



TLIF Telephone Paging Interface Programming Guide

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Introduction

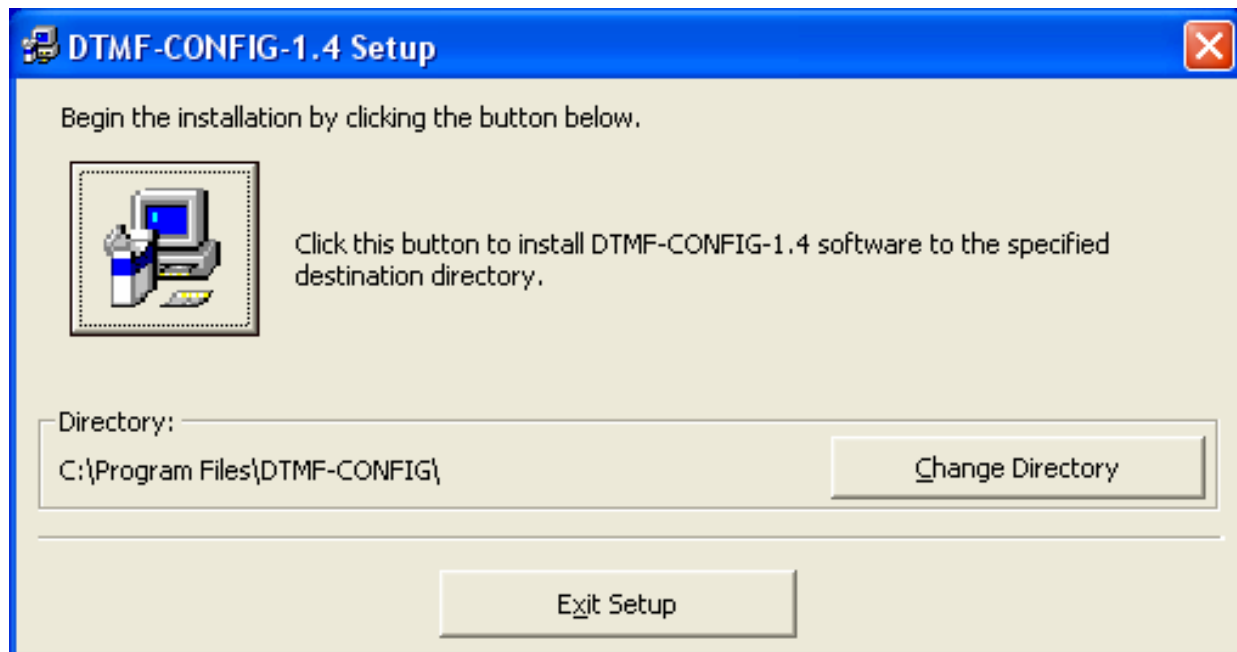
The TLIF Telephone Interface is an optional (pre-installed) module for use with the Connexions 3 range of Scope paging transmitters. It is designed to be connected to an analogue port of a PABX system to facilitate voice prompted paging via the internal telephone system. Simple voice prompts allow the user to send a numeric message, a pre-stored text message or a pre-stored text message with a numeric extension to a designated pager or groups of pagers.

The unit is pre-programmed with a default set of messages and settings. These can be easily edited on site via the unit's on board serial port using the supplied software package.

Installation

The required software is supplied on the accompanying CD. Insert the CD into the drive and navigate to the x:\xxx\Package1.4\ folder and double click the setup.exe file . (Where x:\xxx\ is the root drive and CD folder)

The following screen should appear:



The program can be installed into any location, but unless there is a good reason not to, it is recommended that the default file location is used. Click the install button and the required files will be installed.

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As well as the application software, two other files are automatically installed: a standard message file that is loaded upon software start up and a (chm) help file which can be accessed via the application software.

The software is now installed and ready to run.

