

Linx Windows RCI Utility with Ethernet Connectivity



Using the Linx Windows RCI Utility

1.1 Introduction

The Windows RCI Utility is a GUI (Graphic User Interface) making the use of a lower level program to send RCI commands to the printer. The utility is a useful tool to view the data sent to the printer and to monitor the responses from the printer. Once installed, three folders are created, msg, rpl and rpy. The msg folder contains command files which have been created using the msg Viewer and Editor, a very brief description is contained within each command file dialog, for a full explanation see chapter 2 “Sending Data to the Printer” in the RCI manual. There are two other folders which are initially empty, rpl contains the unformatted printer reply and rpy contains the formatted reply. The rpl and rpy files are for functionality only and are not intended to be used directly.

1.2 Programme Screens.

On starting the package the user is presented with the following screens as shown in Fig 1.1. On the left is the main operating screen while on the right is the filename.msg Viewer and Editor.

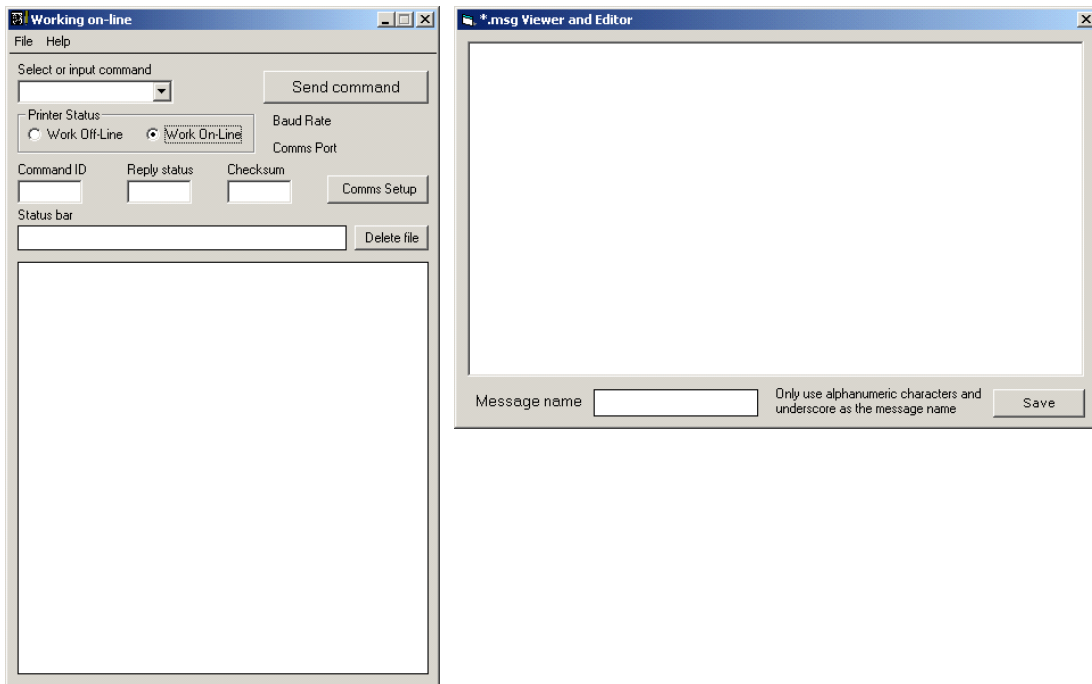


Figure 1.1 Programme Screens

A brief explanation of the screen content is as follows:

Select or Input Command

The drop down menu contains commands to be sent to the printer.

Linx Windows RCI Utility with Ethernet Connectivity



Reformatted Reply/Send Command

Depending on whether printer status is set to “Work Off-Line” or “Work On-Line“ the user selects this to either display reformatted files already created (Reformatted reply) or sends the command to the printer (Send command).

Command ID

Returns the command ID sent.

Reply Status

Returns either an ACK or NAK depending on whether the command sent was successful or not.

Status Bar

If a NAK was received the relevant error will be displayed otherwise the transmission time is given. Note, the transmission time is not given for TCP/IP comms.

Comms Setup

On selecting “Working On-Line”, this option becomes available.

