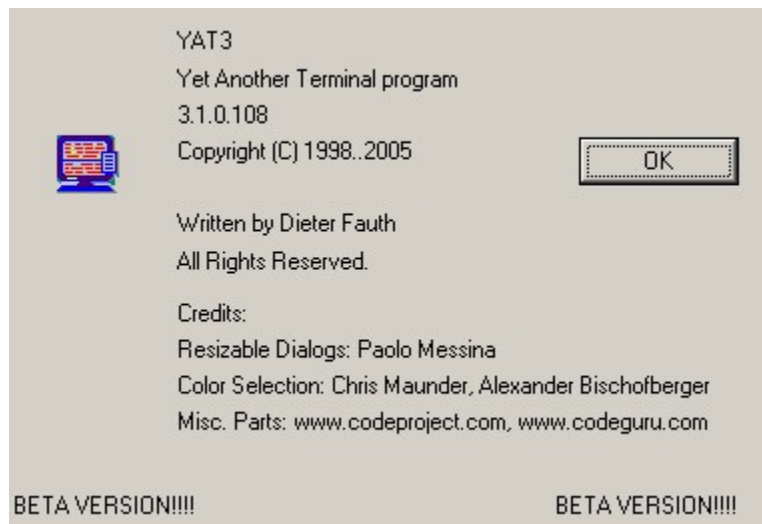


# YAT3

# Tutorial



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Last revision of this document: 2005-08-01

# 1 Overview

## Revision History

2005.05.18    Start and far from being complete.  
2005.07.30    Updated for build 108

# Contents:

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1 Overview.....	2
2 Installation.....	4
2.1 Requirements.....	4
2.2 Goodies.....	4
3 First steps.....	5
4 The screen objects explained.....	7
4.1 Toolbar Standard.....	8
4.2 Toolbar Parameters.....	8
4.3 Toolbar Ports.....	9
4.4 Stringbar.....	9
4.5 Statusbar.....	9
5 Display settings.....	10
5.1 Non-printable characters.....	10
5.2 Translate incoming CR to CRLF.....	10
5.3 Mask to 7 Bit.....	10
5.4 Color.....	10
6 String Buttons.....	12
6.1 Access strings from the menu.....	13
7 Command Center.....	14
7.1 Setup of the Command Center.....	14
8 Spy mode.....	16
9 Format of the string file.....	17
10 FAQ.....	18

## 2 Installation

Usually you get the terminal program yat3 packed into an .zip archive. The file name looks like the example below:

Yat3\_3\_1\_0\_108\_rel.zip

The 108 in this example is the build number and will be increased for any new release.

Now unzip that file into a directory of your choice. A good place might be "[c:\program files\yat3](#)".

Now you can start the program yat3.exe.

For your convenience you can create a link from your desktop, start menu or quickstart menu.

### 2.1 Requirements

Yat3 runs with Win2000 and XP. It also runs with Win98 and ME, but there are some issues when you unplug a USB device.