Connecting

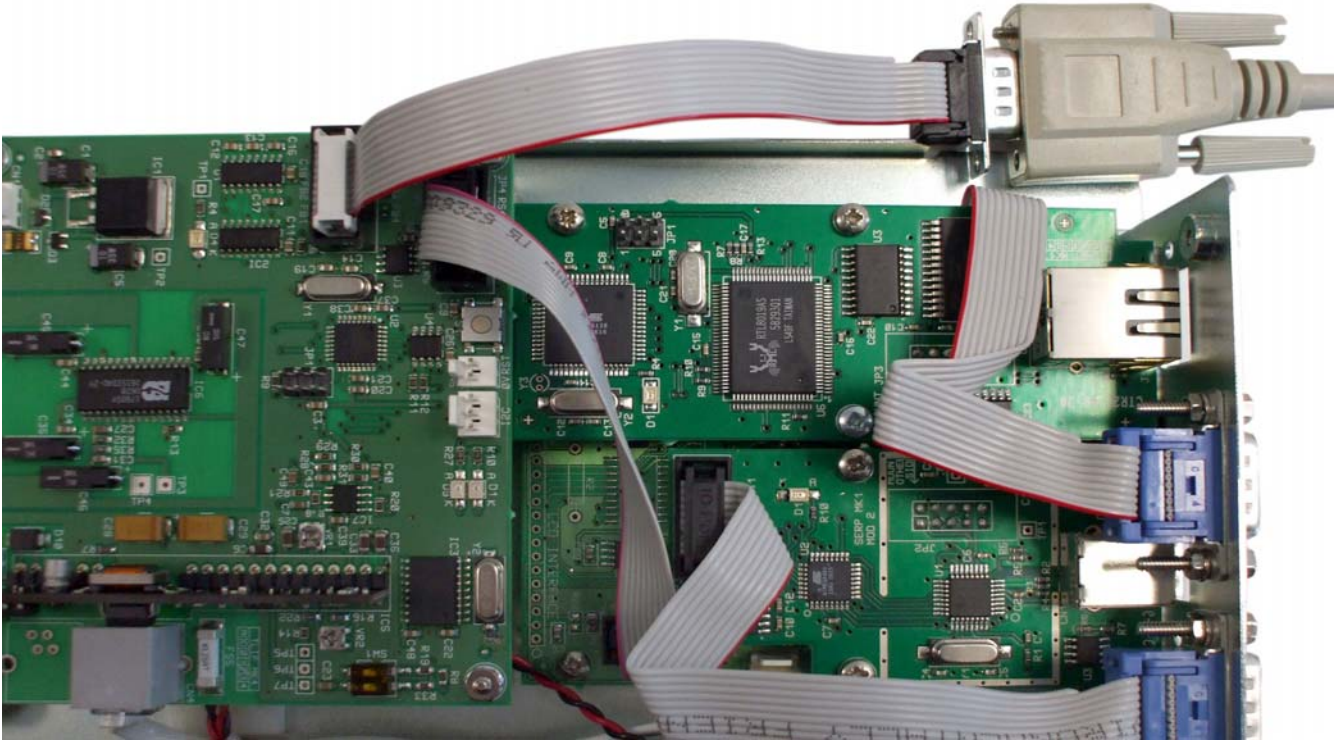
Hardware

The software connects to the TLIF board via the PC serial port and the supplied serial cable which is connected from the PC to the indicated port on the TLIF board inside the Connexions 3 housing. A 10 way header to serial port cable is supplied with the package as shown below.



Unplug the mains power cable from the Connexions 3, then loosen the four casing screws and lift off the cover. Connect the serial port cable via the cable shown above to JP3 on the TLIF board as shown below.

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Reconnect the mains power cable to restart the system.

Software

Enter the software via the Programs -> DTMF-CONFIG-1.4 menu.