Message Name

Once a command has been created or edited the user has the option to re-name the file before it is saved, if a new message has been created it will be added to the drop down Command list. If the user selects an existing file to be saved then a warning is given that the action will overwrite the original file, select “Yes” to overwrite.

Delete File

This option allows the user to delete selected files; a warning will be given if a root command is selected.

1.3 Setting Up the Comms Configuration

On initial startup the program is configured to work off line, if the user selects “Work On-Line, the Comms Setup button becomes available, on selecting the Comms Setup button a screen is displayed as shown in Fig 1.2.

Linx Windows RCI Utility with Ethernet Connectivity

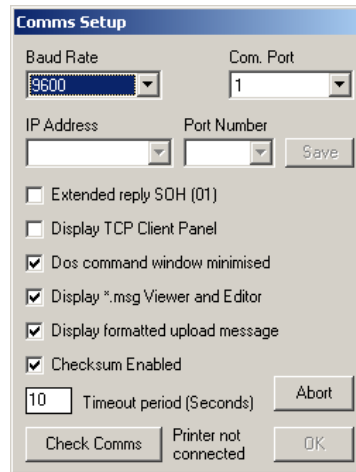


Figure 1.2 Comms Setup

Once the comms are setup the main screen will display the Baud Rate and the Comm port.

Baud Rate

The baud rate can be set from 4800 to 115200 and must match the connected printer's baud rate.

Com Port

Allows the selection of available Comm ports on the PC it also allows the user to select TCP/IP for Ethernet connection.

IP Address

Set the IP Address for the TCP/IP connection.

Port Number

Set the Port Number for the TCP/IP connection.

Extended Reply SOH (01)

If extended reply option is selected, the reply will then include the error mask and print count parameters.

Display TCP Client Panel

Either display or hide the TCP/IP activity panel. The dropdown list allows the user to increase the time delay allowed to display data returned from the printer, this is only applicable when large amounts of data is expected i.e. CMD026, "Upload Message Data". It is also possible to test the connection from this panel.

DOS Command Window

Either Minimise or Maximise the command prompt window. Note, this will not appear if TCP/IP is selected.

Linx Windows RCI Utility with Ethernet Connectivity



Display *.msg Viewer and Editor

Displayed by default, this option will close the window pane if not required

Timeout Period

Default value set at 20s, this requires increasing if, for example the user needs to upload very large amounts of data e.g. CMD022 "Upload Data Sets"

Display Formatted Uploaded Message

This relates to CMD026 only, when uploading messages these will be formatted and a description of the code is displayed.

Checksum Enabled

Allow the user to select the option of switching checksum on/off to match that of the printer

1.4 Selecting a Command

When the Select or input command list box is opened the full list of filenames (.msg files) are displayed as shown in Fig 1.3.

