

```
// =====  
// File: ntver.pdf 7 May 08  
// Release Notes for Ultra-Com software:  
// UCPRONT.EXE ("RUN MODE")  
// UCPROWIN.EXE ("DESIGN MODE")  
// MEP firmware for CIC, PIC, TRC, and TRI, TR-TEL, QPL and QTI cards.  
// =====
```

```
/*-----\  
| Version 8.3.0 (8.3.0.0) (7 May 08) |  
\-----*/
```

RUN MODE

- Added: Added support for the Inter-Page Re-Key Delay setting for TRC cards.
- Changed: Removed the talk delay for a stacked page if the steering of the next page is different from that page. The programmed talk delay is now used only for the last item in the page.
- Added: Support for a Talk Delay setting for the Custom Encoder Format.

DESIGN MODE

- Added: Added the Inter-Page Re-Key Delay setting to the Miscellaneous tab of the TRC Settings dialog box. This setting specifies the length of time that the transmitter will remain keyed down when the steering changes between pages for the channel.
- Added: Support for a Talk Delay setting for the Custom Encoder Format.

E911 Administration Application Version 3.1.3

No changes. Version changed because of version change in Design Mode.

Manuals Version 4.7

Updated the System Programming Manual to add an explanation of the Inter-Page Rekey Delay setting for TRC cards.

```
/*-----\  
| Version 8.2.0 (8.2.0.0) (15 Apr 08) |  
\-----*/
```

RUN MODE

- Changed: The Position Volume function allows a position to hear the transmit audio of another position for telephone calls and Position Intercom. The Position Volume function has been changed so that you can only hear transmit audio for radio transmissions.

- Added: TDD support for administration lines for Software Remote Operator Positions.
- Fixed: Occasionally get a "Network Communication Lost" dialog box to appear even though network communications have not been lost for Software Remote Operator Positions.
- Fixed: Occasionally get a stuck transmit when transmitting with a phone on-line when the EBC/PIC is processing Remote Operator Positions.

DESIGN MODE

No changes. Version number changed for consistency with Run Mode.

Computer Audio Module (CAM) Version 2.0

- Fixed: If you hang up an administration line while transmitting a TDD message then TDD transmit will not work again until you reset the CAM.

MEP PIC Version 4.1

- Changed: Enabled the instruction cache for the EBC/PIC card to improve performance when processing Remote Operator Positions.
- Changed: Modified the printer status logic to add hysteresis for reporting printer status changes for the EBC/PIC card.
- Changed: Modified the FPGA to add a pull-up resistor to the CTS printer status line for the EBC/PIC card.

MEP QTI Version 2.3

- Fixed: If you hang up an E911 line while transmitting a TDD message then TDD transmit will not work again until you reset the QTI card.

E911 Administration Application Version 3.1.2

- Fixed: If you listen to the recording of a phone call and pause the recording, then perform an archive, the audio file for that recording is not copied to the archive DVD RAM. The version for PlaybackUtile911.exe was changed to 2.6.

E911 Utility Applications Version 2.6

Changed the version from 2.5 to 2.6 to reflect the change in version for PlaybackUtile911.exe to version 2.6.

Site Information Manager Application Version 2.1

- Fixed: The user was allowed to enter non-numeric characters for the ANI in the New Site Information dialog box. This caused an error that prevented the application from working correctly.

- Fixed: An application error occurred if the user clicked on the Edit Name/Address, Edit Site Information or Delete buttons when there were no entries in the Site Information table.
- Changed: Now hiding the ALI Errors Report tab because this feature has never been implemented.

Manuals Version 4.6

Updated the Appendix G of the System Programming Manual to remove the limitation of no TDD support for administration lines for Software Remote Operator Positions.

Updated the Operator's Manual to remove the limitation of no TDD support for administration lines for Software Remote Operator Positions.

Added the Micro CAM Installation Manual

```
/*-----\
| Version 8.1.4 (8.1.4.0) (7 Jan 08)          |
\-----*/
```

RUN MODE

- Fixed: An access violation occurs if the ESMI SIP server does not respond to an INVITE request from Run Mode when Run Mode first starts up.
- Fixed: If Run Mode can communicate with the Moducom E911 Server via the network, but cannot access the Recorder directory on the server, then recording files are not saved locally.

DESIGN MODE

No changes. Version number changed for consistency with Run Mode.

E911 Administration Application Version 3.1.1

No changes. Version number changed because the version number of Design Mode changed.

```
/*-----\
| Version 8.1.3 (8.1.3.0) (10 Dec 07)        |
\-----*/
```

RUN MODE

- Changed: Made general improvements in error checking and exception handling for the ESMI module

DESIGN MODE

No changes. Version number changed for consistency with Run Mode.

Ultra-Com Installation Program

- Fixed: History.txt file is not copied onto the CD or the target

installation directory.

```
/*-----\
| Version 8.1.2 (8.1.2.0) (26 Oct 07)          |
\-----*/
```

RUN MODE

- Fixed: ALI FAX does not work for Ultra-Com Lite. (Updated AliFaxServer.dll to version 2.1)

DESIGN MODE

- Fixed: Could not set the PC IP address for the SCP equal to the E911 Server address for Ultra-Com Lite. These IP addresses need to be the same for Ultra-Com Lite.

Ultra-Com Installation Program

- Changed: Added regsvr32.exe to the installed files so that AliFaxServer.dll can be manually registered on the SCP when configured for Ultra-Com Lite.

```
/*-----\
| Version 8.1.1 (8.1.1.0) (24 Sep 07)          |
\-----*/
```

RUN MODE

- Fixed: The ALI Refresh button does not work when using the ESMI I/F as the source for ALI.
- Fixed: The SCP assigns TSCP responsibility to positions where the PIC has the "Disable Position Not Responding" option checked and to Remote Operator Positions sometimes when it exits to Windows.
- Fixed: On Windows XP and Vista, the device driver date and time display in the Versions diagnostics dialog box appear as "Unknown".
- Changed: Added an option called "Use Network File Transfer" to the File Transfer dialog box that allows the user to send the design mode programming files to local operator positions via the LAN.

DESIGN MODE

No changes. Design Mode version changed to 8.1.1 to match Run Mode.

Ultra-Com Installation Program

- Changed: No longer registering AliFaxServer.dll because this Moducom DLL is used only by Ultra-Com Lite and will not register on some editions of Windows Vista because WinFax.dll is not provided.

```
/*-----\
| Version 8.1 (8.1.0.0) (10 Sep 07)           |
\-----*/
```

\-----*/

RUN MODE

- Fixed: The ALI Refresh button uses the first 10 digits instead of the second 10 digits for the ALI request for the 20 digit ANI format.
- Fixed: The Instant Recall Recorder for Remote Operator Positions causes an abnormal program termination if it tries to delete a call automatically before it is displayed the first time.
- Fixed: Audio lockup problems on Windows Vista for Remote Operator Positions.
- Changed: Added a list of active Remote Operator Positions that shows the position name, IP address and PIC cage/slot to the Remote Position diagnostics dialog box.
- Added: Support for the Disable Diagnostics Printer setting.

DESIGN MODE

- Added: The Disable Diagnostics Printer check box to the Card Cage Advanced Setup Diagnostics Tab.

MEP PIC Version 4.0

- Changed: EBC/PIC cards -- Improved IP network performance in general and the ability to handle higher volumes of broadcast traffic.

E911 Administration Application Version 3.1.0

- Added: Settings to the Advanced Settings dialog box that specify the maximum number of files to maintain in the logging recorder directory and the number of files to delete when the number of files exceeds the maximum.
- Fixed: The AdminApp setup program to correctly register the E911 Playback Utility application in the Windows registry so the the user does not have to launch PlaybackUtil911.exe manually the first time in order to be able to launch it from the Call Search Utility.

E911 Database Setup Version 2.1 (SQL Server 2005)

- Changed: Updated the database schema to add the new fields to the SystemConfig table for the new AdminApp settings.

Manuals Version 4.5

- Updated the System Programming Manual for the new settings to Design Mode.

/*-----\
| Version 8.0 (8.0.0.0) (2 Jul 07) |

\-----*/

RUN MODE

- Fixed: Releasing a phone line or ending a barge-in on a phone line while transmitting on a radio channel causes the transmit audio path to be dropped.
- Fixed: You cannot hear the dispatcher's transmit side of the conversation when barged into a phone call.
- Fixed: The current CAM USB device driver (bulkusb.sys) crashes if you press and hold a button on a dual core processor using the ELO-Touch touch screen. This release contains a new device driver called CamUsb.sys that replaces bulkusb.sys.
- Fixed: USFS Flathead Montana screens cause Run Mode to crash when the user transmits on channel 5 or 6.
- Fixed: The map display shows an E911 call even if there is no Phone Cell for that line in the screen group.
- Fixed: Run Mode adds duplicate messages to the error log when a MEP power supply fails.
- Fixed: The conference status of a 911 trunk line is not updated properly if the 911 trunk line is released by the caller during the conference.
- Changed: The user can now transmit on the selected channels during the talk delay period of an encoder page by using the footswitch, instant transmit button or by pressing a Channel Cell button.
- Changed: Allow an empty password for Remote Positions when logging in.
- Changed: Changed the TCP/UDP port number range for Remote Operator Positions from 5010-5111 to 6010-6111 to avoid a conflict with the ESMI port number.
- Added: Added support for the Emergency Services Messaging Interface (ESMI) for obtaining ALI over an IP network connection to Intrado's Intelligent Emergency Network (IEN).
- Added: Added a Instant Recall Recorder (IRR) for Remote Positions.
- Added: Added the ability to record audio on the logging recorder of the E911 Server for E911 and administration phone lines for Remote Positions.
- Added: Added support for the "Always Send ALI to CAD" option. If this option is enabled then the system will send ALI to the CAD system anytime it receives new ALI from the database server, not just when the operator picks up the call.
- Added: Added support for the Micro-CAM for Remote Positions.
- Added: Support for the Disable Position Not Responding Message

design mode setting.

- Changed: No longer display the "Waiting for PIC..." progress bar display during initialization.
- Changed: No longer display the "All Cards Complete" message box at the end of card download.

DESIGN MODE

- Fixed: Design Mode crashes if you edit a channel name that is 20 or more characters long.
- Changed: Allow an empty password in the Remote Position Settings dialog.
- Added: Added an "Always Send ALI to CAD" check box to the Network tab of the Card Cage Advanced Setup dialog. If checked, operator positions will send ALI whenever they receive an ALI update, not just when they pick up an E911 call.
- Added: Settings for the ESMI option to the Card Cage Advanced Setup, Operator Position Setup and the Remote Position Setup dialogs.
- Added: Added a setting called Disable Position Not Responding Message to the Miscellaneous tab of the Operator Position Setup dialog to disable the Position Not Responding backup caution diagnostics message.

MEP PIC Version 3.9

- Fixed: If you have a phone on line (or barged into) and transmit on a radio channel, the transmit audio path is dropped when you terminate the transmission. See changes to the CAM software.
- Fixed: The transmit audio level for Alert Tone Live for Remote Operator Positions is 6 db too high.
- Fixed: The VU meter calculations for Remote Operator Positions is too sensitive for transmit audio.

Computer Audio Module (CAM) Version 1.9

- Fixed: If you have a phone on line (or barged into) and transmit on a radio channel, the transmit audio path is dropped when you terminate the transmission. See changes to the PIC software.

MEP QTI Version 2.2

- Fixed: QTI cards report power supply A failed when power supply B is pulled and vice versa.
- Fixed: QTI cards do not report telephone power supply failures.
- Changed: QTI cards no longer communicate with the ALI database server if the system is configured for the ESMI option.

MEP QPL Version 2.7

- Fixed: QPL cards report power supply A failed when power supply B is pulled and vice versa.

MEP TRC Version 5.0

- Changed: The user can now transmit on the selected channels during the talk delay period of an encoder page.

E911 Administration Application Version 3.0.0

- Fixed: AdminApp crashes if the ALI is longer than 511 bytes.
- Changed: Changed the installation program to add HTML files to explain new error codes produced by Run Mode (error codes 242-254, 506,507).
- Changed: Changed the way in which AdminApp monitors the size of the logging recorder directory to improve program efficiency.
- Changed: In the Call Detail Report, changed the label of the ALI to "Last ALI Received".
- Changed: Changed the installation program to Windows Installer 3.1. It is no longer necessary to install the Ultra-Com Dispatch Console software on the E911 Server before installing AdminApp.

E911 Utility Applications Version

- Changed: Changed the installation program to add HTML files to explain new error codes produced by Run Mode (error codes 242-254, 506, 507).

Call Search Utility Version 2.1

- Changed: In the Call Detail Report, changed the label of the ALI to "Last ALI Received".
- Changed: Changed the database login timeout from 1 sec. to 5 sec.
- Changed: Set the database query timeout to 5 sec.

Diagnostics Application (DiagApp) Version 2.1

- Changed: Changed the database login timeout from 1 sec. to 5 sec.
- Changed: Set the database query timeout to 5 sec.

Abandoned Call Utility Version 2.1

- Changed: Changed the database login timeout from 1 sec. to 5 sec.
- Changed: Set the database query timeout to 5 sec.

E911 Event Viewer Utility Version 2.1

- Changed: Changed the database login timeout from 1 sec. to 5 sec.
- Changed: Set the database query timeout to 5 sec.

E911 Playback Utility Version 2.1

- Changed: Changed the database login timeout from 1 sec. to 5 sec.
- Changed: Set the database query timeout to 5 sec.

E911 Statistics Utility Version 2.1

- Changed: Changed the database login timeout from 1 sec. to 5 sec.
- Changed: Set the database query timeout to 5 sec.

Remote Position Utility 2.2

- Added: A "Use Micro-CAM" check box that specifies whether or not the remote operator position has a Micro-CAM connected to it.
- Changed: Changed the TCP/UDP port number range for Remote Operator Positions from 5010-5111 to 6010-6111 to avoid a conflict with the ESMI port number.

Ultra-Com Installation Program

- Changed: Changed the installation program to use Windows Installer instead of InstallShield.
- Changed: Replaced the bulkusb.sys device driver for the CAM with the new driver called CamUsb.sys.
- Added: Added the device driver called MicroCam.sys for the Micro-CAM.

E911 Database Setup Version 1.1 (SQL Server 2005)

- Fixed: Changed the recovery model for the ModucomE911Database from "Simple" to "Full".

Manuals Version 4.4

- Updated the System Programming Manual for the new settings for the ESMI option and other changes described in these release notes.

```
/*-----\
| Version 7.1 (7.1.0.0) (13 Sep 06) |
\-----*/
```

RUN MODE

- Fixed: Unable to download new software to EBC/PIC cards that are used as Audio Distribution Cards.
- Fixed: Encoder 5/6 -- The tone duration was corrected to 40 ms for

to
was
EIA encoding (was 33). The tone duration was corrected
40 ms for CCIR encoding (was 100). The X Tone duration
corrected to 70 ms for EIA and 40 for CCIR.

to
- Fixed: If the card cage assignments require an exact multiple of 60
audio slots then the audio slot assignments are not sent
the PIC during initialization.