Note: The default setting within the software is connected to Com port 1. If the software can connect through this port then it will automatically open the port and the traffic light symbol at the bottom of the application window will be green and indicate connection speed. If it cannot connect to Com port 1 the traffic light symbol will be red and the port will be shown as closed.

If the default Com port is open, the connect button will be enabled but will not be active until a Com port connection is established. The default file MSG1.tcf will automatically load on start up.

The application window should be similar to one as shown below:

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INDEX	BEEP TYPE	MESSAGE LIST
1	A	PLEASE PHONE
2	B	PLEASE PHONE RECEPTION
3	C	INTRUDER AT GATE
4	A	MEETING CANCELLED
5	A	FIRST AIDER REQUIRED
6	A	CUSTOMER ON HOLD
7	A	DELIVERY AT BAY
8	A	>FIRE< PLEASE LEAVE THE BUILDING
9	A	CANCEL THE LAST MESSAGE
10	A	YOUR TRIP HAS BEEN CANCELLED
11	A	MEETING SCHEDULED FOR
12	A	MEETING RESCHEDULED FOR
13	A	SWITCH ON MOBILE PHONE
14	A	CALL MOBILE PHONE
15	A	REPORT TO JOB SITE
16	A	CALL LAB

	FIRMWARE VER No. <input type="text" value="1.20"/>	NUM - RINGS <input type="text" value="2"/>	RS485 ADD <input type="text" value="0-MASTER"/>	BAUD-RATE <input type="text" value="F 1200"/>	NUMERIC PAGERS RANGE LOW <input type="text" value="0000"/>	ALPHA PAGERS RANGE LOW <input type="text" value="0001"/>
	No of MSGS : <input type="text" value="40"/>	TIME-OUT <input type="text" value="5 Secs"/>	DEF BEEP TYPE <input type="text" value="BEEP A"/>	BASE ID <input type="text" value="1000000"/>	RANGE HIGH <input type="text" value="0000"/>	RANGE HIGH <input type="text" value="9999"/>
	<input type="button" value="CLEAR MSG LIST"/>	<input type="button" value="CONNECT"/>	<input type="button" value="READ"/>		<input type="button" value="WRITE"/>	<input checked="" type="checkbox"/> DISABLED

COM PORT : 1 CLOSED	USER NAME : STEVEH	06 AUGUST 2007 11:09	System: Windows NT, ver. 5.01
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Note in this example the default file is loaded but the Com port is not connected.

To open the required Com port, select the settings menu then Comms. A window as shown below will appear. Select the required Com port and click OK. The software will now open the Com port selected.

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INDEX	BEEP TYPE	MESSAGE LIST
1	A	PLEASE PHONE
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4	A	MEETING CANCELLED
5	A	FIRST AIDER REQUIRED
6	A	CUSTOMER ON HOLD
7	A	DELIVERY AT BAY
8	A	>FIRE< PLEASE LEAVE THE B
9	A	CANCEL THE LAST MESSAGE
10	A	YOUR TRIP HAS BEEN CANCE
11	A	MEETING SCHEDULED FOR
12	A	MEETING RESCHEDULED FOR
13	A	SWITCH ON MOBILE PHONE
14	A	CALL MOBILE PHONE
15	A	REPORT TO JOB SITE
16	A	CALL LAB

COMM PORT SETTINGS

COMM PORT:

cope

FIRMWARE VER No. NUM - RINGS: RS485 ADD: BAUD-RATE:

No of MSGS : TIME-OUT: DEF BEEP TYPE: BASE ID:

NUMERIC PAGERS DISABLED ALPHA PAGERS DISABLE

COM PORT : 1 CLOSED USER NAME : STEVEH 06 AUGUST 2007 11:31 System: Windows NT, ver. 5.01

With Com port open:

