

July 19, 2002  
Ref. No.: EOS/ETS-071902-013

National Aeronautics and  
Space Administration  
Goddard Space Flight Center  
Greenbelt, Maryland 20771

Attention: Mr. Willie Fuller  
Code 581  
Building 32, Room N212D

Subject: Contract No.: NAS9-98100  
CSOC SODA Task Order Number GC36  
EOSDIS Test System (ETS) Simulator for ERBS (SIMSS/ERBS)  
Delivery of the Release 1.0 Software

Dear Mr. Fuller:

We are pleased to deliver Release 1.0 of the ETS Simulator for the ERBS spacecraft Control Center Re-engineering effort. This delivery of SIMSS/ERBS consists of modules derived from our Scalable, Integrated Multimission Simulation Suite (SIMSS) infrastructure and architecture with extensions for the ERBS spacecraft. Release 1.0 was previously delivered as a Beta version to facilitate testing of Raytheon's Eclipse control center software.

The major capabilities in this release consist of telemetry transmission emulating all four ERBS formats, command receipt and recognition, setting of command counters, and setting of end-item verifier telemetry points. A complete list of the simulator capabilities is included in Attachment A.

This delivery package contains 11 attachments as listed below. A completed Mission Systems Configuration Management (MSCM) form is included in Attachment K. If you have any questions concerning this delivery, please call me at 301-805-3653.

Sincerely yours,

Ernest Quintin  
CSOC ETS Task Leader

Delivery Package Reviewed and Approved by:

Estelle Noone  
CSOC ETS Customer Service Representative

EOSDIS Test System (ETS) Simulator for ERBS (SIMSS/ERBS)  
Delivery of the Release 1.0 Software  
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The following attachments contain the details of the MPS software delivery.

- Attachment A - describes the delivery contents for this release
- Attachment B - describes the operational changes
- Attachment C - contains the instructions to build and install the software
- Attachment D - contains any special operating instructions
- Attachment E - contains lists of resolved and unresolved DRs
- Attachment F - contains the matrix of requirements addressed by this release
- Attachment G - contains the known system limitations
- Attachment H - contains the release history summary matrix
- Attachment I - contains a listing of the delivery media contents
- Attachment J - contains documentation references
- Attachment K - contains the Mission Systems Configuration Management (MSCM) form

Distribution:

<u>NASA</u>	<u>Honeywell</u>	<u>Lockheed Martin</u>	<u>Raytheon</u>	<u>CSC</u>
Caulfield, M.	Luo, C.	Cordier, G.	Klem, K.	Carlson, J.
Johns, A.	Mateik, D.	Linebarger, D.		Cohoon, C.
Johnson, P.		Shein, H.		McCoy, M.
Krimchansky, A.				Noone, E.
Ondrus, P.	<u>CRC</u>	<u>ASRC Aerospace</u>		Quintin, E.
ESDIS Library	Lavery, K.	Jones, R.		Shurie, E.
				Zhou, J-R
				Task File

## **Attachment A – Description of Delivery Contents**

The SIMSS/ERBS Release 1.0 consists of custom software executables that are being delivered on one CD-ROM.

A soft copy of this SIMSS/ERBS Release 1.0 delivery letter and set of attachments is also being delivered. The attachments have been formatted on a 3.5” IBM PC diskette utilizing the MS WORD word processing tool.

## **Attachment B – Summary of Operational Changes**

### **Operational Capabilities of SIMSS/ERBS Release 1.0**

#### Telemetry:

- Transmit telemetry in IP mode
- Generate one stream of telemetry (major and minor frames packed into 4800-bit NASCOM blocks)
- Start or stop one telemetry stream
- Ingest the PDB files
- Maintain telemetry nodes from information contained in the PDB
- Populate telemetry frames with data values from information contained in the PDB
- Display NASCOM block data upon operator request
- Set values into telemetry points by mnemonic
- Display telemetry node values by mnemonic
- Static data can be overwritten (by byte location) and by modification of telemetry mnemonic
- Telemetry logs may be created (viewable by offline utility)
- CCSDS Unsegmented TimeCode (CUC) can be modified
- Scenario file (script) capability to set telemetry nodes and buffers
- Set initial telemetry data values at initialization
- Telemetry values may be set using simple expressions
- Telemetry values may be set using trigonometric expressions
- Telemetry values may be set using Boolean expressions
- Telemetry values may be set to other telemetry mnemonic values
- Telemetry values may be saved in intermediate variables for later use
- Telemetry data values are validated for fit into packet space

#### Command:

- Ingest command-related PDB files
- Identify commands using information from the PDB
- Display event messages with command mnemonics and submnemonics
- Set telemetry points in response to commands received (end-item verification) using information from the PDB
- Generate event messages based on command ingest
- Log raw commands (viewable by offline utility)
- Display raw command in hexadecimal or octal format addressed in either hexadecimal or decimal fashion
- Update command accepted and rejected counters in telemetry