- Added: Patch Transmit button function.

- Changed: Side tone volume for Select Tx Side Tone was changed from 10
to 14.

- Changed: The wave files recorded for the E911 Logging Recorder are now
compressed using GSM encoding.

- Changed: Upgraded the compiler to Visual Studio 2005.

DESIGN MODE

- Added: Design mode settings for the Patch Transmit button function.

MEP PIC/EBC Version 3.8

local
detect
- Fixed: When running in the CAM Remote Position configuration, EBC/PIC
cards do not listen to SMPIC arbitration messages on the
system, so they all attempt to become the SMPIC if they
loss of the local SMPIC.

delay
- Fixed: All EBC/PIC cards put their transmit audio onto the audio slot
of the position that is transmitting during the talk
period of a Transmit with Encoder button function.

- Fixed: If the SCP initializes an EBC/PIC card that is handling remote
operator positions, then those remote operator positions
lose their transmit audio.

- Fixed: Added loss of sync detection (and correction) between the DMA
channel and serial port for the DAB.

- Fixed: Added loss of sync detection (and correction) between the DMA
channels and the serial ports for the T1 link.

MEP PIC Version 3.8

- No change. Version number changed to be consistent with the EBC/PIC.

MEP QTI Version 2.1

- Fixed: If there is a lot of capacitance on the trunk line, then a

the line transient can cause an oscillating condition when line is idle.

E911 Administration Application Version 2.9.1

- Changed: AdminApp no longer consumes 100% of the CPU time at the start of the archive process.
- Changed: AdminApp now auto-scales to fit the entire screen area.
- Changed: Added color coded phone icons to the E911 line and administration line list boxes.

E911 Database Setup

- Changed: Added an automatic database cleanup function that runs once per day and removes calls older than one year.

Remote Position Utility 2.1

- Fixed: If you do not select the system name from the combo box, then it is not saved in the RemoteSystems.cfg file.

Manuals Version 4.3

- Updated the System Programming Manual for the new Patch Transmit function.

- Updated the sample Operator's Manual for the new Patch Transmit function.

```
/*-----\
| Version 7.0 (7.0.0.0) (4 Jan 06) |
\-----*/
```

RUN MODE

- Added: Remote Operation position functionality. The Run Mode software can now connect to another dispatch system via an IP network to become a remote operator position.
- Fixed: When using the operator login function, any user name with 7 characters is displayed as "Moducom" in the E911 Administration Application (AdminApp).
- Fixed: Can't use more than two Serial CAD Interface functions at an operator position.
- Fixed: If an E911 caller hangs up while on hold, Run Mode generates an extra record in the Call Detail Report and the call time and hold time are incorrect.
- Fixed: Alert Tone Live does not use the second frequency setting.
- Changed: If an operator position has a phone on line and the user

attempts to exit Run Mode, the software now prompts the user for confirmation. If the user decides to exit to Windows, Run Mode releases all phone lines owned by the position.

DESIGN MODE

- Added: Programming support for Remote Operator Position functionality.
- Added: Programming support for the new Exit button function.

MEP PIC/EBC Version 3.7

- Added: Support for Remote Position functionality.

MEP PIC Version 3.7

- No change. Version number changed to be consistent with the PIC/EBC.

Computer Audio Module (CAM) Version 1.8

- Fixed: When the operator picks up an E911 call and sets the TDD mode to on and sends a TDD message, the CAM detects the TDD characters from the side tone and sends them to the PC where they are displayed.
- Changed: Now adding Headset mic audio back into the Tel Talk-Out audio output to compensate for the fact that side tone has been removed from the QPL and QTI cards.
- Changed: Calibrated Headset and Dynamic microphone input and output levels.
Mic input audio had +3.0 db too much gain. Mic output level was -1.25 db too low. Also calibrated the Sel/TX Recorder output by +2.0 db.

MEP QPL Version 2.6

- Changed: Added an echo cancellation filter for each line.

MEP QTI Version 2.0

- Changed: Added an echo cancellation filter for each line.

E911 Administration Application Version 2.9

- Fixed: When archiving, AdminApp does not generate an HTML file for calls with no associated audio file.
- Fixed: Memory leak problem in the alarm status indicator ActiveX control.

E911 Statistics Utility Version 1.7

- Fixed: Cannot print the statistics graph using the print button on the Statistics Utility's dialog box.

Manuals Version 4.2

- Updated the System Programming Manual for Remote Position functionality and the new Exit button function.
- Updated the sample Operator's Manual for Remote Position functionality and the new Exit button function.

```
/*-----\
| Version 6.9 (6.9.0.0) (12 Jan 05) |
\-----*/
```

RUN MODE

- Fixed: If a 911 call has "911" in its ANI then ALI Refresh will not work.
- Fixed: A redundant call detail is generated if an operator clicks on the phone cell for an E911 line when there is no incoming call. This affects the E911 database and the Data Collection Service data.
- Added: Support for the PIC II card.

DESIGN MODE

No changes to Design Mode. Version changed to be consistent with Run Mode.

Computer Audio Module (CAM) Version 1.7

- Changed: The T1 retry count was not being reset to zero after the CAM successfully sent a packet of data to the PIC.

MEP TRC Version 4.9

- Changed: Modified the TRC 2 DSP software to change 2-wire mode RX to also include (sum) audio present on the 4-wire pair. The TRC software version was changed to 4.9 for compatibility but there were no software changes to the TRC.

E911 Administration Application Version 2.8

- Fixed: If there are no recordings to archive, AdminApp tries to run the archive process multiple times during the first minute after the scheduled archive time.
- Added: ArchiveErrors.txt log file for recording archiving errors.
- Changed: Query timeout intervals from 15 seconds to 60 seconds for database login and connection operations for archiving.
- Changed: Added support for COM ports 3-8 for the CAD interface configuration settings.

```
/*-----\
| Version 6.8 (6.8.0.0) (24 Sep 04) |
\-----*/
```

RUN MODE

- Fixed: Select Group button does not recall the channel frequency correctly for multi-frequency channels programmed for local frequency change.
- Added: Support for the Positive Mode Control setting for TRC cards.
- Added: Support for the new Channel Positive Mode Control button function.
- Added: Support for the Hold Timeout notification function. If Hold Timeout is enabled, the software will sound a tone periodically if a phone line put on hold by the operator (local hold) remains on hold longer than the Hold Timeout design mode setting.

DESIGN MODE

- Added: Positive Mode Control setting for TRC cards on the Advanced page of the TRC Settings dialog.
- Added: Enable Hold Timeout and Hold Timeout settings to the Phone page of the Operator Position Settings dialog.
- Added: Settings for the new Channel Positive Mode Control button function.

MEP TRC Firmware Version 4.8

- Added: Support for the Positive Mode Control setting and the Channel Positive Mode Control button.
- Changed: Improved performance of the compression amplifier logic for receive audio.

MEP TRI Firmware Version 2.5

- Changed: Improved performance of the compression amplifier logic for receive audio.

Computer Audio Module (CAM) Version 1.6

- Changed: The CAM software now keeps the MEP phone RX audio routed to the headset when a MEP phone is on line regardless of the state of headset jack detection.
- Changed: Increased the amount of hysteresis required to change the volume of a speaker when using manual pots.
- Changed: Improved performance of the compression amplifier logic for dynamic microphone and receive audio.

E911 Administration Application Version 2.7

- Fixed: AdminApp crashes when you try to transfer Design Mode files from the server to an operator position.

E911 Abandoned Call Utility Version 1.3

- Fixed: If the operator did not dial the area code on an abandoned call callback, the Search For Callback Call function could not find the callback call.

Manuals Version 4.1

- Changed: Updated the System Programming Manual to add the new Design Mode settings for Positive Mode Control and Hold Timeout. Added descriptions of the Channel Positive Mode Control button and the Hold Timeout function.
- Changed: Updated the Operator's Manual to add the Positive Mode Control button function.

```
/*-----\
| Version 6.7 (6.7.0.0) (4 Feb 04)                |
\-----*/
```

RUN MODE

- Fixed: Assignable volume controls do not show the current volume setting immediately after they are assigned.
- Fixed: If you restart a dual screen position using File XFer, Run Mode will restart OK but the screen is only displayed in one monitor.
- Fixed: Cross indication for a latched input for QPL and QTI cards does not work.
- Fixed: The ALI display was clipping the last four characters from the ALI text message.
- Fixed: Error message displayed when the Map display attempted to show the position of the caller when longitude and latitude coordinates are received in the ALI text message.
- Fixed: Run Mode hangs when you try to exit if using a USB to serial port adapter for the COM port for the Serial CAD Interface function.
- Changed: Changed the Phone Cell to display calls placed on hold by other operator positions with a different color. If a phone line is placed on hold by another position, the Phone Cell now shows "Hold" with dark blue text on a white background. "Hold" is displayed with white text on a dark blue background in the Phone Cell on the operator position that placed the call on hold.
- Changed: Changed the Hold Pickup button to display calls placed on hold by other operator positions with a different color. If a phone line is placed on hold by another position, the Hold Pickup button now shows the line name with dark blue text on a white background.
The line name is displayed with white text on a dark blue

that background in the Hold Pickup button on the operator position placed the call on hold.

- Added: Added support for the screen name option for a Phone Cell that displays a screen when the user clicks on a Phone Cell.
- Added: Added the Automatic Call Distribution (ACD) function.
- Added: The Do Not Disburb button function for ACD.
- Added: Added support for the Use ALI Callback Number option to the E911 Ring Back button.
- Added: Added support for the Trunk ID parameter to the E911 ALI Request button function.
- Added: Added support for the Trunk ID parameter to the E911 ALI Refresh button function.
- Added: Added support for the Use E911 Line Trunk ID parameter to the E911 ALI Refresh button function.
- Changed: Run mode saves the last ALI data received in the file called:
 \ucnt\program>LastAliReceived.txt.
 Note: This is for diagnostic purposes during system installation and configuration.

DESIGN MODE

- Added: Added a screen name option for a Phone Cell that displays a screen when the user clicks on a Phone Cell.
- Added: Added the Automatic Call Distribution (ACD) function settings to the QTI and QPL Setup Miscellaneous property page and the Operator Position Setup Network property page.
- Added: The Do Not Disburb button function for ACD.
- Added: Added the Use ALI Callback Number option to the E911 Ring Back button.
- Added: Added the Trunk ID parameter to the E911 ALI Request button function.
- Added: Added the Trunk ID paramater to the E911 ALI Refresh button function.
- Added: Added the Use E911 Line Trunk ID parameter to the E911 ALI Refresh button function.
- Changed: Removed the Phone Output setting from the Advanced property page of the TRC Setup Dialog because this setting is obsolete.
- Changed: Updated on-line help for new functions and new parameters to existings functions.

MEP QTI Firmware Version 1.9

- Changed: Improved the communications timing between the DSP and the 80152 microprocessor.
- Changed: Improved the noise immunity of the TDD Baudot character detection logic.

MEP QPL Firmware Version 2.5

- Changed: Improved the communications timing between the DSP and the 80152 microprocessor.

MEP TRC Firmware Version 4.7

- Changed: Improved the communications timing between the DSP and the 80152 microprocessor.

MEP TRI Firmware Version 2.2

- Changed: Improved the communications timing between the DSP and the 80152 microprocessor.

Computer Audio Module (CAM) Version 1.5

- Changed: Enhanced support for TDD on QPL phone lines.

E911 Administration Application Version 2.6

- Fixed: Some ALI data fields were shifted in position for the Data Collection System Interface output.
- Fixed: AdminApp can crash if the DVD-RAM is write protected and a scheduled backup occurs.
- Fixed: If the Windows 2000 FAX service is not running, then AdminApp gets very sluggish.
- Changed: AdminApp now saves the last XML file sent to the Data Collection Service in the file: \ucnt\program>LastDataCollectionFile.xml.
Note: This is for diagnostic purposes during system installation and configuration.

Manuals Version 4.0

- Changed: Updated the System Programming Manual for new functions and general corrections.
- Changed: Updated the Operator's Manual for new functions and general corrections.

```
/*-----\
| Version 6.6 (6.6.0.0) (10 Oct 03)                |
\-----*/
```

RUN MODE

- Added: Support for the Direct Trunk mode for the QTI card.

DESIGN MODE

- Added: Support for the Direct Trunk mode for the QTI card.

MEP QTI Firmware Version 1.8

- Added: Support for Direct Trunks. The QTI can now support the following types of call progress signals for Direct Trunks.

Wink Off-Hook
Single Wink
Wink-Wink

```
/*-----\
| Version 6.5 (6.5.0.0) (8 Sep 03) |
\-----*/
```

RUN MODE

- Changed: Modified the explanation text message for the "SMPIC Not Found" error messages (error codes 227,228) to explain that the most likely cause of the message is that run time polling is turned off in the diagnostic settings.

DESIGN MODE

- Changed: Serial CAD Interface -- For the Encoder Single Button function, it is now possible to add (or edit) a name for each page. This makes it possible for Run Mode to display the page name in the Encoder Stack when it stacks the page based on input from the CAD system.

Computer Audio Module (CAM) - Version 1.4

- Fixed: DTMF tone frequencies were incorrect when dialing on the local phone from the Phone Book Dial function when using a CAM.
- Changed: Added a compression amplifier to the Tel. Talk In audio input.

E911 Administration Application - Version 2.5

- Fixed: AdminApp would not store all of the call information for outgoing calls where the number dialed was longer than 24 digits resulting in a message that says "Could not find the information for this call" in the Call Search/Logging Recorder utility when the user tried to display the Call Detail Report for the call.

E911 Playback Utility - Version 1.4

- Fixed: The E911 Playback Utility would hang if the user tried to play back a call that was missing data in the database.

```
/*-----\
| Version 6.4 (6.4.0.0) (6 Aug 03) |
\-----*/
```

\-----*/

RUN MODE

- Fixed: If you power down the MEP and power it back up audio is lost at the positions intermittently on some systems.
- Fixed: Lost T1 Communications error message is not cleared on the E911 Server when the condition is cleared at the position.
- Fixed: In the Call Detail Report, the caller name field for an outgoing call on an admin. line is left over from the previous incoming call on the same phone line.
- Changed: The Caller ID and Name display is cleared on the first ring for admin. lines.
- Changed: Added hand shaking to the protocol for TCP/IP communication with the E911 server for call and abandoned call database records.

DESIGN MODE

No change.

E911 Administration Application - Version 2.4

- Changed: Added hand shaking to the protocol for TCP/IP communication with the operator positions for call and abandoned call database records.

