ShellTerm

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COLLABORATORS

	TITLE : ShellTerm		
ACTION	*NAME*	*DATE*	*SIGNATURE*
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REVISION HISTORY

NUMBER	DATE	DESCRIPTION	NAME

Contents

Chapter 1

ShellTerm

1.1   ShellTerm table of contents

31/07/1993 ShellTerm 1.25

Contents

1.2   archive

This archive must include the following files:

File Description

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ShellTerm/ShellTerm - the program itself

ShellTerm/ShellTerm.guide - program documents

ShellTerm/ShellTerm.guide.info - icon file

ShellTerm/WatchPort - WatchPort program by Klaus

Seistrup

ShellTerm/Scripts/ST - StartUp script, part I

ShellTerm/Scripts/ShellTerm-StartUp - StartUp script, part II

ShellTerm/Scripts.info - icon file

ShellTerm.info - icon file

1.3   doc_version

Updated: 05/08-92 - for version 1.01

Updated: 06/08-92 - for version 1.02

Updated: 08/08-92 - for version 1.03

Updated: 11/08-92 - for version 1.04

Updated: 14/08-92 - for version 1.05

Updated: 28/08-92 - for version 1.06

Updated: 30/08-92 - for version 1.07

Updated: 04/09-92 - for version 1.08

Updated: 06/09-92 - for version 1.09

Updated: 20/10-92 - for version 1.10

Updated: 13/11-92 - for version 1.11

Updated: 01/01-93 - for version 1.12

Updated: 02/01-93 - for version 1.13

Updated: 06/02-93 - for version 1.14

Updated: 10/02-93 - for version 1.15

Updated: 24/03-93 - for version 1.16

Updated: 25/03-93 - for version 1.17

Updated: 22/05-93 - for version 1.18

Updated: 27/05-93 - for version 1.19

Updated: 23/06-93 - for version 1.20

Updated: 05/07-93 - for version 1.23

Updated: 31/07-93 - for version 1.25

1.4   copyright

COPYRIGHT INFORMATION

Copyright (C) Tomi Blinnikka 1993, All Rights Reserved

This program is SHAREWARE. This means that you can copy it and give it

to all your friends, upload it to a BBS or include it in a PD-library

(FISH etc.). BUT (!!!) if you use this program frequently you must

pay $5 - $10. The other restrictions are: all of the files must be

included in their original form without additions, deletions, or

modifications of any kind and it IS NOT TO BE SOLD. THIS INCLUDES

GERMAN PD DEALERS. If you wish to use this program for commercial

purposes, you need written permission. The ShellTerm program is

provided "AS IS" without warranty of any kind, and the author is not

responsible for any damage this software may or may not do.

The ShellTerm archive can be spread via Fred Fish and Walnut Creek CDROMs.

JrComm is (C) Copyright John P. Radigan

CB is Copyright (c) 1990 by William J. Fritz

WatchPort is (C) Copyright Klaus Seistrup

UNIX is a registered trademark of AT&T

All copyrights and trademarks that the author is aware

of are mentioned. Others not mentioned here may exist.

1.5   What does ShellTerm do?

WHAT DOES IT DO?

This is a simple terminal program that runs in a CLI/Shell window. Its

primary use is with dumb terminals hooked up to an AUX-handler. This is

the reason ShellTerm doesn't open a window or screen. It uses standard

input and output. I use it as a substitute for JrComm (Copyright John

P. Radigan) when I'm using my dumb terminal (it's next to my bed... that

explains most of the stupid mistakes in these docs :) and want to call

a BBS without having to get out of bed and walk over to my Amiga.

1.6   What do You need to run ShellTerm

WHAT DO YOU NEED?

You'll need an Amiga computer (see compatibility list), with Kickstart

2.04 (version 37 or higher). Basically you'll also want a HAYES compatible

modem or some other piece of equipment connected to the device you specify.

1.7   What ShellTerm runs on

COMPATIBILITY

ShellTerm will work on any Commodore Amiga, running on Kickstart

2.04 or higher. This includes the following: A500(+), A600, A1000, A1200,

A2000, A2500/20, A2500/30, A3000 (16 MHz or 25 Mhz model), A4000/40,

A4000/30. The program SHOULD work on any upgrades (based on the Amiga

Development Guidelines, see Amiga ROM Kernel Reference Manual (Release 2):

Includes and Autodocs, introduction). ShellTerm works with all internal

modems (I have a Supra 2400zi) and extra serial boards that support the

normal device commands (I also have the A2232 serial board, but I missed

a bug with it on versions under 1.16 :).