General:

- Control all simulator module functions via scenario scripts
- Selection of scenario scripts may be via operator type-in or via a file selection browse window
- Start a scenario script from a scenario script
- Execute multiple scenario scripts simultaneously
- Provide operator control of multiple scenario scripts started by the operator
- All viewable buffers may be displayed
- Logs of commands received or telemetry transmitted may be retransmitted via IP output
- Event messages to the screen may be inhibited or enabled by severity (color)
- Scenario scripts may contain IF-then-ELSE-ENDIF and WHILE-ENDWHILE conditional execution directives
- The Scenario module may interface with multiple modules
- Intermediate variables A – Z permit saving values as real numbers
- Intermediate variables Aq – Zq permit saving values as long integers

## **Attachment C – Installation Instructions for SIMSS/ERBS Release 1.0**

This attachment contains the instructions for installing the SIMSS/ERBS Release 1.0 Server and Client.

### **Java Runtime Engine Installation**

Installation of the Java Runtime Engine product need only be performed if the simulator is being installed on a new PC or one that has had its hard drive replaced. If Java is already installed on the PC then skip to the next paragraph.

1. Insert the CD containing the SIMSS/ERBS Release 1.0 into the CD drive and navigate to it using either Windows Explorer or My Computer.
2. Double-click on the file named **jdk1\_2\_2-win.exe** in the root folder. This will cause the Java Runtime Engine to be installed. Accept all defaults when responding to the installation prompts.

### **Installation of the SIMSS/ERBS Server and Client software**

The steps in this paragraph cause the SIMSS/ERBS Client and Server software to be installed on the PC.

1. Insert the delivery media into the appropriate drive.
2. To install the SIMSS/ERBS Client:
  - a) On the desktop, click on the Start button, and then select Run from the resulting menu.
  - b) When the Run window appears select the Browse... button.
  - c) From the Browse Window, select the Removable drive that contains the installation CD.
  - d) Click on the Client folder.
  - e) From within the Client folder, double click on the **Setup.exe** filename.
  - f) A window with the title "Run Window" will appear. Click on the Okay button to proceed to the next step.
  - g) The screen will be filled with a SIMSS/ERBS Client background and a smaller window with the title "Welcome to ERBS Client 1.0" will appear. Click on the Next button to proceed to the next step.
  - h) The next window will contain the licensing agreement. Click on Yes to accept the agreement and proceed.
  - i) After all of the files are copied, a window with the title "Setup Complete" will appear. Click on the Finish button to end.
  - j) A SIMSS/ERBS Client icon will now be installed on the desktop.

3. To install the SIMSS/ERBS Server:
  - a) On the desktop, click on the Start button, and then select Run from the resulting menu.
  - b) When the Run window appears select the Browse... button.
  - c) From the Browse Window, select the Removable drive that contains the installation CD.
  - d) Click on the Server folder.
  - e) From within the Server folder, double click on the **Setup.exe** filename.
  - f) A window with the title "Run Window" will appear. Click on the Okay button to proceed to the next step.
  - g) The screen will then be filled with a SIMSS/ERBS Server background and a window with the title of "Welcome to ERBS Server 1.0" will appear. Click the Next button to proceed.
  - h) The next window will contain the licensing agreement. Click on Yes to accept the agreement and proceed.
  - i) Next a window will show the completion status as the files are copied. When the copying is complete click on the Finish button to finish the installation.
  - j) A SIMSS/ERBS Server icon will be installed on the desktop.

## **Attachment D - Special Operating Instructions**

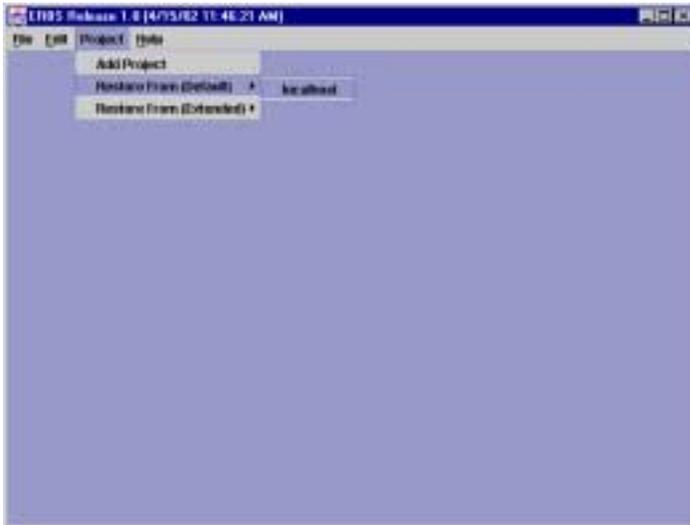
A User's Guide will not be produced for SIMSS/ERBS Release 1.0. The following operating instructions provide the users with sufficient information to perform their needed functions.