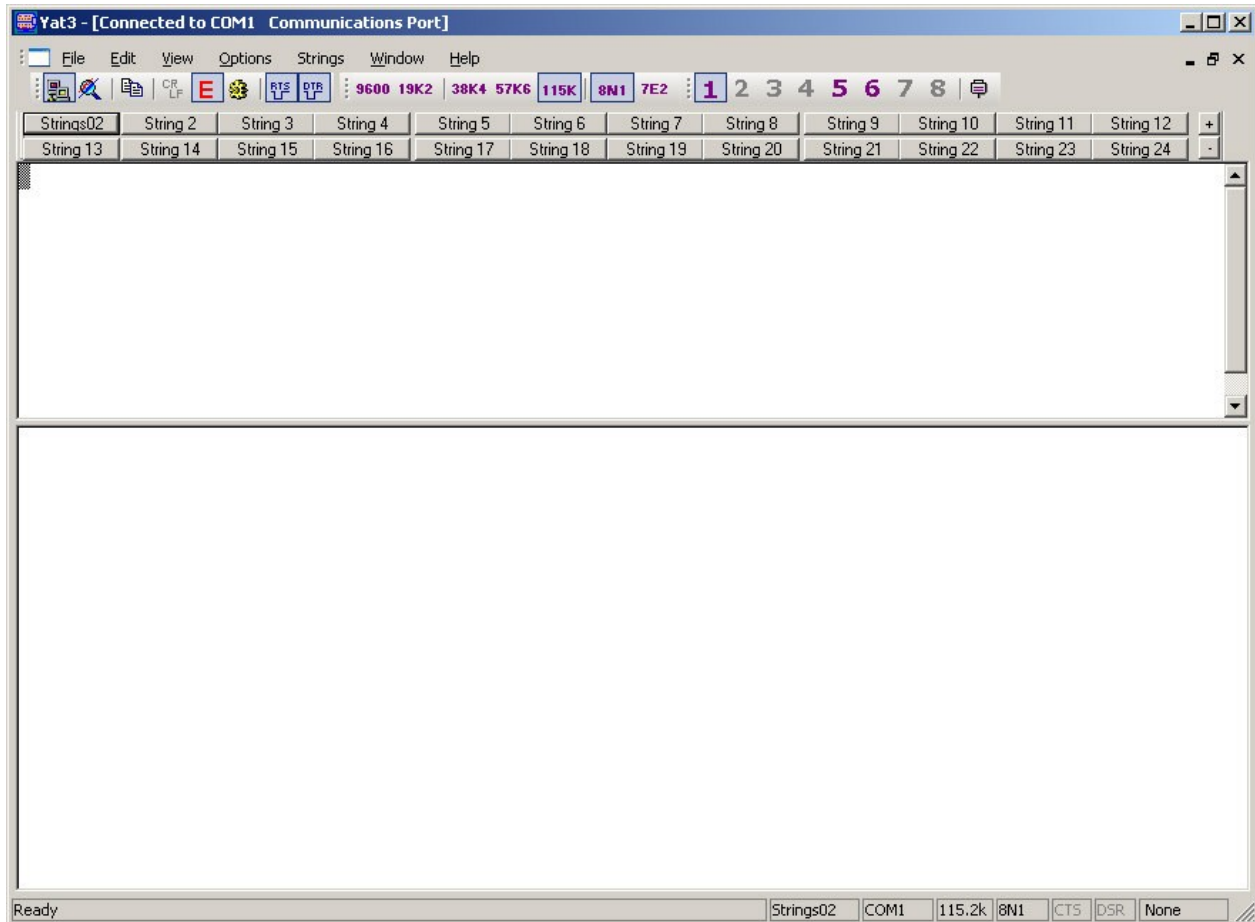
### 2.2 Goodies

The archive contains the file qv.yas. If you are working with barcode scanners from Hand Held Products, then this file can setup the command center to emulate the command center of the program QuickView.

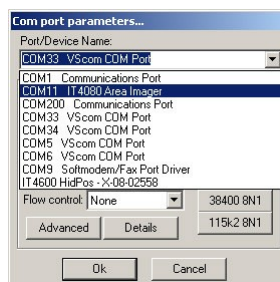
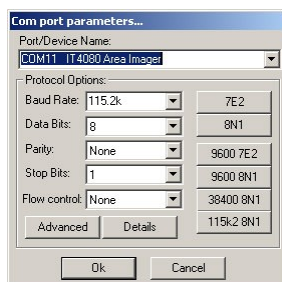
Go to menu String/Import... and import that file.


## 3 First steps

After you start yat3, you should see a window similar to the one below. With smaller screen resolutions (800x600) it might not look that nice. In that case, re-arrange the windows and toolbars as you like. Yat3 will remember your settings next time.



Some PC's do not have a COM1 port. In that case the first start complains about the missing port and you get this dialog. Then select a valid port or device from the dropdown box, adjust baudrate etc. to your needs and click OK.



You can always call this dialog with that button in the toolbar: 

For a quick change of the communication parameters there are some nice buttons on the toolbar.

If you need to send strings and commands, familiarize yourself with the stringbar the the command center. They offer a flexible and powerful way to send strings the fast way.

## 4 The screen objects explained

The screenshot shows the Yat3 software window titled "Yat3 - [Connected to COM3 IT4600 Area Imager]". The interface includes a menu bar (File, Edit, View, Option, Strings, Window, Help), a toolbar with icons for file operations and communication settings, and a main display area. The main display area is divided into three sections: a string selection bar at the top, a text input/output area in the middle, and a hexdump area at the bottom. The string selection bar contains buttons labeled "Hello", "Interface?", "String 3", "String 4", "String 5", "String 6", "String 7", "String 8", "String 9", "String 10", "String 11", "String 12", "String 13", "String 14", "String 15", "String 16", "String 17", "String 18", "String 19", "String 20", "String 21", "String 22", "String 23", and "String 24". The text input/output area shows the command "\x16m\x0D" and the response "TERMID?.TERMID130\x06.\x0D". The hexdump area displays a table of hexadecimal values for transmitted and received data. The status bar at the bottom shows the current connection details: "Ready", "Hello", "COM3", "115.2k", "8N1", "CTS", "DSR", and "None".

