

Music System Installation and Operation Manual

#### NOTICE

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# 1. Introduction

# 1.1 Manual Audience and Contents

The *Music System Installation and Operation Manual* is intended for System Installers and Administrators, responsible for the installation, setup and programming of the Music System.

## Note:

Please read this manual before the installation, programming and operation of the Music System.

Chapter	Heading
1	Introduction
2	Installation
3	Music Software
4	MP3 File Size Calculation Table

This manual contains the following:

# 1.2 System Description

## 1.2.1 General Description

The Music System is one of Aleen's unique Music and Messaging on Hold solutions that can be controlled via the LAN. It can be remotely programmed through IP connectivity and can, depending on the file size, hold up to 100 MP3 music/messaging files.

The Music System offers 32Mb of recording space and has an internal clock to schedule daily, weekly and holiday playback lists.

The E-RAP (IP – Remote Access Program) is a central administration program that handles all client databases. E-RAP is capable of uploading MP3 music files to thousands of remote specific Music Systems via the IP network.

The MUP (Music Utility Program) is used for configuring and maintaining the Music System. The user-friendly MUP is capable of uploading configuration information to and downloading it from the Music System.

The configuration file contains the list of announcement messages, predefined schedules for playing messages, adjustments of the volume level via software, flash memory usage statistics and other configuration settings.

The MUP can perform a Full Backup and Restore of the Music System configuration information, using an IP connection.

#### Main Features:

- Stand-alone device
- Up to 32Mb storage memory
- 1 Audio output (either for an  $600\Omega$  or  $8\Omega$  connection)
- High quality audio
- E-RAP utility for remote programming
- Local utility program (MUP)
- Programmable via Network or RS-232 connection
- Ethernet connection
- Supports MP3 format
- Daily task scheduler

## 1.2.2 Physical Description

The Music System has been designed to fit in the same housing as the rest of the Aleen Music family of products.





The front view shows a number of indicators, which have been described below.



Figure 1-2: Indicators

Indicator	Color	Function
Power	Green	Indicates that the power is on
Playback	Red	Indicates that information is played back to a caller
TxD/RxD	Yellow	Indicates that the Music System is in the data
		transfer/receive mode
LAN Link	Green	Indicates that the Music System is connected to and
		accessed via the LAN



Figure 1-3: Side View – Connectors

Connector	Function
9V DC	Connection of Power Supply
RS-232	Connection to PC
Ethernet	Network connection
Output - $8\Omega$	Connection to the PABX (see note)
Output – $600\Omega$	Connection to the PABX (see note)
Ext. Audio In	Connection from external audio device

### Notes:

The Music System can only be connected to one PABX at a time.

The Audio output and Audio input are only Mono.

## 1.2.3 Technical Data

### 1.2.3.1 Programming Cable Specifications

The Music System comes with a special programming cable. The following picture describes that cable:

RJ-11

#### D-Type

9 Pins female



Figure 1-4: RS-232 Cable specifications

### 1.2.3.2 Network Cable Specifications

The Music System comes with a network cable. The specifications are:



Figure 1-5: Network cable

## 1.2.3.3 Technical Specifications

Memory Capacity	32MB
Local Utility Program	MUP
Remote Download	E-RAP
Ethernet Connection	RJ-45 socket (10/100Mbps)
Serial Communication Port	RJ-11 socket (RS-232 up to 115000 bps)
Supported Voice Format	MP3
Daily Task Scheduler	Yes
Maximum Number of Recorded Files	Depending on File size up to 100
Programmable	RS-232 or network (using TCP/IP capabilities)
Real-Time Clock	Yes
Watch Dog	Yes
Flash Memory	For 32MB recording time and 32MB buffer
Display	4 LED's
Audio output to audio equipment	Up to 2.0V p-p@ on impedance $8\Omega$ (3.5mm mono/stereo audio socket)
Audio output to PBX	Up to 1.5V p-p@ on impedance $600\Omega$ (RJ-11 socket, pin 2 and 3)
Audio input from external devices	Up to 0dB audio input > $10k\Omega$ (3.5mm mono/stereo audio socket)
Power Supply	
Input:	110VAC, 60Hz 220VAC, 50Hz
Output	9VDC, 800mA
Dimensions (HxWxD)	200x220x30mm 7.9x8.7x1.2 inch

# 1.3 Workflow

The following picture shows a schematic overview of a basic installation of the Music System:



Figure 1-6: Music System Quick Installation Flow

# 2. Installation

# 2.1 Unpacking

The following table describes the contents of the Music System package.

## Note:

Should the package be damaged or should items from the packing list be missing, contact your distributor directly.

Nr.	Item	Quantity
1	Music System	1
2	Installation CD with MUP software, Manual, E-RAP software, MP3 examples	1
3	Power Supply (Input: 110VAC, 60Hz or 220VAC, 50Hz)(Output 9VDC, 800mA)	1
4	Network cable RJ-45 – RJ-45	1
5	RS-232 cable D-Type 9 pin – RJ-11	1
6	Screws and plugs	2
7	Drill template	1

# 2.2 General Installation Information

The following picture shows an example of a setup for the Music System:



Figure 2-1: Music System Remote Setup

The picture shows a remote setup, where the PC connects to the Music System through firewalls and the Internet. Before the remote setup can work, the Music System needs to be initialized locally. This initial installation process is done by linking a PC and the Music System locally via the RS-232 connection as has been described in the following chapter.

During the initial installation process the Music System has to be defined in Network Settings and the Device Selection window of the MUP program. In the Network Settings window you will have to insert the IP Address of the Music System, Subnet Mask and Gateway IP Address (all provided by your local network administrator). In the Device Selection window the Music System entry has to be added . It needs to be named and its IP Address needs to be inserted. When using a PC for connecting to the Music System, the filled in IP address is sufficient for the MUP to find it locally or remote.

The MUP uses the TCP protocol and port 10254 is used for the data-transfer between the MUP and the Music System.

# 2.3 Music System Installation Instructions

- Connect the Music System via its RS-232 socket to the COM port of the PC
- Connect the Power Supply to the Music System

Now the initial software installation of the Music Utilities can start.