/*-----\
| Version 6.3 (6.3.0.0) (14 Jul 03) |
\-----*/

RUN MODE

- Changed: Added support for Windows 2000 native dual screen capability.
- Added: It is now possible to search for a location on the Map Display using longitude and latitude.
- Changed: Increased the font size of the longitude/latitude position display on the Map Display.
- Added: It is now possible to dial a phone number from the keyboard when a phone is on line.
- Changed: The hot key combinations for exiting Run Mode or running Design Mode are now blocked. It is still possible to use these in Demo mode.
- Added: The Browser Display function that allows the user to display pre-programmed HTML pages with the new Browser Bookmark button function.

- Added: The Browser Bookmark function that allows the user to assign an HTML URL to a button for the Browser Display function.
- Fixed: Map Display: If there are two layers with the same name, the software ignores the Design Mode settings of the second layer.
- Changed: Made the screen saver time out less sensitive to mouse movements.

DESIGN MODE

- Changed: Added support for Windows 2000 native dual screen capability.
- Added: Support for the Browser Display function.
- Added: Support for the Browser Bookmark function.

Installation Program

- Fixed: "AliFaxServer.dll failed to register" message appeared when installing on Windows NT 4.0.
- Changed: Now distributing shlwapi.dll for NT 4.0 systems that do not have Internet Explorer version 4.0 or later.

```
/*-----\
| Version 6.2 (6.2.0.0) (5 May 03) |
\-----*/
```

RUN MODE

- Fixed: The Site Information and Call Taker Notes displays do not properly refresh if covered by a modeless dialog when the dialog is closed.
- Fixed: If the right mouse button is programmed for PTT, it is not possible to transmit with the right mouse button when the mouse cursor is over certain screen objects such as a dialog or a list control.
- Changed: The font size of the ANI Message Display Function (radio) is now programmable. The size range is from 8 pixels to 24 pixels. The default is 24 pixels.
- Changed: The Change Screen Button flashes its border if there is Site Information or Call Taker Notes data available for an E911 call when the operator picks up the call if one of these display objects is in the screen that the button is programmed to display. The border flashes until the operator views the screen containing the Site Information or Call Taker Notes data.
- Changed: Now saving the phone number of the destination that an E911 call was transferred to. The destination phone number appears in the Call Detail Report and the Data Collection Service data transmitted.
- Added: Support for the Ultra-Com Lite configuration.

DESIGN MODE

Changed: ANI Message Display Function (radio). The font size is now programmable. The size range is from 8 pixels to 24 pixels. The default is 24 pixels.

Changed: The minimum time delay setting for the Macro Time Delay function was reduced from 1 second to 0.1 second.

Added: Design Mode settings for the Ultra-Com Lite configuration.

E911 Administration Application - Version 2.3

Changed: The transferred destination phone number for an E911 call appears in the Call Detail Report and the Data Collection Service data transmitted.

E911 Search/Logging Recorder Utility -- Version 1.6

Changed: The transferred destination phone number for an E911 call appears in the Call Detail Report.

```
/*-----\
| Version 6.1 (6.1.0.0) (7 Apr 03) |
\-----*/
```

RUN MODE

Fixed: Fixed to correct a problem introduced by the VC++ 7.0 compiler. Run Mode was not registering the DisplayIf interface. Modified the installation program to create the necessary registry keys.

DESIGN MODE

No changes. Design Mode is still at Version 6.0.

```
/*-----\
| Version 6.0 (6.0.0.0) (17 Mar 03) |
\-----*/
```

RUN MODE

Added: E911 Map Display Function.

Added: Answered Calls call queue for the E911 Call Queue function. This type of call queue displays the last 16 E911 calls answered by a position.

Added: Mobile/Portable display column for the ANI Voted Display function.

Changed: The border of a Change Screen button flashes when there is a dropped call in an E911 Call Queue Display programmed for dropped calls on the screen that the button changes to. The border flashes for as long as there are dropped calls in the queue.

Changed: E911 ALI Request -- if there is no ANI from the last E911 call, then load the area code of the PSAP into the phone number display. Also load the PSAP's area code when the user clicks on the Clear button of the dialog box.

Changed: The Call Taker Notes display now displays the most recent call taker notes at the top of the list.

Fixed: Turning on EIP while on the phone mutes the dispatchers mic audio to the phone line.

Fixed: The month, date and year become incorrect when using Format 0 of the Netclock.

Fixed: The Position Intercom dialog did not refresh all pop up screens when it closed.

Changed: Allow only one instance of the application to run at a time.

Changed: The ANI and ALI Display Functions now work in demo mode. When in demo mode, click on the phone cell for an E911 trunk line to display sample ANI and ALI data. The software displays different ANI/ALI data each time you click on an E911 phone cell. There are five fixed sets of ANI/ALI data.

Changed: The Site Information and Call Taker notes functions now work in demo mode.

Changed: Now using the VC++ 7.0 compiler.

DESIGN MODE

Added: E911 Map Display Function.

Added: Answered Calls setting to the E911 Call Queue Display Function settings.

Changed: Now using the VC++ 7.0 compiler.

MEP CAM Firmware Version 1.3

Fixed: Alert Tone Live does not work for the CAM if the number of cycles is 1 and the second tone duration is 0.

E911 Administration Application Version 2.2

Changed: Allow only one instance of the application to run at a time.

Changed: Now using the VC++ 7.0 compiler.

Diagnostics Utility Version 1.4

Changed: Automatically refreshes the error list when the dialog becomes visible when launched from the Administration Application.

Changed: Now using the VC++ 7.0 compiler.

Abandoned Call Utility Version 1.3

Changed: Now using the VC++ 7.0 compiler.

E911 Playback Utility Version 1.3

Fixed: When you click and drag the slider control to a time in the recording, playback resumes at the new time but there is no audio until you click on Pause, then Play at an operator position.

Changed: Now using the VC++ 7.0 compiler.

Search/Logging Recorder Utility Version 1.5

Changed: Now using the VC++ 7.0 compiler.

Statistics Utility Version 1.4

Changed: Now using the VC++ 7.0 compiler.

E911 Event Viewer Utility Version 1.3

Changed: Now using the VC++ 7.0 compiler.

```
/*-----*\
| Version 5.3 (5.3.0.0) (13 Dec 02) |
\-----*/
```

RUN MODE

Fixed: Windows 98 incompatibility problem in Demo Mode.

Fixed: Data format error in the Manual ALI Request function when using a 7-Digit + NPD request format request.

Fixed: The NPD digit was off by 1 in the Manual ALI Request and ALI Refresh functions for the 7-Digit + NPD request format.

Fixed: The position address in status messages is incorrect if the PIC is in cage 9 or higher.

Fixed: Get "T1 Output Buffer Overflow" error messages at each operator position if the system is large (200 cards) when the SCP completes system initialization after it comes back on line.

DESIGN MODE

No changes. Still version 5.0.

Administration Application Version 2.1

Added: Remote Data Collection System interface for State of California

Changed: Improved database access performance when inserting call information into the database.

Search/Logging Recorder Utility Version 1.4

Fixed: In the E911 Call Detail report, the Ring Time is non-zero even if the Trunk Seize Time is not defined.

Diagnostics Utility Application Version 1.3

Added: HTML error message file for error code 900 -- Data Collection COM Port Error.

```
/*-----\
| Version 5.2 (5.2.0.0) (16 Oct 02) |
\-----*/
```

RUN MODE

No changes. Set version to 5.2 for version identification.

DESIGN MODE

No changes. Still version 5.0.

MEP CAM Firmware Version 1.2

Fixed: Phone relay and PTT relay do not work if you select relays Tel 1 or Tel 2.

Fixed: The CAM resets if you perform a Radio Head Tone Test.

MEP TRC Firmware Version 4.6

Fixed: Periodic audio tick (TRC/TRI cards only).

Fixed: External mute input function (TRC/TRI cards only).

MEP TRI Firmware Version 2.1

Fixed: Periodic audio tick (TRC/TRI cards only).

Fixed: External mute input function (TRC/TRI cards only).

```
/*-----\
| Version 5.1 (5.1.0.0) (25 Sep 02) |
\-----*/
```

RUN MODE

- Changed: Made Run Mode software compatible with Windows 4.0 operating system. (Fixed in Version 5.0, Service Pack 1).

DESIGN MODE

No changes. Still version 5.0.

MEP CAM Firmware Version 1.1

Fixed: Problem with the T1 communications logic that caused the CAM to get stuck in a re-try state when there were a log of errors on the T1 link.

MEP PIC Firmware Version 3.6

Fixed: CPLD logic to improve stability of the clock signal used for the T1 link.

MEP TRC Firmware Version 4.5

Fixed: TRC/TRI DSP software to correct low receive audio level in two wire mode.

```
/*-----\
| Version 5.0 (5.0.0.0) (26 Jul 02)
|-----*/
```

RUN MODE

- Changed: The Speed Dial and Phone Outgoing functions so they do not pick up the last line used if it was released within the last 3 seconds.
- Added: Support for the Select Tx Side Tone setting for an operator position. When enabled, this function allows an operator to hear the transmit audio from other positions on the selected channel.
- Added: E911 Site Information Display function.
- Added: Call Notes Entry Function.
- Added: Call Notes Display Function.
- Added: Support for the Computer Audio Module (CAM). The CAM replaces the CIC and the DAMs.

DESIGN MODE

- Added: Select Tx Side Tone setting to the Miscellaneous tab of the Operator Position settings dialog.
- Added: E911 Site Information Display function.
- Added: Call Notes Entry Function.
- Added: Call Notes Display Function.

MEP CAM Firmware Version 1.0

Initial release of the CAM software.

E911 Administration Application Version 2.0

- Added: Database support for the Site Information and Call Notes functions.
- Added: The Site Information button that displays the Site Information Manager utility application.
- Changed: The Call Detail Report to add call taker notes to the report.

E911 Statistics Utility Version 1.3

- Changed: The script file so that it is compatible with Internet Explorer version 6.0.

E911 Search Utility Version 1.3

- Added: Call notes to the Call Detail Report.

Site Information Manager Utility Version 1.0

Initial release of the Site Information Manager Utility application. This application is installed on the server and is also distributed with the E911 Utilities that can be installed on operator positions.

```
/*-----\
| Version 4,3,0,0 (18 Mar 02) |
\-----*/
```

RUN MODE

- Fixed: Run Mode does not automatically create the c:\ucnt\program\recordings directory if it does not exist.
- Fixed: If you pick up phone line 1, pick up phone line 2, pick up phone line 1, pick up phone line 2, then run mode does not name the recording files correctly according to the phone line names, but the contents are stored in the database correctly.
- Fixed: Get an application error if a Window Done button gets pressed in a macro for a screen that no longer exists.
- Fixed: If position 1 has an E911 line on line and the ALI is displayed and if position 2 picks up another E911 call before the ALI for that call is received, then position 1's ALI display changes to show the ALI for the call picked up by position 2 when the ALI

is received.

- Fixed: If you down load programming files to a position and have the "Restart Positions After Download" box checked, then the run mode program does not always completely exit.
- Fixed: If a position comes on line and is initialized by the SCP, sometimes you get and error message that reads "ALI controller not on-line or available" when you do a manual ALI request even though the ALI controller is operating normally.
- Fixed: If you pick up a phone line, turn on Phone Mic Mute, then release the phone line, the Phone Mic Mute button turns off, but if you pick up another phone line, then transmit and release, the mic remains muted to the phone line.
- Changed: Modified run mode to improve the response time when the operator picks up or releases phone lines.

DESIGN MODE

No changes to design mode in this release.

MEP QTI Firmware Version 1.7

- Fixed: The QTI card was going off hook for E911 test calls. Fixed in version 1.6.
- Fixed: The QTI card was generating 120 ips instead of 60 ips for E911 test calls. Fixed in version 1.6.
- Fixed: When the ALI database I/F serial port is set up for 1200 Baud, if you make two ALI database requests simultaneously, the QTI card responds to neither request and stops servicing subsequent ALI database requests.

MEP TRC/TRI Card TRC2 Firmware Version 4.4

- Fixed: DSP software. Certain patch operations caused a DSP Timeout error.
- Fixed: DSP software. Intermittent failures for the TRC Transmit and Logging Recorder audio tests.

MEP TRC Firmware Version 4.4

No change to the software. Version changed to be consistent with the TRC2 card.

MEP PIC Firmware Version 3.5

- Changed: Changed software to improve performance when picking up and releasing phone lines.

MEP CIC Firmware Version 3.5

- Fixed: The phone relay did not work for MEP phone lines.
- Changed: Changed software to improve performance when picking up and releasing phone lines.

E911 Administration Application Version 1.2.1

- Fixed: The call detail entry in the recording index file does not contain the html file exxtension on the archive disk if Windows was set up to hide known file extensions.

E911 Diagnostics Utility Version 1.2.1

- Fixed: If you select more than one error message in the error list, you get multiple warning messages.

```
/*-----\
| Version 4,2,0,0 (25 Jan 02) |
\-----*/
```

RUN MODE

- Fixed: If the Administration Application on the Moducom E911 Server is restarted, it is necessary to restart the run mode program at each operator position in order for the positions to save phone line recordings on the server.
- Fixed: If the administration application on the server starts responding again, run mode does not check to see if there are any recordings that need to be sent to the logging disk. Run mode must be restarted in order to send the recordings stored locally to the server.
- Fixed: If the operator picks up a line, then picks up another line, run mode puts the first line on hold but does not generate a call detail record at the server for the first call.
- Fixed: Run mode intermittently saves duplicate wave files on the local disk for phone line recordings.
- Fixed: Card initialization information was not properly processed by a position when it was initialized by the SCP if there were QTI cards in the system This caused the card version information to be blank in the Advanced Diagnostics dialog and run time status for some cards was not displayed. When the SCP was initialized by another position it re-initialized some MEP cards.
- Changed: Completed initial integration of interface between run mode and Geo911 CadPro.

DESIGN MODE

No changes to design mode in this release.

MEP QTI Firmware Version 1.5

- Fixed: Excessive line seizures on a trunk line (> 20 or 30 per second) for an extended period of time result in too many messages and jam the communications bus.

MEP TRC/TRI Card TRC2 Version 4.3 (no version change)

- Fixed: CPLD and DSP hex files for problems with diagnostic testing.

MEP TRC/TRI Card TRI2 Version 2.0 (no version change)

- Fixed: CPLD and DSP hex files for problems with diagnostic testing.

