements Management Database complies with a leading project scoping process developed by Pragmatic Marketing® called Requirements That Work™.

About Pragmatic Marketing® and Requirements That Work™

Pragmatic Marketing® (http://www.pragmaticmarketing.com) is a recognized expert in technology product management and marketing. Their common sense approach is built upon years of experience and best practices. They have trained over 30,000 product managers and marketers since 1993.

Requirements That Work™ (http://www.pragmaticmarketing.com/Seminars/RTW/) from Pragmatic Marketing® provides a repeatable method for product planning that delivers solutions that sell. The output is a Market Requirements Document (MRD) built upon the concepts of personas, goals, requirements and use-cases that others can read and use.

About the Requirements Management Database

The Requirements Management Database (http://www.reqdb.com) is a collaboration tool that complies with Pragmatic Marketing’s® Requirements That Work™ methodology. The tool helps capture, refine, prioritize, and track through development a detailed list of product requirements in a living document. The output of the Requirements Management Database is a Market Requirements Document (MRD) tailored for each team involved in development.
While it is not the purpose of this whitepaper to review the Requirements That Work™ methodology (you’ll have to talk to Pragmatic Marketing® for that), it is the purpose to illustrate some key ideas and to map the Requirements Management Database against the implementation those ideas.

Specifically we will look at mapping compliance to the following ideas:

1. Developing product requirements from market facts
2. Understanding the end user through personas
3. Identifying market problems and creating use cases
4. Identifying pervasive customer requirements
5. Tracking the market impact of product requirements
6. Creating a product roadmap
7. Tracing requirements through to design documents
8. Resolving issues to optimize the scope of the project
9. Assuring quality
10. Generating a Market Requirements Document (MRD)

We’ll wrap up by looking at how to share requirements with the rest of the team using the alternative Web Interface.

Let’s get started…
Idea #1: Developing Product Requirements from Market Facts

Successful companies use customer facts and market insights to drive product direction – “your opinion, while interesting, is irrelevant”.

The Requirements Management Database acts as a repository for capturing customer facts and insights, along with internal discussions, over time – facilitating the Product Manager’s ability to accurately identify and define market problems.

Discussion Threads are used in the Requirements Management Database to capture all input concerning each product requirement. Discussion Threads comprise of:

- meeting interview notes
- feedback from Account Managers
- emailed feature requests, and
- internal discussions

![Figure 1: Discussion Threads are linked to product requirements. The Display Preferences determine which Discussion Threads to display to the user – helping the user find relevant market facts.](image-url)
Idea #2: Understanding the End User through Personas

The Product Manager creates personas based upon targeted end users – answering the question “who do you want to delight?”

The Requirements Management Database allows you to identify a number of Stakeholders – all the people that have a stake in the requirements being met. A special class of Stakeholder is the End User Persona Profile.

A full description of each End User Persona Profile, complete with background information, aspirations, and challenges, can be created and tracked within the Requirements Management Database.

Figure 2: The End User Persona Profile is a special type of Stakeholder understood by the Requirements Management Database. Understanding and targeting the end user helps a Product Manager scope product development.
Idea #3: Identifying Market Problems and Creating Use Cases

The Product Manager identifies how the product will be used to overcome the problems that customers are facing. If all associated product requirements are not met, the product is incomplete.

A wide range of customer **Use Cases** can be created within the *Requirements Management Database*. Use Cases can be linked to the product **Requirements** in a many-to-many fashion.

To ensure the product is complete and will solve the selected customer problems identified, Use Cases can be used to scope product development. Use Cases – and not individual Requirements – thereby become development end-points.

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**Figure 3:** Use Cases are created within the *Requirements Management Database* to identify how the product under development will be used to overcome customer problems. Use Cases, rather than Requirements, can become development end-points.
Idea #4: Identifying Pervasive Customer Requirements

The Product Manager determines whether a customer problem is pervasive.

Each Use Case, as well as each product Requirement, can be linked to all the Stakeholders (including real customers) within the Requirements Management Database. This quickly allows you to identify whether a customer problem is pervasive.

Figure 4: Both Use Cases and individual product Requirements can be linked to all Stakeholders – including End User Persona Profiles and real customers – to determine the pervasiveness of a customer need.
Idea #5: Tracking the Market Impact of Product Requirements

Requirements should be tracked against their market impact, along with the source of the requirement and the requirement criteria.

The Requirements Management Database™ can categorize product requirements by any number of selection criteria – including the source of the requirement and the impact it is expected to make on the market.

For example, within Pragmatic Marketing’s® methodology, Requirement Criteria comprise of:

- Internal Vision
- Buying Criteria
- Usage Criteria, and
- Competitive Criteria

Figure 5: Requirements can be categorized by a number of selection criteria, including Market Impact and Requirement Source.
Idea #6: Creating a Product Roadmap

Goals are used to define phases of development. Releases are not determined by what can be built by a deadline.

