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COMPUTER SOFTWARE END PRODUCT DOCUMENTATION

December, 1998

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| 13. ABSTRACT (Maximum 200 words) The attached document provides the documentation for the CUP Source Code Delivery to NRAD. | | | | |
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Computer Software End Items

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1 Summary

This document describes the Common UNIX Processor (CUP) Software source code delivery. The CUP image formation processor and GUI (v5.0) were delivered to NRaD/SPAWAR in both sourcecode and executable forms. This software was transmitted to NRaD/SPAWAR via Email as a UNIX tar save set that was compressed and then uuencoded; the transfer was made in February 1997. No follow-up mailing of an 8mm tape will be made at this time, but is available from EI upon request. Today's delivery contains only this document.

2 Assumptions

This document assumes that the CUP software will be installed on a Sun UNIX workstation and that the host workstation is running the Solaris 2.5 or 2.6 operating system. The host workstation should also have the Sun Sparcworks compiler package. CUP Configuration control is maintained by the Revision Control System (RCS), distributed by the Free Software Foundation. All UNIX makefiles in the CUP hierarchy use RCS commands to manipulate source code during compiling and linking.

3 CUP Directory Structure

The CUP software is structured into the following tree:

/var/u/cwp/NRaD

```
'-----3dsar
| '-----3dsar_ifp
| | '-----RCS
| | '-----solaris2.5
| '-----bin
| '-----cup_hgm
| | '-----RCS
| '-----cwp_analy
| | '-----ana_util
| | | '-----RCS
| | '-----RCS
| '-----data
| | '-----RCS
| '-----globals
| | '-----RCS
| '-----gui
| | '-----RCS
| | '-----solaris2.5
| '-----makefiles
| | '-----RCS
| '-----RCS
| '-----tools
| | '-----RCS
| '-----utils
| | '-----RCS
| '-----wfg
| | '-----RCS
'-----cup
| '-----fast_fft
| | '-----RCS
| '-----ifp
| | '-----cup_compress
| | | '-----RCS
| | | '-----solaris2.5
| | '-----cup_dc
| | | '-----RCS
| | | '-----solaris2.5
| | '-----cup_fft
| | | '-----RCS
| | | '-----solaris2.5
| | '-----cup_iac
| | | '-----RCS
| | | '-----solaris2.5
| | '-----cup_polar_format
| | | '-----RCS
| | | '-----solaris2.5
| | '-----cup_util
| | | '-----RCS
| | | '-----solaris2.5
| | '-----RCS
| | '-----solaris2.5
| '-----io
| | '-----RCS
| '-----lib
| '-----makefiles
| | '-----RCS
| '-----parse
| | '-----RCS
| '-----shmem
| | '-----RCS
| '-----tools
| | '-----RCS
'-----RCS
```

Only subdirectories below `/var/u/cwp/NRaD/` will be visible on the tar save set.

The "cup" subdirectory contains all the sensor-independent software in the CUP image formation processor. Examples of sensor-independent routines are the polar-to-rectangular interpolator and the 2D FFT.

The "3dsar" subdirectory contains all the sensor-dependent routines as well as utility routines specific to the ERIM DCS radar sensor. Sensor-dependent routines read the signal history and auxiliary data and perform operations like real-to-complex conversion and motion compensation.

The executable for the CUP graphical user interface (GUI) is called "cup" and can be found in the subdirectory `./3dsar/gui/solaris2.5/`

The executable for the CUP image formation processor (IFP) is called "3dsar_ifp" and can be found in the subdirectory `./3dsar/3dsar_ifp/solaris2.5/`

The real-to-complex filter (`qdfilter.con`) and the polar-to-rectangular interpolation filter (`j0304512.con`) are located in `./3dsar/data`. One can also find the GUI configuration file (`CupConfig.txt`) and the CUP batch numbers files (`cupBatchNums`) in this directory.

It is a near certainty that you will be unable to rebuild the executables from the delivery tape. This situation can easily be remedied if desired by NRaD.

4 Open Issues

None.