

Rimfire Functional Specification
Version 1.0 Core Feature Set

Written by Rimfire Core Development Team

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1. Introduction

The Rimfire Version 1.0 functional specification describes the features and functionality of the *core* Rimfire system. Design and implementation details are described only for those features identified as *core* in the Rimfire Project Plan (see the Rimfire *Project draft.mpp* document.) This includes the Rimfire *host* and Rimfire *mirror* services and their supporting components for submission and distribution of media.

The specification is divided into 3 major sections: *High-Level System Design*, *Hardware/Software Configuration*, and *Detailed Software Design*. The *High Level System Design* section provides a general overview of all Rimfire systems and subsystems and how they relate to each other in accomplishing the overall product objectives. The *Hardware/Software Configuration* section focuses on version 1.0 development, testing and production hardware/software environments as well as on issues relating to migrating the codebase and database from development to production. The *Detailed Software Design* section focuses on the design and implementation details of each subsystem and component and discusses critical design decisions affecting the various subsystems, their interfaces and interactions.

Note that sections and items marked “TBD” have not yet been developed but are slated for completion for version 1.0.

Overview and Background

The Rimfire system is a set of services and tools that make it easy for businesses to submit, access and control mission critical media content over the Internet. For businesses interested in browser-based picture submission, the system provides an easy solution for moving pictures over the Internet from point A to point B. Using PictureWorks *Prepare & Post* tool to submit pictures from a standard browser, the Rimfire system offers a highly available and efficient alternative to manual processing of media in order to incorporate media into clients’ server-based web pages. The Rimfire system uses customer-defined filters for sizing and enhancing images targeted for distribution to clients and their affiliates. All image enhancement is completed *before* media is delivered to the client using PictureWorks *MediaPush* technology.

Key Rimfire Features

- Drag and Drop functionality
Users need not worry about formatting or sizing requirements. They simply drag the image from its location on the hard drive into the submission page presented to them within their browser.
- Multiple images per page
A submission page can handle as many photos on one page as is required by the customer. No need to submit photos one at a time.
- View thumbnails of images being uploaded
As each photo is dragged and dropped onto the submission page, a thumbnail representation appears to help the customer make sure they are sending the right images.
- File format support
Version 1.0 of the Rimfire system supports the JPEG and bitmap (BMP) file formats. Future versions will support a wider variety of image formats.
- Upload progress feedback
Users monitor the success of an image upload over the Internet via messages displayed within their browser.

- Intelligent Client Integration with RSAPI
Using Rimfire's RSAPI (Rimfire Submission Application Programming Interface), partners can easily Rimfire-enable their web pages and applications.
- Support for multiple browser platforms and versions

Key Benefits

- Customers leverage the World Wide Web for inexpensive content delivery.
Today anyone with personal or business interests and a computer spends time using a browser for email communications as well as for sending and receiving files. The Rimfire system *Prepare & Post* tool allows users to drag and drop images into a browser from their local hard drive and then to simply click a button to send the images to their destination. There is no need to pay for desktop utilities, web hosting services, FTP sites, or other delivery mechanisms in order to get pictures to where they need to be. It can all be done from a standard browser using the Internet for transport.
- Customers submit images immediately without needing to overcome technical obstacles.
Image submission is easy with Rimfire System's *Prepare & Post* tool. Understanding terms like jpeg, resolution, sizing, ftp, hosting and others is not necessary. Prepare and Post™ handles all these tasks for the user.
- Customers have a uniform, reliable and secure channel for media acquisition.
Partners who integrate media content into their web site can rely on the Rimfire System to deliver media according to their specific delivery requirements. It is no longer necessary to rely on internal staff and outside imaging services in order to incorporate images directly into your web pages. PictureWorks *MediaPush* technology opens up a direct channel between your employees and affiliates who submit media and end-users who view media on your web pages.
- Dramatically reduces turnaround time
A typical Real Estate business experiences several days between the time images are delivered from its agents and the time they are posted on its web site. During that time, employees categorize and scan submitted images to create an electronic file, which is usually sized and otherwise enhanced. If there are intermediate destinations for photographs or files, this also adds time to the turnaround process. With the Rimfire system's *Prepare & Post* tool, combined with the mirroring service, a client will see turnaround times measured in minutes rather than days.
- Customers submitting images save time by submitting them to only one destination.
The Rimfire system allows agents to submit the images only once yet have them automatically delivered to multiple destinations.
- Clients have access to a large shared media pool.
By subscribing to the Rimfire image services, Real Estate sites have access to a large media pool representing images from a variety of locations.

Server Deployment

The Rimfire central processing server has been designed to run under Windows NT 4.0. The system was developed and tested at PictureWorks and has production systems serving Rimfire partners currently deployed at Navisite (www.navisite.com). See the *Web-Hosting Services* section for details.

Media and Information Storage

Growing a service-based system for media delivery supporting multiple clients requires a flexible information repository driving the overall processing cycle. To this end, the Rimfire development team has built the Rimfire repository on an Oracle 8.0 database (Oracle 8.05 Workgroup Edition.) All programmatic database interaction from Rimfire server components is accomplished using an Oracle JDBC bridge. The

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