### **HOW TO GUIDE**

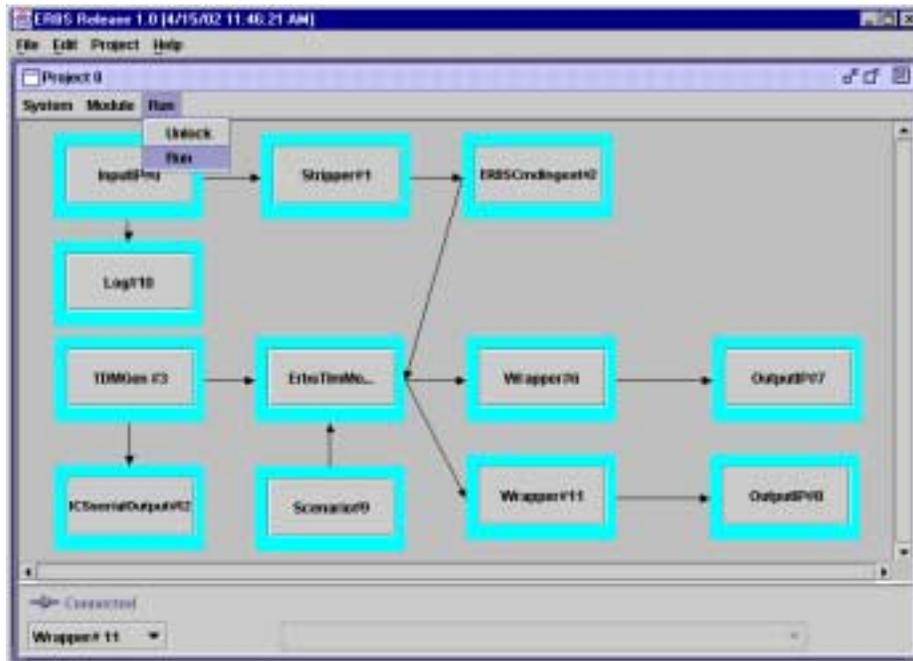
<b>STARTUP.....</b>	<b>2</b>
<b>ADD AND CONNECT A MODULE .....</b>	<b>3</b>
<b>FILTER EVENT MESSAGES .....</b>	<b>4</b>
<b>RUN A SCENARIO FILE.....</b>	<b>4</b>
<b>DISABLE COMMAND COUNTER UPDATES IN TELEMETRY.....</b>	<b>4</b>
<b>CHANGE TDMGEN TELEMETRY FORMATS WHILE RUNNING.....</b>	<b>5</b>
<b>READ IN ERBSTLMMOD TELEMETRY DATABASE.....</b>	<b>7</b>
<b>USE OF ERBSTLMMOD MODBIT .....</b>	<b>7</b>
<b>ERBSTLMMOD DATABASE .....</b>	<b>9</b>
<b>ERBSTLMMOD DATABASE MODIFICATION .....</b>	<b>9</b>

## Startup

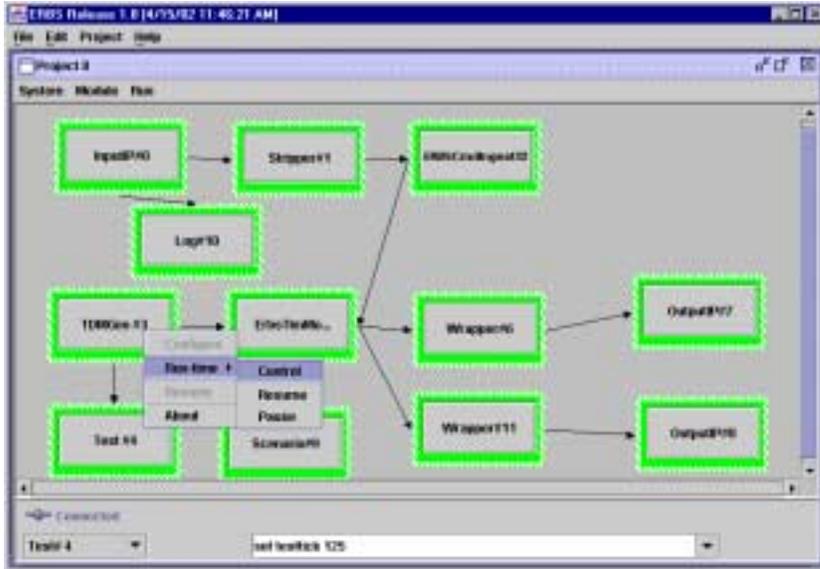
1. Double click the ERBS Server Release 1.0 shortcut (on Desktop).
2. Double click the ERBS Client 1.0 shortcut (on Desktop).
3. Click on Project -> Restore From (Default) -> localhost



4. Select erbs\_simulator.ser from the popup menu.
5. Readjust window size to see all modules
6. Click on Run -> lock
7. Click on Run -> run as shown in the following picture.