Stringbar contains programmable buttons to send strings

Toolbar for various settings

Toolbar to select baud rate and other communication parameters in a fast way

Toolbar to select ComPorts in a fast way

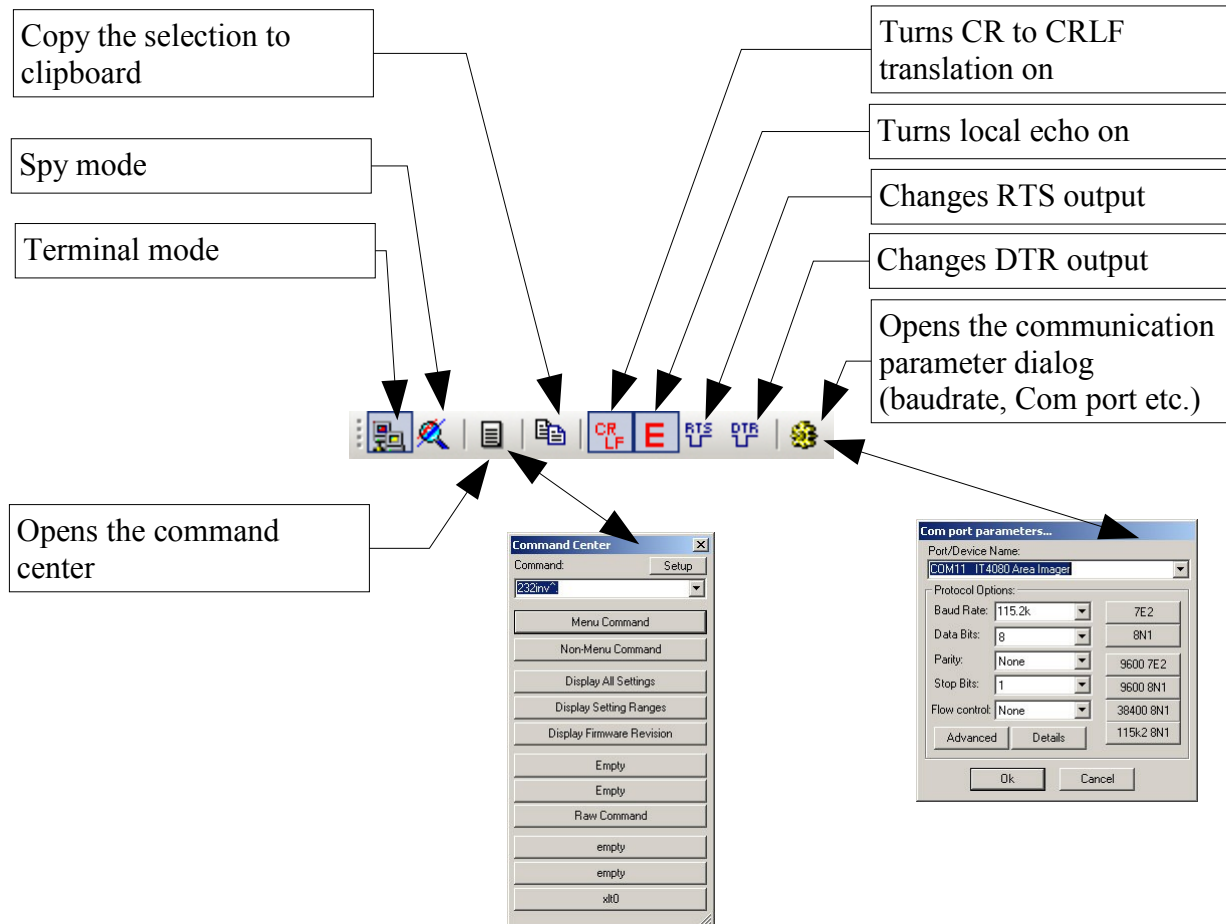
Status bar shows details about the connection

Hexdump of the received and transmitted characters

The received and transmitted characters

Address	Transmitted (Hex)	Received (Hex)
000000	16 6D 0D 54 45 52 4D 49	44 3F 2E 54 45 52 4D 49
000010	44 31 33 30 06 2E 0D 34	30 31 30 39 39 35 30 30
000020	35 36 39 36 0D 16 6D 0D	54 45 52 4D 49 44 3F 2E
000030	54 45 52 4D 49 44 31 33	30 06 2E 0D