To install the MUP and E-RAP software on the PC:

- Insert the CD in the Drive
- Run the Music System Utility software (SETUP.EXE)
- Run the MUP program from Start/Programs/Music System Utility Programs 1.xx
- Click on Parameters/Network Settings

IP Address	澧 叛	39	τ.
Subnet Mask	ł.	33	a.
Gateway IP address	<b>\$</b> 3	<u>.</u>	<b>\$</b> 7

- Fill in the IP address information (IP Address, Subnet Mask and Gateway IP Address)
- Click on OK

• Make sure that you have chosen the correct COM port

<ul> <li>COM Port</li> </ul>	COM 1 🔹	
C Network	Select Device	

• Click on OK

Now the IP Address has been set. Either continue with the installation via the RS-232 connection (locally) or disconnect the RS-232 connection and configure the Music System from a remote location (within the local domain or in a remote domain) via the Ethernet connection. When deciding to configure the Music System from a remote location via the Ethernet connection, the network cable needs to be connected to the Ethernet socket on the Music System. It should be clear that when you are going to use a PC from a remote domain, you will access the Music System via the Internet. This connection is less secure than with a VPN (Virtual Private Network) connection.

The following paragraph describes the procedure for Remote Access using VPN (Virtual Private Network).

# 2.4 Remote Access using VPN

Contrary to the remote access possibility via the Internet, remote access via VPN is a secure connection. For this you will first have to download/install the appropriate VPN software. A schematic overview of the Remote Setup via VPN is as follows:



Figure 2-2 Music System Remote Setup via VPN

The following paragraph will illustrate this with the installation and configuration of the Check Point VPN-1 SecuRemote/SecureClient NG – Feature Pack 3 software. This is one of the possible VPN packages.

## 2.4.1 Installation of the VPN Software

1) Run the Setup.exe and the following screen will appear:



#### 2) Click on Next

Check Point VPN-1 SecuRemote/SecureClient NG Feature Pack 3
License Agreement Please read the following license agreement carefully.
Press the PAGE DOWN key to see the rest of the agreement.
Check Point (TM) End User License Agreement This End-User License Agreement (the "Agreement") is an agreement between you (both the individual installing the Product and any legal entity on whose behalf such individual is acting) (hereinafter "You" or "Your") and Check Point Software Technologies Ltd. (hereinafter "Check Point"). TAKING ANY STEP TO SET-UP OR INSTALL THE PRODUCT CONSTITUTES YOUR ASSENT TO AND ACCEPTANCE OF THIS END USER LICENSE AGREEMENT. WRITTEN APPROVAL IS NOT A PREREQUISITE TO THE VALIDITY OR ENFORCEABILITY OF THIS AGREEMENT AND NO SOLICITATION OF ANY SUCH Do you accept all the terms of the preceding License Agreement? If you choose No, the setup will close. To install SecuRemote, you must accept this agreement.
InstallShield <u>Kack Y</u> es <u>N</u> o

3) Click on Yes (after reading and accepting the License Agreement)

Check Point VPN-1 SecuRemote/SecureClient NG Feature Pack 3	×
Choose Destination Location Select folder where Setup will install files.	
Setup will install SecuRemote in the following folder.	
To install to this folder, click Next. To install to a different folder, click Browse and select another folder.	
Destination Folder C:\Program Files\CheckPoint\SecuRemote	
InstallShield	]

4) If needed, change the Destination folder by clicking on the Browse button and click on Next

Check Point VPN-1 SecuRemote/SecureClient NG Feature Pack 3	×
Desktop Security	
SecuRemote is Check Point's VPN client. SecureClient provides additional Personal Firewall capabilities. Please choose:	
O Install VPN-1 SecureClient	
Install VPN-1 SecuRemote	
InstallShield	
< Back Next > Cancel	

- 5) Select "Install VPN-1 SecuRemote" by clicking on the radio button before the installation to be selected
- 6) Click on Next

Check Point VPN-1 SecuRemote/SecureClient NG Feature Pack 3
Dialup adapters
If you install SecuRemote on dialup adapters only communication through network cards will not be encrypted.
Install on all network adapters
C Install on dialup adapters only
Teache III (1 de 14
< <u>B</u> ack <u>N</u> ext > Cancel

- 7) Select "Install on all network adapters only" by clicking on the radio button before the installation to be selected
- 8) Click on Next



9) If needed, read the README file or click on No

After the installation the last installation window will appear:



- 10) Select "Yes, I want to restart my computer now" by clicking on the radio button before this line of text.
- 11) Click on Finish

The computer will reboot and after the startup, you will see an icon of an envelope with a golden key on it.

- 12) Click on the icon
- 13) Click on Tools/Advanced IKE Settings
- 14) Mark both "Force UDP encapsulation" and "Support IKE over TCP"
- 15) Click on OK
- 16) Click on Sites/Create New
- 17) Enter the IP Address of the Firewall of the Target LAN in the Name/IP box
- 18) Click on OK
- 19) Insert your username and password accepted in the VPN network
- 20) Click on OK 3 times until you see the icon resembling two buildings with the previously entered IP Address
- 21) Right click on My Network Places and select Properties
- 22) Right click on the Local Area Network or Dial-up Connection icon and select Properties
- 23) Double click on Internet Protocol TCP/IP
- 24) Click on the Advanced button
- 25) Click on the WINS tab
- 26) Click on Add and add the IP Address of your Target LAN WINS server

27) Close all windows with OK

This finalizes the complete installation and configuration of the VPN software. Now you can connect to the Music System with MUP as if you are in the same domain as the Music System.

# 3. Music Software

## 3.1 General

The initial installation of the Music software is simple as described in the previous chapter. The MUP and E-RAP software and their Help files have been added to a menu under the Start/Programs menu. In this Chapter the Music Utility Program (MUP) will be described. The E-RAP software will be described at a later stage.

# 3.2 Music Utility Program (MUP)

The MUP is a user-friendly program, which helps you to configure the Music System. The toolbar and menus are discussed in the following paragraphs.

