

Table of Contents

PREFACE

| | |
|--|------|
| Document Organization | 1-2 |
| Emergency Shell Access..... | 1-3 |
| System Administration Functions..... | 1-3 |
| Procedure to Back Up MAP System Files | 1-3 |
| Procedure to Restore MAP System Files | 1-4 |
| Procedure to Rebuild a System | 1-4 |
| Procedure to Restore to a Backup Computer..... | 1-5 |
| Procedure to Restore an Office | 1-5 |
| Procedure to Restore all Office Data | 1-5 |
| Procedure to Update Map System | 1-5 |
| Procedure to Shut Down the Computer | 1-5 |
| Procedure to Shut Down and Reboot the Computer | 1-6 |
| Procedure to Set the Time and Date | 1-6 |
| Procedure to List Users Currently Logged In | 1-6 |
| Procedure to Reset File Permissions | 1-6 |
| Modem Administration | 1-6 |
| Procedure to Reset the Multi-Port Serial Card | 1-6 |
| Printer Administration | 1-6 |
| Procedure to Use the Start Processes | 1-7 |
| Procedure to Use the Stop Processes..... | 1-7 |
| Procedure to Use the Pause Processes | 1-7 |
| User Management | 1-7 |
| Procedure to Set the Idle Logout Time | 1-7 |
| Procedure to Set the System Name | 1-7 |
| Procedure to Reset a Locked Tape Drive | 1-8 |
| Network Administration | 1-8 |
| BackupEDGE Operation | 1-8 |
| Restart Web Services..... | 1-8 |
| Display System Uptime | 1-8 |
| Procedure to Renew System Registration | 1-8 |
| PressureMAP Data Export Protocol (PDEP)..... | 1-8 |
| File Management Procedures..... | 1-9 |
| Remote Viewing of Alternate Console Output | 1-9 |
| Commonly Asked Questions..... | 1-9 |
| Definitions | 1-10 |
| Documentation Conventions..... | 1-11 |
| Typographic Conventions | 1-11 |
| Key Functions..... | 1-12 |

MAP SYSTEM OVERVIEW

Introduction..... 2-1

Multi-User MAP Software Module Descriptions 2-1

 PressureMAP 2-1

 Master Menu Options..... 2-1

 Dispatch Priorities 2-2

 Device Histories..... 2-2

 Specific Device Information 2-3

 System Indexing 2-3

 CPAMS Information..... 2-3

 User Support 2-4

 ReportMAP 2-4

 Dispatcher 2-5

 Dispatch Report Formatting 2-5

 Pin Selector 2-5

 AlarmMAP 2-6

 CableMAP 2-7

 Hand-Held Terminal Access..... 2-8

 CPAMS Diagnostics 2-8

 User Initiated Operations 2-8

 System Administration 2-8

 MAP System Multi-Tasking Characteristics 2-9

 Modem Communication Standards..... 2-11

 Communications Via Local Area Network 2-12

Multi-User MAP Software Performance Summary 2-12

 Scheduled PressureMAP Functions 2-12

 Shifting Device Reading History 2-12

 Establishing New Settled Readings 2-13

 Developing Dispatch Priorities..... 2-13

 Developing Indexes..... 2-13

 Dispatcher Report Distribution 2-13

 Scheduled AlarmMAP Functions 2-14

 Resetting Device Histories 2-14

 Dispatch Alarms 2-14

 The Alarm Receiver Function..... 2-14

HARDWARE CONFIGURATION

Introduction..... 3-1

Remote Equipment..... 3-1

 Monitoring Equipment 3-1

 Printers and Terminals..... 3-2

Local Equipment 3-2

 Additional Equipment 3-3

 Serial Port Concentrator 3-3

 External modems 3-3

SYSTEM INSTALLATION

| | |
|--|------|
| Introduction..... | 4-1 |
| PressureMAP Software Requirement..... | 4-1 |
| CentOS 5.5 Linux Installation..... | 4-2 |
| PressureMAP Version 28 and PressureWEB 3.02 Installation | 4-6 |
| Supplemental Update Procedures | 4-8 |
| Installation Procedures..... | 4-9 |
| Accessing Report Profiles | 4-11 |
| Accessing Individual Updates | 4-13 |
| Software Version Updates..... | 4-14 |
| Linux OS Update Procedure..... | 4-14 |

