



Recommended IED 8000 System Maintenance Procedures

Version: 1
Date: 11/12/2013
Document Number: 801N

Table of Contents

Version History.....	3
Maintenance Procedures	4
Scheduled Maintenance Procedures	4
Scheduled Maintenance Procedures for the PAS.....	4
Maintenance 8K Toolset Windows.....	6
Maintenance 8K Toolset Application Level 1 Menu Structure.....	10
Maintenance 8K Toolset Application Level 2 Menu Structure.....	13
Logging In	15
Summary of “Log In” Window Data Fields & Buttons	15
Opening Files.....	16
Summary of “Open File” Window Data Fields & Buttons.....	16
Status Viewer	17
Summary of “Status View” Window Data Fields & Buttons	18

Version History

Date	Version	Description	Revised By	Comments
11/12/2013	1	Adding to IED template, adding document number and version.	Kimberly Corso	N/A

Maintenance Procedures

Maintenance procedures include those to be performed on a scheduled basis (preventive) as well as those to be performed on a corrective basis (failure of the system to perform or operate to specification).

Scheduled Maintenance Procedures

While the PA systems are virtually maintenance free, there are items that should be checked on a periodic or scheduled basis to ensure continued performance. Following the prescribed scheduled maintenance procedures and using the appropriate tools will help to identify in advance any potential problems that may be developing.

Scheduled maintenance procedures for the PAS consist of visual as well as physical activities. The interval indicated is a suggested minimum time period. However, these activities may be performed more often if desired.

Scheduled Maintenance Procedures for the PAS

Table A lists the recommended scheduled maintenance procedures for the Public Address system.

Table A - Typical Scheduled Maintenance PAS

Item	Location	Interval	Maintenance Action & Procedure
Cooling Fan	8000 Unit	Q	Check & verify operation
Cooling Fan	6000 Chassis	Q	Check & verify operation
6416-S	Rack	Q	Exercise relays
Power Amplifiers	PA Mainframe	Q	Vacuum dust
6272L Backup Power Amplifier	6000 Unit	SA	Turn off the 1 st & 2 nd amplifier in each zone and verify that the backup amplifier functions.
Mic Stations	PAS	Q	Verify operation by making test announcements
Public Service Announcement	8101 Hard Drive	Q	Activate message & verify that it plays in all zones
540S Noise Sensor & 8040NS Compensation	Station zones and 8000 Unit respectively	SA	Check & verify operation Go to Ambient Calibrate screen under Ambient Analysis
8000 Unit Circuit Cards	8000 Unit Card Rack	Y	Verify card seating
6272L	6000 Unit	Y	Verify card seating
Mic Station Connector	Mic Station & 8000 Unit	SA	Verify connection
Cooling Fans	Computer	Q	Check & verify operation
PAS Rack	Communications Room	SA	Inspect wiring
Equipment rack and mainframes	Communications Room	Y	Wipe clean & vacuum all dust and dirt particles from all equipment
Air Filter	All equipment	SA	Clean & replace if necessary

M = Monthly, Q = Quarterly, SA = Semi-annually, Y = Yearly

Maintenance 8K Toolset Windows

If additional Maintenance and Testing is indicated or desired, the Maintenance 8K Toolset windows are normally run from the rack or maintenance computers. These are used primarily to access information from a PAS either on site or remote via the network (using a Remote Maintenance Computer).

Table B summarizes all of the windows available under the Maintenance 8K Toolset application.

Succeeding figures and tables present Level 1 and Level 2 windows and how each is accessed.

Note: Not all Level 2 functions are available to all users; access depends upon individual access permissions.