## 4.1 Toolbar Standard



## 4.2 Toolbar Parameters

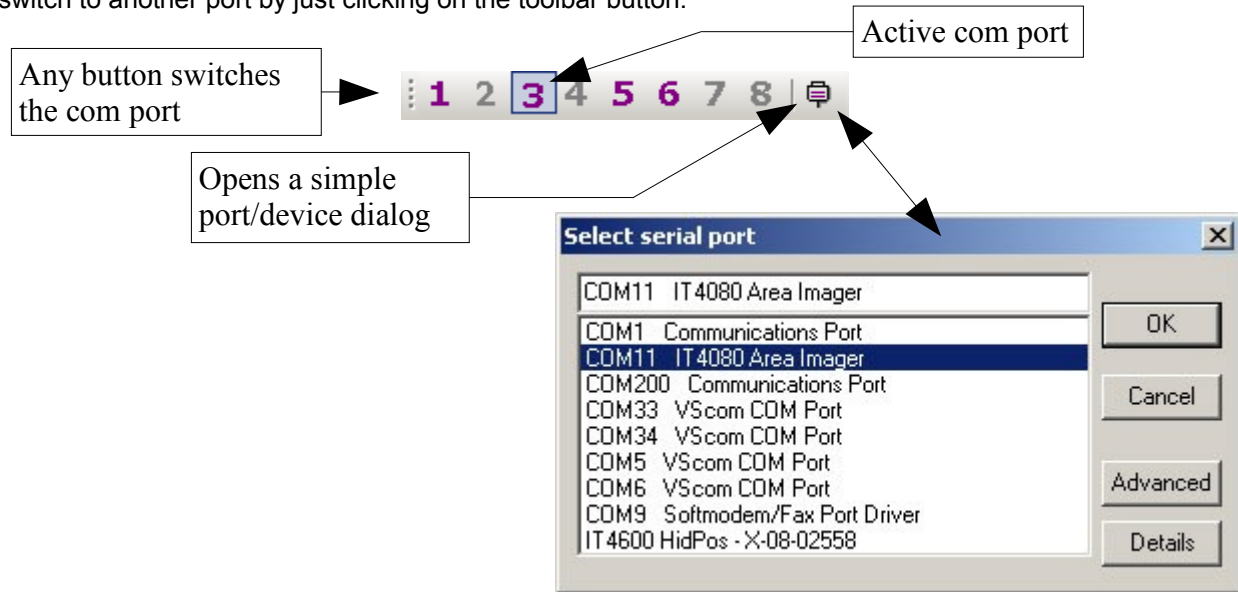
This toolbar shows and changes the communication parameters in a quick way.





## 4.3 Toolbar Ports

This toolbar shows the available ports (limited to 1..8). Ports that are not available are grayed out. You can switch to another port by just clicking on the toolbar button.

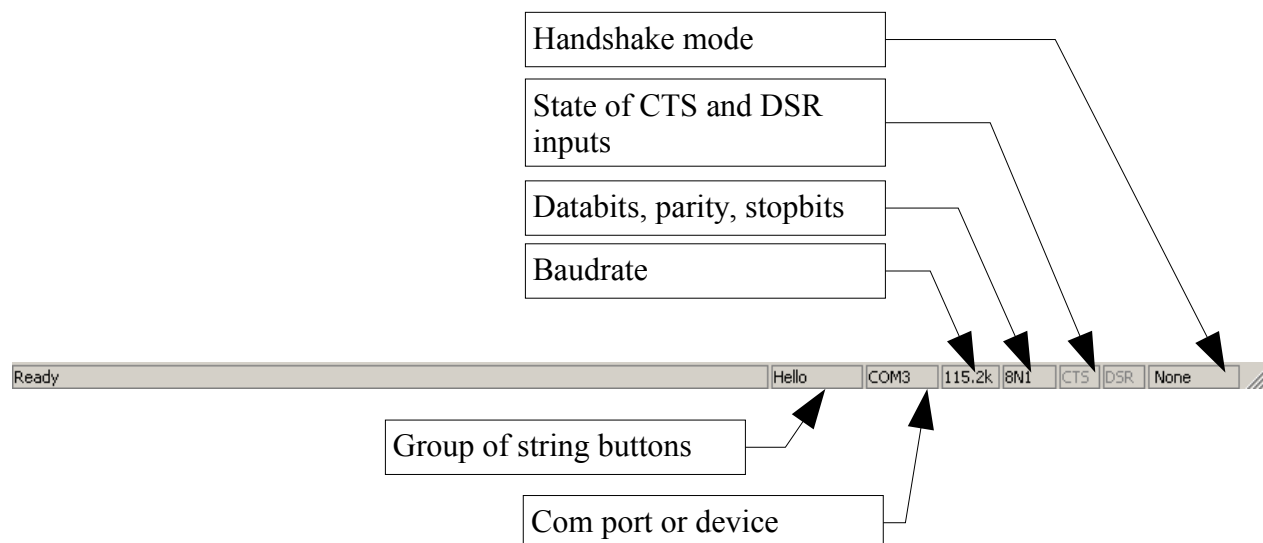


## 4.4 Stringbar

The stringbar has its own chapter, please see details there.

Hello	Interface?	String 3	String 4	String 5	String 6	String 7	String 8	String 9	String 10	String 11	String 12	+
String 13	String 14	String 15	String 16	String 17	String 18	String 19	String 20	String 21	String 22	String 23	String 24	-

## 4.5 Statusbar



## 5 Display settings

This chapter describes the options you have for showing certain objects on the screen.  
All settings are stored to the registry at program exit.