SYSTEM ADMINISTRATION

| | |
|---|------|
| Introduction..... | 5-1 |
| System Administration Procedures | 5-1 |
| Accessing the System Administration Menu | 5-2 |
| Automatic Backup Resource Selection | 5-3 |
| Procedure to Select a Default Daily Backup Resource..... | 5-4 |
| Adding Backup Resources to the PressureMAP Schedule | 5-6 |
| Editing Scheduled Backups | 5-8 |
| Manual Backup Procedures | 5-9 |
| Accessing the Backup MAP System Files Menu | 5-9 |
| Traditional Backup Menu Function..... | 5-10 |
| Backing Up MAP System Files to Tape | 5-10 |
| Creating a Linux Migration Tape | 5-11 |
| BackupEDGE Backup Menu Functions | 5-11 |
| Backing Up MAP System Files to DVD..... | 5-12 |
| Backing Up MAP System Files to a Remote Computer via FTP..... | 5-13 |
| Procedures to Restore MAP System Files..... | 5-14 |
| Accessing the Restore Utility Selection Menu | 5-14 |
| Traditional Restore Menu Functions | 5-15 |
| Procedure to Rebuild a System..... | 5-16 |
| Spare Server Preparation..... | 5-16 |
| System Rebuild Procedure..... | 5-17 |
| Procedure to Restore an Office..... | 5-20 |
| Procedure to Restore All Office Data | 5-21 |
| Procedure to Restore an Office List File..... | 5-21 |
| Procedure to Restore a File..... | 5-23 |
| Procedure to Restore From Linux Migration Tape..... | 5-24 |
| BackupEDGE Restore Menu Functions | 5-25 |
| Procedure to Update MAP System | 5-27 |
| Procedure to Shut Down the Computer..... | 5-28 |
| Procedure to Shut Down and Reboot the Computer | 5-30 |
| Procedure to Set the Time and Date | 5-31 |
| Procedure to List Users Currently Logged In | 5-32 |
| Procedure to Reset File Permissions | 5-33 |
| Procedures to Perform Modem Administration..... | 5-33 |
| Modem Functions..... | 5-34 |

- Viewing the Modem Configuration 5-35
- Printer Administration Procedures..... 5-36
 - Printer Administration Overview 5-36
 - View Printer Configuration 5-37
 - Procedure to Add a Printer 5-39
 - Adding a Local Printer 5-39
 - Adding a Remote Printer 5-41
 - Procedure to Remove a Printer 5-44
 - Setting the Printer Default..... 5-45
 - View Printer Queue..... 5-47
 - Cancel Printer Request 5-48
 - Clean Printer Queue..... 5-49
 - Restart Printing Service..... 5-50
- Procedures for the Start Process 5-51
 - Finding the Start Process Menu 5-51
 - Restarting the Scheduler 5-52
 - Restarting the Alarm Receiver 5-53
 - Restarting the Idle Logout 5-53
 - Restarting the Fax Modem Service 5-54
 - Restarting the DTMF Modem Service..... 5-54
- Procedures for the Stop Process 5-55
- Procedures for the Pause Process 5-55
 - Pausing the Scheduler..... 5-56
 - Pausing the Alarm Receiver 5-56
 - Pausing the Idle Logout..... 5-57
- User Management Procedures..... 5-57
 - Procedure to Set Idle Logout Time 5-57
 - Procedure to Set the System Name 5-58
- Tape Administration Procedures..... 5-59
 - Analyzing Tape Configuration 5-60
 - Retention Tape 5-61
 - Rewind Tape 5-62
- Network Administration 5-62
 - Procedure to Launch BackupEDGE 5-62
 - Procedure to Restart Web Services 5-64
 - Procedure to Display System Uptime 5-65
 - Procedure to Renew System Registration 5-65
- Remote Viewing of Alternate Console Output..... 5-66
 - Procedure to Access the View Logs Menu..... 5-66
 - View Alarm Receiver Log 5-67
 - View System Status Log 5-67

