

5

ENGINEERING CHANGE NOTICE

Page 1 of 2

1. ECN 657305

Proj.
ECN

2. ECN Category (mark one) Supplemental <input type="radio"/> Direct Revision <input checked="" type="radio"/> Change ECN <input type="radio"/> Temporary <input type="radio"/> Standby <input type="radio"/> Supersedure <input type="radio"/> Cancel/Void <input type="radio"/>		3. Originator's Name, Organization, MSIN, and Telephone No. D.A. Barnes, Data Development and Interpretation, R2-12, 373-3667		4. USQ Required? <input type="radio"/> Yes <input checked="" type="radio"/> No		5. Date 2/28/2000	
		6. Project Title/No./Work Order No. Tank Monitor and Control System		7. Bldg./Sys./Fac. No. 2750E, B105		8. Approval Designator ESQ	
		9. Document Numbers Changed by this ECN (includes sheet no. and rev.) HNF-3538 Rev 2		10. Related ECN No(s). N/A		11. Related PO No. N/A	
12a. Modification Work <input type="radio"/> Yes (fill out Blk. 12b) <input checked="" type="radio"/> No (NA Blks. 12b, 12c, 12d)		12b. Work Package No. N/A		12c. Modification Work Completed N/A Design Authority/Cog. Engineer Signature & Date		12d. Restored to Original Condition (Temp. or Standby ECNs only) N/A Design Authority/Cog. Engineer Signature & Date	
13a. Description of Change Complete revision of document. (Incorporates ECN 655999)				13b. Design Baseline Document? <input type="radio"/> Yes <input checked="" type="radio"/> No			
14a. Justification (mark one) Criteria Change <input type="radio"/> Design Improvement <input type="radio"/> Environmental <input type="radio"/> Facility Deactivation <input type="radio"/> As-Found <input checked="" type="radio"/> Facilitate Const. <input type="radio"/> Const. Error/Omission <input type="radio"/> Design Error/Omission <input type="radio"/>		14b. Justification Details This updates the TMACS Version Description Document with the changes incorporated in the software release 11.2.					
15. Distribution (include name, MSIN, and no. of copies) See attached distribution.							

RELEASE STAMP

B-2-00

DATE:

STA:

4

HANFORD
RELEASE

ID:

67

ENGINEERING CHANGE NOTICE

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1. ECN (use no. from pg. 1)

657305

16. Design Verification Required

☐ Yes

☒ No

17. Cost Impact

ENGINEERING

Additional ☐ \$ _____

Savings ☐ \$ _____

CONSTRUCTION

Additional ☐ \$ _____

Savings ☐ \$ _____

18. Schedule Impact (days)

Improvement ☐ _____

Delay ☐ _____

19. Change Impact Review: Indicate the related documents (other than the engineering documents identified on Side 1) that will be affected by the change described in Block 13. Enter the affected document number in Block 20.