### Notes:

Remember that for all actions you will have to have the Music System device selected. Should you have forgotten this, the program will inform you and guide you to the Device Selection menu.

When performing configuration related tasks (backup, restore, etc.), make sure that the running tasks have been stopped (change the end time in the Task schedule). Don't forget to activate this task after the configuration related task has been performed.

When making a change in the configuration (e.g. changing the volume level of an Audio file), the change will only become active after you have sent the information to the device via the Send Configuration function.



Figure 3-1: MUP Main Screen

The following function buttons can be pressed on the main screen's toolbar:

Button	Function
D	New – Starts a new MUP configuration file
<b>2</b>	Open – Opens an existing MUP configuration file
	Save – Saves the open MUP configuration file
8	Print – Prints the contents of the open MUP configuration file

The following menu's can be accessed via the main screen:

Menu Item	Functions in Menu Item
File	New, Open, Close, Save, Save As, Open Default, Print, Print Preview, Print Setup, Recent File, Options, Exit
View	Toolbar, Status Bar
Communication	Read Configuration, Send Configuration, Read Recordings, Upgrade Recordings, Backup, Restore, Software Upgrade, Communication Selection, Password, Reset
Parameters	Network Settings, Date & Time
Tasks	Task Editor, Task Schedule
Statistics	General
Help	Help Topics, About MUP

## 3.2.1 File Menu

The File menu contains the following functions:

Function	Description
New	Start a new MUP configuration file
Open	Open an MUP configuration file
Close	Close the current configuration file
Save	Save an MUP configuration file
Save As	Save an MUP configuration file under a different name
Open Default	Open the default MUP configuration file
Print	Print the contents of the configuration file
Print Preview	Preview the information to be printed
Print Setup	Setup the printer for printing
Recent File	Recently used files
Options	File location options
Exit	Exit the program

### 3.2.1.1 New

To start a new MUP configuration file:

- Click on File
- Click on New

Now you will start with an empty MUP configuration file.

### 3.2.1.2 Open

To open an MUP configuration file from your local hard drive or the network:

- Click on File
- Click on Open

Open			<u>22</u>
Look in: 🚰	Music System	• • (	🗈 💣 🎫
😁 default.m	up		
NewYork.	mup		
SanDiego.	mup		
C 205A.map			
File name:			Open
File name:			Open

- Browse for the required file and select it
- Click on Open in the open window

The configuration file will be loaded.

#### 3.2.1.3 Close

To close the current MUP configuration file:

- Click on File
- Click on Close

The current file will be closed, without saving or uploading the file to the Music System.

### 3.2.1.4 Save

To save an MUP configuration file to your local hard drive or the network:

- Click on File
- Click on Save

The current file will be saved in the previously defined location on the hard drive or the network.

#### 3.2.1.5 Save As

To save an MUP configuration file with a new name or to save a new MUP configuration file on the hard drive or the network:

- Click on File
- Click on Save As

iave As		<u>⊇?×</u>
Save in: 🔂	Music System	 💣 🎟 •
💬 default.mu 💬 NewYork.r 💬 SanDiego. 💬 USA.mup	ар nup mup	
File name:	Amsterdam	 Save

- Select the location to where you want to save the MUP configuration file
- Insert the name for the MUP configuration file
- Click on Save in the Save As window

The current file will be saved in the specified location, with the specified name.

### 3.2.1.6 Open Default

To open the default MUP configuration file:

- Click on File
- Click on Open Default

The default MUP configuration file will be opened.

## 3.2.1.7 Print

To print the contents of the open MUP configuration file:

- Click on File
- Click on Print

Name:	\\192.168.1.7\HP LaserJe	et 2200 Series PD Properties	
Status:	Ready		
Туре:	HP LaserJet 2200 Series P(	CL 5e	
Where:	ITS		
Commen	: its	Print to file	
Print rang	8.		
• Al		Number of copies: 1 🛨	
C Page	s from: 1 to:		
C Selec	tion	1 2 3 3 Colate	
e - D'Ding			

- If needed, change the printer properties, Print range and number of copies
- Click on OK

The required printout will be printed.

### 3.2.1.8 Print Preview

To preview the contents of the open MUP configuration file:

- Click on File
- Click on Print Preview



In this window you can activate the Print function, zoom in and out, show 1 or 2 pages and close the window.

## 3.2.1.9 Print Setup

To setup the print result:

- Click on File
- Click on Print Setup

Name:	1192.168.1.7\HP LaserJet 2200 Series PD	roperties
Status:	Ready	
Type:	HP LaserJet 2200 Series PCL 5e	
Where:	ITS	
Comment	its	
Paper	Drientation	
Size:	Letter	Portrait
Source:	Auto Select • A	C Landscape

- If needed, modify the attached printer, paper size and orientation
- Click on OK

The printer has now been setup to provide you with the required print result.

#### 3.2.1.10 Recent File

This section in the File menu shows the files you recently opened, during the ongoing session.

### 3.2.1.11 Options

To define the location of the files created by the Music System:

- Click on File
- Click on Options
- Select the file for which you want to define the location
- Click on Set
- Define the locations
- Click on OK
- Click on Ok

Repeat the steps for the different files shown in the following picture.

File type	File location	
1UP Files lackup Files IIN Files		Set
udio Files		Clear
	OK Cancel	Help

#### Note:

The description of the file types can be found in Chapter 3.3.

### 3.2.1.12 Exit

To exit the Music Utility Program:

- Click on File
- Click on Exit

The Music Utility Program will now be closed without saving the current open file. Should you want to save the changes made in the current MUP configuration file, please use File/Save or File/Save As first.

## 3.2.2 View Menu

The View menu contains the following functions:

Function	Description
Toolbar	Show a row with buttons under the menus
Status Bar	Show status information at the bottom of the main screen

### 3.2.2.1 Toolbar

To view the Toolbar:

- Click on View
- Click on Toolbar

### 0 🗃 🖬 🎒

The Toolbar function will be marked in the View menu. This will show a row with buttons under the menus.