Requirements can be linked to one or more project Milestones in order to create a product roadmap. Milestones can also be linked to Sub Requirements in order to fulfill a very broad Requirement over time.

Project Milestones can be used to synchronize schedule management software – such as Microsoft Project.

Figure 6: A sequence of ordered Milestones can be created within the Requirements Management Database to create a roadmap of product releases.
Idea #7: Tracing Requirements through to Design Documents

The Product Manager writes the product requirements based upon customer problems. The Architect designs solutions to problems. The Developer determines how to implement the solutions.

Each Requirement in the Requirements Management Database can use the Custom List feature to track references to the engineering design documents – such as the High-Level Design Document and the Low-Level Design Document.

Figure 7: Requirements can reference the High-Level and Low-Level Engineering Design Documents, as well as other documents and drawings.
Idea #8: Resolving Issues to Optimize the Scope of the Project

Form the team and discuss considerations that may impact the optimal scope and schedule of the project.

In all likelihood there will be a number of problems identified by the team with respect to the scope of the product development. These are known as Issues in the Requirements Management Database and can be tracked through to resolution.

Issues are specific concerns that are raised against each Requirement throughout the project schedule. Issues cover a range of things: from identifying exceptions to the Requirement, to risks that threaten the fulfillment of the Requirement, to classifying the Requirement as ready for sign off.

![Requirements Management Database](image)

Figure 8: Issues can be raised by any member of the team and tracked within the Requirements Management Database through to resolution.
Idea #9: Assuring Quality

The Quality Assurance team ensures market requirements are verifiable, ensures the functional specification meets the market requirement, and ensures the code meets the functional specification. Use Cases are an excellent source for test plans.

The Requirements Management Database tracks the Status of all Requirements from concept through to verification. The Test Cases generated within the Requirements Management Database ensure that the development meets the requirements.

Figure 9: Test Cases can be tracked through to completion within the Requirements Management Database.
Idea #10: Generating a Market Requirements Document (MRD)

An MRD comprises of the following elements:

- Personas
- Goals
- Requirements
- Use-Cases
- Plus a staple

There are over 30 different types of Reports available to you within the Requirements Management Database that can be combined to form a Market Requirements Document (MRD), a Product Requirements Document (PRD), or a Project Specification.

Each Report is highly configurable and follows a what-you-see-is-what-you-get (WYSIWYG) format.

Figure 10: There are over 30 different types of Reports within the Requirements Management Database – each highly configurable – that can be combined to form a project scoping document, such as a Market Requirements Document (MRD).
Sharing Requirements with the Team

The team the Product Manager works with comprises of:

- Architect / Analyst
- Development
- Quality Assurance

The simplified **Web Interface** is another way to share product requirements with the rest of the team. Requirements can be grouped by function or by a **Baseline** that defines the product’s requirements.

![Requirements Management Database](image)

**Figure 11:** Collecting requirements together by Baseline and viewing them across the Intranet through the simplified Web Interface is another way to work effectively with the rest of the team.
Conclusion

The Requirements Management Database is a flexible tool that can be adapted to many different types of project management processes. The purpose of this whitepaper is to provide an example – illustrating how the Requirements Management Database complies with the Requirements That Work™ methodology developed by Pragmatic Marketing®.

Customizing the Requirements Management Database is easy – each requirement attribute can be tailored to suit your particular development process. The Open Data Structure allows you to further customize the database underlying the tool – allowing you to add new tables and fields, create new forms and reports, integrate into an existing enterprise database (such as Oracle), and link to other project management tools.

Through this whitepaper you should come to appreciate how the tool complies with the Requirements That Work™ methodology. But there are many more features ready for you to discover. Listed below are several that you might find useful:

- **Groups**
  When you develop requirements you should consider your audience. Typically your audience does not want to read hundreds of requirements that are not relevant to them – they are only interested in the few requirements that they must consider. This is why you will want to Group related requirements together by function or development team.

- **History**
  The question most frequently asked by development engineers when presented with an updated set of requirements is “what’s changed since the last revision?” Because the Requirements Management Database automatically tracks all of the History for each requirement, it is easy for you to generate a Change Report.

- **Tags**
  You may wish to Tag a selection of requirements that are related in a complex or unusual way. You may, for example, wish to Tag several requirements that you plan on working on today. Or you may wish to Tag a large number of requirements that comprises the scope of the entire project.

- **Export Queries**
  In order for the Requirements Management Database to be compatible with your existing process, Export Queries may be used to export requirements into either Microsoft Word or Microsoft Excel.
More Information and Feedback

We are always tracking our own enhancement requests for the Requirements Management Database. If you’d like to request that we add a new feature then please email us at: feedback@reqdb.com.

If you’d like more information about any feature, or about any service that we can provide you, please email us at: info@reqdb.com.

Good luck!