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## Software Release Notice

V3.3.2 Software Ensemble for  
RT-3010, RT-3020, SF-2040, SF-2050  
NCT-2030M; *Serial Numbers <5000*  
and NCT-2000 Series Products

### \*\*\* Warning \*\*\*

1. This software build will only function in products containing the NCT-2000D GPS engine. Products equipped with the newer NCT-2100D GPS engine will operate on v5.1.18, which is a co-release software ensemble with this version.
2. **Important** - Update the receiver with a consistent ensemble of software and to use only the latest versions of the Install and StarUtil programs included in this release.
3. **Always install the new software ensemble via COM 2 and power cycle the receiver after installing the software.**
4. **Always install the new software and software options/licenses with the antenna connected and in an area where the receiver has the ability to track satellites.**
5. **Force the StarUtil program to load all versions of software** including the GPS engine, IOP and LBM (LBM for the SF product line only).
6. Use of the *StarUtil* utility is recommended for installation of the new software. Follow this load sequence: 1) LBM (SF- models), 2) IOP (where applicable), and 3) GPS Engine. *Failure to load new software in this order may result in receiver communication failure.*
  - a. The IOP and LBM software must be loaded at 19200 baud. The GPS engine can be loaded at baud rates up to 115200 baud.
7. To optimize performance when using the receiver with an external RTK communication device, it should be connected to COM2, and the controller to COM1.

8. **The receiver controller software may need updating** to function properly with this new release and to enable some of the new features.

## New Messages and Features

This software ensemble incorporates a couple of corrections and a StarFire satellite constellation update. The Technical Reference Manual (TRM) is up to date and published on our website. System integrators need to review the message changes to see if any modifications are needed to the controller software they supply as part of the end user solution.

## Install Makes Updating Software Easy

The StarUtil program requires the user to determine which software modules in the receiver require updating, and performs the update process.

NavCom RTK receivers utilize two processors, one in the GPS engine module and a second in the I/O processing (IOP) module. In the StarFire models, there is a third processor in the L-band module (LBM) that processes the StarFire measurements. The software upgrade package includes new software for each of the three modules. If you are receiving the software upgrade package via E-mail, then the zip file will be included as an attachment.

- ☐ *Create a new separate folder for this ensemble. This will 1) ensure that all of the correct software is in one location, 2) there is no mixing of old and new software, and 3) it affords the ability to “back-track” to the previous version.*

## Software “ZIP” File Contents

The update “ZIP” file includes the following:

Program	Version/Date	Comments
Release Notes v3.3.2 Ensemble.PDF	Dated 22 Feb 2012	Description of improvements and bug fixes (This document)
Readme.TXT	Dated 22 Feb 2012	Update instructions and a list of files
SLv3,3,2.bin	Version 3.3.2	GPS engine software - NCT-2000D models
IOPv3,0.hex	Version 3.0	IOP software
LBMv3,10.hex	Version 3.10	LBM software
StarUtil_v100_5_7.exe	Version 100.5.7	StarUtil program – NCT-2000D models
RinexUtil_v2.09.exe	Version 1.25	Binary to RINEX conversion program

## Documentation

The Technical Reference Manual, Product User Guide, StarUtil User Guide, and Install Manual have not changed for this release. The latest version of the Product User Guide, Install User Guide, StarUtil User Guide, and Technical Reference Manual are available on the NavCom's web site at:

<http://www.navcomtech.com/Support/DownloadCenter.cfm?category=manuals> once the software is officially released.

<b>Manual</b>	<b>Part Number</b>	<b>Revision</b>	<b>Description</b>
StarUtil User Guide.pdf	96-310008-3001	F	Revised StarUtil User's Guide
Technical Reference Manual.pdf	96-312001-3001	N	Revised Technical Reference Manual

## Software Changes/Improvements

The following sections describe the changes and improvements to each of the software modules included in the ensemble.

### GPS Engine Software

This GPS Engine release of software provides the following list of changes, improvements, and features incorporated since the previous formal release of v3.2.9:

#### V3.3.2

- Dynamic Base 0xb1
  - When configured as a Dynamic Base receiver, output the 0xB1 message in all modes except RTK Extend
- Update of the StarFire constellation changes

### I/O Processor (IOP) Software

This IOP release of software provides the following list of changes, improvements, and features incorporated since the previous formal release of v3.0:

- No changes were made to the IOP software.

### L-Band Module (LBM) Software

This LBM release of software provides the following list of changes, improvements, and features incorporated since the previous formal release of v3.4:

#### V3.10

- Update of the StarFire constellation changes

	Satellite Longitude	ID
Net 1	98.0 West	402
	143.5 East	643
	25.0 East	525
Net 2	54.0 West	446
	178.0 East	678
	64.0 East	564

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## **StarUtil Software**

This StarUtil release of software provides the following list of changes, improvements, and features incorporated since the previous formal release of v100.5.7:

- No changes were made to the StarUtil software.

## **RINEXUtil Software**

This RINEXUtil release of software provides the following list of changes, improvements, and features incorporated since the previous formal release of v2.09:

- No changes were made to the RINEXUtil software.

If you have any questions regarding the installation or use of the software upgrade package please contact NavCom Customer Support at [customerservice@navcomtech.com](mailto:customerservice@navcomtech.com) or by phone at +1 310.381.2000.