1.8   Installing ShellTerm

INSTALLING SHELLTERM

Unpack the archive somewhere and copy the files wherever you wish, but the

following is recommended:

Filename Where to copy

===

ShellTerm C:

WatchPort C:

Scripts/ST S:

Scripts/ShellTerm-StartUp S:

ShellTerm.guide Wherever (Guide: prefered)

ShellTerm.guide.info Wherever (Guide: prefered)

If for some reason the flags of the files in the directory ShellTerm/Scripts

are not '-s--rwed', set them with the command 'Protect ShellTerm/Scripts/#?

SWERD'.

1.9   How to start ShellTerm

HOW TO RUN IT

You can run the program from a CLI/SHELL/etc. but you can't hang an icon on

it and start it from the Workbench. I decided to drop the Workbench startup

code to make the program a little bit smaller.

To run the program, enter the following into your CLI/SHELL/etc.

1> ShellTerm FROM [FILENAME] PORT [NAME]

FROM specifies the preferences file to load and use.

PORT specifies a name for the user port to open. See Hints & tips 8.

You cannot, however, redirect input to the program, i.e. ShellTerm <NIL:

won't work. RUNning is also out of the question and will give the same

error text as redirecting.

Or then use the script in the scripts directory. It will take the following

options:

FROM [FILENAME] - Same as ShellTerm's

SCREEN [SCREEN NAME] - A name for the screen to open

(DEFAULT: ShellTerm Screen)

DEPTH [SCREEN DEPTH] - The depth of the screen to open

(DEFAULT: 1)

WINDOW [WINDOW NAME] - A name for the Shell to open

(DEFAULT: ShellTerm Window)

PORT [NAME] - Same as ShellTerm's

The ST script needs and uses a program called PSX, by Steve Tibbett, to

open the public screen. You can change this to your favorite public screen

manager if it allows you to specify the screen specifications from the

command line.

1.10   Using ShellTerm

USING SHELLTERM

Once the program has been started, anything typed into the CLI/Shell will be

sent to the selected device. If the device does not echo the characters, you

will not see anything. Normally there is a modem at the end of the device

and you will see whatever was typed. Try typing "AT <RETURN>". If it works,

you'll receive an OK text from the modem. If however there was terminal

hooked up, the characters should have appeared on its screen. If this didn't

work, please check the device's parameters from the preferences menu.

Say the characters are messed up, try checking the serial speed.

Pressing CTRL-P will show you the menus. The CTRL-P sequence is not sent

over to the device. You will be displayed with the options available. Press

the key enclosed in parenthesis to select an item. A short description of all

items follows.

1.11   Main menu

Main menu

Show statistics Shows how many bytes have been transferred to and
from the device.

Clear statistics Clears the "Bytes received/sent" counters.

Send break Sends a break signal to the device.

Send CTRL-P Sends CTRL-P to the device. It is not sent when
the menus are entered. CTRL-P is DLE, decimal #16,
hex $10, octal &020.

Reset font Changes the CLI/Shell font to plain (no bold,
underline, reverse etc.).

Clear screen Clears the screen and returns back to terminal
mode.

Reset modem Resets the modem with the Hayes command "ATZ".

Hangup line Hangs up line using the Hayes commands. Three
plus signs (+) are sent first, followed by a delay
of approx. 3 seconds, after which "ATH" is sent.

Upload Starts the program you've specified as the
uploader. Normally SZ.

Download Starts the program you've specified as the
downloader. Normally RZ.

Dialer Goes to the phonebook and autodial. Explained
later.

Preferences Allows you to change the communication parameters
of the port and some terminal settings. These and
other functions are described below.

Open capture Asks for the filename for the capture. All input
from the device will be copied to this capture
file. If the file already exists, the new stuff
will be appended.

Close capture Closes the capture file.

Program and author Displays some information on the program and
information author.

Quit Quits ShellTerm.

Exit menus Exits the menus and returns "online".

1.12   The dialer menu

Dialer menu

0 - 9 These keys select or deselect entries 1 - 10.

Relist entries Shows the entries (numbers) in the phonebook.

Single dial Asks "Number to dial:". Enter the number you would

like to dial.

Dial list Dials the entries selected from the phonebook.

Clear list Deselects all entries from list.

All Selects all entries from list for dialing.

Edit mode Enters edit mode. When this mode is on and an

entry is selected, the number for this entry is

asked. To turn it off, select a second time.

Prefix Asks for the dial prefix.

Main menu

Exit menus Exits the menus and returns "online".