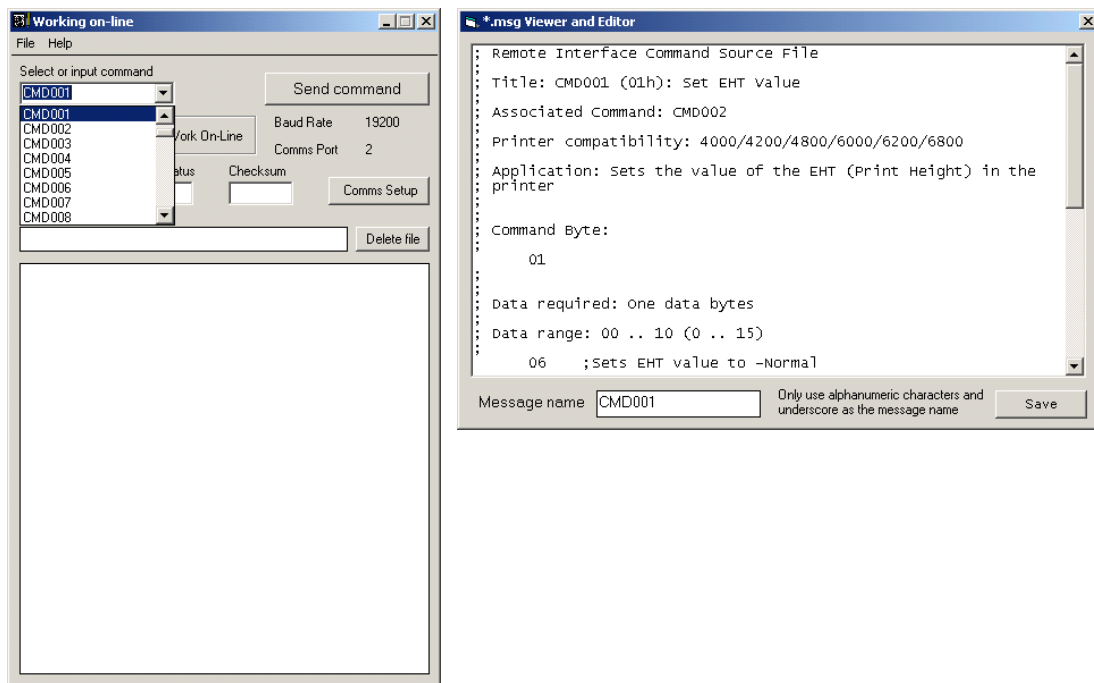


Figure 1.3 Selecting a Command

The required command is selected and depending on whether the user has chosen "Work Off-Line" or "Work On-Line" determines the legend on the Reformatted Reply or the Send Command, the latter sends the command to the printer via the selected connection.

Linx Windows RCI Utility with Ethernet Connectivity



Once a command has been selected the dialog for that selection is displayed in the Viewer window, very brief details are given and where appropriate a sample value is given to send to the printer, for example in Fig 4, “CMD01”, Set EHT Value with the parameter set to normal, is sent upon selection of Send Command

1.5 Displayed Replies

Once the Send command button is selected the user is presented with one of the main screens as shown below.

In Fig 1.4 CMD001 was sent and a positive reply was received, i.e. the command was accepted. In the reply the Command ID was 01_H, the Reply Status was ACK (06), the Checksum was F6 and the transmission time is shown as 0.00 seconds, which can be expected for a short command sent at 19200 Baud. The lower pane shows the formatted reply from the printer.

Note, the transmission time is not displayed for a TCP/IP connection.

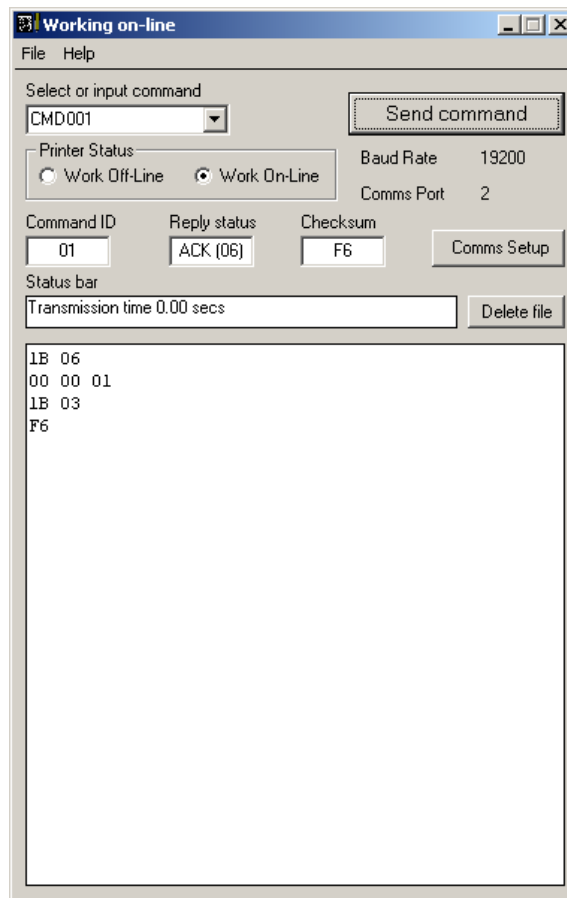


Figure 1.4 Positive

Printer Reply

In Fig 1.5 CMD036 was sent which is a reserved command and the printer rejected this command. Therefore the reply Command ID was 00_H, the Reply Status was NAK (15), the Checksum was D7 and the error message was “Invalid command”. Again the formatted printer reply is shown in the bottom pane.

