

# Rainbow RMS v1.0 for Windows CE

# Manage the Windows CE embedded Web

#### **Product Overview**

Rainbow™ technology enables Web server functionality to be easily and inexpensively incorporated into the rapidly growing number of consumer, commercial and industrial electronics products running the Windows® CE operating system.

The Rainbow RMS (Remote Management System) is a collection of Rainbow web server BGI extensions and site administration tools that provide the basic framework for remote management in distributed, embedded systems. The Rainbow RMS can be used off the shelf or easily customized to meet special needs.

Most distributed embedded systems need to be integrated in an overall network control environment. For example, typical Operations, Administration and Maintenance (OA&M) activities in telecommunications include transferring files, reporting events, changing configuration, applying software patches or even updating the full target image.

The Rainbow RMS provides full remote control over a network of embedded Windows CE devices via the common and familiar web browser interface. The Rainbow RMS enables OEM developers and system integrators to quickly incorporate powerful management capabilities in their their distributed embedded systems.

In addition, the Rainbow RMS is particularly useful for headless Windows CE systems as it provides full control over the device without the need for a built-in display and User Interface modules. This further reduces costs and time to market.

The Rainbow RMS technology can be used in a wide range of applications across many industries such as industrial automation, point-of-sale, remote sensing, telecommunications or even set-top boxes.

The Rainbow RMS runs on top of the Rainbow web server and is separately licensed.

## **Features and Benefits**

The only Windows CE complete remote management suite – based on Rainbow, the first and most powerful embedded web server for Windows CE.

**Powerful remote control** – Rainbow RMS provides all the necessary remote control features to fully manage distributed devices.

**Customizable** – because Rainbow RMS is based on HTML and the familiar Rainbow BGI extension mechanism, the look, feel and functionality can be easily adapted by OEMs developers.

**Cost effective** – readily usable and no need to develop custom remote management tools or costly local user interface.

**Browser based** – all Rainbow RMS functionality is carried out via a standard web browser interface and TCP/IP Internet or Intranet access to devices over Ethernet, serial or wireless links.

**Small footprint** - the Rainbow RMS occupies about 350K of memory, including the Rainbow web server (60K to 80K) depending on the processor.

**RMS File Manager** - provides full remote file system navigation and manipulation, including file copying, deleting, attribute settings, upload files, run executables.

**RMS Application Manager** - provides the ability to remotely install or remove installed applications (.CAB files).

**RMS Process Manager** - provides full remote visibility and control into the running processes and threads.

**RMS Registry Manager** - provides full remote registry editing capabilities.

**RMS Server Manager** – allows remote configuration of the Rainbow web server itself.



## **Technology Overview**

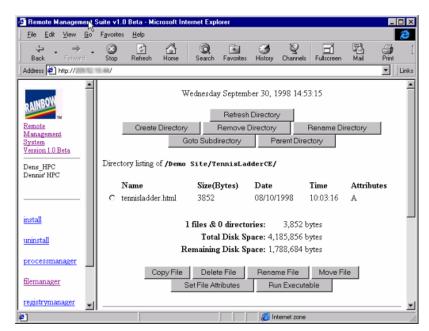
The Rainbow RMS is a device web site that contains a collection of Rainbow web server BGIs (Binary Gateway Extensions) designed to carry out specific remote management tasks. BGIs are structurally similar to Microsoft's familiar ISAPI extension mechanism and are easy to create and/or adapt. For more information on the underlying web server features and capabilities, consult the Rainbow ODK product information sheet.

The Rainbow RMS can be incorporated into an OEM's custom device web site or can be extended to add device specific functionality. For instance, this may include BGIs to manipulate I/O or interact with other running

applications.

In addition to the File, Application, Process

In addition to the File, Application, Process and Registry Managers, the Rainbow RMS also includes a configuration utility to manage and update the Rainbow web server itself, all from within the RMS browser environment. For instance, this includes User Authentication configuration, device web site and BGI locations and automatic server reloads.



### **Contact Information**

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## **Specifications**

#### System Requirements:

- Microsoft Windows NT 4.0
- Microsoft Windows CE Toolkit for VC++ v5.0.
- Microsoft Windows CE Embedded ToolKit (ETK).
- Microsoft Windows CE 2.0 or 2.1, custom or standard platform (H/PC, Palm-Size PC), with Ethernet Adapter or serial Mobile Services link
- Intrinsyc Rainbow OEM Developer's Kit v2.0 or v2.1

#### Tools and Utilities include:

- File Manager
- Application Manager
- Process Manager
- Registry Manager
- Server Manager

#### System Requirements:

- Windows CE v2.0 and v2.1 (with Ethernet Adapter or serial Mobile Services link)
- Custom or standard H/PC or Palmsize PC Windows CE platform

#### Supported processors:

 all processors supported in Windows CE 2.0 and 2.1

#### Interoperability:

**Environment** 

Run-Time

- HTTP 1.0, 1.1 (subset)
- Any browser
- TCP/IP and UDP network support

Typical Windows CE Memory Requirements (depending on the processor and excluding site contents):

Average 350Kof ROM

## Ref: 021-1099-01

**Development Environment**