1.13   The preferences menu

Preferences menu

Serial settings Goes to the serial settings menu. Described

below.

Terminal settings Goes to the terminal settings menu. Described

below.

Reset settings Reset settings to defaults: 9600, 8N1, no

translating and no BS & DEL swapping.

View settings Shows the current settings. NOTE! These might

be incorrect if a change of some item could not

be made. Currently the device name and unit will

show the device that couldn't be opened.

Load prefs Loads the preferences and phonebook.

Write prefs Saves the preferences and phonebook.

Name prefsfile Names the file used with load and save.

Upload program Asks for the external program that is to be run for

uploads. Normally this is a program called SZ (as

on UNIX machines).

Download program Asks for the external program that is to be run for

downloads. Normally this is a program called RZ (as

on UNIX machines).

Upload dir(ectory) The directory to CD to before uploads. If not

found/specified the current directory will be used.

Download dir(ectory) The directory to CD to before downloads. If not

found/specified the current directory will be used.

Assign CTRL-P With this, you can assign CTRL-P to any key. The

ASCII code of the will be displayed in 'View

settings'. When you have assigned CTRL-P to

some key, you can send the CTRL-P sequence over

to the device with the key you assigned.

Main menu

Exit menus Exits the menus and returns "online".

1.14   Serial settings

Serial settings

Speed Pressing a key from 0 through 9 will change the

speed used on the device. Possible speeds are:

(1) 110 bps (2) 300 bps

(3) 1200 bps (4) 2400 bps

(5) 4800 bps (6) 9600 bps

(7) 19 200 bps (8) 38 400 bps

(9) 57 600 bps (0) 115 200 bps

If someone REALLY REALLY REALLY (You get the

point) needs it, I can change the code to ask

for the baud/bps rate (I think you've guessed

that you will have to pay the shareware fee

to get this done.)

Name and Unit Asks for the device name and unit. After they've

been given, ShellTerm tries to open it.

Re-open device This will close the device and try to re-open it.

Set databits Toggles between 7 and 8 databits.

Set stopbits Toggles between 1 and 2 stopbits.

XON/XOFF Turns XON/XOFF handshaking on and off. NOT TESTED!

Previous menu Goes to the previous menu, preferences.

Main menu

Exit menus Exits the menus and returns "online".

1.15 Terminal settings

Terminal settings

CR translate, OUT Describes what to do every time a CR is to be sent.

Asks "(N)one, (S)trip, (A)dd LF:". If 'None' is

selected, a CR is sent. If 'Strip' is selected,

nothing is sent. If 'Add LF' is selected a CR and

an LF is sent.

LF translate, OUT Describes what to do every time an LF is to be sent.

Asks "(N)one, (S)trip, (A)dd CR:". If 'None' is

selected, an LF is sent. If 'Strip' is selected,

nothing is sent. If 'Add CR' is selected a CR and

an LF is sent.

CR translate, IN The same as "CR translate, OUT" except it

affects characters coming from the device to

the CLI/Shell.

LF translate, IN The same as "LF translate, OUT" except it

affects characters coming from the device to

the CLI/Shell.

Local echo Toggles local echo on/off. If enabled, everything

typed into the CLI will be displayed. Default is

off.

Swap BS & DEL Swaps BackSpace and DELete, when they are

entered into the CLI/Shell.

Ansi mode When this is set on, the screen will be cleared

before the menus are shown.

Cursor remap Remaps the Amiga cursor keys as 'EMACS cursor

keys'. I'm not sure if this totally true, since

tcsh etc. also use these. But then again there

might be an EMACS standard.

Previous menu Goes to the previous menu, preferences.

Main menu

Exit menus Exits the menus and returns "online".

1.16 The phonebook and autodialer

THE PHONEBOOK

ShellTerm has a phonebook and autodialer. The phonebook file is currently

the same file as the preferences file (changed for version 1.06)

'S:ShellTerm.PREFS'. As of version (well, at least IN version) 1.06 the phonebook entries are entered with the program itself. Go to the autodialer and turn the edit mode on. Then select the entry you wish to edit/give the number to. When you're finished just turn of the edit mode and dial away. If you wish to save the phonebook, you'll have to go to the preferences menu and select 'Save prefs'.

1.17 Hints & tips

HINTS & TIPS

1. A scrollback buffer is available simply by using the Console Buffer program by William J. Fritz (CB is Copyright (c) 1990 by William J. Fritz).