SDD/DD	<input type="checkbox"/>	Seismic/Stress Analysis	<input type="checkbox"/>	Tank Calibration Manual	<input type="checkbox"/>
Functional Design Criteria	<input type="checkbox"/>	Stress/Design Report	<input type="checkbox"/>	Health Physics Procedure	<input type="checkbox"/>
Operating Specification	<input type="checkbox"/>	Interface Control Drawing	<input type="checkbox"/>	Spares Multiple Unit Listing	<input type="checkbox"/>
Criticality Specification	<input type="checkbox"/>	Calibration Procedure	<input type="checkbox"/>	Test Procedures/Specification	<input type="checkbox"/>
Conceptual Design Report	<input type="checkbox"/>	Installation Procedure	<input type="checkbox"/>	Component Index	<input type="checkbox"/>
Equipment Spec.	<input type="checkbox"/>	Maintenance Procedure	<input type="checkbox"/>	ASME Coded Item	<input type="checkbox"/>
Const. Spec.	<input type="checkbox"/>	Engineering Procedure	<input type="checkbox"/>	Human Factor Consideration	<input type="checkbox"/>
Procurement Spec.	<input type="checkbox"/>	Operating Instruction	<input type="checkbox"/>	Computer Software	<input type="checkbox"/>
Vendor Information	<input type="checkbox"/>	Operating Procedure	<input type="checkbox"/>	Electric Circuit Schedule	<input type="checkbox"/>
OM Manual	<input type="checkbox"/>	Operational Safety Requirement	<input type="checkbox"/>	ICRS Procedure	<input type="checkbox"/>
FSAR/SAR	<input type="checkbox"/>	IEFD Drawing	<input type="checkbox"/>	Process Control Manual/Plan	<input type="checkbox"/>
Safety Equipment List	<input type="checkbox"/>	Cell Arrangement Drawing	<input type="checkbox"/>	Process Flow Chart	<input type="checkbox"/>
Radiation Work Permit	<input type="checkbox"/>	Essential Material Specification	<input type="checkbox"/>	Purchase Requisition	<input type="checkbox"/>
Environmental Impact Statement	<input type="checkbox"/>	Fac. Proc. Samp. Schedule	<input type="checkbox"/>	Tickler File	<input type="checkbox"/>
Environmental Report	<input type="checkbox"/>	Inspection Plan	<input type="checkbox"/>		<input type="checkbox"/>
Environmental Permit	<input type="checkbox"/>	Inventory Adjustment Request	<input type="checkbox"/>		<input type="checkbox"/>

20. Other Affected Documents: (NOTE: Documents listed below will not be revised by this ECN.) Signatures below indicate that the signing organization has been notified of other affected documents listed below.

Document Number/Revision

Document Number/Revision

Document Number/Revision

N/A

21. Approvals

Signature	Date	Signature	Date
Design Authority <u>C.C. Scaief, III</u>	<u>3-1-00</u>	Design Agent _____	_____
Cog. Eng. <u>D.A. Barnes</u>	<u>3-1-00</u>	PE _____	_____
Cog. Mgr. <u>J.G. Field</u>	<u>3-1-00</u>	QA _____	_____
QA <u>W. Adams</u>	<u>3-2-00</u>	Safety _____	_____
NRC'S <u>J.B. Hobden</u>	<u>3/2/00</u>	Design _____	_____
Safety <u>P.L. Smith</u>	<u>3/2/00</u>	Environ. _____	_____
Environ. <u>P.G. Miller</u>	<u>3-2-00</u>	Other _____	_____
Other <u>J.C. Hoffman</u>	<u>3/2/00</u>		
<u>T. Erickson</u>	<u>3/2/00</u>		
<u>W.J. Kennedy</u>	<u>3/2/00</u>		

DEPARTMENT OF ENERGY

Signature or a Control Number that tracks the Approval Signature

ADDITIONAL

DISTRIBUTION SHEET

To
Distribution

From
Data Development & Interpretation

Page 1 of 1

Date 2/28/2000

Project Title/Work Order	
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Tank Monitor and Control System (TMACS) Version Description Document
(VDD)

EDT No. N/A

ECN No. 657305

[illegible]

Tank Monitor and Control System (TMACS) Version Description Document (VDD)

D.A. Barnes

CH2M HILL Hanford Group, Inc.

Richland, WA 99352

U.S. Department of Energy Contract DE-AC06-99RL14047

EDT/ECN: ECN-657305

UC: 605

Cost Center: 74B50

Charge Code: 102608EB00

B&R Code: EW3120071

Total Pages: 30

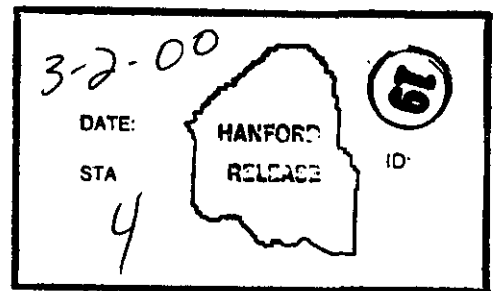
Key Words: Version Description Document, VDD, TMACS, Tank Monitor and Control