#### 3.2.2.2 Status Bar

To view the Status Bar:

- Click on View
- Click on Status Bar

#### For Help, press F1

NUM

The Status Bar function will be marked in the View menu. This will show a row with status information at the bottom of the main screen.

## 3.2.3 Communication

Function	Description
Read Configuration	Read configuration information from the Music System
Send Configuration	Send configuration information to the Music System
Read Recordings	Read the list of audio files in the MUP
Update Recordings	Update the list of audio files in the Music System
Backup	Make a backup of the Music System database
Restore	Restore the backup of the Music System database
Software Upgrade	Upgrade the Music System software
Communication Selection	Select the communication type between the PC and the Music System and define the locations of the device(s)
Password	Change the Music System password
Reset	Reset the Music System

The Communication menu contains the following functions:

## 3.2.3.1 Read Configuration

To read the current configuration of the Music System:

- Click on Communication
- Click on Read Configuration



Click on OK



• Click on OK to remove the message that the data has been received successfully.

Now you are able to make changes to the configuration of the Music System.

## 3.2.3.2 Send Configuration

To send the configuration to the Music System:

- Click on Communication
- Click on Send Configuration



- Click on OK
- Fill in the password

Password		×
	Enter the password	

• Click on OK



• Click on OK to remove the message that the data has been sent successfully.

The updated configuration data has been sent to the Music System.

### 3.2.3.3 Read Recordings

To read the current list of music files in the system:

- Click on Communication
- Click on Read Recordings

	ŕ.
Recording Files List	

• Click on Recording Files List

File no.	Comments	Volume	Target Audio file		
00	Introduction	70		100	
01	Background	70			
02	After Office	70			
03 🕞	Holiday	70			
04	Busy	70			
05 [3	News 1	70			Set Path
06	Lunch	70			-
6 07	Message 1	70			Clear Path
<b>a</b> 08					
<b>a</b> 09					
<b>a</b> 10					
a 11					
<b>a</b> 12					
<b>a</b> 13					
<b>a</b> 14					
<b>a</b> 15					
<b>a</b> 16					
<b>a</b> 17					
<b>a</b> 18					
<b>a</b> 19				-1	
			1		

- Select the files to Read
- Click on Set Path

Audio file target nan	e and path	×
File name	[	Browse
Audio file volume leve	70 -	
Comments	News 1	
	OK Canc	el Help

• Click on Browse

iave Audio File			<u>22</u> ×
Look in: 🔂 Music :	System	💌 🔶 🖻	* 💷 •
<ul> <li>after_office.mp3</li> <li>background.mp3</li> <li>busy.mp3</li> <li>holiday.mp3</li> <li>intro.mp3</li> <li>kickoff.mp3</li> </ul>	Iunch.mp3         Imessage1.mp3         Imessage2.mp3         Imessage3.mp3         Imessage3.mp3         Imessage3.mp3         Imessage3.mp3         Imessage3.mp3	⊙] onhold.mp3	
File name: Files of type: Audio	Files (*.mp3)		Open Cancel

- Select the location you want the file to be downloaded to
- Click on Open (to accept the location and given filename)
- Click on OK
- Click on OK
- Click on OK

MUP	X
٩	Data has been received successfully
	ОК

• Click on OK when data has been received successfully

The required music files have been downloaded from the system.

### 3.2.3.4 Update Recordings

To Update the current list of music files in the system:

- Click on Communication
- Click on Update Recordings

• Click on Recording Files List

00         Introduction         70           01         Background         70           02         After Office         70           03         Holiday         70           04         Busy         70           05         News 1         70	
01         Background         70           02         After Office         70           03         Holiday         70           04         Busy         70           05         News 1         70	
Image: System 2         After Office         70           Image: System 2         70         70	
19 03 Holiday 70 19 04 Busy 70 19 05 News1 70	
04 Busy 70 105 News 1 70	
05 News1 70	
	Set File
106 Lunch 70	
07 Message 1 70	Clear Path
<u>a</u> ) 08	
<u>a</u> 09	
<u>a</u> 10	Delete File
<u>a</u> 11	
<u>a</u> 12	
<u>a</u> 13	
<u>a</u> 14	
<u>a</u> 15	
<u>a</u> _16	
<u>a</u> 17	
<u>비</u> 18	
1 210	

- Select a file number
- Click on Set File

Audio file		×
File name		Browse
Audio file volume lev	al 70 🔆	
Comments	News 1	_
	OK Cancel	Help

• Click on Browse

elect Audio File			
Look in: 🛛 🖾 Music :	System		¥
after_office.mp3 background.mp3 busy.mp3 holiday.mp3 intro.mp3 kickoff.mp3	Iunch.mp3         message1.mp3         message2.mp3         message3.mp3         news1.mp3         news2.mp3	Olonhold,mp3	
ile name: news2	2.mp3		Open
iles of type: Audio	Files (*.mp3)		Cancel

- Select the location you want the file to be uploaded from
- Click on Open

Audio file		×
File name	C:\Program Files\Music System\news2.mp3	Browse
Audio file volume level	70 📩	
Comments	News 2	
	OK Cancel	Help

- Set the volume level
- Insert a description (Comments)
- Click on OK
- Click on OK

Password		×
	Enter the password	(
ОК	Cancel	Help

- Enter password
- Click on OK



• Click on OK when data has been transferred successfully

The current list of music files in the system has been updated.

#### Note:

The music files should not be uploaded from the desktop or desktop folders as this will result in an error.

The recommended MP-3 file configuration is:

Mode: Mono

Bandwidth: 22 kHz

Bit Rate: 48kBps.

### 3.2.3.5 Backup

To create a full backup of the Music System:

- Click on Communication
- Click on Backup

File nar	ne		
			Browse

- Fill in the backup filename (browse if you want to change the directory)
- Click on OK

MUP	×
٩	Data has been received successfully
	ОК

• Click on OK to remove the message that the data has been received successfully.

The backup file can now be used for another system or as a backup for the current system.