### 5.1 Non-printable characters

You have three option to show the non-printable characters (aka control characters):

- Any control character is shown with a leading caret sign and an uppercase character.  
Example: a 02 (STX) is shown as ^B.  
Screenshot:

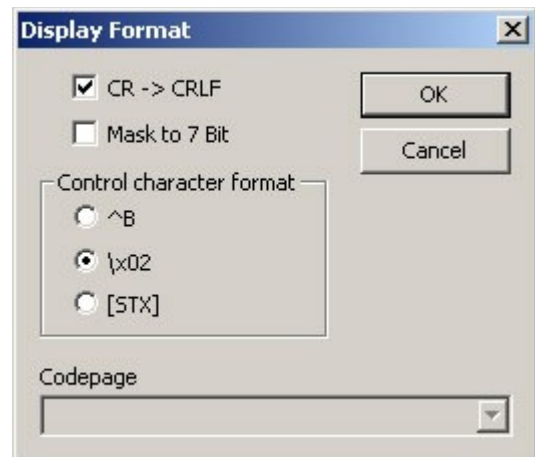
```
^Vm^M
TERMID?.TERMID131^F.
```

- Any control character is shown in C-Notation.  
Example: a 02 (STX) is shown as \x02  
Screenshot:

```
\x16m\x0D
TERMID?.TERMID131\x06.
```

- Any control character is shown with its name and in brackets.  
Example: a 02 (STX) is shown as [STX].  
Screenshot:

```
[SYN]m[ CR]
TERMID?.TERMID131[ACK].
```



You find this setting in the menu under View/Display Formats...

### 5.2 Translate incoming CR to CRLF

This allows to see incoming text in separate lines after a CR is received.

### 5.3 Mask to 7 Bit

This removes the bit7 from any received characters.

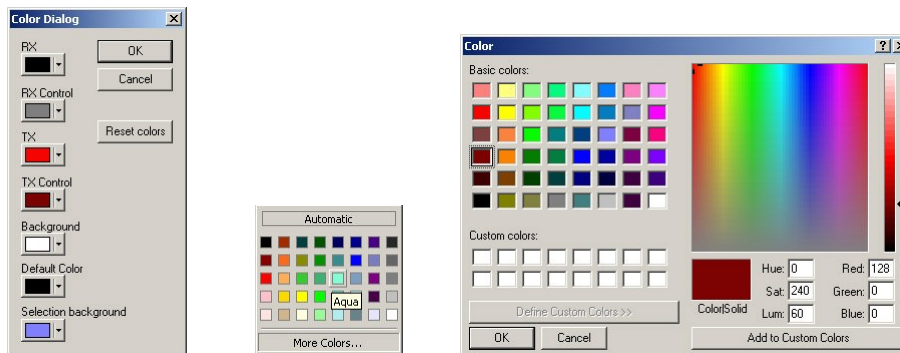
### 5.4 Color

You can change the color of certain objects:

- Printable characters transmitted
- Printable characters received

- Non-printable characters transmitted
- Non-printable characters received
- The background
- Background for the selection
- Any other characters

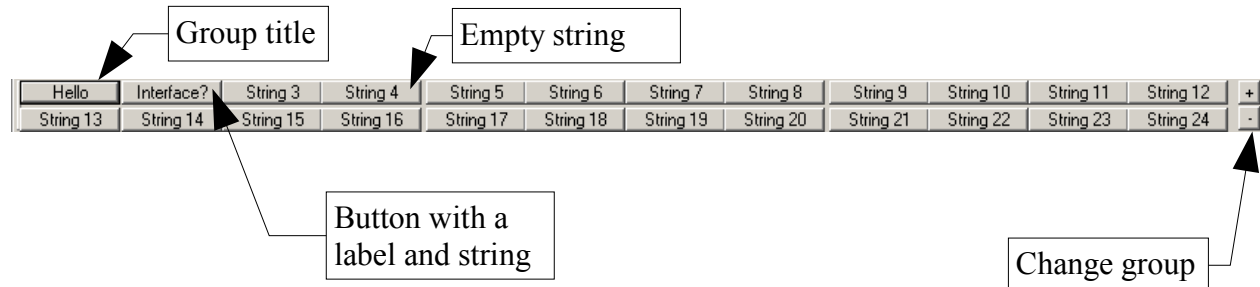
You find this setting in the menu under View/Color...