Abstract: This document updates the Version Description Document with the changes incorporated in the Revision 11.2 software installation on the Tank Monitor and Control System (TMACS)

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Release/Approval Date



Release Stamp

Approved For Public Release

**Tank Monitor and Control System
(TMACS)
Version Description Document**

Prepared By

**Ronald R. Wandling
Lockheed Martin Services, Inc.**

For

**CH2M HILL Hanford Group
For
US Department of Energy
Office of River Protection
Richland, Washington**

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1 INTRODUCTION

1.1 PURPOSE

This document contains configuration information for the Tank Monitor and Control System (TMACS) release 11.2. This version was installed in production on February 2, 2000.

2 DOCUMENTATION FORMAT

2.1 PROJECT IDENTIFICATION

The Tank Monitor and Control System uses a 3-layer revision descriptor. The descriptor consists of a major revision number, a minor revision number, and a "fix" number, e.g., major revision 5, minor revision 3, and fix 2 would have the identifier 5.3.2.

2.2 SYSTEM OVERVIEW

TMACS was established in 1991 under the Tank Farm Instrument Upgrade project to monitor temperatures and surface levels in the Hanford 200 area "watch list" tanks.

2.3 REFERENCED/RELATED DOCUMENTS

System Functional Requirements	WHC-SD-WM-SFR-006, Rev 1
TMACS As-Built Design Document	WHC-SD-WM-SDD-079, Rev 0
System Configuration Management Plan	HNF-SD-CSCM-019, Rev 1
Functional Requirements for the Acromag ¹ I/O Processor Interface to the Tank Monitor and Control System (TMACS)	HNF-2708, Rev. 0
Functional Requirements for the Enraf ² Gauge Interface to the Tank Monitor and Control System (TMACS)	HNF-2791, Rev. 0
Functional Requirements for the Panalarm ³ Annunciator System Interface to the Tank Monitor and Control System (TMACS)	HNF-3053, Rev. 0
Functional Requirement for the Westronics ⁴ Interface to the Tank Monitor and Control System (TMACS)	HNF-2607, Rev. 0

¹Acromag is a trademark of Acromag Incorporated, Wixom, Michigan.

²Enraf is a registered trademark of Enraf, B.V.

³Panalarm is a registered trademark of Ametek, Inc.

⁴Westronics is a registered trademark of Westronics, Inc.

2.4 VERSION DESCRIPTION

2.4.1 Software

The main processing performed by TMACS is built using the G2⁵ software product from Gensym. The knowledge bases used are in Appendix A.

Interfaces to field equipment use services written in Microsoft⁶ Visual C⁷. The serial port hardware and software were purchased from Digi⁸ International Incorporated. The source code files are listed in Appendix B through Appendix F. The executable files are listed in Appendix H and the batch files are listed in Appendix I.

2.4.2 Database

None.

2.4.3 Client Operating System and Environment

The client workstations run WindowsNT⁹ workstation 4.0.

2.4.4 Server Operating System and Environment

The WindowsNTTM server containing the G2[®] software product from Gensym and the interfaces to field equipment runs WindowsNTTM Server 4.0 with service pack 3 installed.

2.4.5 COTS

Telewindows¹⁰ Revision 4.0 Release 2 is used for remote display of TMACS. It runs on the client workstations.

G2[®] Revision 4.1 Release 1 is used to run the main TMACS processing.

2.4.6 Metadata

None.

2.4.7 Notes

Controlled source files are kept in SourceSafe on the \UDO computer.

2.5 CHANGE DESCRIPTION

The following are the service request incorporated in TMACS revision 11.2.

SR #	Abbreviated Description
103	Make the GSI Data Service Priority lower than the Processing Rule Priority

⁵G2 is a registered trademark of the Gensym Corporation.

⁶Microsoft is a registered trademark of the Microsoft Corporation.

⁷Visual C is a trademark of the Microsoft Corporation.

⁸Digi is a trademark of Digi International Incorporated.

⁹WindowsNT is a trademark of Microsoft Corporation.