#### Note:

Before performing a Backup or Restore, always stop all running tasks. This is done by entering the Task Schedule window and change the end-time of all currently running tasks.

#### 3.2.3.6 Restore

To restore a full backup of the Music System:

- Click on Communication
- Click on Restore

File nam	ie		
1		-	Browse

- Fill in the filename of the backup to be restored (browse if you want to change the directory)
- If you used Browse, Click on Open
- Click on OK

	×
Enter the password	t.
Cancel	Help
	Enter the password

• Fill in the password (default is 1234)

MUP			x
	All existing dat	a in the device v	vill be lost
	(ок)	Cancel	

• Click on OK after reading the warning and accepting the consequences



• Click on OK to remove the message that the data has been transferred.

The Music System now contains all the information from the backup.

#### 3.2.3.7 Software Upgrade

To upgrade the System Software (not the configuration data), make sure you have an RS-232 connection to the Music System and that all running tasks have been stopped:

- Click on Communication
- Click on Software Upgrade

File name		
		Browse
		(A)

• Browse for the upgrade file (\*.BIN)

elect Softw	are File			22
Look in: 🔂	Music System	*	+	💣 🎟 •
	F			Ê -
File name:				Open
File name:				Open

- Click on Open
- Click on OK

Enter the passv	vord
<u> </u>	1
120	

- Fill in the password (default 1234)
- Click on OK



• Click on OK to remove the message that the data has been transferred successfully

#### 3.2.3.8 Communication Selection

The Communication selection defines the communication method, you will be using (via COM Ports or via the network). Apart from this the Music device button in this window, leads you to the Device Selection screen, which will be described in chapter 4.2.8. At this point the following steps have to be taken to select the communication method:

- Click on Communication
- Click on Communication selection

mmunication Se	ection	2
C COM Port	COM 1	•
Network	Select Dev	ice
ОК	Cancel	Help

- Select the used communication method (either Network or COM Port (including the number of the COM Port))
- Click on OK

The communication method has been defined.

## 3.2.3.9 Password

To input a new password:

- Click on Communication
- Click on Password

Password	×
Current Password	
New Password	
Confirm New Password	
OK Cancel	Help

- Fill in the Current (default) Password (default = 1234)
- Fill in the New Password
- Fill in the password in the Confirm New Password field
- Click on OK

MUP		×
The Passwo	rd has been changed s	successfully
	ОК	

• Click on OK to click away the message, that the password has been changed successfully. The password has been changed.

## 3.2.3.10 Reset

To perform a hardware reset to the Music System:

- Click on Communication
- Click on Reset

Reset			-	×
	Press	OK to reset the	e device	
OK.		Cancel	Hel	P

• Click in OK

This will reset the Music System.

## 3.2.4 Parameters

The Parameters menu contains the following functions:

Function	Description
Network Settings	Define the network parameters for the Music System
Date & Time	Define the Date and Time on the Music System

### 3.2.4.1 Network Settings

To set the network parameters for the Music System:

- Click on Parameters
- Click on Network Settings

The following window will be shown:

IP Address	3 n	Эž	<b>1</b> 0
Subnet Mask	£.	38	i.
Gateway IP address	¥2	- 52	¥)

This information is essential for when you want to connect to the Music System locally. This information, together with the Communication Selection defines the communication flow.

#### Note:

The initial network setting can only be done via the RS-232 connection.

#### 3.2.4.2 Date & Time

To go to the date and time parameters of the Music System:

- Click on Parameters
- Click on Date & Time

The current window will show the date and time of the Music System (if connected). If the Music System is not connected, you will get the request to connect to the Music System.

When the communication parameter to the Music System is set to COM 1 and there is no physical connection, a time-out error and an error that date and time to the device have not been set will appear. After the second error the Date & Time window will appear with the information from the PC.

## 3.2.5 Tasks

The Tasks menu contains the following functions:

Function	Description
Task Editor	Define a task
Task Schedule	Schedule a task

### 3.2.5.1 Task Editor

The Task Editor windows contain 2 tabs, View Audio Files and Tasks. Before you are able to update the information in the Tasks tab, you will have to make sure that you have information in the View Audio Files tab.

File no.	Comments	Volume	Source Audio file	
Image: No.       00         Image: No.       01         Image: No.       01         Image: No.       02         Image: No.       03         Image: No.       03         Image: No.       04         Image: No.       05         Image: No.       06         Image: No.       07         Image: No.       08         Image: No.       07         Image: No.       07 <td< th=""><th>Introduction Background After Office Holiday Busy News 1 Lunch Message 1</th><th>70 70 70 70 70 70 70 70</th><th></th><th>Edit</th></td<>	Introduction Background After Office Holiday Busy News 1 Lunch Message 1	70 70 70 70 70 70 70 70		Edit

If not, add the Audio files via Update Recordings (Communications Menu). You can have a maximum of 100 file numbers defined (00-99).

In the View Audio Files the following File number information can be edited:

- Comments This should describe the contents of the music/information file.
- Volume This is the playback volume of the music/information file (level 01 till 99, where 99 is the highest volume level).

The next step is to set tasks on the task tab.

ew Audio Files Tasks	
Task Number 01 << Prev Next >>	
Background Themes	Interrupt Messages
Audio file number Audio file number	Audio file number Audio file number
	<b>№</b> 1 2 ÷ <b>Г</b> 6 0 ÷
□3 0 🛱 🗆 8 0 🛱	Гз 4 🕂 Г 8 0 🕂
□4 0 🚔 □9 0 🚔	□4 5 😤 □9 0 🚔
□ 5 0 🚔 🗆 10 0 🚔	□ 5 0 🚍 🗆 10 0 🚍
F Random play	Cyclic play mode
External background	Loop interval 3 📩 Min.
	Interrupt messages interval 1 🕂 Min.
<u> </u>	.l

On the Tasks tab you have to define:

• The task number – This number will be used when scheduling the chosen music/information. You can define up to 20 tasks.

