

November 2008







## Disclaimer

The information contained in this document is subject to change without notice. Concurrent Computer Corporation has taken efforts to remove errors from this document, however, Concurrent Computer Corporation's only liability regarding errors that may still exist is to correct said errors upon their being made known to Concurrent Computer Corporation.

### License

Duplication of this manual without the written consent of Concurrent Computer Corporation is prohibited. Any copy of this manual reproduced with permission must include the Concurrent Computer Corporation copyright notice.

## Trademark Acknowledgments

Concurrent Computer Corporation and its logo are registered trademarks of Concurrent Computer Corporation. All other Concurrent product names are trademarks of Concurrent while all other product names are trademarks or registered trademarks of their respective owners. Linux® is used pursuant to a sublicense from the Linux Mark Institute.

© 2008 Concurrent Computer Corporation – All Rights Reserved Concurrent Computer Corporation 2881 Gateway Drive Pompano Beach, FL 33069

Note: Information subject to change without notice.

1.0	Introduction 1					
	1.1 Product Description					
	1.2 Related Publications 1					
	1.3 Syntax Notation 2					
2.0	rerequisites					
3.0	Installation Procedures					
4.0	Software Removal5					
5.0	Known Limitations					
6.0	Software Updates and Support7					
	6.1 Direct Software Support					
	6.2 Software Updates 7					
	6.2.1 Updating via NUU					
	6.2.2 Installing Manually Downloaded RPMs					
	6.2.3 Customized Update CDs 10					
	6.3 Documentation Updates 10					

Contents

# 1.0. Introduction

This document provides release information and installation instructions for Concurrent Computer Corporation's RedHawk Architect<sup>TM</sup> Version 1.0.

## 1.1 Product Description

RedHawk Architect is an easy-to-use GUI interface for configuring, building and flashing embedded solutions.

RedHawk Architect greatly simplifies the following tasks to create and maintain a runtime and development environment for single board computers (SBCs):

- installing custom configurations of the Red Hat® Enterprise Linux distribution
- installing and configuring the RedHawk<sup>™</sup> Linux<sup>®</sup> operating system
- installing NightStar<sup>TM</sup> application development tools
- maintaining and reconfiguring an SBC's root file system

# 1.2 Related Publications

The following table lists Concurrent documentation for RedHawk Architect and the components that can be installed using RedHawk Architect. Depending upon the document, they are available online on RedHawk Linux systems or from Concurrent's documentation web site at http://redhawk.ccur.com/docs.

RedHawk Architect	Pub. Number		
RedHawk Architect Release Notes	0898600		
RedHawk Architect User Guide	0898601		
RedHawk Linux			
RedHawk Linux Release Notes	0898003		
RedHawk Linux User's Guide	0898004		
RedHawk Linux FAQ	N/A		
NightStar Development Tools			
NightView User's Guide	0898395		
NightTrace User's Guide	0898398		
NightProbe User's Guide	0898465		
NightTune User's Guide	0898515		

# 1.3 Syntax Notation

The following notation is used throughout this document:

italic	Books, reference cards, and items that the user must specify appear in <i>italic</i> type. Special terms may also appear in <i>italic</i> .
list bold	User input appears in <b>list bold</b> type and must be entered exactly as shown. Names of directories, files, commands, options and man page references also appear in <b>list bold</b> type.
list	Operating system and program output such as prompts, messages and listings of files and programs appears in list type.
[]	Brackets enclose command options and arguments that are optional. You do not type the brackets if you choose to specify these options or arguments.

# 2.0. Prerequisites

- RedHawk 5.1 host system or
- Red Hat Enterprise Linux 5.1 host system

# 3.0. Installation Procedures

Perform the following installation steps as the root user.

- 1. Insert the installation CD in the CD-ROM drive.
- 2. Execute the **mount** command with the mount point that is designated in /etc/fstab.

**NOTE: /media/cdrom** is used in the examples in this section; e.g.:

mount /media/cdrom

If the entry is not in /etc/fstab, executing the following command will mount the cdrom device at /media/cdrom:

mount /dev/cdrom /media/cdrom

3. Change the current working directory to the directory containing the installation script:

cd /media/cdrom

4. Invoke the installation script:

./install-architect

5. When installation is complete, change the current working directory outside of /media/cdrom:

cd /

6. Unmount the CD-ROM device (may be required to remove the installation CD from the CD-ROM device):

umount /media/cdrom

# 4.0. Software Removal

Should you desire to uninstall RedHawk Architect, perform the following steps as the root user.

- 1. Insert the installation CD in the CD-ROM drive.
- 2. Mount the CD-ROM drive:

#### mount /media/cdrom

Note: Your CD device mount point may be different.

3. Change the current working directory to the directory containing the installation script:

#### cd /media/cdrom

4. Invoke the uninstall script:

#### ./uninstall-architect

5. When the uninstall is complete, change the current working directory outside of /media/cdrom:

cd /

6. Unmount the CD-ROM device (may be required to remove the installation CD from the CD-ROM device):

umount /media/cdrom

# 5.0. Known Limitations

- The GE Fanuc V7865 is the only target board supported at this time.
- "Flash Image" does not function at this time; however, a utility is available to copy a root file system image to a compact flash. To use this tool, run:

/usr/bin/em-flasher image-directory

# 6.0. Software Updates and Support

### 6.1 Direct Software Support

Software support is available from a central source. If you need assistance or information about your system, please contact the Concurrent Software Support Center at our toll free number 1-800-245-6453. For calls outside the continental United States, the number is 1-954-283-1822. The Software Support Center operates Monday through Friday from 8 a.m. to 5 p.m., Eastern Standard Time.