USER MANAGEMENT

- Introduction..... 6-1
 - General Information 6-1
 - Accessing the User Management Menu..... 6-5
 - Adding a User..... 6-7
 - Modifying a User..... 6-11
 - Deleting a User 6-13

| | |
|---|------|
| Listing Users..... | 6-15 |
| Changing Password and Menu Level Defaults | 6-16 |
| Changing an Expired Password..... | 6-17 |
| Forcing User Password Change | 6-19 |

NETWORK ADMINISTRATION

| | |
|--|------|
| Introduction..... | 7-1 |
| General Information | 7-1 |
| The Ethernet Address | 7-2 |
| The IP Address | 7-2 |
| Gateway Address..... | 7-3 |
| The Netmask Setting..... | 7-3 |
| The Broadcast Address | 7-3 |
| Subnet..... | 7-3 |
| Introduction to the SMTP Mail Server..... | 7-4 |
| The Returned and Invalid Mail Checker | 7-5 |
| System Errors..... | 7-5 |
| Accessing the Network Administration Menu | 7-5 |
| Network Administration Procedures..... | 7-7 |
| Configure Ethernet LAN Connection | 7-7 |
| View Basic Ethernet LAN Configuration..... | 7-7 |
| Connect the MAP System to the Ethernet LAN | 7-8 |
| Disconnect the MAP System from the Network..... | 7-9 |
| Set the Gateway IP Address..... | 7-10 |
| Clear the Gateway IP Address..... | 7-11 |
| Perform Ethernet LAN Diagnostics | 7-12 |
| Configure the SMTP Mail Server..... | 7-13 |
| Set the SMTP Mail Server IP Address..... | 7-14 |
| Clear the SMTP Mail Server IP Address | 7-15 |
| Start SMTP Mail Delivery | 7-15 |
| Stop SMTP Mail Delivery..... | 7-16 |
| Set Mail Sender Name | 7-17 |
| Perform SMTP Mail Diagnostics..... | 7-19 |
| Configure Serial Resources | 7-20 |
| Digi PortServer Configuration | 7-20 |
| View Configuration | 7-21 |
| Add PortServer(s)..... | 7-21 |
| Remove PortServer(s) | 7-23 |
| Connectivity Test..... | 7-23 |
| Reset PortServer | 7-24 |
| Set or Change the MAP System Host Name | 7-25 |
| Configure the Name Server | 7-26 |
| Adding Name Server IP Information | 7-27 |
| Viewing DNS Configuration Information | 7-28 |
| Configure the Time Server..... | 7-29 |
| View Configuration | 7-29 |
| Add/Change Configuration | 7-30 |
| Configure the System Status Viewer | 7-31 |

TECHNICAL NOTES

Ensure Correct Readings for Pipe Source Pressure Transducers 8-1
 Analyzing Incomplete System Indexes 8-1
 How Are Dynamic Dispatches Determined 8-4
 How Does a Given Problem Affect the Total System 8-4
 How Much Has a Condition Changed 8-5
 How Long Did it Take for the Change to Happen 8-5
 How Are Static Dispatches Determined 8-6
 Where Is the Problem and How Does it Affect the System 8-7
 How Fast Can the Technician Find the Leak 8-7
 How Does the Problem Compare to Similar Dispatches 8-8
 High Priority Device Types 8-8
 High Priority Devices 8-9
 The Proper Procedure for Shutting Down a Multi-User System 8-10
 The Routine Shutdown 8-10
 The Alternate Console 8-11
 The Last Resort 8-11
 Clearing Rules Based on One Step 8-11
 The Concept 8-12
 The Process 8-12
 PressureMAP Data Entry 8-13

GLOSSARY 9-1

COMPUTER MAINTENANCE 10-1

APPENDIX 1 — SYSTEM STATUS DISPLAY

Introduction A1-1
 Procedures A1-1

APPENDIX 2 — SECURITY A2-1