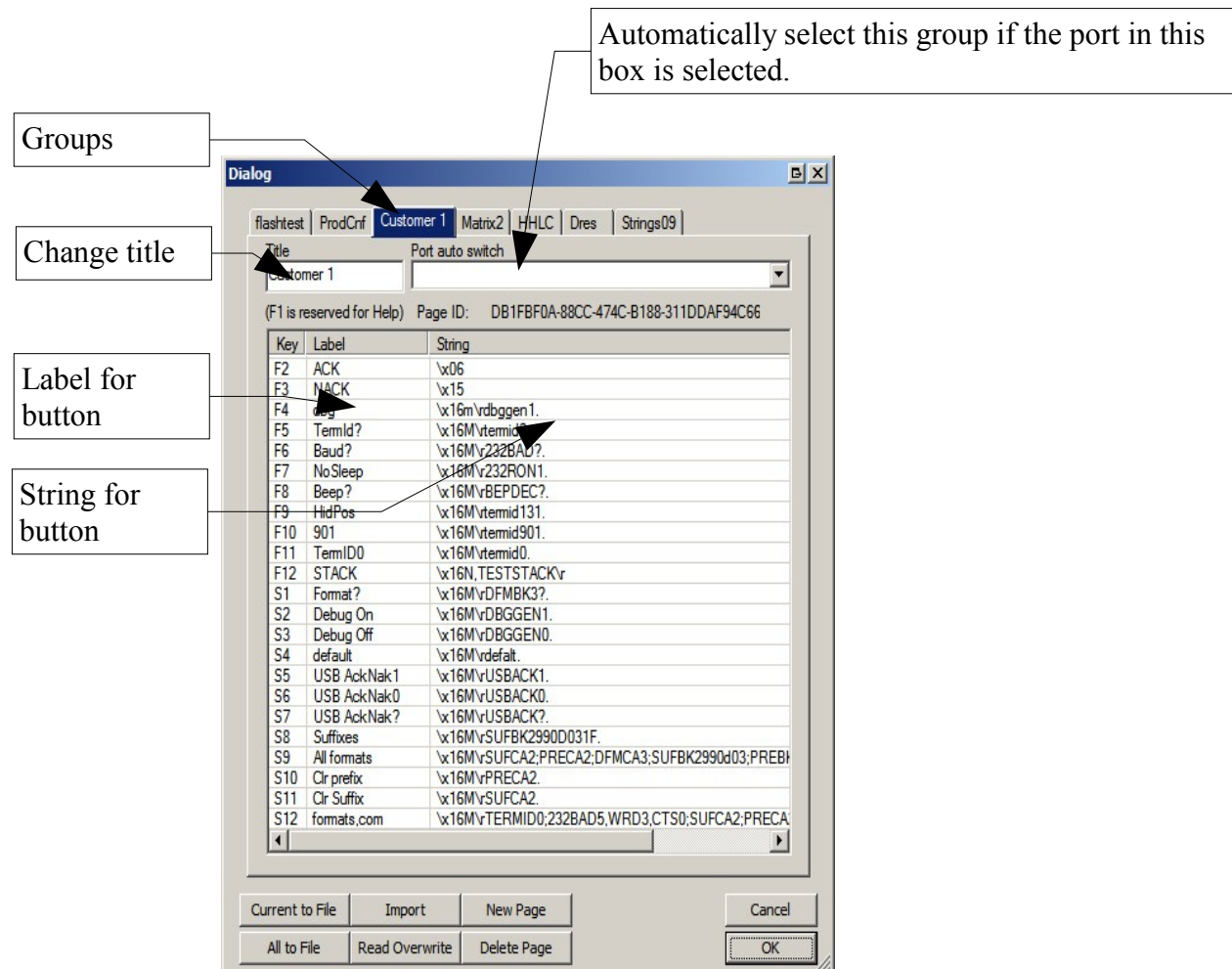
## 6 String Buttons

The stringbar has 10 times 23 buttons that can be programmed with a string that gets send when you click that button or hit its associated function key.

The F1 is not used to keep it free for the help function. Its position in the stringbar is used for the title of the group. See the text Hello in the screenshot below.



If you right click on any button a dialog to change the buttons pops up. You can enter non-printable characters in the C-notation (\x15 or \r, \n, \t).



There are also some options to store the settings to a file or retrieve it from a file:

- **Current to File:**  
Writes the currently visible strings page to a file.
- **All to File:**  
Writes all string pages to a file.
- **Import:**  
Imports string pages from a file. Existing data is not affected, all file contents goes to new string pages.
- **Read Overwrite:**  
Deletes all contents and then reads from the file.
- **New Page:**  
Adds a new empty string page.
- **Delete Page:**  
Delete the currently show string page.

See chapter 9 for details about the file format.