Calling the Software Support Center gives you immediate access to a broad range of skilled personnel and guarantees you a prompt response from the person most qualified to assist you. If you have a question requiring on-site assistance or consultation, the Software Support Center staff will arrange for a field analyst to return your call and schedule a visit.

You may also submit a request for assistance at any time by using the Concurrent Computer Corporation web site at

http://www.ccur.com/support\_supportservices\_CustomerAssistance\_rt.aspx.

### 6.2 Software Updates

Updates to Concurrent software can be obtained via Concurrent's Software Portal. There are three ways of installing product updates:

- Using the Network Update Utility (NUU) installed on your RedHawk system
- Manual installation after browsing and downloading individual RPMs from Concurrent's software repositories
- Building a customized Update CD using Concurrent's web site for immediate download

### 6.2.1 Updating via NUU

NUU supports installation and updating of software products from Concurrent software repositories over a network. NUU utilizes Yum and the RPM subsystems to install and update software.

NUU is installed automatically with RedHawk, however, you should configure it to include all of the Concurrent software products installed on your system.

Clicking on the "Updates (NUU)" icon on your desktop launches NUU to check to see if Concurrent updates are available for your system.

Instructions for configuring NUU can be found in the **QuickStart.pdf** document available at http://redhawk.ccur.com/updates/QuickStart.pdf.

The first time you invoke NUU you will need to specify your redhawk.ccur.com Login ID and Password that were provided in the shipping documents accompanying your system. If you require assistance, refer to "Direct Software Support" on page 7.

Before using NUU to install any updated software modules, check for NUU updates separately. Apply any NUU updates and then restart NUU before applying any other updates.

### 6.2.2 Installing Manually Downloaded RPMs

You can browse Concurrent's software repositories to locate updated RPMs and download them for manual installation.

Access the RedHawk Updates web site (http://redhawk.ccur.com) by clicking on the "Concurrent Software Portal" icon on the desktop. Accessing this web site displays the following screen:



	Browse Concurrent's Software Repositories
Updates Home Page	The preferred mechanism for network installation and update is to use <u>NUU</u> , Concurrent's Network Update and installation Utility. NUU analyzes the software installed on your system, contacts Concurrent's softwar repositories via the Internet, and allows you to install and update software.
	For customers who lack network connections to Concurrent's software repositories from their secured systems, web-based browsing is made available. You can locate software updates for your products and download them for subsequent transport to secured systems.
	Enter your redhawk.ccur.com Login and Password and press the browse button to proceed:
	Password:
	Browse If you do not have a redhawk.ccur.com Login and Password or if you need assistance, please contact the Concurrent Software Support Center at our toll free number 1-800-245-6453. For calls outside the continental United States, the number is 1-954-283-1822. The Software Support Center operates Monday through Friday from 8 a.m. to 5 p.m., Eastern Standard Time.
	You may also submit a request for assistance at any time by using the Concurrent Computer Corporation web site at <a href="http://www.ccur.com/isd_support_contact.asp">http://www.ccur.com/isd_support_contact.asp</a> or by sending an email to <a href="http://www.ccur.com/isd_support_contact.asp">support@ccur.com/isd_support_contact.asp</a> or by sending an email to <a href="http://www.ccur.com/isd_support_contact.asp">support@ccur.com/isd_support_contact.asp</a> or by sending an email to <a href="http://www.ccur.com/isd_support_contact.asp">support@ccur.com/isd_support_contact.asp</a> or by sending an email to <a href="http://www.ccur.com/isd_support_contact.asp">support@ccur.com</a> .

Clicking on the Browse Repositories link takes you to an authentication page.

Enter your redhawk.ccur.com Login ID and Password and click the Browse button.

Select the products of interest and architecture from the following pages to see the list of RPMs in the product software repository.

# Index of /home/redhawk/buffet/RedHawk/5.1.2

	Name	Last modified	<u>Size</u>	Description
٩	Parent Directory/		-	
	<u>1386/</u>	24-Sep-2008 11:47	-	
	<u>x86_64/</u>	24-Sep-2008 11:48	-	

To locate the latest RPMs in the repository, click on the Last modified column header to sort by date. You may need to click twice to set the sort order to newest-to-oldest.

After locating the RPMs of interest and downloading them to your system, you can manually install them.

To install newly downloaded packages, follow these steps:

- 1. Log in as root and take the system down to single-user mode:
  - a. Right click on the desktop and select Open Terminal.

- b. At the system prompt, type **init 1**.
- 2. Change directory to the location of the updates and issue the following command:

#### rpm -Uvh \*.rpm

The time it takes to install will vary depending on the number of updates being installed.

3. When complete, exit single-user mode (Ctrl-D).

#### NOTE

If you have installed an update containing new RedHawk kernels on a system that has post-installation loadable modules present, those modules must be recompiled for the new kernel; for example, an NVIDIA driver that is a later version than the one included with RedHawk or any third party package that uses loadable modules.

### 6.2.3 Customized Update CDs

You can use Concurrent's Software Portal to create a customized Update CD for your system which you can then download and burn onto physical media, or simply mount as an ISO9660 image.

Update CDs have customized copies of product software repositories and a simple graphical interface for selecting packages for update and installation. These CDs use NUU (described above) to talk to the CD to obtain packages -- no network access is required during installation via Update CDs.

Access the RedHawk Updates web site (http://redhawk.ccur.com) by clicking on the "Concurrent Software Portal" icon on the desktop, then click on Create Update CD images.

You will need to enter your redhawk.ccur.com Login ID and Password and then you can select the products to update. A CD image is built as part of the web session. At the end of the session, you can immediately download it for subsequent installation.

### 6.3 Documentation Updates

For the latest documents, including updated FAQ, Release Notes and User Guides, go to Concurrent's documentation web site at http://redhawk.ccur.com/docs.