Linx Windows RCI Utility with Ethernet Connectivity

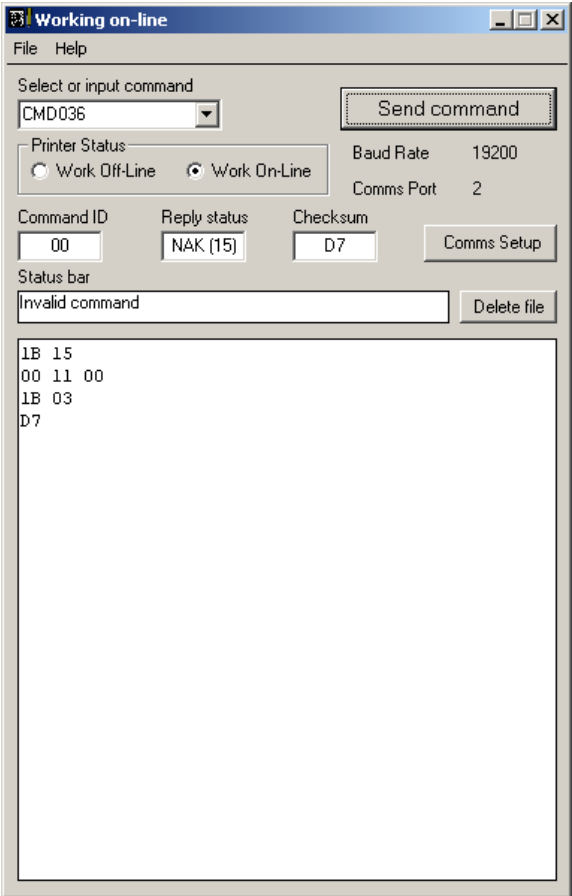


Figure 1.5 Negative

Printer Reply

1.6 Menu Bar

On the menu bar there are two options, File and Help.

File

Within the File menu option there are four sub options

Copy Text to Editor

This will transfer the text from the main window to the Viewer and Editor window ready to be edited. The message name is also cleared ready for the user to input a name and save it.

Print Editor

Selecting this option will print the contents of the Editor Screen

Linx Windows RCI Utility with Ethernet Connectivity



Print Main Text

Selecting this option will print the contents of Main Text

Exit

Selecting Exit will exit the program

Help

Within the heading Help there is one option, "About". Selecting About will give details of the program and contact details for Linx

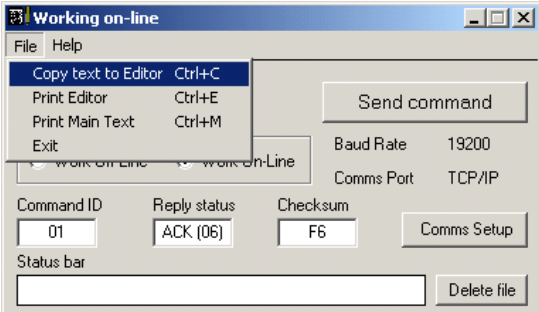


Figure 1.6 Menu Options

Linx Windows RCI Utility with Ethernet Connectivity



1.7 Worked Example

In this example a message will be uploaded from the printer, the command ID to download the message (command ID 25_D) will be added and then the message will be transferred to a second (similar) printer.

Initialise the program and choose the option “Work On-Line” and connect to the selected printer. Select CMD026 (Upload Message Data) see Figure 1.7 then click the “Send Command” button.