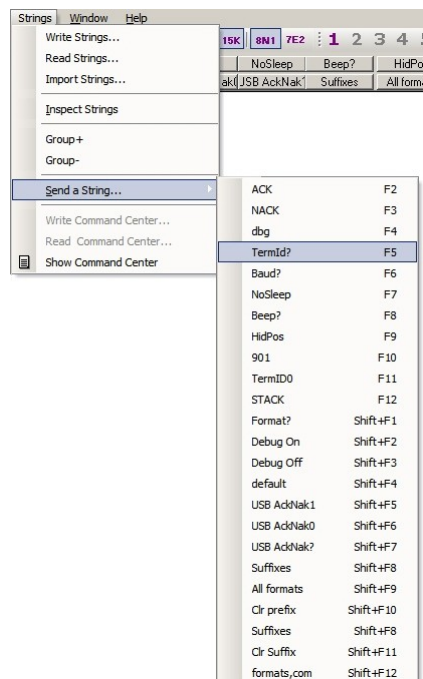
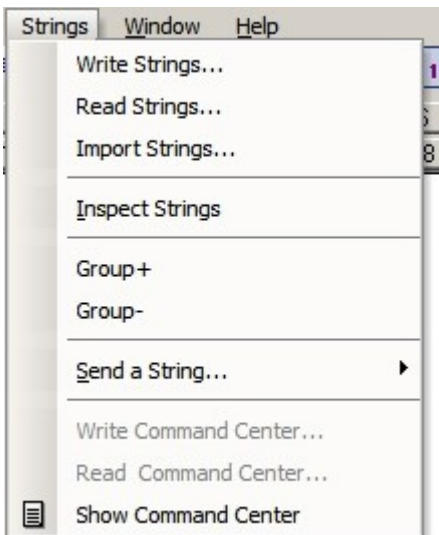
## 6.1 Access strings from the menu

The menu strings also contains the stings and groups. There you can also save your strings to a text file.

Read reads all strings from a file and overwrites anything with the file contents.

Import only overwrites strings if the file contains a non-empty string for that button.

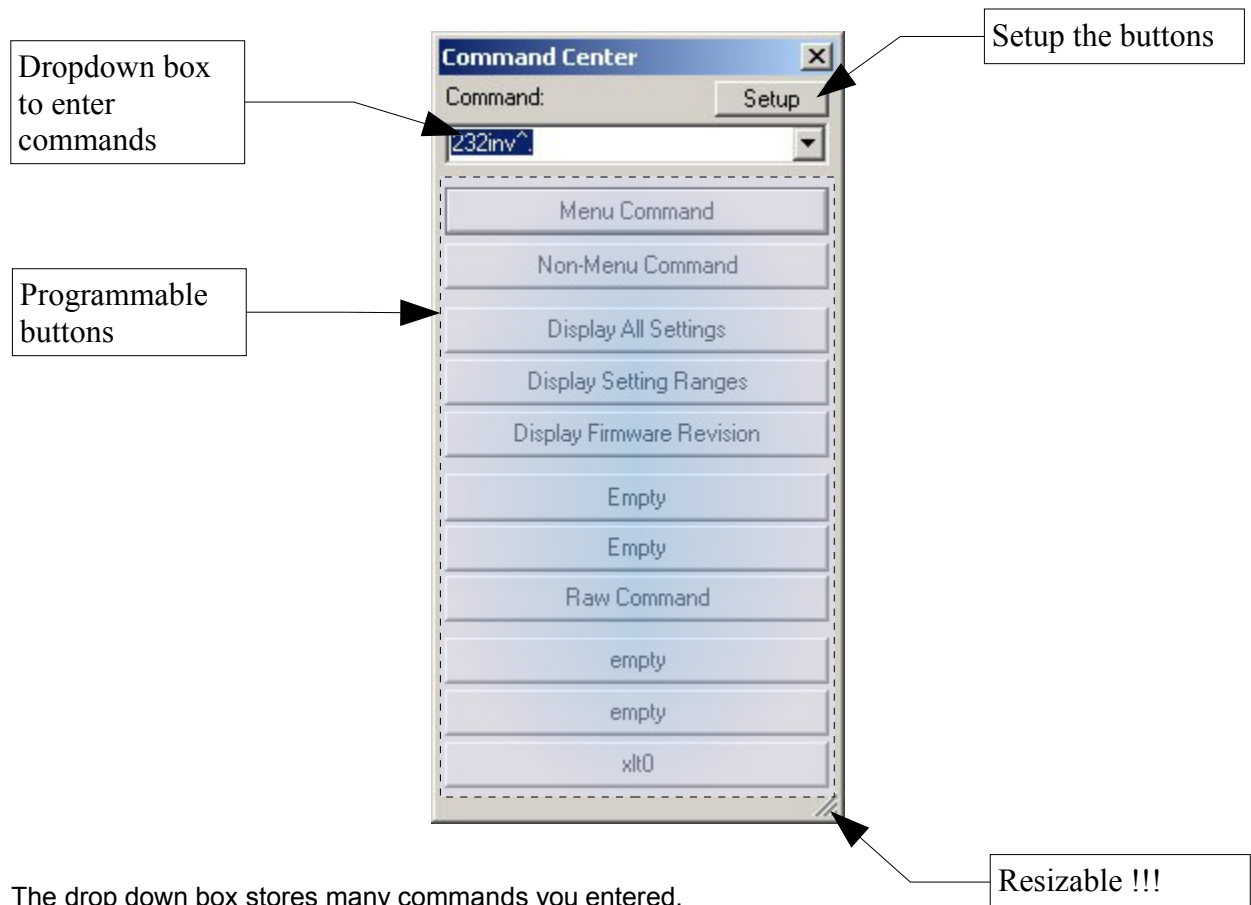
All settings are stored to the registry at program exit.