INDEX	BEEP TYPE	MESSAGE LIST
1	A	PLEASE PHONE
2	B	PLEASE PHONE RECEPTION
3	C	INTRUDER AT GATE
4	A	MEETING CANCELLED
5	A	FIRST AIDER REQUIRED
6	A	CUSTOMER ON HOLD
7	A	DELIVERY AT BAY
8	A	>FIRE< PLEASE LEAVE THE BUILDING
9	A	CANCEL THE LAST MESSAGE
10	A	YOUR TRIP HAS BEEN CANCELLED
11	A	MEETING SCHEDULED FOR
12	A	MEETING RESCHEDULED FOR
13	A	SWITCH ON MOBILE PHONE
14	A	CALL MOBILE PHONE
15	A	REPORT TO JOB SITE
16	A	CALL LAB

cope

FIRMWARE VER No. NUM - RINGS: RS485 ADD: BAUD-RATE:

No of MSGS : TIME-OUT: DEF BEEP TYPE: BASE ID:

NUMERIC PAGERS DISABLED ALPHA PAGERS DISABLE

COM PORT : 2 9600 baud USER NAME : STEVEH 06 AUGUST 2007 11:31 System: Windows NT, ver. 5.01

Press the connect button and the software will connect to the device. When connected, the Read and Write buttons will be enabled and the connect button will be set to disconnect.

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Note: It is essential that the disconnect button is pressed before leaving the software. DO NOT disconnect the device before a disconnect operation is performed

INDEX	BEEP TYPE	MESSAGE LIST
1	A	PLEASE PHONE
2	B	PLEASE PHONE RECEPTION
3	C	INTRUDER AT GATE
4	A	MEETING CANCELLED
5	A	FIRST AIDER REQUIRED
6	A	CUSTOMER ON HOLD
7	A	DELIVERY AT BAY
8	A	>FIRE< PLEASE LEAVE THE BUILDING
9	A	CANCEL THE LAST MESSAGE
10	A	YOUR TRIP HAS BEEN CANCELLED
11	A	MEETING SCHEDULED FOR
12	A	MEETING RESCHEDULED FOR
13	A	SWITCH ON MOBILE PHONE
14	A	CALL MOBILE PHONE
15	A	REPORT TO JOB SITE
16	A	CALL LAB

FIRMWARE VER No. 1.20 **NUM - RINGS** 2 **RS485 ADD** 0 - MASTER **BAUD-RATE** F 1200
No of MSGS : 40 **TIME-OUT** 5 Secs **DEF BEEP TYPE** BEEP A **BASE ID** 1000000

 DISABLED **DISABLE**

NUMERIC PAGERS: RANGE LOW: 0000, RANGE HIGH: 0000
ALPHA PAGERS: RANGE LOW: 0001, RANGE HIGH: 9999

COM PORT : 2 9600 baud **USER NAME :** STEVEH **06 AUGUST 2007 11:31** **System:** Windows NT, ver. 5.01

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File Operations

File type for the application is xxx.tcf. Other file types will not be recognised or accepted by the software.

Standard Windows Open, Save and Print operations are accessed through the file menu.

Program Settings

The following values can be set via the software:

Messages

Messages can be edited by left clicking the mouse over the message to be edited which brings up the text edit window as shown below.

INDEX	BEEP TYPE	MESSAGE LIST
27	A	PLEASE PICK UP AT
28	A	PLEASE RETURN TO
29	A	PLEASE REPORT TO
30	A	URGENTLY CONTACT
31	A	YOUR VEHICLE IS BEING
32	A	
33	A	
34	A	
35	A	
36	A	PLEASE CHECK THE CAR PARK
37	A	
38	A	
39	A	
40	A	
41	A	THIS IS THE LAST TEST