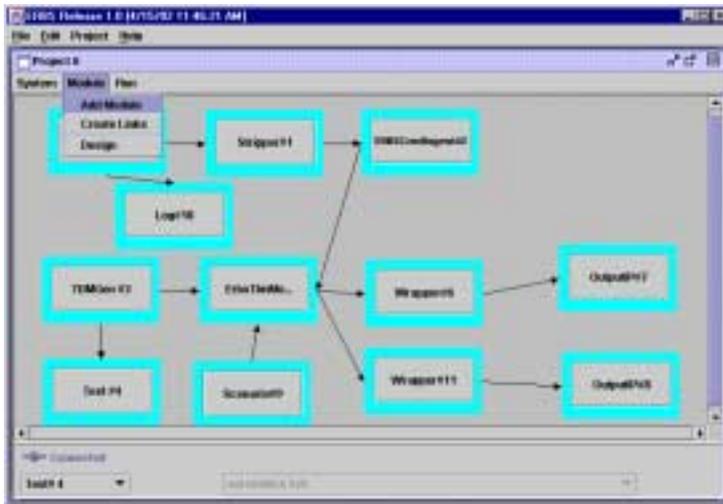
8. Change telemetry formats as needed (default is All Exp). Directions for changing telemetry formats appear further on in this guide.
9. Click the center of the TDMGen module. Select Runtime -> Control.



10. A window will pop up. Click the middle of the Channel 1 button. Select Start. Telemetry data will start to flow.

## Add and Connect a Module

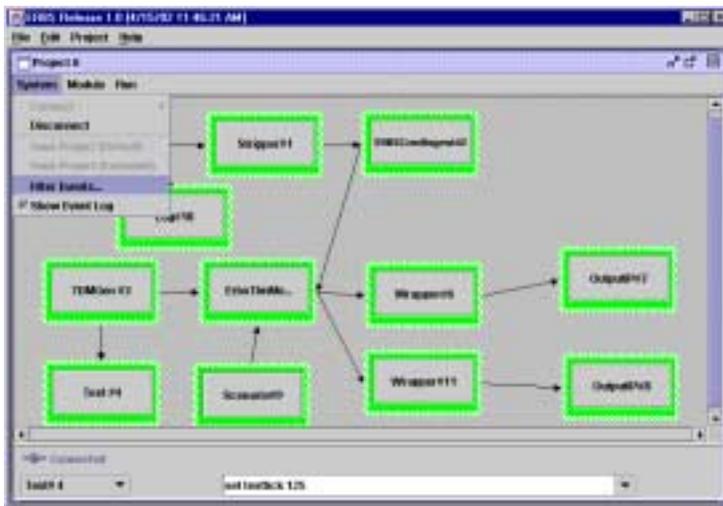
1. Stop the project if it is Running.
  - a. Stop telemetry if it is running (Click middle of TDMGen -> Runtime -> control)
  - b. Click Run -> Stop
  - c. Click Run -> unlock
2. Click Module -> add Module.



3. Select the module you want to add. Either double-click the name or click once then click OK.
4. Click the project window where you want to add the module. The upper left hand corner of the module will be placed where you click.
5. To link the module, click Module -> Create Links, then
6. Click blue boarder of the source module
7. Click blue boarder of the destination module. An arrow will now connect the two modules.
8. Configure the new module as desired (this step can be done before linking the modules).

## Filter Event Messages

1. System -> Filter Event Messages

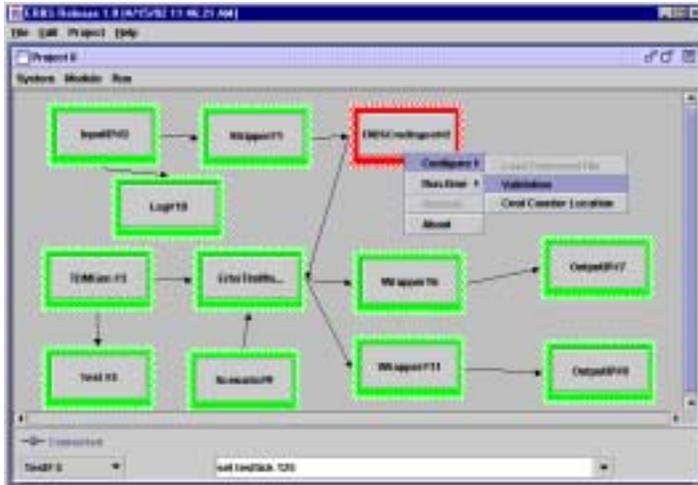


## Run a Scenario File

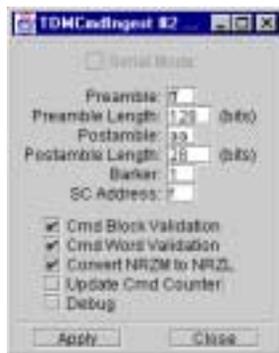
1. Scenario Module -> Runtime -> control
2. Select file (use the "...” button).
3. Press the start button to start the scenario