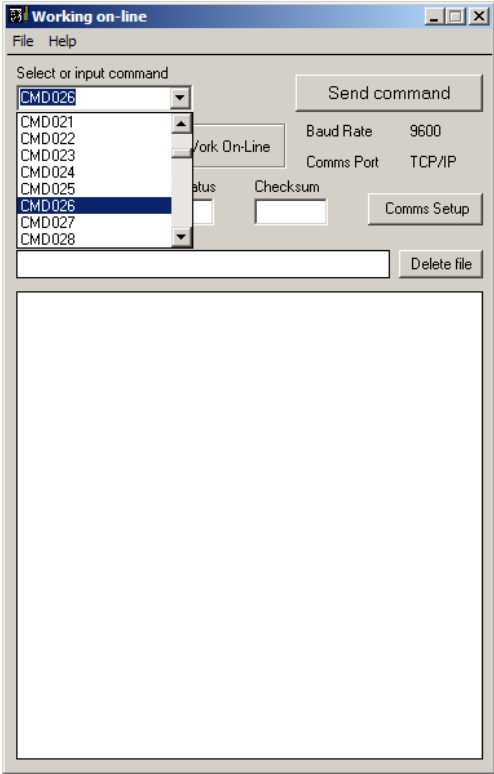


Figure 1.7 Selecting a Command

On instigating this command the data returned from the printer will be displayed on the Main window and the formatted data will be displayed on the Editor window. See Figure 1.8.

Linx Windows RCI Utility with Ethernet Connectivity

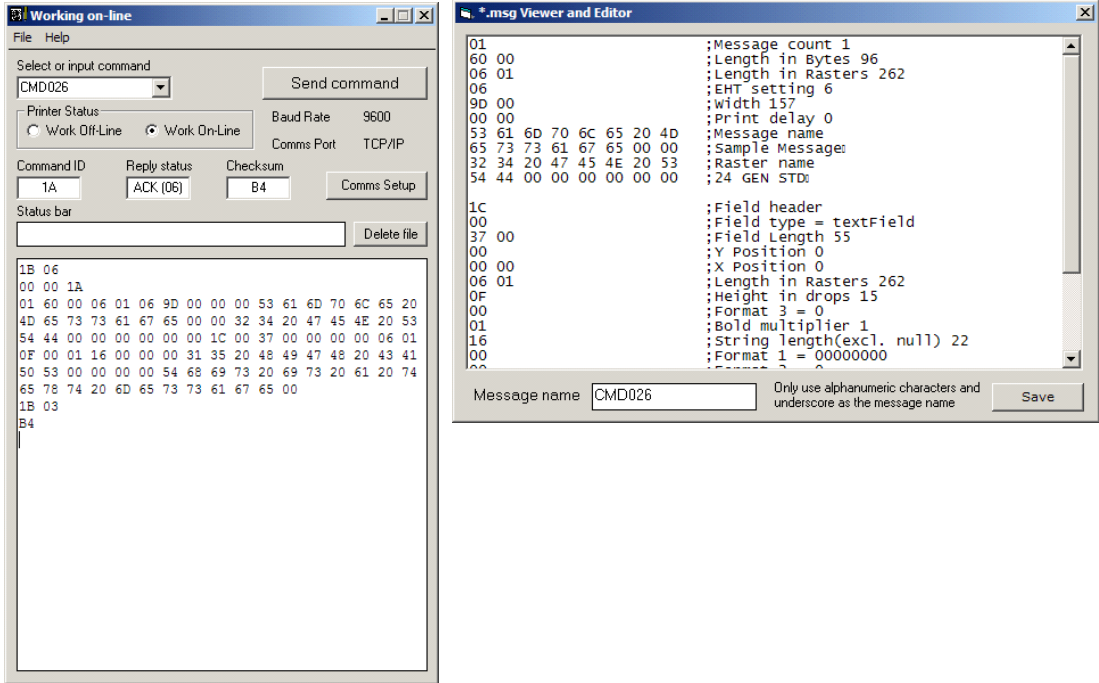


Figure 1.8 Data Returned From Printer

Place cursor at the top left hand corner of the Viewer and Editor window and add Command 25 (19_H). Once this is done rename the message name (in this case “Download”) and save the new file. If the name is a duplicate a warning will be given asking the user if it is ok to override the original file. The saved file with the added command ID is shown in Figure 1.9.