Within each task number the following information blocks need to be edited:

- The Background Themes This block defines which and how the background information will be presented. You can define 10 Background Themes per task.
- The Interrupt Messages this block defines which and how the extra information will be presented. You can define 10 Interrupt Messages per task.

For the Background Themes you have to define and mark:

- The Audio file number This is the number of the Audio file that will be run in the background (this number is taken from the View Audio Files list).
- Random play Should you have more than 1 Audio file number defined, the system will play the selected Audio files at random.
- External background The Background music can also be created by connecting a radio or endless recording to the Music System. In this case this checkbox needs to be marked.

All other Background related settings will then be disabled. The interrupt messages will not be influenced.

For the Interrupt messages you have to define and mark:

- The Audio file number This is the number of the Audio file that will be run, interrupting the background Audi file.
- Cyclic play mode This instructs the Music System to repeat the interrupt message(s) at a time, set by the Loop interval and Interrupt messages interval.
- Loop interval This instructs the Music System to repeat the interrupt message(s) at the specified time.
- Interrupt messages interval This defines the time between each interrupt message in the group of interrupt messages.

#### Note:

Background Themes and Interrupt Messages need to be marked from 1 till n where number 1 is the first and n is the last. Unmarking a task in this range will result in an error message.

#### 3.2.5.2 Task Schedule

The Task Schedule window contains 2 tabs, Daily Schedule and Holidays.

Day of the week	Mor	iday << F	Prev Next >>	
	Task no.	From	To	
	1 -	00:00	16:44	
	0 ÷	00.00	00:00	
	0 🛨	00.00	00:00	
	0 ÷	00:00	00:00	
	0 ÷	00:00	00:00	
	0 ÷	90:00 <u>-</u>	00.00	
	0 🛨	00:00	00.00	
	0 🛨	00:00	00:00	
	0 ÷	00:00	00:00	
	0 -	00:00	00:00	

On the Daily Schedule tab, you are able to define the day of the week and the time for which a certain pre-defined task should be run. Per day you can set 10 tasks. A full day runs from 00:00 to 23:59.

Date	Start	Stop	Task	Description	1	
					1	Add
						Delete
					-	
					2	Edit
4						

In the Holidays tab, yearly holidays, the times and task to run, can be defined.

The information is defined in the following screen:

Add to Holidays lis	t			X
Date	Start	Stop 23:59	Description	Task
			OK Cancel	

## 3.2.6 Statistics

The Statistics menu contains the following function:

Function	Description
General	Show product version and used and total memory size

#### 3.2.6.1 General

To get the general statistics:

- Click on Statistics
- Click on General

Now you will get a window, in which the software version of the Music System, total flash memory size and used flash memory size can be found. Close will take you back to the main screen of the MUP.

Statistics		×	
Product version	1.00		
Total Flash memory	00:00	- hour:min	
Free Flash memory	00:00	- hour:min	
Close		Help	

## 3.2.7 Help

The Help menu contains the following functions:

Function	Description
Help Topics	The Help function in the MUP
About MUP	Version information about the MUP software

## 3.2.7.1 Help Topics

To go to Help:

- Click on Help
- Click on Help Topics

You will now be able to search in the Help module for the topics you need.

## 3.2.7.2 About MUP

By clicking on Help and then on About MUP, you will get the version information of the Music Utility Program.



## 3.2.8 Device Selection

The Device Selection is a sub function in the Communication Selection window (Communication Menu). With this function you can select the Music System on which you want to perform maintenance. The following paragraphs contain the explanation of the window and examples of how to edit it.

vice Selection	Name	Address	IP Address	Representative
	Name	Addless	IF Address	nepresentative
	21			
		W		
New Folder New D	evice Delete	Edit	Select	ose Help

The left pane of the window provides a graphical tree of the available previously defined devices. The left pane contains the Root (which can't be deleted) and can contain several Folders. These Folders can be used as separations between different Sub Folders and groups of devices. Each folder or Sub Folder contains one or more devices. The devices will be shown in the right pane.

The functions in this window can be described as follows:

#### 3.2.8.1 New Folder

To create a new folder:

- Click on Communication
- Click on Communication Selection
- Click on Select Device
- Click on New Folder

evice	Contact
older Dutch contingent	Representative name
)evice Name	Phone Ext.
	Mobile
administrator Password	Fax.
Ausic System Version	E-mail
	Address
P Address	City
	Zip Code
	State
	Country

- Fill in the name of the folder
- Click on OK
- Click on Close

Now the new folder has been created and the new device can be added to this folder.

#### Note:

For administrative purposes it is useful to fill in the contact information of the person responsible for this folder.

It is possible to add another folder as a sub folder.

### 3.2.8.2 New Device

To add a new device to the Folder:

- Click on Communication
- Click on Communication Selection
- Click on Select Device
- Click on the required Folder
- Click on New Device

evice	Contact
older Dutch contingent	Representative name
)evice Name	Phone Ext.
	Mobile
administrator Password	Fax.
Ausic System Version	E-mail
	Address
P Address	City
	Zip Code
	State
	Country

- Fill in the Device Name
- Fill in the Administrator's password (default 1234)
- Fill in the Music System version (optional, but advisable)
- Fill in the IP Address
- Fill in the complete contact information (optional, but advisable)
- Click on OK
- Click on Close

Now the device has been added to the folder in the tree.

### 3.2.8.3 Delete

To delete a Device and/or Folder:

- Click on Communication
- Click on Communication Selection
- Click on Select Device
- Click on the required Folder (and the Device)
- Click on Delete
- Click on Yes
- Click on Close

Now the Folder and/or the Device have been deleted, depending on the selection made.

#### 3.2.8.4 Edit

To edit a Folder or Device:

- Click on Communication
- Click on Communication Selection
- Click on Select Device
- Click on the required Folder or Device
- Click on Edit
- Make the changes in the window
- Click on OK
- Click on Close

Now the required change has been made to the Folder or Device.

#### 3.2.8.5 Select

To select a Music System:

- Click on Communication
- Click on Communication Selection
- Click on Select Device
- Click on the required Folder and Device
- Click on Select
- Click on OK
- Click on Close

Now the Music System has been selected and you can start configuring the device.