Table B - Summary of Allowable Screens & Functions in the Maintenance 8K Toolset Application (Level 1 & Level 2)

Function	Level 1	Level 2*	Access From Pull Down Menu	Capability & Description	See Section
Login	X		System	Login into system	
Logout		X	System	Logout of system	N/A
Open File		X	System	Open an INI file (station configuration file)	
Status Viewer		X	System	Display 8000/8111 unit status	
Password Setup		X	System	Set up individual passwords	
Edit INI		X	System	Edit INI file	Microsoft Notepad
Update 8000/8111 Configuration		X	System	Change configuration of the 8000/8111 unit	
PC Link Setup		X	System	Set up a PC link to an 8000/8111 unit (Network or Direct)	
Exit		X	System	Exit the Maintenance 8K Toolset to Windows	N/A
Announcement Monitoring		X	Annncs		
Faults Recorded	X	X	Always present at the bottom of the screen	Turns red when there is a fault at that station	Click on it to obtain information
Network Status	X	X	Always present at the bottom of the screen	Turns red and changes to "Network Error" when there is a network problem	Click on it to obtain information
Fault Reports	X	X	Always present at the bottom of the screen	Icon- used for accessing the Fault Report screen	

Note: Not all Level 2 functions are available to all users; access depends upon individual access permissions.

Table B - (Continued) Summary of Allowable Screens & Functions in the Maintenance 8K Toolset Application (Level 1 & Level 2)

Function	Level 1	Level 2*	Access From Pull Down Menu	Capability & Description	See Section
Fault Reports	X	X	Fault/Test	Examine, retrieve, and delete faults	
Test		X	Fault/Test	Run Monitor, System Test and Circuit Test	
Polling		X	Fault/Test	Select stations to be polled for faults	
Ambient Analysis Calibration/Ambient Calibrate		X	Ambient	Set up noise compensation for a given zone	
Gain Control/ 8000/8111 Output Base Control		X	Controls	Set up station zone audio gain	
EQ Setup/ Equalizer		X	Installation	Set up station zone equalization	
Command		X	Installation	Send command to station 8000/8111 unit	
Message Test		X	Installation	Initiate a prerecorded message to a zone	
About...	X	X	Help	Background/version information on KD application software	About NYCTA CCS Console
Contents	X	X	Help	Not Implemented	Not Implemented

Note: Not all Level 2 functions are available to all users; access depends upon individual access permissions.