E911 Administration Application Version 1.2

- Fixed: When archiving, the last wave file in the archive is not properly copied to the DVD-RAM disk.
- Fixed: If the administration application is stopped, then restarted with the operator positions running, a "DB Exception..." error message appears at the server when each operator position automatically logs on with the administration application again.
- Fixed: Buffer overflow problem if there were more than 1000 recordings that needed to be archived.
- Fixed: Administration application was deleting wave files for recordings (that had been archived) from the logging recorder disk before it was necessary.
- Fixed: If the archive space used was slightly greater than the space allocated, then the percent available displayed a negative number. It now displays zero.
- Changed: The administration application now indicates "Archiving" immediately when the operator initiates a manual archive operation.
- Changed: The archive disk space used and percent available indications were not updated during the archive process.

E911 Call Search/Logging Recorder Utility Version 1.2

- Fixed: If the administration application is shut down and restarted, the call search utility generates an internal application error if an operator at a position tries to use it.

- Fixed: If the trunk seize time or ring start time for a call are not defined,
the call detail report indicates a time of "12/31/1969 16:00:00".
- Fixed: If the "From" date is earlier than the "To" date when searching for calls within a date range, then an error message dialog appears repeatedly and the application hangs.
- Changed: The call detail is now displayed in the same dialog window instead
of a separate Windows Explorer window. The operator can now print and save to file directly from the dialog window.

E911 Diagnostics Utility Version 1.2

- Changed: The diagnostic reports are now displayed in the same dialog window
instead of a separate Windows Explorer window. The operator can now
print and save to file directly from the dialog window.

E911 Statistics Utility Version 1.2

- Changed: The statistics reports are now displayed in the same dialog window
instead of a separate Windows Explorer window. The operator can now
print and save to file directly from the dialog window.

E911 Abandoned Call Utility Version 1.2

- Changed: The abandoned call reports are now displayed in the same dialog window instead of a separate Windows Explorer window. The operator
can now print and save to file directly from the dialog window.

E911 Playback Utility Version 1.2

No changes in this release.

```
/*-----\
| Version 4,1,0,0 (3 Oct 01) |
\-----*/
```

RUN MODE

- Fixed: The Volume Memory function does not update the mute indication of channels that are muted (problem was introduced in version 4.0.0.0).
- Fixed: The Phone Mic mute button does not turn off when you release the phone line.
- Fixed: If Phone Mic Mute is on and you transmit on a channel and then key down, the position audio is connected to the caller but the Phone Mic Mute button still indicates on.
- Fixed: It is possible to lock a TRC in the XMIT state if you key it up

with the footswitch, click on the Encoder Send button, then abort the encoder while still keyed up. This only occurs the first time you try to send out the stacked pages.

- Fixed: Right mouse select allows you to select more than 8 channels.
- Fixed: In Statistics, the intervals to the right of the print interval are not cleared when the time crosses those interval boundaries.
- Fixed: The Group Select macro is slow to select channels when there are channels that are programmed for multiple frequencies.
- Changed: Phone Book Dial -- the software now uses the dialing prefix programmed for the button in addition to the dialing prefix programmed for the card when dialing out on a MEP phone line.
- Changed: Increased the maximum number of digits dialed from 32 to 128 for manual dialing.
- Added: E911 Call Ring Back -- Added support for a dialing prefix that can be programmed for the button.

DESIGN MODE

- Fixed: Card Cage Report causes an application error if a line in the report exceeds 100 characters because of a long comment field.
- Added: E911 Call Ring Back -- Added a dialing prefix parameter for the button.

MEP QTI Firmware Version 1.4

- Fixed: If the Tandem Switch (CO) hangs up before the wink signal from the QTI has completed, the line stays in the wink state.
- Fixed: If the ALI controller receives a NAK on the ALI data link, it sends continuous heart beat messages on the ALI data link.
- Fixed: If two operators pick up a call on the same line with an incoming call within about 100 msec, and if one of the positions is at the first slot in the first cage, then one operator position will get an "On Line" indication and the other will get a "Busy" indication but can hear incoming audio from the caller.

MEP QPL Firmware Version 2.4

- Fixed: If two operators pick up a call on the same line with an incoming call within about 100 msec, and if one of the positions is at the first slot in the first cage, then one operator position will get an "On Line" indication and the other will get a "Busy" indication but can hear incoming audio from the caller.

MEP TR-TEL Firmware Version 1.4

- Fixed: If two operators pick up a call on the same line with an incoming

call within about 100 msec, and if one of the positions is at the first slot in the first cage, then one operator position will get an "On Line" indication and the other will get a "Busy" indication but can hear incoming audio from the caller.

MEP PIC Firmware Version 3.4

- Fixed: Problem with Transmit With Alert for simul-select case with multiple channels selected in batch mode.

MEP TRC Firmware Version 4.3

- Fixed: Problem with Transmit With Alert for simul-select case with multiple channels selected in batch mode.

```
/*-----\
| Version 4,0,0,0 (18 Jul 01) |
\-----*/
```

RUN MODE

- Fixed: For local relays (including Tel 1 and Tel 2) programmed for Alternate With Headset, the relay buttons do not cross indicate with other buttons.
- Fixed: The Priority Transmit button does not cross indicate with other Priority Transmit buttons.
- Fixed: On large systems, the message "SMPIC Not Found During Polling" is displayed when the SMPIC switches from the last PIC in the MEP card cage to the first PIC even though one of the PICs is the SMPIC.
- Fixed: If a phone line is not assigned to a phone line group, then it does not ring at the position.
- Added: The E911 Utility function button that allows the operator to run one of the following E911 Utility applications at the operator position:
 - 1.) E911 Statistics Utility
 - 2.) E911 Call Search/Logging Recorder Playback
 - 3.) E911 Abandoned Call Utility
 - 4.) E911 Diagnostics Utility
- Added: An option to each phone line to enable or disable recall recording and E911 logging recording for that line.
- Added: An option to each E911 phone line to enable or disable the Barge In function

for that line.

- Added: The ability to playback logged phone calls stored on the Ultra-Com 2000 Server with the E911 Playback Utility application at the operator position.

- Changed: Optimized the Volume Memory function to significantly reduce the amount of time for the function to set the volumes at an operator position.

- Changed: Optimized Simul-Select PTT transmits to improve the speed at which TRCs key up and down.

- Changed: The maximum number of Simul-Selected channels is now limited to 8.

- Changed: The Moducom backdoor password for Advanced Diagnostics has been removed. The default user password is now the old Moducom password. The user's password for Advanced Diagnostics must be changed at the time of system installation. If the user forgets their password, they must re-install the software at the operator position in order to restore the default user password,

- Changed: Disabled the Alt-X and Alt-P keyboard sequences for exiting to Windows or to Design Mode.

- Changed: Changed the E911 ANI Display so that it works with caller ID from admin. phone lines.

DESIGN MODE

- Fixed: Voter Cell Interlock Code edit box accepts letters -- it should only accept numbers.

- Added: The E911 Utility function button that allows the operator to run one of the

following E911 Utility applications at the operator position:

- 1.) E911 Statistics Utility
- 2.) E911 Call Search/Logging Recorder Playback
- 3.) E911 Abandoned Call Utility
- 4.) E911 Diagnostics Utility

- Added: An option to each phone line to enable or disable recall recording and E911 logging recording for that line.

- Added: An option to each E911 phone line to enable or disable the Barge In function for that line.

- Added: Advanced Card Cage Setup -- Netclock. Added an option to select the Netclock default format. Format 0 = NENA E911 standard format. Format 1 = Moducom format.

MEP TRC Firmware Version 4.2

- Fixed: DSP software to send out tones on the logging recorder output. This change was originally released as TRC Version 4.1 as part of Service Pack 1 of Version 3.0.2.0.

- Fixed: For a TRC with "Duplex" selected. transmit causes the Vox Mute to un-mute indefinitely.

- Changed: Added support for optimized Simul-Select PTT transmits.

MEP PIC Firmware Version 3.3

- Changed: Added support for Format 0 (NENA Standard) Netclock format.
- Changed: Added support for optimization of the Volume Memory function.
- Changed: Added support for optimization of Simul-Select PTT transmits.

MEP CIC Firmware Version 3.4

- Changed: Added support for optimization of Simul-Select PTT transmits.

```
/*-----\
| Version 3,0,2,0 (14 Feb 01) |
\-----*/
```

RUN MODE

- Added: Phone Ring Mute function that mutes ringing for selected phone line groups.
- Changed: Modified the E911 Barge In function so that it works with admin. lines also.

DESIGN MODE

- Added: Phone Ring Mute function that mutes ringing for selected phone line groups.

MEP QPL Firmware Version 2.3

- Fixed: CPLD timing problem that could cause loss of audio in some QPL cards.

MEP QTI Firmware Version 1.1

- Fixed: For the 20 digit ANI format, was using the first 10 digits for the ALI database request instead of the second 10 digits.

```
/*-----\
| Version 3,0,1,1 (18 Dec 00) |
\-----*/
```

RUN MODE

- Fixed: The Save To File dialog in Statistics Review and Encoder History Review causes an application error. (This problem appeared in version 3.0.0.0).

- Fixed: Channel volume and routing settings are lost at the SCP when the SCP is initialized by another position. (This problem appeared in version 3.0.0.0).

- Fixed: If a system has only manual pot. controls and you reset the CIC or download software to it, then speaker audio is lost until you exit run mode and come back in again.

DESIGN MODE

- Fixed: The TRC Report causes an application error for certain screen sets. The problem occurs if you have local or cross busy or mute relationships set up for a channel and then delete that channel from the MEP database.

```
/*-----\
| Version 3,0,1,0 (27 Nov 00) |
\-----*/
```

RUN MODE

- Fixed: Occasionally, an operator position is not completely initialized by the SCP and the MEP card revision information in the Advanced Diagnostics Dialog is blank for one or more cards.

- Fixed: A "SMPIC Not Found During Polling" error message is sometimes printed on the diagnostics printer even though one of the PIC cards is the SMPIC.

- Fixed: If the operator performs a PTT during the inter-page delay while the encoder stack is transmitting, the selected TRC gets stuck in transmit. The software now blocks PTT operators while the encoder stack is transmitting. It is still possible to use instant transmit.

DESIGN MODE

No changes to design mode.

MEP CIC Firmware Version 3.3 (release as Service Pack 1)

- Fixed: The Alert Tone Live function ignores the second frequency parameter.

```
/*-----\
| Version 3,0,0,0 (22 Sep 00) |
\-----*/
```

RUN MODE

- Fixed: Relay buttons cause an access violation when used in a run mode macro the first time the macro is run.
- Fixed: If there is no Groups directory, run mode displays a dialog box, then causes an access violation.
- Fixed: If a wave file for playing a sound does not exist when its time to play a sound, run mode crashes when you try to exit to Windows.
- Fixed: Statistics printing doesn't correctly recognize the end of the month (originally reported as a Feb. 29th leap year problem).
- Fixed: Relay buttons programmed for Output On or Output Off flicker when used in an interlocking relay group and one relay in that group is turned on.
- Fixed: When doing a file transfer in a system with multiple user groups, the "user name" is set to the user name of the sending position.
- Fixed: It is possible to change the state of a relay button that is programmed for Output On once the relay is set to the on state. The relay button does not follow the state of the relay.
- Fixed: It is possible to change the state of a relay button that is programmed for Output Off once the relay is set to the off state. The relay button does not follow the state of the relay.
- Changed: An operator position that is programmed for a leased T1 line will never become the TSCP. If there is no TSCP or SCP, a position programmed for a leased T1 line will wait for initialization data from the SCP or until the operator exits the application (see below).

- Changed: Added an Exit button to the Initialization Status Dialog that allows you to exit the application while the operator position is waiting for initialization or initializing MEP cards.
- Changed: The CIC now produces phone ringing sounds on a speaker that is specified in the design mode settings. Twelve different ringing sounds are available.
- Changed: The Phone Answer Button function can now optionally display a screen that is specified in the design mode settings.
- Changed: Increased the font size of for the ANI (radio) Message Display to 24 pixels.
- Changed: Updated statistics for QTI cards.
- Changed: Modified the Telephone Talkback internal recall recorder dialog to display the recorder label field from the Operator Position Setup Dialog's Miscellaneous property page in design mode.
- Changed: If the screen group used by an operator position does not have a Phone Cell for a phone line, then that phone line will not ring at that operator position and the operator cannot answer calls for that phone line.
- Changed: The internal Select and Telephone recall recorder dialogs are initially displayed in the center of the screen the first time that they are displayed. If the operator moves these dialogs then closes them, run mode displays them at their last position the next time that they are displayed.
- Added: A new screen dimmer that works when running under Windows 2000.
- Added: The Ring Sound volume control function.
- Added: The Quad Trunk Interface (QTI) card for interfacing to E911 analog trunk lines.
- Added: The following E911 phone functions.
 1. E911 Call Queue Display
 2. E911 Call Queue Answer Button
 3. E911 Call Clear Button
 4. E911 ANI Display
 5. E911 ALI Display
 6. E911 ANI/ALI Display Clear Button
 7. E911 ALI Display Refresh Button
 8. E911 ALI Data Request Button
 9. E911 Barge In Button
 10. E911 Call Ring Back Button
 11. E911 TDD Display
 12. E911 TDD Key Entry Button

13. E911 TDD VCO Button
14. E911 TDD HCO Button
15. E911 TDD Baudot Toggle Button
16. E911 TDD On Screen Key Board
17. E911 TDD Message List Display
18. E911 TDD Message Send Button
19. E911 TDD Mode Toggle Button
20. Phone Mic Mute Button

- Added: Ring Sounds test button to the Advanced Diagnostics dialog that allows

you to test each of the twelve ringing sounds.

- Added: QTI Diagnostic tests that allow you to perform loop start and side tone tests on each QTI phone line.

DESIGN MODE

- Fixed: If you use the down arrow to select the "Custom" radio button in the

Backup With Compression dialog instead of clicking on the button, the File Open dialog appears repeatedly and you can't save the programming data or close the dialog.

- Changed: Added an Advanced Setup item to the System menu that displays the Advanced Card Cage Setup dialog box.
- Changed: Added a Ring Sound selection to QPL and TR-TEL cards on the Miscellaneous page of each card's setup dialog.
- Changed: Updated the Card Cage Assignment Report to add QTI cards and new design mode settings for E911.
- Added: Quad Trunk Interface (QTI) setup dialog.
- Added: Programming for new functions listed under RUN MODE.
- Added: Added the following property pages to the Card Cage Advanced Setup dialog.

1. E911 ALI Settings
2. E911 ALI Text Message
3. ALI Configuration

- Added: QTI card report.

- Added: A label text field edit box to the Telephone Internal Recorder settings

This

Recorder

in the Miscellaneous page of the Operator Position Setup dialog.

This text label will appear as the name of the Telephone Internal

dialog box. Each operator position can have a different telephone recorder name.

MEP QPL Firmware Version 2.2

- Fixed: DSP initialization problem.
- Fixed: DSP software to fix the time slot wrap around problem.
- Fixed: If a phone line is the member of a conference group and that phone line is released, the audio for that line remains in the conference mixing slots for the phone cards remaining in the conference.