## 3.2.8.6 Close

Close closes the Device Selection window and closes it, bringing you back to the MUP main screen.

### 3.2.8.7 Help

This function opens the Help related to this window and functions in this window.

## 3.3 File Types

When working with the MUP software you will come across file of the following file extensions:

• \*.MUP

This is the file containing all the configuration parameters, excluding the Audio files. The \*.MUP file can be found in the same directory as ERAP.EXE and MUP.EXE, unless you have changed the location while saving or via the File/Options menu.

• \*.MP3

This is a music file, used in the Music System. The \*.MP3 file can be found in the same directory as ERAP.EXE and MUP.EXE, unless you have changed the location while saving or via the File/Options menu.

• \*.BIN

This is the extension of the software upgrade file. This file can only be uploaded into the Music System when directly connected via the RS-232. When connected via the network, the function is grayed out. The \*.BIN file can be found in the same directory as ERAP.EXE and MUP.EXE, unless you have changed the location while saving or via the File/Options menu.

• \*.MBU

This is the backup file that will be created when performing a Backup action in the MUP program. This file can be used to restore the information of the Music System after a crash or corruption of the information (use the Restore function). The \*.MBU file contains all the Music System configuration parameters and Audio files. The \*.MBU file can be found in the same directory as ERAP.EXE and MUP.EXE, unless you have changed the location while saving or via the File/Options menu.

• \*.MDB

This is the database with the device table data (information about the devices, Folders and Contacts). This file can be found in the same directory as ERAP.EXE and MUP.EXE.

#### Notes:

Should you want to transfer the complete device table to another computer with the installation of the MUP, copy the \*.MDB file.

The \*.MDB and \*.MBU files contain all the information needed to duplicate the complete installation of the current Music System, including the device table in the MUP.

# 3.4 IP-Remote Utility Program (E-RAP)

E-RAP, the IP-Remote Utility Program for the Music System is the utility used for remote programming of the Music System device(s). This utility uses the same database with device information as the MUP utility and therefore the device information has not to be inserted again.

The main window of E-RAP is shown below:



The E-RAP Main window contains a Menu Bar, Toolbar, Status bar and four panes, which are described below:

Left Pane	With Shortcut Menus to Device List, Tasks and Reports			
Middle Pane	With an overview of Task statuses or Root, Folder and Device information			
Right Pane	With a one-line report of the task(s) or device(s)			
Bottom Pane	With a real-time activity log of the tasks performed			

#### The Panes in the Main Window

The following function buttons can be pressed on the main window's toolbar, when the action is allowed:

Button	Function
	Create New Task
记	Create New Folder
	Create New Device
<b>E</b>	Edit Selection
×	Delete Selection

The following menu's can be accessed via the main screen:

Menu Item	Functions in Menu Item
File	New Folder, New Device, New Task, Exit
Edit	Delete, Edit
View	Toolbar, Status Bar, Shortcuts Menu
Help	Help Topics, About E-RAP

## 3.4.1 File Menu

The File menu contains the following functions:

Function	Description
New Folder	To create a new collection of devices related to each other (device group)
New Device	To create a new device in a folder
New Task	To define a task to be performed
Exit	To exit the program

#### 3.4.1.1 New Folder

To create a new folder:

- Click on the Device List in the left pane
- Click on File
- Click on New Folder

)evice	Contact
Folder Dutch contingent	Representative name
Device Name	Phone Ext.
	Mobile
Administrator Password	Fax.
Music System Version	E-mail
	Address
IP Address	City
	Zip Code
	State
	Country

- Fill in the name of the folder
- Click on OK

The new folder has now been created and the new device can be added to this folder.

#### Note:

For administrative purposes it is useful to fill in the contact information of the person responsible for this folder.

It is possible to add another folder as a subfolder.

### 3.4.1.2 New Device

To add a new device to a Folder:

- Click on Device List in the left pane
- Click on the required folder
- Click on File
- Click on New Device

evice	Contact
older Dutch contingent	Representative name
Device Name	Phone Ext.
	Mobile
Administrator Password	Fax.
Music System Version	E-mail
	Address
P Address	City
	Zip Code
	State
	Country

- Fill in the Device Name
- Fill in the Administrator's password (default 1234)
- Fill in the Music System version (optional, but advisable)
- Fill in the IP Address
- Fill in the complete contact information (optional, but advisable)
- Click on OK

Now the device has been added to the folder in the tree.

### 3.4.1.3 New Task

To create a new task:

- Click on New Task in the left pane
- Click on File
- Click on New Task

arget Devices	Task Execution
Browse to add target devices	Start 2/22/2003 - 9:19:32 PM
Folder - Sub Folder Device	Finish 9/23/2003 • 6:00:00 AM *
	Attempts number 3
	Task Actions
	Browse to add Actions
	No. Type Dest. File
otal number of target devices:	a
otal number of target devices: 0	

• Click on Browse to add target devices

Target Devices			×
<ul> <li>Root</li> <li>USA</li> <li>WewYork</li> <li>SanDiego</li> <li>Dutch contingent.</li> </ul>	> Fi	older	Device
OK Cancel	Help		

- Select the required device
- Click on the button to add the device to the selection
- Repeat the previous steps for all the required devices
- Click on OK

The device or devices have now been added to the Target Devices list.

- Insert the date and time for the start and finish of the Task Execution
- Add the number of attempts
- Click on Browse to add Actions

Task Actions	
Action Type MP3 File Configuration File Connection Test	Action Details         File name       Browse         (Re)places the MP3 file with Audio file number       00 🛫 in the Music System's Recordings List         Volume level of MP3 file       70 🛫         Comments
OK Cancel	Help

- Mark the required Action Type
  - MP3 File Update of the Audio Files to the Music System (browse for the required Audio file, insert the Audio File number to which it should be connected, insert the required volume and add comments)
  - Configuration File Update of the Configuration File (browse for the required configuration file (\*.MUP)
  - Connection test Test if there is a connection with the Music System
- Click on OK

Repeat the Task Action steps for all actions to be performed on the selected devices

• Click on OK to add the Task to the queue.