¹⁰Telewindows is a registered trademark of the Gensym Corporation.

SR #	Abbreviated Description
132	Add individual trend graphs for discrete sensors
166	Modify TMACS to display the color red for a K-Basin Communications Alarm
403	Modify TMACS to display the sensor limits for a sensor.
434	Modify TMACS To Read Pressure Sensors through ENRAF CIU device
752	Modify The ENRAF Driver To Properly Handle The "!" Commands
856	Devise A Method To Notify The Operator When An ENRAF Level Gauge Has A Status Other Than "-"
857	Correct Unknown Sensor Report To Display Only Sensors Associated With Tanks.
858	Modify The Suspect IO Station Report To Not Display Station With A Polling Frequency Of Zero.
860	Correct Problem Of Old Print Screen Button Being Displayed For Multiple Sensor Trends
862	Correct Problem Where Sensor With Alarm Processing Turn Off Do Not Restore To Correct Color When Communications Are Re-Established.
865	Set Polling Frequency Of Double Shell Tanks To 10 Minutes Or Less.
867	Add Ability To Place A Sensor Into Test Mode.
869	Configure TMACS To Have ENRAF Level Gauges For Tanks BY102 And S110
871	Change Gauge Addresses for ENRAF Level Devices in Tanks AP105-AP108
873	Create Report That Displays Active Sensors With Alarm Processing Disabled

2.6 INSTALLATION INSTRUCTION

TMACS bridges are installed as services on the TMACSPROD server.

The G2[®] executable is installed as a program on the TMACSPROD server.

TMACS G2[®] code is kept in a series of knowledge bases that are transferred to TMACSPROD for operation.

Telewindows[®] software is installed on the client workstations and requires a hardware key. A new version of Telewindows[®] is installed when a new, vendor-supplied release of G2[®] is installed.

Appendix A. TMACS Knowledge

These files are stored in the \$/TMACS/Release Files/11.1/KnowledgeBases directory.

***** enraf-root.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 4:11p

Labeled '11.2'

Label comment:

***** htff.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 4:11p

Labeled '11.2'

Label comment:

***** acromag-root.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** data-recovery.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** g2-database.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** gensym-raised-buttons.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** gfi-mod.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** level.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** odbc-root.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** panalarm-root.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** printer-root.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** surveillance-limit-root.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** sys-mod.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** tmacs-definitions.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** TMACS_Main.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** uilroot.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** westronics-root.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** point-process.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

***** tmacs-lib.kb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 3:34p

Labeled '11.2'

Label comment:

Appendix B. Acromag™ Bridge Code

These files are stored in the \$/TMACS/Bridges/Acromag™ directory.

\$/TMACS/Bridges/Acromag

***** acro_exts.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** acro_main.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** acro_vars.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** gsi_abpi_codes.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** md_linkio.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** resource.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** SERVICE.H *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** acro.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** acro_bridge.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** acro_link.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** acro_main.dsp *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** acro_main.dsw *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p

Labeled '11.2'

Label comment:

***** acro_main.ncb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:11p
Labeled '11.2'
Label comment:

***** acro_main.plg *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:11p
Labeled '11.2'
Label comment:

***** acro_rpc.c *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:11p
Labeled '11.2'
Label comment:

***** acromessage.aps *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:11p
Labeled '11.2'
Label comment:

***** acromessage.rc *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:11p
Labeled '11.2'
Label comment:

***** gsi_utils.c *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:11p
Labeled '11.2'
Label comment:

***** md_errors.h *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:11p
Labeled '11.2'
Label comment:

***** mf_functions.c *****

Label: 11.2

User: Steve Date: 2/01/0 Time: 12:11p

Labeled '11.2'

Label comment:

***** set_check_init.c *****

Label: 11.2

User: Steve Date: 2/01/0 Time: 12:11p

Labeled '11.2'

Label comment:

***** acro_main.opt *****

Label: 11.2

User: Steve Date: 2/01/0 Time: 12:11p

Labeled '11.2'

Label comment:

Appendix C. Enraf® Bridge Code

These files are stored in the \$/TMACS/Bridges/Enraf® directory.