MEP TRI Firmware Version 2.0 (was in Service Pack 2)

- Fixed: Problem where Rx audio on receiver section 1 can override (mute) Rx audio on receiver sections 2 or 3. This problem only appeared under certain console configurations.

MEP TRC-TEL Firmware Version 1.3

- Fixed: No inter-digit gap for speed dial. (was fixed in Service Pack 3)
- Fixed: If a phone line is the member of a conference group and that phone line is released, the audio for that line remains in the conference mixing slots for the phone cards remaining in the conference.

MEP CIC Firmware Version 3.2

- Fixed: If the second tone for Alert Tone Live has a duration of 0, the resulting tone interval is 1 minute.
- Added: Phone ringing sound function.

MEP QTI Firmware Version 1.0

Initial release of the QTI card firmware.

```
/*-----\
| Version 2,0,3,0 (15 Dec 99) |
\-----*/
```

RUN MODE

- Fixed: Hold Pickup operates on mouse down and mouse up events. Fixed so it activates the hold pickup only on mouse down.
- Fixed: Local Hold Pickup setting does not work for the Hold Pickup function.
- Fixed: The internal recall recorder dialog box only displays the first 180 recordings in the drop down list and does not update the recording

list after 180 recordings.

- Fixed: The encoder format 1+1 Mot 6, digit 1 generates 1155.4 Hz. The frequency was changed to 1153.4 Hz.
- Fixed: The XBusy and LBusy status indication is not cleared when a channel is programmed for local frequency change.
- Added: Support for the new design mode Over-Ride Channel Default Speaker setting for operator positions.
- Added: Support for the GE-Star Always Emergency design mode setting to treat all GE-Star ANI messages as emergency messages.
- Changed: Display a message dialog box while creating internal recall recorder files.
- Changed: Priority Transmit so that operators can over ride their on transmits.
- Changed: Label of "Diagnostics" button to "MEDIC Diagnostics"

DESIGN MODE

- Added: An Over-Ride Channel Default Speaker setting to the speaker page of the operator position dialog box. This setting tells the system to route the audio to the un-select speaker for a position if the programmed default speaker for a channel is not programmed for that position.
- Added: A GE-Star Always Emergency setting to the ANI page of the TRC dialog box. If checked, then all GE-Star messages are treated as emergency messages.
- Added: An Incoming Ring Down setting to the Dialing Properties page of the QPL dialog to allow selection of Incoming Ring Down mode for QPL phone lines.
- Changed: Increased the size of the phone line drop down list for the Phone Cell dialog box.

MEP QPL Firmware Version 2.0

- Fixed: Adding more than one radio channel to a phone conference causes the radio audio to the phone line to disappear.
- Fixed: CPLD logic to correct incorrect detection of power supply A and B status.
- Added: Incoming Ring Down mode.
- Changed: Modified the card software for new production cards that use the ADSP-2184 DSP.

MEP TRI Firmware Version 1.9

- Fixed: DSP logic to fix intermittent problem with the compression amplifier on receiver #3.

```
/*-----\
| Version 2,0,2,0 (10 Nov 99) |
\-----*/
```

RUN MODE

- Fixed: If two positions pick up phone lines, they can hear each other's phone conversations on their unselect speakers.
- Fixed: Caller ID for the number only format is not properly displayed in the caller ID display.
- Added: An EIP Off function that allows the operator to turn off any EIP alerts that were turned on by that position.
- Added: A Statistics Set Interval function that allows an operator to change the statistics print interval, the shift interval and the shift start time during run mode.
- Added: Encoder Stack Item selection for the Encoder Clear function that allows the operator to delete any selected item on the encoder stack.

DESIGN MODE

- Added: An EIP Off function that allows the operator to turn off any EIP alerts that were turned on by that position.
- Added: A Statistics Set Interval function that allows an operator to change the statistics print interval, the shift interval and the shift start time during run mode.
- Added: Encoder Stack Item selection for the Encoder Clear function that allows the operator to delete any selected item on the encoder stack.
- Added: An Enable COR and COR relay selection to the TRC Functions property page for TRC programming. This enables the Carrier Operated Relay (COR) operation of the TRC.

MEP CIC Firmware Version 3.0

- Changed: When an External Encoder PTT signal is detected, the CIC now performs the same actions that it does with a PTT. External Encoder PTT is OR'ed with PTT, right footswitch and left footswitch.

MEP TRC Firmware Version 4.0

- Changed: Now add a 30 msec. period of silence before burst tones.
- Added: The Carrier Operated Relay (COR) function. When COR is enabled for a TRC, patch VOX from the DSP is disabled.

MEP QPL Firmware Version 1.2

- Fixed: Releasing a line on a QPL card causes the audio of line 1 on that card to be muted because of a mute VOX condition.

```
/*-----\
| Version 2,0,1,0 (15 Oct 99) |
\-----*/
```

RUN MODE

- Fixed: If an alarm pop up window appears while the Date/Time dialog box is visible, the pop up window appears as an outline only.

- Fixed: Get an access violation if the CIC is not responding, and you press the Diagnostics button on the CIC Not Responding error dialog, then display the Advanced Diagnostics dialog, then click on To Windows. The CIC Not Responding dialog was modified to remove the Diagnostics button. It is possible to view diagnostics messages after entering demo mode.

- Fixed: The CIC device driver stopped communicating with the CIC card intermittently on Gateway Pentium II 400 MHz. (of faster) machines.

- Fixed: If a QPL card fails after the system up and running, the Phone Cell does not display "Fail"

- Fixed: If there is a Channel Cell programmed for a TRI card with a TRC card for the transmit channel, then Repeater Disable, Self Repeat or R2 Mute indications may appear even if these functions are not on.

- Added: The Phone Answer Button function that picks up the phone line that has been ringing the longest time. This function can be programmed in design

mode to pickup any phone line or phone lines belonging to a specific phone line group.

- Added: The Phone Hold Pickup Button function that picks up the phone line that has been on hold the longest time. This function can be programmed in design mode to pick up any phone line that is on hold, or to pick up only phone lines that were put on hold at the operator position.

- Added: The Phone Outgoing Button function that picks up the next available phone line for an outgoing call. This function can be programmed to pickup any free phone line, or only phone lines assigned to a specific phone line group.

- Added: Support for operator login. If a position is programmed for operator login then a login dialog box will appear at that position after the position initializes. The operator cannot perform any functions until he logs in using a login name and password. If a position is not logged on, then the logon dialog will display a black dialog with a text message after a timeout interval equal to the screen dimmer timeout setting.

- Added: The Logoff function button that allows an operator to logoff if the operator position is programmed for operator login.

- Changed: The statistics reports now include counts for each QPL phone line and position counts for the number of times a QPL phone line is picked up.

- Changed: The Phone Speed Dial button so that it supports options to pickup a line and flashes a phone line before dialing. See DESIGN MODE changes.

- Changed: The Phone Book Dial button so that it supports options to pickup a line and flashes a line before dialing. See DESIGN MODE changes.

- Changed: Phone ringing so that it rings once every six seconds for as long as there are any MEP phone lines ringing.

- Changed: The internal telephone recall recorder now records MEP phone line audio instead of the select recall recorder.

- Changed: MEP phone line audio now comes out on the Monitor 2 speaker when a telephone headset is not plugged in.

- Changed: Radio channel selection is no longer affected when a MEP phone line is picked up.
- Changed: Phone patch (local position phone) is turned off if it is on when the operator picks up a MEP phone line.
- Changed: Phone patch (local position phone) cannot be turned on while the operator position has a MEP phone on line.
- Changed: The Telephone Online function has been modified so that it now works with MEP phone lines.
- Changed: Telephone Online is turned off when a MEP phone line or the local position phone are released.

DESIGN MODE

- Added: Flash Interval and Delay After Flash parameters to the Dialing Properties page for QPL and TR-Tel card dialog boxes.
- Added: A phone line group parameter to the Miscellaneous tab for QPL and TR-Tel cards.
- Added: Design mode settings for the following new phone functions.
 - 1.) Phone Answer Button
 - 2.) Phone Hold Pickup Button
 - 3.) Phone Outgoing Button
- Added: The Phone Line Group, Pickup Line and Flash options to the Phone Speed Dial function.
- Added: The Phone Line Group, Pickup Line and Flash options to the Phone Book Dial function.
- Added: Network tab for the Card Cage Advanced property sheet that allows programming of user login information.
- Added: Network tab to the Operator Position property sheet dialog with a check box for Enable Operator Login. If this check box is checked for an operator position, operators must login before being allowed to use the position.
- Changed: Removed the Flash Interval parameter from the Flash function.
- Changed: The QPL card report to add the Phone Line Group, Flash Interval and Delay After Flash parameters.

- Changed: The TR-Tel card report to add the Phone Line Group, Flash Interval and Delay After Flash parameters.

MEP CIC Firmware Version 2.9

- Changed: Changed the routing logic so that MEP phone line audio is routed from the Monitor 2 speaker when a headset is plugged in.

- Changed: Changed the internal telephone recall recorder logic so that internal recall recorder operation is not VOX operated when a MEP phone is on line.

MEP PIC Firmware Version 3.2

- Changed: Modified the routing logic so that the audio that is on Monitor 2 is routed to the Unselect speaker when a MEP phone goes on line. The PIC restores the Monitor 2 routing when the MEP phone goes off line.

MEP QPL Firmware Version 1.1

- Fixed: CPLD logic to solve problem of interactions between phone lines.
- Fixed: Ground start logic so ground start works correctly.

```
/*-----\
| Version 2,0,0,0 (23 Jul 99) |
\-----*/
```

```
*****
***                IMPORTANT!                ***
*****
```

Ultra-Com NT software release 2000 includes a data format change for the T1 link between the PIC and CIC cards. Once a PIC is downloaded with the software included with this release, it can no longer communicate with a CIC containing older software. The same is true of a CIC programmed with new software not being able to communicate with a PIC containing older software. You MUST use the following guidelines to update CIC and PIC software. Failing to do so could lead to multiple inoperative console positions with a lengthy recovery process. This applies only to upgrading the PIC and CIC cards. The full upgrade instructions are in the UPDATE.TXT and README.TXT files located in the InstallSoftware folder of the CD or disk 1 of the floppy installation disks.

After installing the Ultra-Com NT software update on the PC, click on Diagnostics, go to Advanced Diagnostics, and download the position's PIC card software first.

After this is finished, the position will not be able to talk to the PIC since the CIC software is older. Press the Diagnostic button, go to Advanced Diagnostics and upgrade (download) the CIC card software. Repeat this procedure for each operator position.

Once all software in a system is updated to version 2000 (or higher), be aware of the following information.

1. If a PIC card with older (pre 2000) software is placed in the system, it will not communicate with the position CIC card which contains newer software. You can download the newer version of PIC software from ANY running position which has the new software installed. The PIC card will then communicate with the CIC card.
2. If a CIC card with older (pre 2000) software is placed in the system, it will not communicate with the PIC card which contains newer software. Press the Diagnostic button, go to Advanced Diagnostics and download the newer CIC card software. The CIC card will then communicate with the PIC card.

RUN MODE

- Fixed: Cannot successfully download to the CIC card of the position that is the SCP or TSCP (this problem was introduced by a change made in version 1.2.0.5).
- Fixed: The Phone Conference button redraws itself on the wrong screen when the Phone Cells or Channel Cells used in the conference are on different screens.
- Changed: Position Intercom is now blocked when transmitting on a channel. Transmit is now blocked when using Position Intercom.
- Changed: A position no longer initializes twice after performing a download of the PIC software to the card.
- Changed: It is now possible to download to the CIC even if the PIC is not responding.
- Changed: Blocks transmit audio to the phone line when the operator presses instant transmit if the phone line is on line but not conferenced. Phone receive audio is not muted.
- Changed: No longer initialize the position if it does not receive a response to a local CIC or PIC diagnostics poll message.
- Added: Support for the Quad Phone Line (QPL) card. This is a preliminary release of QPL card functions.

DESIGN MODE

- Added: The Leased T1 check box on the Miscellaneous tab of the Operator Position settings dialog.
- Added: Support for the Quad Phone Line (QPL) card. This is a preliminary release of QPL card functions.
- Changed: Updated the Punch Block Report for QPL cards.
- Changed: Added the 1950 Hz. 2175 Hz. notch filter settings for TRC and TRI card reports.

MEP PIC Firmware Version 3.1

- Changed: Modified the T1 communications protocol so that it complies with Telco requirements for B8ZS and ESF framing.
- Changed: The PIC will not respond to the Prepare for Download command unless
the card is explicitly addressed from the GSC. This reduces the possibility of accidentally erasing the flash memory caused by random command errors.
- Added: The Leased T1 setting for use with leased T1 lines.

MEP CIC Firmware Version 2.8

- Changed: Modified the T1 communications protocol so that it complies with Telco requirements for B8ZS and ESF framing.
- Changed: No longer cause a position initialization on the detection of a single T1 sync lost event.

MEP TRC Firmware Version 3.9

- Changed: The TRC will not respond to the Prepare for Download command unless
the card is explicitly addressed from the GSC. This reduces the possibility of accidentally erasing the flash memory caused by random command errors.

MEP TRI Firmware Version 1.8

- Changed: The TRI will not respond to the Prepare for Download command unless
the card is explicitly addressed from the GSC. This reduces the possibility of accidentally erasing the flash memory caused by random command errors.

MEP QPL Firmware Version 1.0

Preliminary release of the QPL card software for testing purpose. The hardware has not been released to production yet.

```
/*-----\
| Version 1,2,0,5 (14 Apr 99) |
\-----*/
```

RUN MODE

- Fixed: Using the Phone Book Dial button with prefix digits causes the last digits of the phone number to be not dialed.
- Fixed: Positions occasionally initialize again while the SCP is completing system initialization on a large system (> 10 positions and > 90 channels).
- Fixed: A pop up window that contains a Position Last Call button does not close properly when the operator clicks on the Window Done button
if
that pop up window was visible when another position performed an intercom call to the position.
- Fixed: Communications problems occur while transferring programming files to one position while initializing other positions when the Restart Positions After Transfer check box is checked in the File Transfer Dialog. The program has been modified so that it completes the file transfer to all positions before restarting them.
- Fixed: The R2 Mute, Repeater Disable and Self Repeat buttons cause an access violation if they are not programmed for a valid channel.
- Fixed: The SMPIC does not switch to every day at 12:30 am for a system with a large number of positions and channels (> 10 positions, > 90 channels).
- Fixed: Other positions try to initialize the system if the Statistics or Encoder History diagnostics dialog boxes are left displayed on the SCP for a few minutes.
- Fixed: Performing a voter select, disable or normal operation does not update the indication shown on the Voter Cell button for all copies of that button at the position that initiated the change.
- Changed: The diagnostics dialog and the internal instant recall recorder dialog boxes close very slowly if there are a large number of screens (> 40) programmed for the system.