## Disable Command Counter Updates in Telemetry

1. ErbsCmdIngest -> Runtime -> Pause
2. ErbsCmdIngest -> Configure -> validation



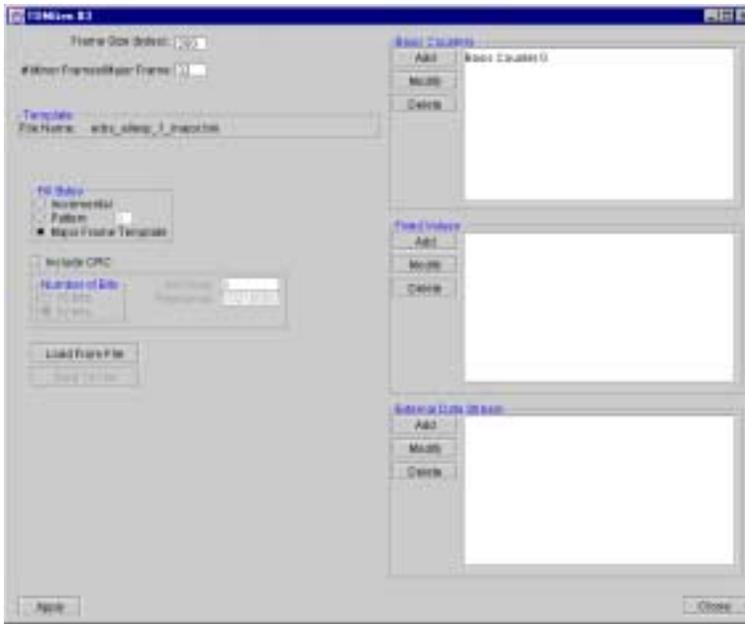
3. Uncheck “Update Cmd Counter”



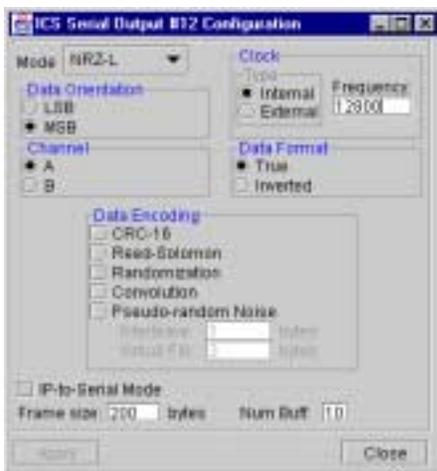
4. Apply and Close
5. ErbsCmdIngest -> Runtime -> Resume

## Change TDMGen Telemetry Formats While Running

1. TDMGen -> Runtime -> Control
2. Go to the window that just came up. Channel 1 -> stop
3. TDMGen -> Runtime -> Pause
4. TDMGen -> configure
5. Click the Load from File button. Select one of the following files.
  - a. tdmgen\_allexp
  - b. tdmgen\_csm
  - c. tdmgen\_sage



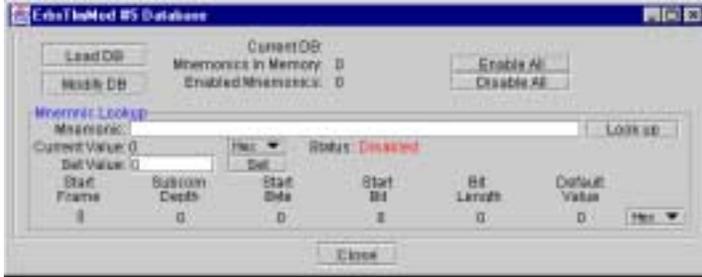
6. Click the Apply button
7. Click the close button
8. If you selected a telemetry format that has a different data rate than the previous format, configure the rate on ICS Serial Output Module. The frequency is in the upper right hand corner of the module's configuration screen.



9. TDMGen -> Runtime -> Resume
10. TMDGen ->Runtime -> control
11. Channel 1-> start
12. Changing the database for the ErbsTlmMod module is in the next section.

## Read in ErbsTImMod Telemetry Database

### 1. ErbsTImMod -> Database



2. Load database button.
3. Select one of the following databases:
  - a. ALL\_EXP\_dscfil.pdb
  - b. CSM\_ENG\_dscfil.pdb
  - c. ERBE\_dscfil.pdb
  - d. SAGE\_dscfil.pdb
4. A lot of warning messages will be displayed. The majority of these warnings describe mnemonics that overlap. If two mnemonics overlap only one should be enabled.