\$/TMACS/Bridges/Enraf

***** check_enraf_init.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:09p

Labeled '11.2'

Label comment:

Add Rosmount pressure to driver.

***** enraf_link.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:09p

Labeled '11.2'

Label comment:

Add Rosmount pressure to driver.

***** enraf_main.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:09p

Labeled '11.2'

Label comment:

Add Rosmount pressure to driver.

***** enraf_main.dsp *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:09p

Labeled '11.2'

Label comment:

Add Rosmount pressure to driver.

***** enraf_main.dsw *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:09p

Labeled '11.2'

Label comment:

Add Rosmount pressure to driver.

***** enraf_utils.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:09p

Labeled '11.2'

Label comment:

Add Rosmount pressure to driver.

***** md_errors.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:09p

Labeled '11.2'

Label comment:

Add Rosmount pressure to driver.

***** md_linkio.h *****

Label: 11.2
 User: Steve Date: 2/01/:0 Time: 12:09p
 Labeled '11.2'
 Label comment:
 Add Rosmount pressure to driver.

***** resource.h *****

Label: 11.2
 User: Steve Date: 2/01/:0 Time: 12:09p
 Labeled '11.2'
 Label comment:
 Add Rosmount pressure to driver.

***** SERVICE.H *****

Label: 11.2
 User: Steve Date: 2/01/:0 Time: 12:09p
 Labeled '11.2'
 Label comment:
 Add Rosmount pressure to driver.

***** enraf.aps *****

Label: 11.2
 User: Steve Date: 2/01/:0 Time: 12:09p
 Labeled '11.2'
 Label comment:
 Add Rosmount pressure to driver.

***** enraf.h *****

Label: 11.2
 User: Steve Date: 2/01/:0 Time: 12:09p
 Labeled '11.2'
 Label comment:
 Add Rosmount pressure to driver.

***** enraf.rc *****

Label: 11.2
 User: Steve Date: 2/01/:0 Time: 12:09p
 Labeled '11.2'
 Label comment:
 Add Rosmount pressure to driver.

***** enraf_bridge.c *****

Label: 11.2
 User: Steve Date: 2/01/:0 Time: 12:09p
 Labeled '11.2'
 Label comment:
 Add Rosmount pressure to driver.

***** enraf_functions.c *****

Label: 11.2
 User: Steve Date: 2/01/:0 Time: 12:09p
 Labeled '11.2'
 Label comment:
 Add Rosmount pressure to driver.

***** enraf_main.ncb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:09p

Labeled '11.2'

Label comment:

Add Rosmount pressure to driver.

***** enraf_main.opt *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:09p

Labeled '11.2'

Label comment:

Add Rosmount pressure to driver.

***** enraf_main.plg *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:09p

Labeled '11.2'

Label comment:

Add Rosmount pressure to driver.

***** enraf_rpcs.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:09p

Labeled '11.2'

Label comment:

Add Rosmount pressure to driver.

Appendix D. Panalarm® Bridge Code

These files are stored in the \$/TMACS/Bridges/Panalarm® directory.

\$/TMACS/Bridges/Panalarm

***** gsi_main.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** gsi_panalm_codes.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** gsi_utils.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** gsi_utils.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** md_errors.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** panalm.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** panalm_link.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** panalm_utils.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** resource.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** set_check_init.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** gsi_main.dsp *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** gsi_main.dsw *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** gsi_main.ncb *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p
Labeled '11.2'
Label comment:

***** gsi_main.opt *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:14p
Labeled '11.2'
Label comment:

***** gsi_main.plg *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:14p
Labeled '11.2'
Label comment:

***** panalarm.aps *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:14p
Labeled '11.2'
Label comment:

***** panalarm.rc *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:14p
Labeled '11.2'
Label comment:

***** panalm_bridge.c *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:14p
Labeled '11.2'
Label comment:

***** panalm_functions.c *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:14p
Labeled '11.2'
Label comment:

***** SERVICE.H *****

Label: 11.2

User: Steve Date: 2/01/0 Time: 12:14p

Labeled '11.2'

Label comment:

Appendix E. Printer Driver Bridge Code

These files are stored in the \$/TMACS/Bridges/Printer directory.