Figure 1 – Maintenance 8K Toolset Application Level 1 Quiescent Screen

Maintenance 8K Toolset Application Level 1 Menu Structure

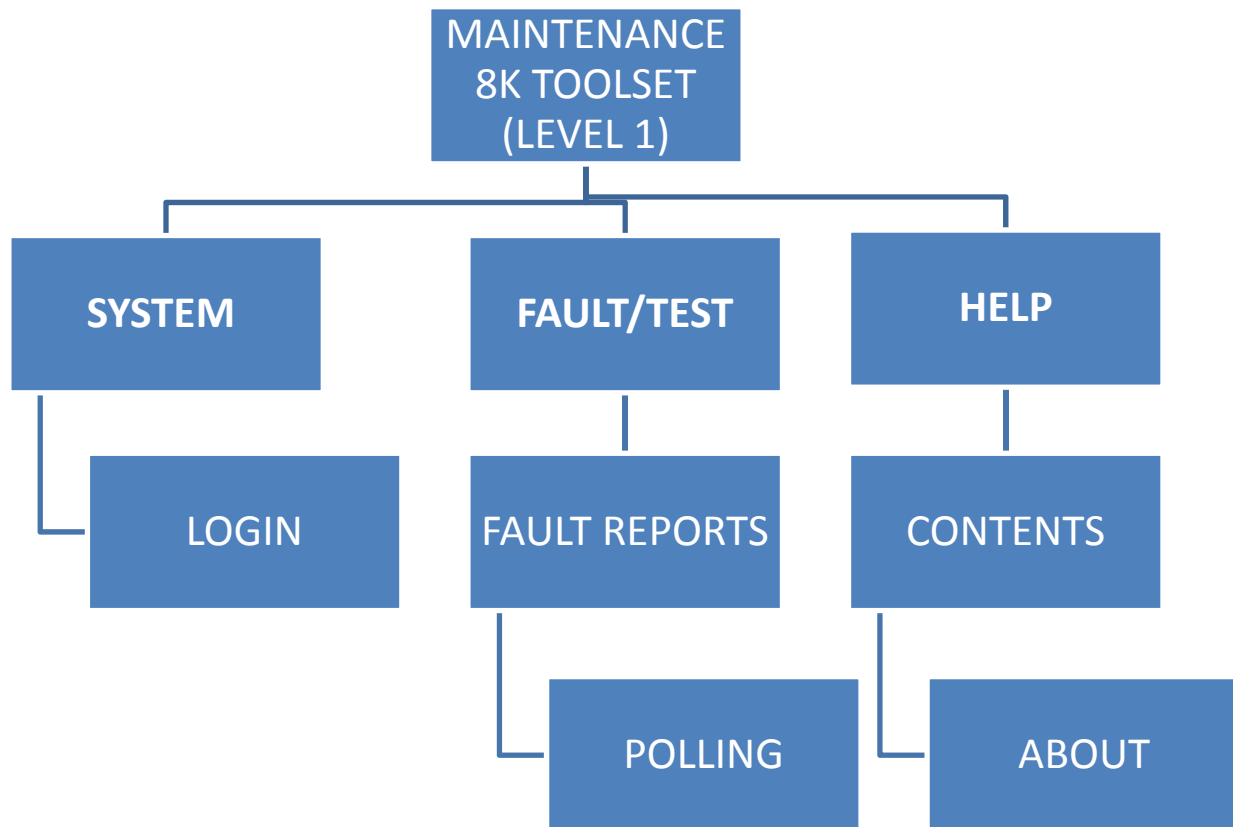


Figure 2

Table C - Summary of Maintenance 8K Toolset Level 1 Quiescent Screen Data Fields & Buttons

Screen Item	Item Type	Description	Comments
System	Drop Down Menu	Menu bar item that allows access to "Login"	Normal Windows drop down menu
Fault/Test	Drop Down Menu	Menu bar item that allows access to the "Test" results	Normal Windows drop down menu
Help	Drop Down Menu	Menu bar item that allows access to "Contents" and/or "About"	Normal Windows drop down menu
Faults Recorded	Screen Indicator	Changes to red to indicate a system fault	
Network Status	Screen Indicator	Changes to red to indicate a network fault	