## 7 Command Center

The command center serve a similar wish as the stringbar, but it is better suited for quick changes within a command set. It combines several strings together before they are sent. The screenshot shows an example that emulates the command center of the program QuickView from Hand Held Products, Inc.

You can reach it from the menu View/Command center... or from the toolbar.



The drop down box stores many commands you entered.

### 7.1 Setup of the Command Center

The command center forms the final string from the prefix, the command and the postfix fields. If the command field is empty, the current contents from the drop down box is used.

Final string = Prefix + Command + Postfix

or

Final string = Prefix + Drop down box + Postfix

All settings are stored to the registry at program exit.

Label for  
button

**Command Setup**

To use drop downbox, keep command empty

Label	PreFix	Command	PostFix
menu command	\x16m\r		
non-menu comm...	\x16n,		\r
display all settings	\x16m\r	?	
display setting ra...	\x16m\r	*	
display firmware ...	\x16m\r	rev?	
p config	\x16y\r	rptsta.	
empty			
raw command			
empty			
empty			
xlt0	\x16y\r	ecixlt0.	

◀ ▶

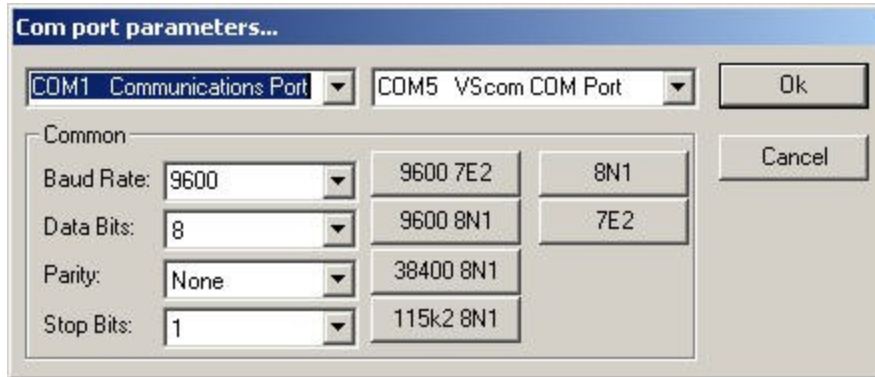
To File From File Cancel OK

## 8 Spy mode

The spy mode can be used to watch a communication between two devices. You will probably need some homemade cable to connect the RX-Input of two ports to your communication under test.

More TBD.

The setup dialog changes so you can select two ports:



Spy mode works quite well, but please note that the PC is not a real time system. It cannot be guaranteed that the order of the characters in the display is the same as the physical order. There are FIFOs and other buffers involved.

But give it a try, it might work nicely for you as it does in most cases.



## 9 Format of the string file

The format is a simple text file. All white spaces (space and tab) are ignored after the equal sign.

You can remove lines as you wish, yat3 just reads what is there. That allows for some flexibility until I have implemented some tool functions for that (ideas welcome!).

```
;YAT, StringVersion=3

;-----
Group01Title    =Hello
Group01Port     =

Group01String02= \x16m\rTERMIN?.
Group01Label 02= Interface?
Group01String03=
Group01Label 03=
....
and so on in this group...
;-----
Group02Title    =Strings02
Group02Port     =

Group02String02=
Group02Label 02=
....
and so on with all groups...
Now the command center:
;-----
CmdCntrString 00=
CmdCntrLabel  00=  Menu Command
CmdCntrPreFix 00=  \x16m\r
CmdCntrPostFix00=
CmdCntrString 01=
CmdCntrLabel  01=  Non-Menu Command
CmdCntrPreFix 01=  \x16n,
CmdCntrPostFix01=  \r
CmdCntrString 02=  ?.
CmdCntrLabel  02=  Display All Settings
CmdCntrPreFix 02=  \x16m\r
CmdCntrPostFix02=
and so on with all buttons for the command center...
;YAT end of file
```

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# 10 FAQ