	FIRMWARE VER No. <input type="text" value="1.20"/>	NUM - RINGS <input type="text" value="2"/>	RS485 ADD <input type="text" value="0 - MASTER"/>	BAUD-RATE <input type="text" value="F 1200"/>	NUMERIC PAGERS	ALPHA PAGERS
	No of MSGS : <input type="text" value="41"/>	TIME-OUT <input type="text" value="5 Secs"/>	DEF BEEP TYPE <input type="text" value="BEEP A"/>	BASE ID <input type="text" value="1000000"/>	RANGE LOW <input type="text" value="0000"/>	RANGE LOW <input type="text" value="0001"/>
	<input type="button" value="CLEAR MSG LIST"/>				RANGE HIGH <input type="text" value="0000"/>	RANGE HIGH <input type="text" value="9999"/>
	<input type="button" value="DISCONNECT"/>	<input type="button" value="READ"/>		<input type="button" value="WRITE"/>	<input checked="" type="checkbox"/> DISABLED	<input type="checkbox"/> DISABLE

COM PORT : 2 9600 baud USER NAME : STEVEH 06 AUGUST 2007 11:31 System: Windows NT, ver. 5.01

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Messages can be added, deleted or edited as required. Message text is limited to 100 Chars. To add a message: set the message number to the last in the list, type in your message and click the Save button.

To delete a message: select the required message number and press the Delete button

To edit a message: select the required message number, edit the text and press the Save button.

To cancel any operation Press the Cancel button

The message list can be cleared by pressing the CLR MSG LIST button

Any changes are implemented in the screen when either Save or Cancel is pressed.

Telephone

NUM-RINGS = Number of rings before the TILF will answer a call. This can be configured between 1 – 5 rings, as required. Default value = 1.

TIME-OUT = Time at which the TILF will finish the call if no activity is detected. This does not include the message length and can be set between 5 – 9 secs. This timer is reset every time a Dtmf (key) tone is detected. Default value is 5 secs.

RS485 ADD = Network address of the board if used in conjunction with other TILF boards. If only 1 board exists **IT SHOULD ALWAYS BE SET AS ADD 0 MASTER AND THE MASTER BOARD MUST BE CONNECTED TO THE CONX9 BOARD.**

If networked boards are required they are configured at assembly and normally there would be no need to change this parameter.

Pager

DEF BEEP TYPE = Each message has an associated beep type. If no beep type is detected, then this is the value that is used. Default value = Beep A.

BAUD RATE = Baud rate of transmitted message. Must be set to same value as programmed in the pagers. Default value = 512 Bps.

BASE ID = Base pager address from which logical pager addresses are calculated via the pager range values. Pager address = Base id + (8 * logical address). The minimum is 0000008 and the max value is 2,000000. An error will be generated if the Base ID and any logical address calculation violates these parameters. Default value = 0100000.

PAGER RANGES = Both alpha and numeric pager ranges can be configured as required. Each pager type can be disabled allowing the full range for either alpha pagers or numeric pagers. Both ranges cannot be disabled at the same time.

Note a file Save must be performed in order for the changes to be permanently saved

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Misc

The firmware version is a read only parameter that indicates the firmware version within the TLIF board and should be quoted if any technical support is required.

Read/Write Device Settings

Once all the required parameters are configured and set, the device can now be programmed with the data.

To write to the device click the Write button and the software should send the data as shown below:

The screenshot shows the TLIF-PROGRAMMER software interface. A dialog box titled "DATA TRANSACTION" with the text "TRANSFERING DATA..." is overlaid on the message list. The message list contains 14 entries with indices 27 through 41. The interface also includes a settings panel with various configuration options and a status bar at the bottom.