Figure 3 – Maintenance 8K Toolset Application Level 2 Quiescent Screen

Maintenance 8K Toolset Application Level 2 Menu Structure

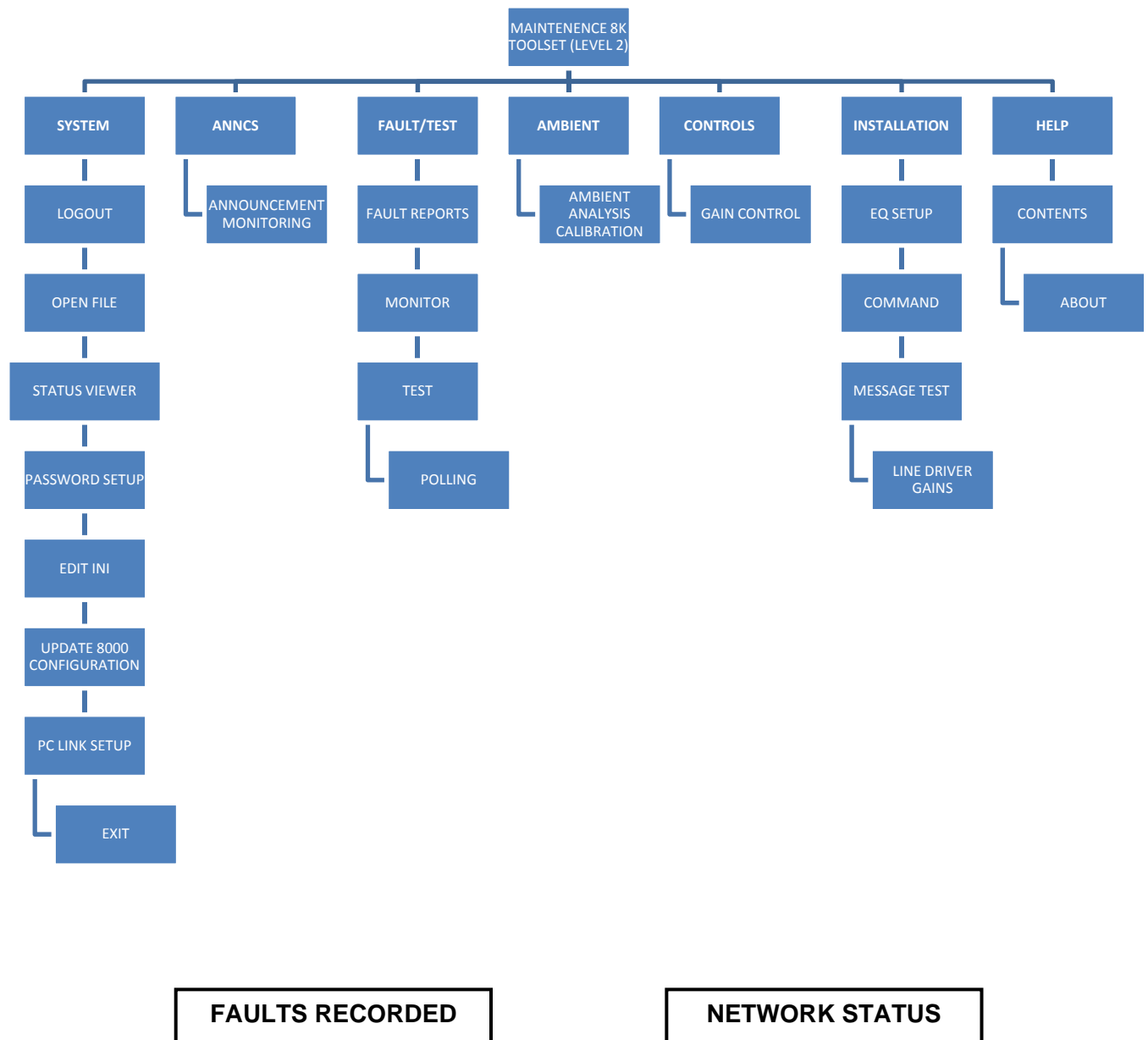


Figure 4

Table D - Summary of Maintenance 8K Toolset Level 2 Quiescent Screen Data Fields & Buttons

Screen Item	Item Type	Description	Comments
System	Drop Down Menu	Menu bar item that allows access to "Logout", "Open File", "Status Viewer", "Password Setup", "Edit INI", "Update 8000/8111 Configuration", "PC Link Setup", "Exit"	Normal Windows drop down menu
Anncs	Drop Down Menu	Provide access to Announcement Monitoring window for low-level view of software communications. Generally used only for enhanced debugging.	Normal Windows drop down menu
Fault/Test	Drop Down Menu	Menu bar item that allows access to "Fault Reports", "Test"	Normal Windows drop down menu
Ambient	Drop Down Menu	Menu bar item that allows access to "Ambient Analysis Calibration"	Normal Windows drop down menu
Controls	Drop Down Menu	Menu bar item that allows access to "Gain Control"	Normal Windows drop down menu
Installation	Drop Down Menu	Menu bar item that allows access to "EQ Setup", "Command", "Message Test", "Line Driver Gains"	Normal Windows drop down menu
Help	Drop Down Menu	Menu bar item that allows access to "Contents", "About"	Normal Windows drop down menu
Faults Recorded	Screen Indicator	Changes to red to indicate a system fault - indicates the number of faults recorded	
Network Status	Screen Indicator	Changes to yellow to indicate a network fault	

Logging In

To access the Maintenance 8K Toolset Level 2 screen follow this path: Maintenance 8K Toolset/Level 1 > System Menu > Login.