## Use of ERBSTImMod Modbit



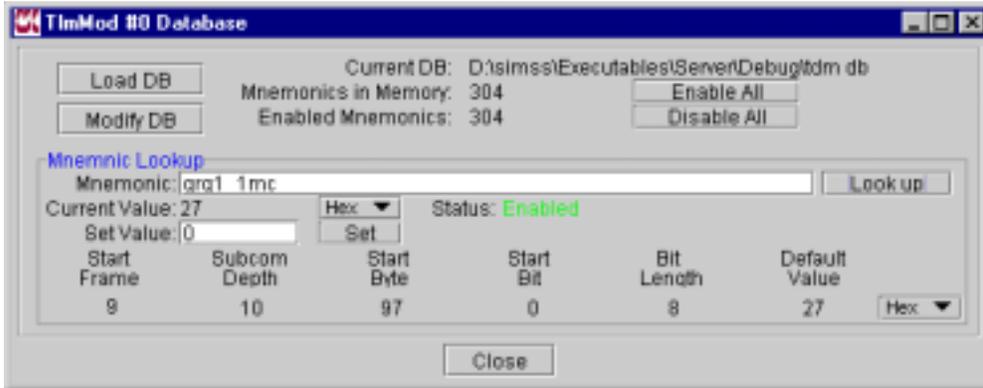
The main part of this window is the modification lines display. This display starts out blank. You need to add some modification lines. This is done by clicking the Add button or one of the Load buttons in the bottom left hand corner of this window (explanation of buttons below). The following chart explains the parts of a modification line.

<b>Item</b>	<b>Description</b>
Enable	When checked, the modification takes place as the telemetry goes through the module. When unchecked, the modification does no occur.
Start Frame	The first frame to be effected by the modification line.
Subcom	The subcom depth for the modification. A value of zero means a single frame.
Start Byte	The first byte to be effected. The minor frame starts with byte zero.
Start Bit	The first bit to be effected. The MSB is bit zero.
Bit Length	The bit length of the modification. Do not worry about going over byte boundaries.
Value	The new value to be placed into telemetry.
Value Before Mod Byte	For a new modification line, this value will be the value extracted from telemetry. After a modification line is changed, this value will be the value that was previously in the "Value" field.
Value After Mod Byte	The value in telemetry after being modified.
Apply	When changes are made to a modification line, this button must be pushed for the changes to go into effect.

There are six button grouped together in the bottom left hand corner of this window. The three buttons on the left are for adding and removing modifications by hand. The three buttons on the right are used for saving and loading modification configurations. The following chart explains the use of each button.

<b>Button</b>	<b>Description</b>
Add	This will add an un-configured modification line to the window. After filling in all the fields, click the apply button, and the modification will be in effect. Make sure the enable check box is checked if you want the modification to occur.
Remove	This will remove all selected modification lines. Select a modification line by clicking in the space between two of the input areas.
Remove All	Remove all modification lines.
Save	Save the current modification lines to a file.
Clear Load	Load modification lines from a file. Doing this will remove all current modification lines before loading the file.
Append Load	Load modification lines from a file. This will not remove any current modification lines.

## ERBSTImMod Database



TImMod allows the use of a database to control mnemonics. A database is loaded into the TImMod module through the Database window (click on the **Load DB** button).

When setting the value of a mnemonic, remember that the value entered is always a hex value.

## ERBSTImMod Database Modification



The user is allowed to modify the database on the fly. This is done using the Database Modification window. Do the following to modify the database:

1. Enter the mnemonic to be modified. If the mnemonic already exists, click the “Look Up” button.
2. Enter the new values for the mnemonic. If deleting a mnemonic, skip this step.
3. Click the “Add/Modify” button or the “Delete” button.

When setting new values for a mnemonic, remember that the values entered are always hex values.

## **Attachment E – Discrepancy Reports**

Since this is the first release of the SIMSS/ERBS simulator, no Discrepancy Reports (DRs) have been written against the software.

## Attachment F: Requirements Matrix

Date of this update: 7/19/2002

General changes: Initial Release

Requirement Number	Implementation Release	SIMSS/ERBS Requirement Description
1	1	The SIMSS/ERBS simulator shall be capable of transmitting telemetry over an Internet Protocol (IP) interface in User Datagram Protocol (UDP) Multicast mode.
2	1	The SIMSS/ERBS simulator shall be capable of transmitting telemetry at 1.6 and 12.8 kbps.
3	1	The SIMSS/ERBS simulator shall be capable of transmitting two telemetry streams over the UDP Multicast interface. The purpose of this requirement is to emulate the I and Q channel data.
4	1	The SIMSS/ERBS simulator shall be capable of formatting basic Time Division Multiplexing (TDM) minor and major frame telemetry to emulate the four ERBS formats.
5	1	The SIMSS/ERBS simulator shall be capable of packing ERBS-formatted telemetry frames into NASCOM blocks for transmit.
6	1	The SIMSS/ERBS simulator shall be capable of reading an ERBS Project Data Base (PDB) during initialization.
7	1	The SIMSS/ERBS simulator shall be capable of using information from the PDB to set telemetry points to operator-entered values.
8	1	The SIMSS/ERBS simulator shall be capable of using information from the PDB to set end-item verifier telemetry points in response to commands received.
9	1	The SIMSS/ERBS simulator shall be capable of using information from the PDB to insert telemetry data values into the proper place(s) in the outgoing telemetry stream.
10	1	The SIMSS/ERBS simulator shall provide a scripting function for the purpose of setting telemetry points.
11	1	The SIMSS/ERBS simulator shall be capable of executing scripts in response to operator request.
12	1	The SIMSS/ERBS simulator shall be capable of performing a playback of pre-recorded spacecraft telemetry data.
13	1	The SIMSS/ERBS simulator shall be capable of receiving TDM-formatted command data in 4800-bit NASCOM blocks over a UDP Multicast interface.
14	1	The SIMSS/ERBS simulator shall be capable of verifying the Cyclic Redundancy Code (CRC), pre-amble pattern, and post-amble pattern of received commands.
15	1	The SIMSS/ERBS simulator shall be capable of reporting errors in the CRC, pre-amble, and post-amble of received commands.
16	1	The SIMSS/ERBS simulator shall be capable of using information from the PDB to identify the commands received.
17	1	The SIMSS/ERBS simulator shall be capable of generating event messages describing the commands identified, upon receipt.
18	1	The SIMSS/ERBS simulator shall be capable of updating command received and command rejected counters in outgoing telemetry in response to commands received.
19	1	The SIMSS/ERBS simulator shall be capable of logging all received commands to a disk file.