2. If you use my RingDetect program see its docs to see how to quit the program from a script and how to restart it again after quitting ShellTerm. On a multi-user Amiga (like mine), each user can have their own prefs-file by simply making an alias in their '.login' file or the global '.login' file. You can use something like this:

alias st $home/.strc

Where 'st' will be the alias that starts ShellTerm, '$home' a variable to the users home directory and '.strc' the name of the prefs-file.

3. To emulate 'Quiet' mode, simply enter the menus.

4. To do downloads / uploads use one of the RZ and SZ commands available. Different protocols are widely available. RZ and SZ are for ZModem transfers.

5. To use a UNIX, through modem or otherwise, use the ANSI termcap:

set term = ansi

setenv TERM ansi

or

tset ansi

This way the Shell will display things correctly (including IRC!). It works at least on BSD systems.

6. To make sure the modem doesn't hang up if you quit ShellTerm for some purpose, set the modem to not hang up when DTR is dropped.

7. A program called WatchPort is included with the ShellTerm archive. Thanks go to Klaus Seistrup for this program. It will allow a script to wait for ShellTerm to quit before continuing. A short quote from him:

---Cut Here---

"Now, my plans for the port of ShellTerm is to use it as an identifier to decide when to return to TrapDoor again. I imagine something like this

might do it:

FKey "7:SPAWN \"Execute S:ShellTerm.launch\""

and the script S:ShellTerm.launch:

NewShell CON:blah/blah/blah FROM S:ShellTerm.bat

WatchPort ShellTerm_MyPort1

And S:ShellTerm.bat contains just one line:

ShellTerm PORT=ShellTerm_MyPort1

"

---Cut Here---

He uses this combination with trapdoor. It is of course possible to use it

with other programs that require waiting. See HINTS & TIPS 8.

8. To open ShellTerm on its own screen, open a public screen with your

favorite public screen manager and use a script like the one included in

this archive in the directory ShellTerm/Scripts.

1.18   Other interesting stuff

OTHER INTERESTING STUFF

ShellTerm was written in assembler with the one and only Cygnus Editor. It

was compiled with A68k and Blink. The size of the source code is ~63000

bytes, equalling ~3200 lines of code. It is lightly commented. The version

number is bumped up every time I feel like it, which is usually when I get

bored of adding things, have found a bug or feel like releasing the whole

thing.

1.19   Possible problems that You might encounter

PROBLEMS

The program reads and writes characters to and from the selected serial device.

If however you have a BBS software, or any other program that

uses the same device, most characters will go to the other program. You

may not notice this if you go straight to the dialer and start dialing.

I have often started to wonder what bug i've managed to get into the

dialer when it won't recognize a busy... After some debugging I

realized that half of the characters were going to another task!

There will most likely be a problem with high speed modems. I doubt very

much that ShellTerm will keep up with USRobotics (R) HST modems. I don't

even want to think of the new V.FAST that's coming!

1.20 Error messages displayed by ShellTerm

ERROR MESSAGES

The ShellTerm program will display necessary error messages. I HATE

PROGRAMS THAT DON'T TELL WHAT-THE-HELL IS GOING ON! That clear? If

ShellTerm doesn't give any output, something is seriously wrong or

I was lazy :). The only thing ShellTerm won't report is that it won't run

on anything under 2.04. It will simply quit returning a failure number.

1.21 Known bugs

BUGS

ShellTerm has been run with enforcer and mungwall. It will be run with devmon

as soon as I can find it again :). In other words, I haven't found any

bugs, so this part in the docs is totally useless! :)

1.22 List of versions and changes

VERSIONS

Version Size Date Description

1.25 23256 31/07/93 Fixed a bug I added with CTS/RTS handshaking.

1.24 ~23264 17/07/93 Made a little safer to use.

1.23 23264 05/07/93 Added CTS/RTS handshaking, fixed XON/XOFF.

1.22 ~23000 04/07/93 Works with dnet.device. [Proved wrong later]

1.20 22600 23/06/93 Changed the docs to AmigaGuide format. Fixed

a text string from the program.

1.19 22600 26/05/93 Added a version number to the prefs-file. I

also added some empty space so newer versions

will load older prefs-files until a radical

change happens in it.

Added some stuff to the docs.

1.18 22596 22/05/93 Added scripts to archive. Added XON/XOFF, but

never tested it. Fixed the bug with setting

parameters. Changed a lot of code that had to

do with opening/closing devices, creating/

deleting Requests/MsgPorts.

1.17 21864 25/03/93 Added possibility to open a port with a

specific name. It is specified when ShellTerm

is run and not in the prefs-file! This is to

save the trouble of making separate

prefs-files for every application.