DESIGN MODE

No changes to the design mode program.

MEP Firmware

No changes to MEP card firmware.

```
/*-----\
| Version 1,2,0,4 (24 Feb 99) |
\-----*/
```

RUN MODE

- Fixed: Position Intercom disables transmit audio on the select distribution system.
- Fixed: The right mouse button select does not add the selected channel to the select distribution.
- Fixed: Statistics printing does not print on all of the programmed intervals when programmed to print on the shift boundary.
- Fixed: Using right mouse to select a channel cell that does not have a valid card assigned to it causes an application error.
- Fixed: Statistics printing is intermittent. Now allow a 5 second interval after the scheduled print times.
- Fixed: SMPIC switching is intermittent. Now allow a 5 second interval after the scheduled switch time of 12:30:00 am.
- Added: Alert Tone Live button function that allows the operator to send an alert tone while transmitting.
- Added: The Burst Tone Display function that displays the Burst Tone Name assigned to a Burst Tone or DTMF Burst function buttons for a TRC.
- Added: Support logic for the Auto Hide parameter to the Burst Tone function.
- Added: Support logic for the Burst Tone Name parameter of the Burst Tone function.
- Added: Added support for the Auto Hide parameter to the DTMF Burst function.
- Changed: Group Select now remembers channel burst tones, channel frequencies and the previously selected channel (if not in simul. select).
- Changed: Added support for the Burst Tone Name parameter of the DTMF Burst function.
- Changed: Added support logic for the enable/disable parameter for the 2175 Hz. Rx and 1950 Hz. Rx notch filters for a TRC.
- Changed: Added support logic for the enable/disable parameter for the 2175 Hz. Rx and 1950 Hz. Rx notch filters for a TRI.

DESIGN MODE

- Fixed: Deleting a card cage in the Card Cage Dialog list box with a card that has a card type of "None" with a card name causes an application error.
- Added: Alert Tone Live button function that allows the operator to send an alert tone while transmitting.
- Added: The Auto Hide parameter to the Burst Tone function.
- Added: The Burst Tone Name parameter to the Burst Tone function.
- Added: The Auto Hide parameter to the DTMF Burst function.
- Added; The Burst Tone Name parameter to the DTMF Burst function.
- Added: The Burst Tone Display function.
- Added: Enable/Disable settings for the 2175 Hz. and 1950 Hz. Rx notch filters in the Function page for the TRC Setup Dialog box.
- Added: Enable/Disable settings for the 2175 Hz. and 1950 Hz. Rx notch filters in the Function page of the TRI Setup Dialog box.

MEP TRC Firmware Version 3.8

- Added: Parameters for the notch filter settings.
- Changed: The DSP software to add the 1950 Hz. Rx notch filter and to add the ability to enable or disable the 1950 Hz. and 2750 Hz. Rx notch filters.

MEP TRI Firmware Version 1.7

- Added: Parameters for the notch filter settings.
- Changed: The DSP software to add the 1950 Hz. Rx notch filter and to add the ability to enable or disable the 1950 Hz. and 2750 Hz. Rx notch filters.

MEP CIC Firmware Version 2.7

- Added: Logic for the Alert Tone Live function.

/*-----\
| Version 1,2,0,3 (8 Jan 99) |

\-----*/

RUN MODE

- Fixed: Local Busy and Cross Busy do not work independently.
- Changed: Removed the "Initializing Card..." diagnostics message from the active diagnostics message list after initializing a card.
- Changed: Prevent dragging a popup screen off of the visible screen area.
- Changed: The transmit level from -8 dB to -10 dB for the FCC call sign Morse code transmission of a TRC.
- Changed: Removed position intercom and phone line audio from the audio distribution.
- Added: The Audio Distribution Display function that shows a list of all of the selected channels on the Select Audio Distribution.
- Added: Run mode support for the MEP Serial CAD interface for PIC cards.
- Added: "LBusy" and "XBusy" indications to the channel cell to indicate local busy and cross busy for channels.
- Added: A programmable local relay closure when there is a system error (red bell).
- Added: Two minute time out for the Set Date And Time Dialog box.
- Added: Support for the programmable delay and intensity level for the screen dimmer.
- Added: Added a Select All button to the Run Mode Macro programming dialog box.
- Added: Added support for the Auto Hide setting of the Change Channel Frequency function.
- Added: Support for the Transcript International Model TR-3000 ANI decoder.

DESIGN MODE

- Fixed: Cannot select the PIC-AD card type from the Card Cage Assignment Dialog.
- Fixed: Access violation occurs if you change a card to type "None", then assign it a specific card type.
- Added: Added the Audio Distribution Display function that shows a list of the selected channels on the Select Audio Distribution.
- Added: Added a "Snapshot" check box that allows the select audio distribution to operate in snapshot mode (default) or to follow the currently selected channels.

- Added: A "MEP" selection to the Port Settings of the Serial Port property page of the Serial CAD Interface. This setting specifies that the CAD system is connected to a PIC card rather than to a serial port of a position PC.
 - Added: A "MEP CAD I/F" property page to the PIC card programming dialog for specifying the position name used for MEP CAD I/F feature.
 - Added: An error relay setting with an enable check box to the Relays property page of the Operator Position Setup Dialog.
 - Added: A relay I/O button report.
 - Added: A TR-TEL card report.
 - Added: A punch block report.
 - Changed: Changed the Card Cage Assignment Report for TR-TEL cards.
 - Changed: Allow selection of Morse Code I/D even if local frequency change is selected for a TRC.
 - Added: Screen Dimmer property page to the Operator Position Setup dialog that allows the operator to enable/disable the screen dimmer, to specify a time delay (1-60 min.) and select one of four intensity levels.
 - Added: A Select All button to the Macro Design Mode macro programming dialog.
 - Added: An Auto Hide setting to the Channel Frequency function dialog box. If this is checked, then the function will hide the screen that it is on if that screen is a pop up screen when the button is released.
 - Added: Support for the Transcript International Model TR-3000 ANI Decoder.
 - Changed: Card Cage Assignment Report to add the ANI alias list for Transcript ANI decoders and the MED CAD settings.
 - Changed: Operator Position Report -- Added the following information:
 - Left Foot Switch setting
 - Right Mouse setting
 - Screen Group setting
 - MEP CAD Position Name setting
 - Screen Dimmer settings
 - Relay settings
 - Changed: Updated the on line help information for the new features.
- MEP PIC Firmware Version 3.0
- Added: Added the ability to connect a CAD system to a PIC's serial port.

MEP TRC Firmware Version 3.7

- Changed: The Morse code rate from 15 WPM to 25 WPM for FCC call sign transmission.
- Changed: (Moducom note) Disabled hardware interrupt 0 (which is not used).
- Added: Support for the Transcript International Model TR-3000 ANI Decoder.

MEP TRI Firmware Version 1.6

- Changed: (Moducom note) Disabled hardware interrupt 0 (which is not used).

MEP TEL Firmware Version 1.1

- Changed: (Moducom note) Disabled hardware interrupt 0 (which is not used).

```
/*-----\
| Version 1,2,0,2 (13 Nov 98)
\-----*/
```

RUN MODE

- Fixed: CIC device driver blue screen crash caused by "Multiple IRP Complete Requests" when exiting run mode. The CIC device driver will be updated automatically by the installation software.
- Added: Position Last Call button function that indicates the last position to call using the position intercom function. This button allows the operator to return the intercom call.
- Added: Position Intercom Select function. This function allows the operator to talk to multiple positions simultaneously.
- Added: Position Volume Control function that allows the operator to listen to the transmit audio of other positions and adjust the audio level.
- Added: Position Volume Macro function.
- Added: Position All Mute function.
- Added: Change Screen Group function, that allows the operator to change the screen group.
- Added: Password option to the Change Screen function.
- Added: Ability to specify a different screen group for each operator position. If no screen group is specified for a position, then the system screen group is used.

- Changed: Position settings for channel volumes, selected channels etc... are now store in the screen group directory and change when the position screen group is changed. Note: position settings will be lost when this software is installed.
- Changed: The user diagnostics password is now updated at all positions when it is changed in the advanced diagnostics dialog.

DESIGN MODE

- Added: Position Last Call function.
- Added: Position Intercom Select function.
- Added: Position Volume Control function.
- Added: Position Volume Macro function.
- Added: Position All Mute function.
- Added: Change Screen Group function.
- Added: Password option to the Change Screen function.
- Added: Screen Group setting to the Miscellaneous tab of the Operator Position Setup dialog to allow setting a different screen group for each operator position.

MEP PIC Firmware Version 2.9

- Fixed: If the SMPIC is not detected during a diagnostics poll cycle due to a missed message, then two SMPICs are assigned causing audio problems.
- Added: New commands for the position volume control function.

```
/*-----\
| Version 1,2,0,1 (5 Oct 98) |
\-----*/
```

RUN MODE

- Fixed: The position number is off by one in the File Transfer Dialog while transferring files.
- Fixed: Positions that are not the SCP or TSCP do not clear the hourly, shift, weekly or monthly statistics columns in the statistics report.

- Fixed: Initializing the SCP sometimes causes the select channel to be lost at other positions.
- Fixed: When the right mouse button was programmed for the select function, it did not check for local busy conflicts like the select function does.
- Fixed: Speaker volumes for speakers programmed to use manual pots were initialized to the default volumes after a position was re-initialized by the SCP.
- Fixed: When the left foot switch is programmed for ANI Voted Select and you press it when there are no calls in the ANI stack, the error message "Internal Recorder: On out open, already allocated" appears on the screen.
- Changed: The Diagnostics Dialog took a long time to close on systems that have a large number of screens.
- Changed: Background diagnostics is now more resistant to false card and position timeout errors caused when the CPU is very busy.
- Changed: The default length of the internal recall recorder has been changed from 10 minutes to 60 minutes. When a position is upgraded with this software, the recordings in the internal recall recorder will be erased.
- Added: The following new function buttons were added.

- 1.) Phone Cell
- 2.) Phone Hold
- 3.) Phone Release
- 4.) Phone Keypad Digit
- 5.) Phone Dial Display
- 6.) Phone Speed Dial
- 7.) Phone Redial
- 8.) Phone Flash
- 9.) Phone Supervisory Release
- 10.) Phone Conference

The above functions work with the new TR-TEL (TEL) card. Please refer to the on line help in the Design Mode program for a description of these new functions.

- Changed: The Phone Book Dial function was changed so that it dials on the current on line MEP phone (TEL card). If there is not a MEP phone on line, then

local Phone Book Dial will speed dial the selected phone number on the position phone.

- Changed: The Channel Cell function has been modified so that it indicates the conference status of the radio channel.

- Changed: The Select and Group Select functions have been modified so that they place all on line MEP phones on hold.

- Changed: The Unselect function has been changed so that it is inactive when there is a MEP phone on line.

- Changed: The Patch and Patch Clear functions have been modified so that they work with MEP phone lines.

- Changed: The Transmit button has been modified so that it transmits on radio channels that are part of the conference call when MEP phones are on line.

- Changed: Right Foot Switch transmits on the conferenced radio channels if there are conferenced MEP phones on line.

- Changed: Left Foot Switch and Right Mouse Button have been modified so that they transmit on conferenced radio channels if there are conferenced MEP phones on line, if they are programmed for transmit.

- Changed: Change Screen flashes its border if there is an incoming call for a MEP phone line for any Phone Cells on the programmed screen.

- Changed: The internal recall recorder has been modified so that it now records for as long as a position has a MEP phone on line. The select recall recorder is used for recording MEP phone conversations.

- Changed: The ANI Voted Select function has been modified so that it places any on line MEP phones on hold before selecting a channel.

- Changed: The TRC Audio Tests diagnostics dialog box has been modified so that TRC audio tests may be performed on the new TR-TEL (TEL) card.

- Changed: The background of the Phone Book Display list box was changed from white to gray to avoid screen burn in.

- Changed: The background of the ANI Message Display list box was changed from white to gray to avoid screen burn in.
- Changed: (Moducom Note) Upgraded development environment to Visual C++ 6.0.

DESIGN MODE

- Fixed: The Freq. column of the TRC Report Busy/Mute settings displayed the keying tone frequency, not the frequency number (F1-F16).
- Added: The following new function buttons were added.
 - 1.) Phone Cell
 - 2.) Phone Hold
 - 3.) Phone Release
 - 4.) Phone Keypad Digit
 - 5.) Phone Dial Display
 - 6.) Phone Speed Dial
 - 7.) Phone Redial
 - 8.) Phone Flash
 - 9.) Phone Supervisory Release
 - 10.) Phone Conference

The above functions work with the new TR-TEL card.

- Added: The "TRC Telephone Interface" item to the System menu. This menu item calls up the programming dialog for the new TR-TEL card.
- Changed: Modified the Card Cage Assignment Dialog to add the new TR-TEL card.

MEP CIC Firmware Version 2.6

- Changed: Modified for TR-TEL phone operations.
- Changed: Completely mute the radio headset audio when the local position phone goes on line.

MEP PIC Firmware Version 2.8

- Changed: Modified for TR-TEL phone operations.

MEP TRC Firmware Version 3.6

- Added: Added ability to participate on a phone conference call with MEP phone lines.

MEP TEL Firmware Version 1.0

Initial release of the TR-TEL (TEL) software. This software turns a TRC card into a TR-TEL (TEL) card.

```
/*-----\
| Version 1,2,0,0 (6 July 98) |
\-----*/
```

RUN MODE

- Fixed: For large systems (>24 positions, > 100 channels), positions detect SCP diagnostics poll timeouts if most of the system is not up and running.
- Fixed: If the ANI Voted list control is scrolled to the bottom of the list and you pressed the ANI Voted Select button, then the headings of the list control disappeared.
- Fixed: When a card does not respond to its diagnostic poll (but is not reset), then responds later (without an initialization), then the software version number for that card appears corrupted in the Advanced Diagnostics dialog box.
- Fixed: Resetting a PIC with the reset button resulted in loss of audio for that position.
- Fixed: Channel volumes were not always saved in a file so the channel volume would return to the previous setting if the SCP came on line and re-initialized the position.
- Fixed: The Self Repeat button does not cross indicate when programmed for a single channel.
- Added: Left foot switch may be used for PTT, monitor or ANI Voted Select.
- Added: Right mouse button may be used for PTT or Select.
- Added: Ability to transfer design mode programming files to other positions. This feature is available from the File XFER button on the Advanced Diagnostics dialog.
- Changed: Now using a brighter green for the voted indication of the Voter Cell.
- Changed: Updated on line help to add help for new functions.