## Attachment G – System Limitations

The following limitations apply to SIMSS/ERBS Release 1.0:

<b>Problem Description</b>	<b>Workaround</b>
There appears to be a memory leak or other problem in the stripper module that prevents the system from running continuously.	Reboot the SIMSS/ERBS simulator every three to four days.
Command recognition can only identify real time commands with opcodes of 0, 1 and 2. The code does not identify commands contained within CSM loads. The CSM opcodes are 5, 6 and 7.	None.
The code may not be able to identify either of the triple commands CLK1JM or CLK2JM.	None.
If a command is defined in the database more than once, only the first match will be displayed in an event message. A command bit pattern is tested for match with all fixed commands before being tested against variable commands. If a match is made against a fixed command, no variable commands will be tested. For example, The TD1NM command is a fixed command with a bit pattern of X'186C8732'. It is possible for the variable command, TDU1, which has eight distinct subfields, to have a bit pattern matching that of the TD1NM command.	None.
The simulator may not list all of the submnemonics for the TDU1 and TDU2 commands when multiple bits are set in the 5-bit subfields where lsb is the leave/change bit. The simulator will identify the command mnemonic. If a single bit is set in the field, its submnemonic will be listed. If all bits are zero, they will be listed. When multiple bits are set in addition to the change bit, no submnemonics may be listed at all.	The hexadecimal values for each 60-bit command are listed in an event message prior to the event message listing the command mnemonics and submnemonics. The hexadecimal value may be analyzed to determine which bits were set in these fields.

<b>Problem Description</b>	<b>Workaround</b>
The Scenario module File Selection window does not always show all of the files in the selected folder.	Click the Accept button of the File Selection window without selecting any file. Then type the scenario file name into the Filename field of the Scenario Control window, or copy and paste it from Windows Explorer.
The Save Project (Extended) and Restore From (Extended) options are intended for another application where a remote server runs simultaneously with the local application. The options are included with SIMSS/ERBS so that only one version of the NeTT Core code needs to be maintained.	Avoid use of the Save Project (Extended) and Restore From (Extended) options.

## **Attachment H - Release History Summary Matrix**

Attached is the SIMSS/ERBS simulator release history summary matrix. Modules inherited from the SIMSS baseline have the SIMSS Release Number, while the modules that are specific to SIMSS/ERBS have the current Release Number.

## Release History Summary Matrix

**System: SIMSS/ERBS**

<b>Release Number</b>		1.0												
<b>Delivery Date</b>		7/19/02												
<b>Configuration Item</b>	<b>CI No.</b>													
Core (Client)	1.1	6.0												
Core (Server)	1.2	6.0												
ErbsCmdIngest (Client)	1.3	1.0												
ErbsCmdIngest (Server)	1.4	1.0												
ErbsTlmMod (Client)	1.5	1.0												
ErbsTlmMod (Server)	1.6	1.0												
IP Input (Client)	1.7	4.0												
IP Input (Server)	1.8	4.0												
IP Output (Client)	1.9	4.0												
IP Output (Server)	2.0	4.0												
Logging (Client)	2.1	4.0												
Logging (Server)	2.2	4.0												

<b>Delivery Date</b>		7/19/02												
<b>Configuration Item</b>	<b>CI No.</b>													
Scenario (Client)	2.3	6.0												
Scenario (Server)	2.4	6.0												
ICS Serial Out (Client)	2.5	6.0												
ICS Serial Out (Server)	2.6	6.0												
Stripper Module(Client)	2.7	6.0												
Stripper Module (Server)	2.8	6.0												
TxFile (Client)	2.9	6.0												
TxFile (Server)	3.0	6.0												
Wrapper Module(Client)	3.1	6.0												
Wrapper Module(Server)	3.2	6.0												
tdmGen (Client)	3.3	6.0												
tdmGen (Server)	3.4	6.0												
Monitor (Client)	3.5	6.0												
Monitor (Server)	3.6	6.0												
TdmDqm (Client)	3.7	6.0												
TdmDqm (Server)	3.8	6.0												

## Attachment I - Delivery Details

### I.1 Software

A complete listing of the SIMSS/ERBS software file names is available upon request.