Figure 5 – Login Window

Summary of “Log In” Window Data Fields & Buttons

Screen Item	Item Type	Description	Comments
Password	Edit Box	Area for entering password	Press “Enter” when finished

Opening Files

To open an INI file, follow this path: Maintenance 8K Toolset > System Menu > Open File.

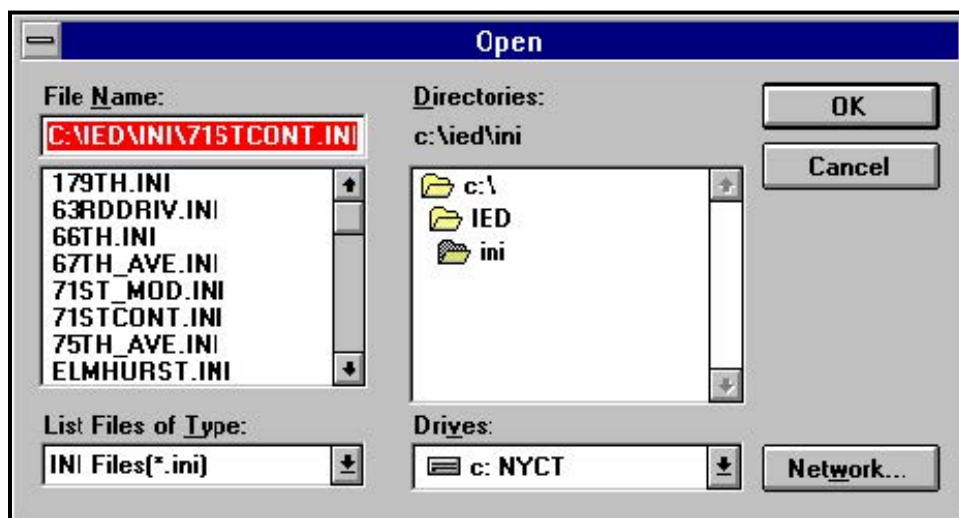


Figure 6 – Open File Window

Summary of “Open File” Window Data Fields & Buttons

Screen Item	Item Type	Description	Comments
File Name/	Data Field	Path and file name of selected file	
File Name/	List Area	List of available files selected in the current path which match selected file type	Scrollable
List Files Of Type/	Drop Down List	Types of files available	Should be left as INI files
Directories/	Readout	Current path to selected directory	
Directories/	List Area	Available directories for the drive selected	
Drives	Drop Down List	List of available drives	
Network	Button	Select a network drive connection	
OK	Button	Click on to accept entries	
Cancel	Button	Click on to cancel entries	

Status Viewer

To examine the 8000/8111 unit hardware/equipment status follow this path: Maintenance 8K Toolset > System Menu > Status Viewer.