- Changed: Installation program to use InstallShield Version 5.1. The installation banner has changed. Fixed problems with installation on original version of Windows 95 and Windows NT 3.51.

DESIGN MODE

- Added: Programmability of right mouse button function. The right mouse button may be programmed for PTT, Select or no operation.
- Added: Programmability for the left foot switch. The left foot switch may be programmed for PTT, monitor, or ANI Voted Select functions.
- Changed: Updated on line help to add help for new functions.

MEP TRC Firmware Version 3.5

- Fixed: The TRC was missing ANI messages or receiving garbled data when connected to the Coded Model 1207 ANI decoder.
- Fixed: There was not audio output for the base intercom function.

MEP CIC Firmware Version 2.5

- Added: Left foot switch functionality.

```
/*-----\
| Version 1,1,0,2 (22 May 98) |
\-----*/
```

RUN MODE

- Fixed: The diagnostic dialogs and internal recall recorder dialogs leave parts of their image on the screen if there are more than two pop up windows open.
- Fixed: Aux. Input states are not properly displayed when a position is initialized.
- Fixed: When the SCP initializes and then initializes other positions, it turns off their selected channel and volume settings.
- Fixed: Tri-Receive card Rx counts are not included in the statistics report summaries.
- Fixed: Selected channel and volume control settings are not always remembered between sessions of run mode.
- Fixed: The voter select status does not interlock.
- Fixed: The voter status for disable, select and normal do not cross indicate

at other positions if changed at one position.

- Fixed: For a large number of screens, run mode is extremely slow to shut down under Windows NT 4.0. Was not a problem under Windows NT 3.51.
- Fixed: The 600 ohm termination is left on in a standby card if switching to a redundant card is due to pressing the reset button on a card.
- Fixed: If there are exactly 60, 120 or 180 audio slots assigned in a system, then there is no receive audio on any channels.
- Fixed: If a dialog has the input focus when a pop up window appears because of an aux. input or a window timer, then the pop up window is not properly displayed (only the outline of the window is visible).
- Added: The ANI Voted Display function for WSP.
- Added: The ANI Voted Select function for WSP.
- Added: Call light disable for TRC cards.

DESIGN MODE

- Fixed: The TRC Report causes an application error if a TRI card is in the local or cross mute tables of the TRC.
- Fixed: The Position, TRC and TRI property page settings are not properly saved when the Apply button is used after changing the channel selection.
- Added: The ANI Voted Display function for WSP.
- Added: The ANI Voted Select function for WSP.
- Added: Call light disable for TRC cards.

MEP TRC Firmware Version 3.4

- Added: ANI Voted function and support for the Coded Model 1207 ANI Decoder
- Added: Call light disable.

MEP TRI Firmware Version 1.5

- Fixed: Transmit with PA does not work for a TRI card because the card was not turning on its logging recorder output.

```
/*-----\
| Version 1,1,0,1 (25 Feb 98) |
\-----*/
```

RUN MODE

- Fixed: For Group Select and Simul Select functions, audio was not routed off of the select speaker for a channel that has a redundant channel when the redundant (backup) card is in use.
- Fixed: Encoder does not use the CDF special diagonal frequency of 1092.4 for diagonal tones for the 1+1 paging format.
- Fixed: Backing up programming files changes the time of the MEP programming file causing a Programming File Mismatch error in the run mode due to the fact that Windows changes the file time by 1-2 seconds. Now allow a time difference of +/- 5 seconds.
- Fixed: Volume level was unstable for manual pots.
- Fixed: If an input relay is active when a position is initialized and that relay button is programmed for a pop up window, then the pop up window is not correctly displayed (only the outline appears).
- Fixed: R2 Mute function. The channel cell status and the state of the button were not set at initialization time.
- Fixed: Repeater Disable function. The channel cell status and the state of the button were not set at initialization time.
- Fixed: Self Repeat function. The channel cell status and the state of the button were not set at initialization time.
- Fixed: Aux. Out function. The state of the button was not set at initialization time.
- Added: Added an error tone and a message if the operator attempts to turn R2 Mute on for a TRC on which R2 Mute is not enabled.
- Added: New diagnostics messages: SMPIC Not Found (227) and No SMPIC During Polling (228).
- Added: Statistics by channel group function.
- Added: Statistics report viewer and save to disk function.
- Added: Encoder history report viewer and save to disk function.
- Added: Latching relay input and latching input relay with cross indication functions.

- Added: PTT local relay and phone on local relay functions.
- Added: Refresh button to the Advanced Diagnostics dialog.
- Added: Unselect All button to the Advanced Diagnostics dialog.
- Changed: Now show asterix characters instead of password characters in the display window of the Advanced Diagnostics Password dialog box.

DESIGN MODE

- Added: Backup With Compresssion and Restore Compressed Programming Info. functions to the Utility menu. Backup With Compression compresses the programming files into a ZIP file. Restore Compressed Progamming Info restores programming files from the compressed ZIP file.
- Added: Settings for statistics by channel group.
- Added: Settings for PTT local relay and phone on local relay settings.
- Changed: Removed the Bell Frequency and Bell Cycles settings for the Aux. Out function dialog because there is no bell or tone for the Aux. Out function.
- Changed: Removed the speaker xmit mute check box for the radio headset and the phone headset in the speaker settings tab because there is no need to mute headset audio during xmit.

MEP TRC Firmware Version 3.3

- Fixed: If an operator is using the Monitor function with DC keying on a TRC, and an operator at another position attempts to transmit on that TRC, then the channel cells at both positions get stuck in the channel busy state, even though the channel is not busy.
- Fixed: The redundant (standby) TRC does not turn off its 600 ohm terminations.
- Fixed: Eliminated transmit noise during repeater disable and monitor functions programmed for DC current.

MEP PIC Firmware Version 2.7

- Fixed: CPLD logic. Intermittent loss of TDM clock during daily switch over of SMPIC.

- Fixed: Can only print a statistics report of one and a half pages due to time out error in printer handshaking logic.

MEP CIC Firmware Version 2.4

- Fixed: DSP software -- manual pot volume does not change if the pot is turned very slowly.

- Added: PTT local relay and phone on local relay logic.

```
/*-----\
| Version 1,1,0,0 (9 Jan 98)                               |
\-----*/
```

RUN MODE

- Added: R2 Mute function.
- Fixed: The Monitor function does not work properly when used in a macro.
- Fixed: For EIP Alert and Alert functions: If the function is assigned to operate on the selected channel, and if a macro that uses that function is used before the operator uses the function, then the macro reports fails and the function button gets stuck in a state where it the error "Cannot perform this function while transmitting".
- Changed: Disabled use of the F1 key in run mode. F1 no longer calls up the standard Windows help screen. Help is available from the On Key Help function.

DESIGN MODE

- Changed: Changed design mode program from a 16 bit to a 32 bit program. Design mode no longer works on Windows 3.1 or Windows 3.11 systems.
- Added: Encoder Single Button report.
- Added: Print All report function.
- Fixed: Screen delete dialog automatically selected the top most screen in the list of screens that are currently open.
- Fixed: Editing and changing button function parameters and several card parameter settings is not detected and the operator is not prompted to save the changes when closing the dialog box or screen.
- Changed: Added a message to the Channel Cell button function and color dialog box that says "Edit name in TRC keying setup" if the Channel Cell is

the
that
for a TRC. The reason for this is that the name that is used for
Channel Cell in run mode depends upon the frequency setting for
channel.

- Changed: The name displayed in a Channel Cell for a TRC now defaults to
the
frequency name for F1 of that channel.

- Changed: Channel Cell Function: Now force the Rx channel and the Tx
channel to be
the same if an assigned channel number is selected for either.

- Changed: In a Channel Cell, if the Rx channel is a TRC, the Tx channel is
defaulted to the "Above" selection.

- Changed: Removed the Help function from the selection of functions because
this
function has not been implemented. Help is available with the On
Key
Help function.

- Changed: No longer highlighting text in the help tab display windows.

- Changed: No longer automatically scrolling to the end of the help text in
help tabs.

- Changed: In the TRC Keying tab, automatically select F1 (the first
frequency)
in the frequency list window.

- Changed: Removed the Encoder Picklist function from the list of functions
because
this function has not been implemented.

- Changed: Removed the Print button from the Card Cage Assignment Dialog.
Printing
is available from the report printing functions.

- Changed: The Help button on the Card Cage Assignment Dialog now brings up
the
Windows help window.

- Changed: Updated demo mode screens.

- Changed: Updated function help to add minor corrections and to add help
for recently
added functions.

MEP TRC Firmware Version 3.2

- Fixed: Receive audio was being disabled if the Repeater Disable function
was
programmed for DC keying and in use.

- Fixed: Receive audio was being disabled if the Monitor function was programmed for DC keying and in use.

- Fixed: EIP Alert stops transmitting after the frequency of the channel is changed.

- Fixed: The Repeater Disable and Monitor functions stop generating DC current after the frequency is changed on the channel.

```
/*-----\
| Version 1,0,1,2 (19 Nov 97) |
\-----*/
```

RUN MODE

- Fixed: When downloading to a TRC or TRI card, all positions show "Offline" in the channel cell, except the SCP, which shows "Fail"
- Fixed: Get an access violation if exiting the application at the exact time that an error tone is playing.
- Fixed: If the internal recall recorder contains one single long recording that fills recorder memory, then the error tones cause playback to stop every 10 seconds.
- Fixed: Internal recall recorder dialog not displayed in Demo Mode.
- Fixed: If try to start an EIP alert on a channel cell that has no transmit channel assigned, then get an access violation.
- Added: Netclock feature.

DESIGN MODE

- Fixed: In the PIC report, settings for all speakers are not printed.
- Fixed: TRI report -- If have only one TRI in the system then the report is not generated.
- Fixed: Changed allowable range for Phone Patch VOX from 0 to -45 dBm to -10 to -45 dBm to be consistent with other VOX level ranges.
- Added: Netclock feature.
- Changed: TRC Report -- Improved report layout. Added ANI settings, inter-page delay setting, local frequency change setting.
- Changed: Card Cage Assignment Report -- Improved report layout. Added ANI alias lists. Added Netclock settings.
- Changed: PIC Report -- Improved report layout. Added internal recall recorder settings.

- Changed: TRI Report -- Improved report layout.

MEP PIC Firmware Version 2.6

- Added: Netclock interface feature.

```
/*-----\
| Version 1,0,1,1 (29 Oct 97) |
\-----*/
```

RUN MODE

- Fixed: If a TRC is programmed for MUX keying, DC Keying Card is not reported as missing if card is not installed or removed.
- Fixed: Encoder custom pages time out sometimes when had DC keying and DC LOTL enabled for a TRC card.
- Fixed: If DC keying card is removed and replaced, Channel Cell "Failed" status is not cleared.
- Added: Internal Recall Recorder function.
- Added: Internal Recall Recorder Play Last function.
- Fixed: Window timer does not play sound when the pop up window first pops up.
- Changed: Added different sounds for error, diagnostics alert tone, auxilliary input and window timer. If a sound card is installed and at least one internal recall recorder is enabled, and the sound card can play back and record at the same time, then sounds will be output through the unselect speaker. If there is no internal recorder, then the standard beep on the PC speaker will be used.
- Added: Added the following MDC-1200 and GE-Star ANI functions:
 - 1.) ANI Message Display Function
 - 2.) ANI Emergency Indicator Function
 - 3.) ANI Emergency Message Clear Function.

DESIGN MODE

- Added: Internal Recall Recorder function.
- Added: Internal Recall Recorder Play Last function.
- Added: Additions for the MDC-1200 and GE-Star ANI decoder functions.
 - 1.) Card Cage Advanced Setup Dialog -- Added ANI Lists tab for entering and editing ANI alias lists.

TRC

2.) Transmit Receive Card Setup -- Added ANI tab for programming

ANI parameters.

3.) Added function buttons for ANI Message Display, ANI Emergency Message Indicator and ANI Emergency Message Clear functions.

- Changed: Help files to add help for new functions.

MEP TRC Firmware Version 3.1

- Fixed: When Xmit is released in 2-wire mode, get a call light indication.

- Added: Serial port interface for Motorola RapidCall/STAT-ALERT Option 650 MDC-1200 ANI Decoder and the Cimarron Model C-Mark I GE-Star ANI Decoder.

MEP CIC Firmware Version 2.3

- Added: Internal Recall Recorder function.

- Changed: Enable the mixing of auxilliary unselect audio to the unselect speaker if an Internal Recall Recorder is not enabled. This allows use of the Atis recorders.

```
/*-----\
| Version 1,0,1,0 (3 Sept 97) |
\-----*/
```

RUN MODE

- Fixed: Any event which causes the SCP or TSCP to fail and re-initialize within thirty seconds will result in the loss of speaker audio at all positions except the SCP or TSCP.

- Fixed: When software is downloaded to MEP cards, the new software version is displayed only at the position which did the download. All other positions display the prior software version number.

- Fixed: If a MEP II power supply is removed (or powered down) and re-inserted more than three times, the error message is no longer reported.

- Fixed: Both the on screen PTT and the foot switch do not function after aborting a stack of encoder pages. The message displayed is "Cannot perform this operation while transmitting".

- Fixed: "Position not responding" messages without a position initialization leave a yellow bell at the SCP.

- Fixed: If the dispatcher is transmitting on a TRC when a MEP power supply is turned on, the TRC becomes stuck in transmit.

- Fixed: If EIP Alert is activated for a TRC at a position, unable to turn the EIP Alert off at another position.

- Fixed: Screen saver gets stuck on if a dialog box is displayed when the screen saver dimmed the screen.

- Changed: Screen saver is not activated if program is in demo mode.

- Added: Phone book function.

- Added: Priority transmit function.

DESIGN MODE

- Added: Phone book function.

- Added: Priority transmit function.

MEP CIC Firmware Version 2.2

- Added: Commands for phone book function speed dial.

```
/*-----\
| Version 1,0,0,9 (14 May 97) |
\-----*/
```

RUN MODE

- Fixed: System Master PIC does not switch consistently.

- Fixed: If a TRC is set up for local frequency change and if the position is initialized, then the channel cell for that TRC indicates the frequency that the SCP or TSCP thinks the TRC is at, not the local frequency.

- Fixed: Card count on diagnostics download dialog was only two digits. Increased it to three digits.

- Fixed: Access violation when bringing up a position for a system with a TRC that failed and was previously muted.

- Fixed: Tx speaker muting for Monitor 1 and Monitor 2 affects Select and Unselect speakers.

- Fixed: Macro Time delay does not work.

- Fixed: Get message queue overflows for a large system of 200 or more cards. Increased internal message queue length from 200 to 600 messages.

- Added: Assignable Place Holder function.

- Added: Assignable Channel function.

- Added: Assignable Position function.

- Added: Assignable Status Display function.