When the Task Execution takes place, the task is taken from the queue and executed. By clicking on the different Task statuses in the middle pane (see below).



Status information is shown in the right pane:

Folder/Device	Start T	End T	Perfor	Attemps	IP Address	F
🚯 Test device ·	21:19:	06:00:	21:19:	3	192.168.21.219	S

The bottom pane will show the real-time activity log of the tasks performed:

Date/Time	IP address	Operation
09/22/03 19:51:20		Idle State
09/22/03 21:40:20	192.168.21.219	Connecting MusicTel-E
09/22/03 21:40:20	192.168.21.219	Checking MusicTel-E Password
09/22/03 21:40:20	192.168.21.219	Sending Configuration file C:\Program Files\MUP\feest.mup
09/22/03 21:40:22	192.168.21.219	Disconnecting MusicTel-E
09/22/03 21:40:22		Idle State

### 3.4.1.4 Exit

To exit the E-RAP, IP-Remote Access Program:

- Click on File
- Click on Exit

The IP-Remote Access Program will now be closed.

## 3.4.2 Edit Menu

The Edit menu contains the following functions:

Function	Description
Delete	Delete a selected Folder or Device
Edit	Edit a selected Folder or Device

## 3.4.2.1 Delete

To delete a selected folder or device:

- Click on Device List in the left pane
- Click on the required folder or device
- Click on Edit
- Click on Delete



• Click on Yes

Now the folder or device has been deleted.

#### Note:

When deleting a folder, make sure the folder does not contain devices; otherwise you will get a warning that you cannot delete the folder.

Clicking on the device and clicking on de delete button will also give you the Confirm deletion window.

### 3.4.2.2 Edit

To edit a selected folder or device:

- Click on Device List in the left pane
- Click on the required folder or device
- Click on Edit
- Click on Edit
- Edit the Folder Details or Device Details
- Click on OK

Now the details have been edited.

## 3.4.3 View Menu

The View menu contains the following functions:

Function	Description
Toolbar	Show a row with buttons under the menus
Status Bar	Show status information at the bottom of the main screen
Shortcuts Menu	Show the left pane with action buttons

#### 3.4.3.1 Toolbar

To view the Toolbar:

- Click on View
- Click on Toolbar



The Toolbar function will be marked in the View menu. This will show a row with buttons under the menus.

### 3.4.3.2 Status Bar

To view the Status Bar:

- Click on View
- Click on Status Bar

#### For Help, press F1

NUM /

The Status Bar function will be marked in the View menu. This will show a row with status information at the bottom of the main screen.

## 3.4.3.3 Shortcuts Menu

To view the shortcuts menu:

- Click on View
- Click on Shortcuts Menu



The Shortcuts Menu will be marked in the View menu. This will show the action buttons in the left pane.

## 3.4.4 Help Menu

The Help menu contains the following functions:

Function	Description
Help Topics	The Help function in the E-RAP
About E-RAP	Version information about the E-RAP software

## 3.4.4.1 Help Topics

To go to Help:

- Click on Help
- Click on Help Topics

You will now be able to search in the Help module for the topics you need.

## 3.4.4.2 About E-RAP

By clicking on Help and then on About E-RAP, you will get the version information about the IP-Remote Access Program.

About E-R	AP	×
A	E-RAP Version 1.00	ОК
	ITS Telecom	
	Copyright (C) 2003	

## 3.4.5 Reports

By clicking on the Reports button in the left pane,



The Report window opens.

vevice List ⊡-⊡∰ Root	Report type	Device Details
<ul> <li>■</li> <li>■</li></ul>	C Device Report C Tasks Report Task Status All Tasks ▼ Time Period : Start 9/23/2003 ▼ 11:00:00 PM ★ Finish 9/24/2003 ▼ 7:22:13 PM ★ Task Details Task Files list	<ul> <li>All details</li> <li>Device IP address</li> <li>Device Password</li> <li>Address</li> <li>Address</li> <li>Representative name</li> <li>Representative E-Mail</li> <li>Representative Phone</li> <li>Representative Mobile</li> <li>Representative Fax</li> </ul>
	Cause of Failure	

In this window the following information is has to be filled in or marked:

- Mark the Root, Folder or Device for which you want the report
- Select the Report type
  - Device List Report information about the selected devices
  - Tasks Report information about the defined tasks, which tasks (in Task Status drop down menu) and Time Period (start and finish of the period)
- Mark the Task Details

- Task Files list (list of the files handled by the tasks)
- Cause of Failure (list of errors and reasons for it)
- Mark the Device Details which you want to have specified in the report
- Click on View Report

Now the report is opened in Notepad and can be saved, printed and edited.

• Click on close to close the Report window

# 4. MP3 File Size Calculation Table

The following table shows the Maximum available recording time per MP3 file type.

Mode	Bandwidth	Bit-rate	Quality	File size for	Maximum
				1 min. of	recording
				recording	time
				time	
Mono	8kHz	28 Kbit	low	181 Kb	2h 50 min
Mono	8kHz	48 Kbit	low	362 Kb	1h 40 min
Mono	16kHz	32 Kbit	medium	248 Kb	2h 10 min
Mono	16kHz	48 Kbit	medium	361 Kb	1h 40 min
Mono	16kHz	96 Kbit	medium	722 Kb	45 min
Mono	16kHz	128 Kbit	medium	963 Kb	32 min
Mono	22kHz	32 Kbit	good	248 Kb	2h 10 min
Mono	22kHz	48 Kbit	good	361 Kb	1h 40 min
Mono	22kHz	96 Kbit	good	722 Kb	45 min
Mono	22kHz	128 Kbit	good	963 Kb	32 min
Mono	44kHz	32 Kbit	good	248 Kb	2h 10 min
Mono	44kHz	48 Kbit	good	361 Kb	1h 40 min
Mono	44kHz	96 Kbit	excellent	722 Kb	45 min
Mono	44kHz	128 Kbit	excellent	962 Kb	32 min