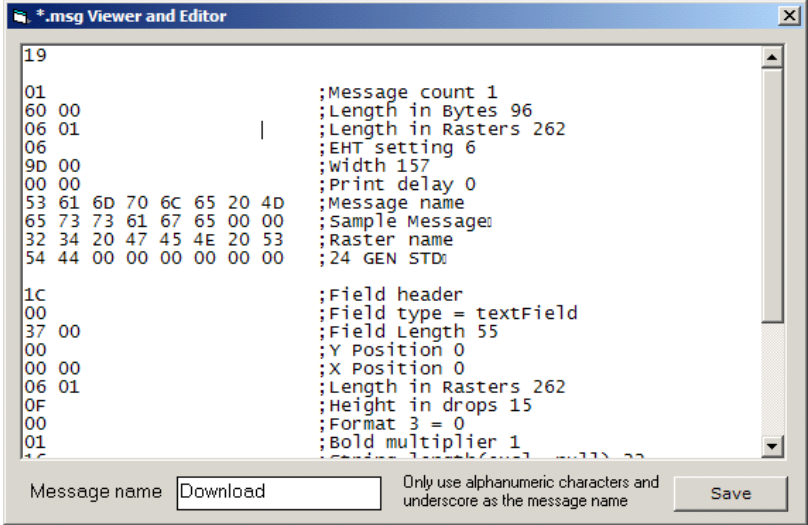


Figure 1.9 Modified Saved Command File

Linx Windows RCI Utility with Ethernet Connectivity



Connect the PC to another printer and once again go through the procedure of setting the correct communication parameters and testing for active connection.

On the main window select the newly “Download” file. See Figure 1.10.

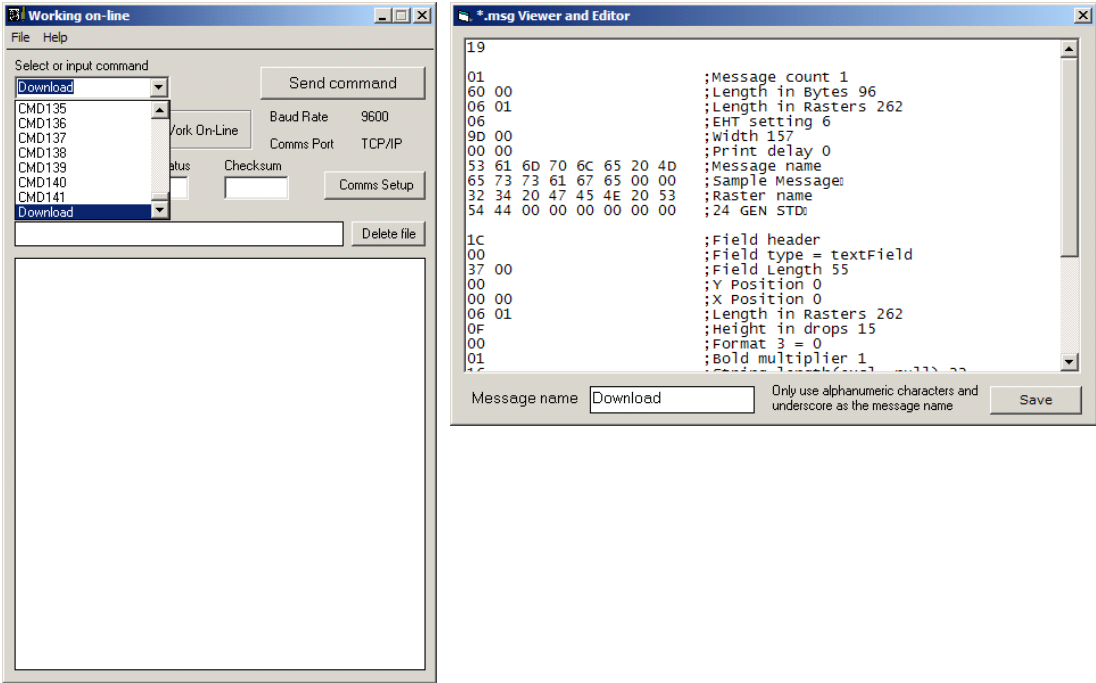


Figure 1.10 Sending the New Command to Printer

This message will now be downloaded to the printer unless a message with the same name exists in which case a “Duplicate Message” error will be displayed on the Status Bar.