- Added: On Key Help function.
- Added: Serial CAD Interface function.
- Added: Serial Output function.
- Added: Speaker Override function.
- Changed: Moved the local/cross mute processing into the run mode program to improve system performance by reducing the work required of the PIC. There is no longer a limit of 128 mutes or 514 words of mute information.

DESIGN MODE

No Design Mode changes. Version number changed to 1.0.0.9 to be consistent with Run Mode.

MEP TRC Firmware Version 3.0

- Fixed: If have a TRC failure in a card that is transmitting and perform a redundant card switch to the backup card while still trying to transmit, then the TRC with the failure gets stuck in transmit. Note, the channel cell does not indicate "XMIT".

MEP PIC Firmware Version 2.5

- Fixed: If have local/cross mutes and local/cross busy programmed separately for a card, mutes did not work properly for some channels.
- Fixed: If Phone Patch is on, don't get audio on Tel. Talk Out line. Affects CIC also, see below.
- Fixed: Increased T1 Ack wait dead time to 200 msec. from 40 msec. to allow PIC more processing time.
- Changed: Removed processing of local/cross mute. Moved into run mode, see above.

MEP CIC Firmware Version 2.1

- Fixed: If Phone Patch is on, don't get audio on Tel. Talk Out line.
- Fixed: Popping sound when transmitting when using Tx speaker mute function.
- Fixed: Speaker override logic.
- Fixed: Increased T1 Ack wait dead time to 200 msec. from 40 msec. to allow PIC more processing time.

```
/*-----\
| Version 1,0,0,8 (28 Mar 97) |
\-----*/
```

RUN MODE

- Fixed: Unselect function does not change channel routing.
- Fixed: Automatic switching of the SMPIC causes a yellow bell indication.
- Fixed: For a Channel Cell programmed for a TRI receiver and a TRC, the Channel Cell indicates Mute when the TRC channel is muted.
- Fixed: For a Channel Cell programmed for a TRI receiver and a TRC, the Channel Cell indicates Call when the call is for the TRC.
- Fixed: For a Channel Cell programmed for a TRI receiver and a TRC, when the PTT occurs, the frequency programmed for that channel cell is not used to transmit if that Channel Cell is selected.
- Fixed: When Window Done is used in a run mode Macro, it affects all pop up windows. Occasionally some open windows don't completely close.
- Fixed: Transmit counter in the Top Bar area only goes up to 999. Now it goes up to 9999.
- Fixed: In a run mode macro, cannot stack and send Encoder Single Button pages.
- Fixed: Local and Cross Mute do not work for TRI cards. (Also required change in PIC software, see below).
- Added: If a screen has a channel with a call light, and if there is a Change Screen button for that screen, then flash the border of the Change Screen button to indicate the call light.
- Added: If a Channel Cell is assigned to a TRI and there is no TRC assigned to it, then Mute the TRI receiver when the Channel Cell is pressed. Push to Mute, push again to Un-Mute.
- Added: Transmit audio is now added to the Select Audio Distribution.
- Added: Added Run Mode support for Local/Global channel frequency change. (see Design Mode).

DESIGN MODE

- Fixed: Window Done works on all pop up screens for Design Mode Macro.
- Added: Added an option to the TRC Advanced Setup to allow a frequency change to be either local or global on a per card basis.
- Added: Added addition explanation in the help for the Change Frequency button and Channel Cell button regarding operational considerations

for local frequency change for a TRC.

MEP TRC Firmware Version 2.9

- Fixed: Transmit audio remained enabled after transmit ended.

MEP PIC Firmware Version 2.4

- Fixed: Local and Cross Mute did not work for TRI cards.
- Fixed: For Local and Cross Mute, if a channel transmits on a different frequency than what the card was set at (current frequency), and if channels were muted during that transmit, then those channels were not un-muted when the transmit ended.
- Fixed: The microphone path to the Digital Audio Bus was left active after sending an encoder page.

```
/*-----\
| Version 1,0,0,7 (12 Mar 97)                      |
\-----*/
```

RUN MODE

- Added: Channel Position Takeover function.
- Added: Encoder and Alert Side Tone capability.
- Added: Error explanation text files for errors 141, 225, 503, 504, 505.
- Fixed: Transmit lock ups when transmit immediately after changing channel frequency.
- Fixed: EIP status is not displayed on a channel cell when a position is initialized.
- Fixed: If transmit on a channel that is transmitting due to patch, the channel cell gets stuck in a state where it thinks that the channel is busy when the transmit is released.

DESIGN MODE

- Changed: Removed diagnostics print destination setting from the Advanced Card Cage Setup Dialog because this feature is not required. The diagnostics print destination is always a PIC.
- Changed: Removed statistics print destination setting from the Advanced Card Cage Setup Dialog because this feature is not required. The statistics print destination is always a PIC.
- Added: Side tone level setting to Misc. settings tab in the Advanced Card Cage Setup Dialog.
- Added: Help tabs for the Operator Position Settings Dialog, the Audio

Distribution Setup Dialog, the Transmit Receive Card Setup Dialog and the Tri Receive Card Setup Dialog.

MEP TRC Firmware Version 2.8

Note: TRC Version 2.7 never released

- Added: Encoder and Alert side tone functionality (DSP and 80152 code).
- Fixed: Using Monitor for a TRC programmed for DC keying disables receive audio in two wire mode.
- Fixed: Pressing Monitor quickly disables receive audio for tone monitor if TRC in two wire mode.
- Fixed: Cannot detect Voter I/F sometimes.
- Fixed: DSP, added ability to sum multiple transmit channels for Patch Transmit
- Fixed: DSP, implemented new 2175 Hz. notch filter to improve frequency response characteristics.
- Fixed: DSP, implemented new 2175 Hz. band pass filter for improved detection of tone LOTL.

MEP TRI Firmware Version 1.4

- Fixed: Cannot detect Voter I/F sometimes.
- Fixed: No audio on the logging recorder output.
- Fixed: DSP, simultaneous call lights (3) get missed sometimes.

MEP PIC Firmware Version 2.3

- Added: Processing to switch between the Monitor 2 speaker slot and the Phone Patch audio slot when transmit due to phone patch occurs. This allows Monitor 2 speaker to be used when phone patch is not used.
- Added: DSP, command to support Monitor 2/Phone Patch slot multiplexing.
- Fixed: ADC card does not process time of day update commands.

CIC Firmware Version 2.0

- Fixed: DSP, improved VU meter performance.

```
/*-----\
| Version 1,0,0,6 (19 Feb 97) |
\-----*/
```

RUN MODE

- Fixed: SMPIC does not switch sometimes.

- Fixed: Encoder paging with optimization causes other positions to crash.
- Fixed: Channel Cell control allows the operator to attempt to transmit on a busy channel but no transmit actually occurred.
- Fixed: If the operator is holding down a button to do a transmit and a pop up window appears because of a relay changing state, the transmit button gets stuck on until the operator presses the button again.
- Fixed: Transmit button for transmit on selected channel allows the operator to attempt a transmit on a busy channel.
- Fixed: EIP button allows the operator to start an EIP on a busy channel resulting in the channel getting stuck in transmit.
- Fixed: Change Channel Frequency allows the operator to attempt to change the channel frequency on a busy channel.
- Fixed: Live DTMF allows the operator to attempt to transmit on a busy channel.
- Fixed: Alert button for the selected channel allows the operator to attempt a transmit on a busy channel.
- Fixed: Monitor button for the selected channel allows the operator to attempt to perform the monitor function on a busy channel.
- Fixed: Temporary SCP Active (code 405) backup caution message gets left over at the TSCP even after the SCP gains control of the system.
- Fixed: Channel Cell frequency indication gets out of sync. if the channel card is reset.
- Fixed: Channel Cell frequency indication gets out of sync. if the entire MEP is initialized.
- Fixed: Base Intercom button for the selected channel allows the operator to attempt to transmit on a busy channel.
- Fixed: Repeater Disable button allows the operator to attempt to set function on a busy channel.
- Fixed: Self Repeat button allows the operator to attempt to set self repeat on a busy channel.
- Fixed: Atis Instant recall recorders don't get periodic time updates.
- Fixed: EIP status indication disappears on the Channel Cell control if the channel is selected and unselected.
- Fixed: Potential errors in diagnostics history file cause an application error if "Select All" is pressed in the History Dialog box.
- Added: Added a warning dialog that is displayed when exiting to design mode from run mode. This dialog lists design mode changes that

require a full system reset. This dialog will not appear if the run mode program is in Demo Mode.

INSTALLATION PROGRAMS

- Changed: Installation program always creates a backup of the current program versions and screens. The backup directory is called "c:\ucntbak".
- Changed: If there is a version of the software installed, the install demo groups option of the installation dialog box comes up un-checked by default to prevent accidentally overwriting existing programming information. If there is no version currently installed, then the demo group files are installed by default.
- Added: Added a batch file to the first disk of the installation disks called "restold.bat". Run this batch file to restore the old version of the programs and screens.

DESIGN MODE

- Changed: Changed version of design mode from 1.0.0.4 to 1.0.0.6 to be consistent with the run mode version. There were no other changes to design mode.

MEP FIRMWARE

No changes to firmware for TRC, TRI, PIC or CIC cards in this release

```
/*-----\
| Version 1,0,0,5 (22 Jan 97) |
\-----*/
```

RUN MODE

- Fixed: For encoder optimization, if TRC steering was not selected for the encoder function, the TRC would key down after every transition.
- Fixed: For the Transmit FCC Call Sign function, run mode was sending out Transmit FCC Call Sign Off commands even though the TRC did not have Morse Code enabled in the card programming.
- Fixed: For the Transmit FCC Call Sign function, run mode was sending out the transmit commands before the Initialization Complete commands were sent to the card. As a result, the call sign commands were not processed.
- Fixed: After initialization, a position indicated "Fail" for a TRC even though the card was not in a failed condition. The failed indication disappeared after a few seconds but it was not possible to transmit on the card because the position thought it was still in a failed condition.
- Fixed: Monitor speakers did not work.

- Fixed: DTMF Live caused the TRC to get stuck in the transmit condition.
- Changed: If in Demo Mode, no longer need to enter the pass word to get into advanced diagnostics. Just click on OK in the Password dialog.

MEP TRC Firmware Version 2.6

- Fixed: If the Change Channel Frequency command was received before the Transmit FCC Call Sign command, the card would not transmit the call sign properly.
- Fixed: New CPLD logic, 170009P1.HEX corrected a problem where RX audio would be corrupted if the last bit of the master frame/clock was missing. This clock pulse is narrow (60 ns) to designate this is the beginning of the new frame.
- Fixed: Transmit audio was still enabled during the talk delay period of continuous (optimized) encoder commands.
- Fixed: Transmit audio was enabled during DTMF Live transmission.

MEP TRI Firmware Version 1.3

- Fixed: New CPLD logic, 170019P1.HEX corrected a problem where RX audio would be corrupted if the last bit of the master frame/clock was missing. This clock pulse is narrow (60 ns) to designate this is the beginning of the new frame.

```

/*-----\
| Version 1,0,0,4 (..DATE.) -- Never distributed |
\-----*/

```

RUN MODE

- Fixed clock to show time in 24-hour or 12-hour format.
- Fixed: All mute was not de-activated when manual unselect volume POT was changed.
- Fixed Volume Macro to prevent restoring POT volume settings.
- Fixed CIC device driver so that NT system crashes have not occurred.
- Fixed: Now any position can take card offline and online, and redundant card switches properly.
- Fixed: If date is changed by the operator, got errors in statistics report.
- Added interlock operation to Window Timer function.
- Added support for encoder inter-page delay and card key-up and key-down control.

- Added support for FCC Call Sign transmit.

DESIGN MODE

- Fixed: When the "OK" button was clicked in the card configuration dialogs, the values were not copied to the redundant card. (They were copied if "Save" was clicked.)
- Fixed: The TRC dialog unnecessarily prompted the user to save changes when switching to another card, even though no changes had been made to the current card.
- Fixed: Card type color coding was not restored when the card was deselected in the Card Cage Assignment dialog.
- Fixed: The None function buttons are now placed below buttons of other functions.
- Fixed: Alternate-action Auxiliary Output buttons behaved like momentary-action.
- Fixed: TRI section names were overwritten by the names of the source card during Card Copy operation.
- Changed minimum grid settings from 10 to 4.
- Changed default control for monitor speakers from Screen to None.
- Changed: Speeds up screen layout operations when the grid is active.
- Changed: The minimum Mute VOX value for TRC and TRI is -60.0 db, so that Mute VOX can be disabled by using this value.
- Added: Default frequency name is channel name appended by a space and the appropriate F number (such as F1, F2, F3, etc).
- Added: Inter-Page Delay parameter for TRCs. The value is to be entered in the miscellaneous section of the TRC configuration dialog.
- Added "Switching System Master PIC" message to diagnostics.
- Removed from Operator Position dialog the miscellaneous options for Demo Mode, Reserved Com Port, and Date.
- Removed obsolete printer options from diagnostics and statistics options in Advanced dialog.

MEP TRC firmware version 2.5

- Added support for card key-up and key-down control during encoder paging.

MEP TRC firmware version 2.4

- Fixed: Channel Monitor causee receive audio to remain disabled if the TRC is in 2-wire mode and the channel monitor button is pressed and released very quickly.

- Fixed: Transmit EIP did not transmit if the TRC is in 2-wire mode.
- Added Transmit FCC Call Sign command to the TRC, but RUN MODE front-end not modified yet.

```
/*-----\
| Version 1,0,0,3 (06DEC96) |
\-----*/
```

RUN MODE

- Fixed channel cell already-xmitting problem after card was re-initialized.
- Fixed display problems with interlocking auxiliary-output-on buttons.
- Fixed routing and volume updates during TRI/TRC redundant card switching.
- Fixed local and cross mute problems.
- Fixed statistics report problem: columns are now cleared even if report is not printed.
- Added de-emphasize for 2+2 encoder format.
- Changed calculation of tone levels for dual tones in 2+2, DTMF, and Custom encoder tones.
- Updated screen saver to dim topbar highlights, encoder entry, and encoder stack. Disable screen saver when macro dialog, on-key-help dialog, and diagnostic dialogs are shown. It is also disable if the video color mode is not 256-color.

MEP TRC firmware version 2.3

- Fixed extra pre-tone delay problem for alert tone cycles.

```
/*-----\
| Version 1,0,0,2 (25NOV96) |
\-----*/
```

RUN MODE

- Fixed run mode macro for case of recall recorder display
- Fixed recorder display for case of more than one recorder
- Fixed screen display when auxillary-input shows a popup screen
- Added auxiliary input initialization
- Added card software download enhancement
- Added screen saver
- Removed VU meter values from date field.

```
/*-----\
| Version 1,0,0,1 (OCT/NOV 96) |
\-----*/
```

Initial release.

// End Release.txt