### I.2 Hardware for SIMSS/ERBS in GSFC, Building 32

There is one CSOC-owned PCs presently installed in Building 32.

Qty	Common Name	Model [Serial No.]	Mfg	CSOC No.	Description
1	Computer	E-4200 001-343-8941	Gateway	C0060051	Intel Pentium II 450 Mhz w /512 Cache, 256 MB SDRAM PC100 6ns Micron, Matrox Millenium II 8MB AGP Video card, Toshiba 32x SCSI CD ROM Drive, Seagate 9.1 GB hard disk, IOMEGA 100 mb internal zip drive
1	Monitor	VX1100 811053238	Gateway	C0060042	21" Monitor
1	Mouse	Intellimouse 2570464- 10000	Gateway		
1	Keyboard	Q9045A1950	Gateway		
1	Serial I/O Card				Mfg name is FASTCOMESCC/P

## Attachment J - Documentation References

The following documents have been employed as the main sources for direction and information in producing Release 1.0 of the SIMSS/ERBS simulator.

<b>Document</b>	<b>Location*</b>
Earth Radiation Budget Satellite (ERBS) DR Number: 405 Mission Operations Procedures 13 January 1982	1
Earth Radiation Budget Satellite (ERBS) DR Number: 306 Telemetry and Command Handbook 6 June 1984	1
ERBS Telemetry and Command Data Base Interface Control Agreement BASD to POCC Data Base Interface 15 July 1982	1
Mission Operations and Data Systems Directorate Radio Frequency Interface Control Document Between the Earth Radiation Budget Satellite (ERBS) and the Tracking Data Relay Satellite System (TDRSS) 531-RFICD-ERBS/TDRSS September 1993	2
Earth Radiation Budget Satellite (ERBS) Real-Time Command System Design (B83-D-10300-05) CSC/SD/-82/6112 October 1982	1

Location Legend:

Number	Designation
1	hardcopy
2	Electronic PDF document

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\*See Location Legend

**Attachment K — Mission Systems Configuration Management Form**

This attachment contains the completed Mission Systems Configuration Management (MSCM) form for the delivery of SIMSS/ERBS Release 1.0.

**Mission Systems Configuration Management Form**

<u>1. ORIGINATOR</u> Estelle Noone	<u>2. ORGANIZATION</u> CSC	<u>3. PHONE</u> 301-805-3653	<u>4. E-MAIL ADDRESS</u> <a href="mailto:enoone@csc.com">enoone@csc.com</a>		
<u>5. ELEMENT</u> ETS (SIMSS/ERBS)		<u>6. INSTALLATION PRIORITY</u> Routine	<u>7. TRACKING NUMBER</u> (Assigned by CM Office)		
<u>8. SOURCE CHANGE REQUEST(S):</u> ETS delivery of the SIMSS/ERBS simulator for ERBS Re-engineering.		<u>9. APPROVALS</u> Element Manager _____ / / Flight Ops Director _____ / / Operations Manager _____ / /			
<u>10. DELIVERED SYSTEM</u> (Check all that apply)					
	Name	Version	Media Identification	Identification Date	
<input type="checkbox"/>	Hardware	_____	_____	_____	
<input checked="" type="checkbox"/>	Software	<u>SIMSS/ERBS</u>	<u>R1.0</u>	<u>CD-ROM</u>	<u>07/19/02</u>
<input type="checkbox"/>	Database	_____	_____	_____	
<input checked="" type="checkbox"/>	Documentation:				
	<u>SIMSS/ERBS delivery package</u>	<u>N/A</u>	<u>3.5 " Diskette</u>	<u>07/19/02</u>	
	_____	_____	_____	_____	
	_____	_____	_____	_____	
<input type="checkbox"/>	Other	_____	_____	_____	
<u>11. CHANGE DESCRIPTION</u> Release 1.0 of SIMSS/ERBS _____ _____ _____					
<u>12. ATTACHMENT(S):</u> Check if YES <input checked="" type="checkbox"/> Description: <u>SIMSS/ERBS Release 1.0 delivery package (cover letter with attachments) dated 07/19/02</u> _____ _____					
<u>13. CM OFFICE USE</u>					
	Location (Bldg/Room)	Slot location(s)			
Hardware	_____ / _____	_____			
Media	_____ / _____	_____			
Documentation	_____ / _____	_____			
Installation date	_____ / _____ / _____	CM Office Signature _____			

Form MSCM (970327)