INDEX	BEEP TYPE	MESSAGE LIST
27	A	PLEASE PICK UP AT
28	A	PLEASE RETURN TO
29	A	PLEASE REPORT TO
30	A	URGENTLY CONTACT
31	A	YOUR VEHICLE IS READY
32	A	PLEASE PHONE THE B
33	A	PLEASE CHECK THE CA
34	A	MANAGER REQUIRED A
35	A	KEYHOLDER REQUIRED
36	A	YOUR TAXI IS HERE
37	A	SECURITY REQUIRED
38	A	REPORT TO KITCHEN
39	A	THIS IS A TEST MESSA
40	A	EMERGENCY
41	A	THIS IS THE LAST TEST

Settings Panel:

- FIRMWARE VER No.: 1.20
- NUM - RINGS: 2
- RS485 ADD: 0 - MASTER
- BAUD-RATE: F 1200
- No of MSGS: 41
- TIME-OUT: 5 Secs
- DEF BEEP TYPE: BEEP A
- BASE ID: 1000000
- NUMERIC PAGERS: RANGE LOW: 0000, RANGE HIGH: 0000, [x] DISABLED
- ALPHA PAGERS: RANGE LOW: 0001, RANGE HIGH: 9999, [] DISABLE

Status Bar:

- COM PORT : 2 9600 baud
- USER NAME : STEVEH
- 06 AUGUST 2007 11:31
- System: Windows NT, ver. 5.01

The progress window indicates the state of the data transfer and will clear on completion. Do not attempt any other processes while the data transfer is taking place as this could produce unanticipated results.

To read back the device parameters, press the read button and the window will be as above. The message list will fill depending on the number of messages programmed in to the device.

Appendix A

Error Messages

SERIAL TIME OUT OCCURRED

Reason:

This indicates that the software has tried to connect to a TLIF board upon first opening and cannot connect, although the Com port is open.

Action:

Check the Com port connection and that power is applied to the TLIF board and press CONNECT.

NOT CONNECTED TO DTMF BOARD

Reason:

A connection was established but can no longer be detected when clicking the Read/Write Button.

Action:

Check the Com port connection and that power is applied to the TLIF board and press CONNECT.

INVALID PORT NUMBER

Reason:

An invalid Com port number was selected.

Action:

Check the Com port number setting and ensure the PC port exists.

NUMERIC PAGER RANGE LOW CHARACTERS ARE NOT NUMBERS OR NUMERIC PAGER RANGE HIGH CHARACTERS ARE NOT NUMBERS OR ALPHA PAGER RANGE LOW CHARACTERS ARE NOT NUMBERS OR ALPHA PAGER RANGE HIGH CHARACTERS ARE NOT NUMBERS

Reason:

Numeric/Alpha pager range values should be Decimal numbers only.

Action:

Retype the correct values into the required text box.

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NUMERIC PAGER RANGE LOW HIGHER THAN NUMERIC PAGER RANGE HIGH OR NUMERIC PAGER RANGE LOW EQUAL TO NUMERIC PAGER RANGE HIGH

Reason:

Numeric pager range low values should be Decimal numbers and lower than Numeric pager range High values

Action:

Retype the correct values into the required text box

ALPHA PAGER RANGE LOW HIGHER THAN ALPHA PAGER RANGE HIGH OR ALPHA PAGER RANGE LOW EQUAL TO ALPHA PAGER RANGE HIGH

Reason:

Alpha pager range low values should be Decimal numbers and lower than Alpha pager range High values.

Action:

Retype the correct values into the required text box.

ALPHA PAGER RANGE CONFLICTS WITH NUMERIC PAGER RANGE

Reason:

Numeric/Alpha Pager range values are overlapping.

Action:

Retype the correct values into the required text box.

NUMBER OF CHARACTERS IN BASE ID ERROR

Reason:

Base ID must be 7 characters long.

Action:

Retype the correct values into the required text box.

BASE ID NUMBER INVALID

Reason:

Base ID must be less than 2,000000.

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Action:

Retype the correct values into the required text box.

BASE ID MUST BE GREATER THAN 7

Reason:

Base ID min value must be 8.

Action:

Retype the correct values into the required text box.

PAGER ADDRESSES ARE NOT ALLOWED

Reason:

Base ID in combination with the pager range addresses violates Max values or overlaps into Pager range addresses which are reserved.

Action:

Retype the correct values into the required text box.