\$/TMACS/Bridges/Printer

***** alarmprinter.aps *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** gsi_utils.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** gsi_utils.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** printer.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** printer_bridge.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** printer_main.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** printer_main.dsp *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** printer_main.dsw *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** resource.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** SERVICE.H *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** alarmprinter.rc *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** printer_main.opt *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

***** printer_main.plg *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:14p

Labeled '11.2'

Label comment:

Appendix F. Westronics® Bridge Code

These files are stored in the \$/TMACS/Bridges/Westronics® directory.

\$/TMACS/Bridges/Westronics

***** gsi_abpi_codes.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** gsi_utils.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** md_errors.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** mf_functions.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** resource.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** SERVICE.H *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** set_check_init.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** west.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** west_bridge.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** west_link.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** west_main.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** west_main.dsp *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** west_main.dsw *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'
Label comment:

***** west_main.plg *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:15p
Labeled '11.2'
Label comment:

***** west_rpcs.c *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:15p
Labeled '11.2'
Label comment:

***** westronic.rc *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:15p
Labeled '11.2'
Label comment:

***** west_main.ncb *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:15p
Labeled '11.2'
Label comment:

***** west_main.opt *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:15p
Labeled '11.2'
Label comment:

***** westronic.aps *****

Label: 11.2
User: Steve Date: 2/01/:0 Time: 12:15p
Labeled '11.2'
Label comment:

Appendix G. Windows NT Common Code

These Files are stored in the \$/TMACS/Bridges/WinNT Common Code directory.

\$/TMACS/Bridges/WinNT Common Code

***** MSG00001.bin *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** SERVICE.C *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** servicemain.c *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** servicemsg.aps *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** servicemsg.h *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** servicemsg.mc *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 12:15p

Labeled '11.2'

Label comment:

***** servicemsg.rc *****

Label: 11.2

User: Steve Date: 2/01/0 Time: 12:15p

Labeled '11.2'

Label comment:

***** set_physio_nt.c *****

Label: 11.2

User: Steve Date: 2/01/0 Time: 12:15p

Labeled '11.2'

Label comment:

Appendix H. Bridge Code Executable Files

These files are stored in the \$/TMACS/Release Files/11.1/Bridge Executables directory.

\$/TMACS/Release Files/11.2/Bridge Executables

***** acromag_driver.exe *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 4:50p

Labeled '11.2'

Label comment:

***** enraf_driver.exe *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 4:50p

Labeled '11.2'

Label comment:

***** panalm_driver.exe *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 4:50p

Labeled '11.2'

Label comment:

***** tmacs_printer_driver.exe *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 4:50p

Labeled '11.2'

Label comment:

***** westronic_driver.exe *****

Label: 11.2

User: Steve Date: 2/01/:0 Time: 4:50p

Labeled '11.2'

Label comment:

Appendix I. DOS Batch Files

These files are stored in the \$/TMACS/TMACSTools.
\$/TMACS/TMACSTools

***** Version 10 *****

Label: 11.2

User: Ron Date: 2/03/:0 Time: 2:43p

Labeled '11.2'

Label comment:

***** startsrv.bat *****

Label: 11.0

User: Ron Date: 4/23/99 Time: 9:06a

Labeled '11.0'

Label comment:

Batch Files Used in NT version of TMACS

***** stopsrv.bat *****

Label: 11.0

User: Ron Date: 4/23/99 Time: 9:06a

Labeled '11.0'

Label comment:

Batch Files Used in NT version of TMACS

***** TMACSPrint.bat *****

Label: 11.0

User: Ron Date: 4/23/99 Time: 9:06a

Labeled '11.0'

Label comment:

Batch Files Used in NT version of TMACS