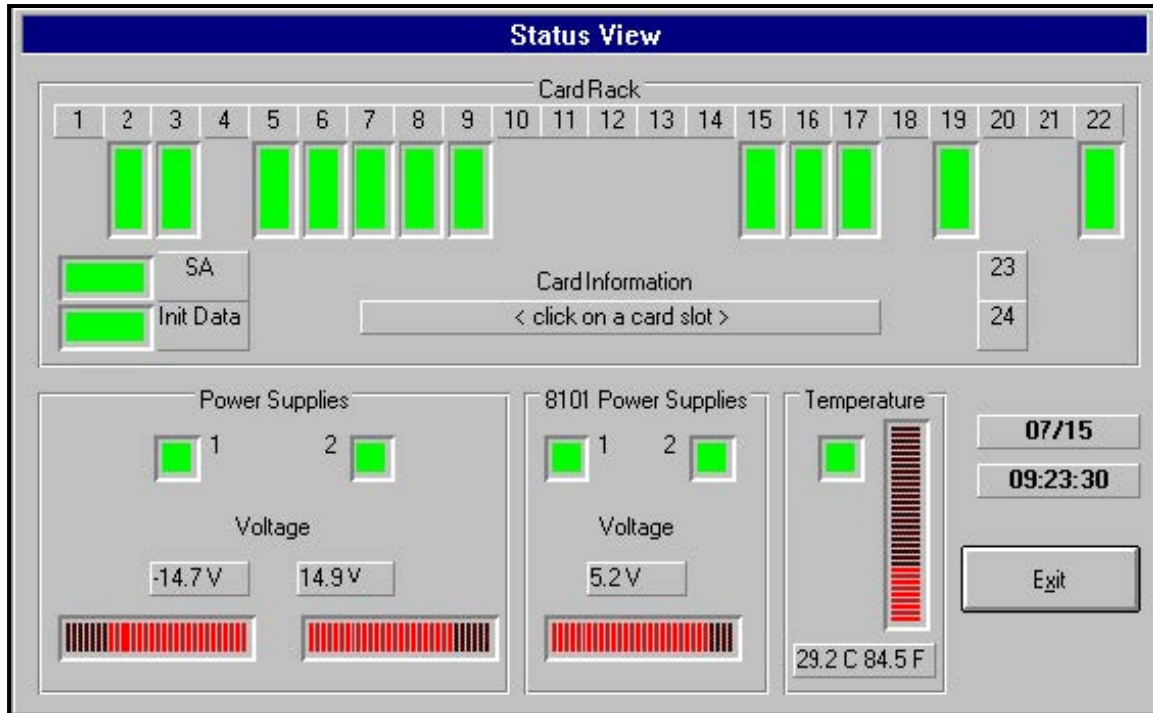


Figure 7 – Status View Window

Summary of “Status View” Window Data Fields & Buttons

Screen Item	Item Type	Description	Comments
Card Rack	1-24/Card slot	8000/8111/8111 Unit circuit cards	Green: Indicates a card is present and in the right slot. Red: Indicates card not responding or is not present. Yellow: Indicates a card is present but is the wrong type. Gray: No cards used in this slot for this particular system
SA	8001SA Card Slot	8001SA card slot	Gray, Red, Green codes as above
Init Data	8001CPU Card Slot	Indicates that the INI file that was loaded, is still loaded, and checks out ok.	Red/Green for Bad/Good
Card Information	Readout	By clicking on a card rack slot (colored rectangle), card in selected slot is identified and information is displayed in this readout	
Power Supplies/1, 2*	Indicator	8000/8111 unit power supply status (1 & 2, +/-15Vdc)	Normally it is Green. If it is red there is a fault for that supply. If black, not present/monitored
Power Supplies/Voltage	Field	8000/8111 unit power supply voltage reading of primary power	Note: Readings are calibrated
8101 Power Supplies/1, 2*	Indicator	8101 unit power supply status (1 & 2, +5Vdc)	Same Red, Green and Black codes as for other supplies
8101 Power Supplies/Voltage	Field	8101 unit power supply voltage reading of primary power	Note: Readings are not calibrated
8012 Power Supplies**	Indicators	8012 unit power supply status (1 & 2, +15Vdc/-15Vdc)	Normally Green, if red there is a fault for that voltage.
Temperature	Field	Ambient air temperature inside 8000/8111 unit mainframe	
Date	Field	Current system date	month/day

Screen Item	Item Type	Description	Comments
Time	Field	Current system time	24 hour clock
Exit	Button	Exit the window	

*Supplies 1&2 do not mean primary and backup. Either supply can be the primary.

**Supplies operate in a power sharing mode; if one shut downs or fails the other supply takes on the load
[Each supply has the capacity for the full load].