1.16 21736 24/03/93 Fixed a major bug in the routine that opens

the device. ShellTerm should now work on

multiple serial boards and maybe some other

exotic devices.

1.15 21828 10/02/93 The dialer won't be in Edit mode if quit.

Thus you won't accidentally erase an entry

if you first quit the dialer (while in edit

mode) and then come back to dial.

1.14 ~22000 06/02/93 Fixed a bug in the parser. Had to press

<ENTER> twice if using CSH (I accidentally

cleared the last byte of the CLI-args).

1.13 21808 02/01/93 Added 'Execute' option.

1.12 21668 01/01/93 Release 3. All bugs should be fixed. Should

work on all machines, not sure about dnet.

Changed the parser to stand up to Commodore's

guidelines.

1.11 ~22000 13/11/92 Private registered copy.

1.10 ~22000 20/10/92 Added public ports. Bug fixes.

1.09 21632 06/09/92 Release 2.

Docs checked.

1.08 ~22000 04/09/92 Added: Cursor remap.

Minor optimization.

1.07 ~21000 30/08/92 Tried to get this version out as a release.

Docs updated a bit more and added 'Hints & Tips'.

Added: Upload/Download programs and dirs,

capture file.

1.06 ~18000 28/08/92 Bug fixed. The dialer should work, toggling

between (data/stop)bits are shown correctly

even if the operation fails, added a greater

delay while dialing a list/single entry

(at least my phone line couldn't keep up)

Added: 'Send Break', preferences file, 'Swap

BS & DEL', Phonebook entry editor, assigning

of CTRL-P to a key.

Docs updated.

1.05 16116 14/08/92 Bug fixed: Send CTRL-P works now.

1.04 16116 11/08/92 Bug fixed: Dialer now knows about NO CARRIER

and dials after removing an entry.

Added: Clear screen and Reset font.

Release version. Forgot to check the docs :(

1.03 ~16000 08/08/92 Bug fixed: Dialer should recognize the BUSY

and CONNECT texts from the modem now.

Minor optimization.

The next version should be a release :)

1.02 ~17000 06/08/92 Bug fixed: Input is now flushed on starting

to prevent ugly things from happening when

going into the menus and there has been

options on the CMDline.

Added: Preferences (local echo, speed CR/LF

translating, data & stop bits)

Minor optimization.

1.01 ~10000 05/08/92 A beta tester version, now with phonebook.

1.00 ???? 04/08/92 A simple version without many bugs and quite

slow.

0.00a- ???? ??/??/92 Wrote the program basics and main routines.

0.99a

1.23 Future versions and ideas for them

FUTURE VERSIONS

Future version will have the bug fixes for the bugs I haven't found and you

have :). And if some really needs to use this with the dnet.device (as I've

heard), mail me some info on it etc. I'll look into it myself if I find the

time. I have also been pressed towards adding a VT100 emulation... This I'm

afraid is not going to happen, at least yet... :(. A log for the dialer is

also one idea I have.

1.24 ShellTerm shareware fee

SHAREWARE FEE

As of version 1.04, ShellTerm is ShareWare. I am not asking for a huge

amount of money so I hope I will get some response. The fee is only $5 to

$10 (USD), or whatever that happens to make at the moment you're reading

this, in german marks (DM). If you're from Finland a sum of 20 FIM to 50

FIM is great (Yeah, so what if I changed the $10 to $12 ? You Finnish guys

don't have to pay so much for postage :). Any amount in Coca-Cola (TM) will

also do.

1.25   'Registered' users

'REGISTERED' USERS

Anyone who pays will get their name here if they wish so.

Klaus Seistrup -Paid with WatchPort

1.26   Beta testers and people who have given ideas

BETA TESTERS

Thank you all who beta tested ShellTerm. Thanks go to Radix (thank you for

the Clear Screen and Reset font ideas), Forge, mlelstv, Arc, Jasper and

jlaine and MKsa (for the Swap BS & DEL idea and the others i haven't

implemented). If you wish to become a beta tester contact me at one of the

addresses below. If a beta tester wishes to be anonymous or the opposite,

wishes their full name to be listed, please let me know!

1.27   Contacting the author

CONTACTING THE AUTHOR

Please send donations, bug reports, and list of features you would like to

have included in future versions to

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Email me at 'docbliny@mits.mdata.fi' or catch me on the #amiga conference

on IRC!

"...trademark of Xerox Corporations. Reading legal mush can turn your

brain to guacamole! Epson is registered trademark of Epson America

..." -Amiga RKRM Includes & AutoDocs, fourth page.

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