

OpusPhone 2.66
FOSSIL Compliant Extended Chat Utility
For Opus 1.1x and 1.2x Systems
April 6th, 1991

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1 Introduction

Direct comments and bug reports to William Beebe at 1:363/1.
Thanks to Greg Martz at 1:344/59 for documentation checking.

Thanks to Frank Cox (140/53), Bev Freed (129/104), and Greg Martz for testing, and testing, and testing...

Documentation prepared with Borland's Sprint 1.01.
Swap capabilities provided by Ralf Brown's Spawn routines.
Spawn is copyright Ralf Brown.

Capable of operating with Opus 1.1x and 1.2x, Opus Phone (hereafter referred to as OPhone) is a split screen chat utility. OPhone is modeled after the VAX/VMS phone utility and Unix's talk. OPhone allows the sysop and caller to type to each other at the same time. If the caller supports ANSI screen positioning, then both sysop and caller will see their typing appear in two separate 10-line windows, with the sysop's text in the upper and the caller's in the lower. If the caller does not support ANSI screen positioning then OPhone operates similar to Opus' chat mode.

Usage: Phone [switches] [bbsfile.prm]

/ or - The forward slash or minus switch types. OPhone recognizes both. For clarity and simplicity, the / character is used throughout, such as /k, but keep in mind that -k will do the same thing.

/d{label} defines a label for use inside an OPhone control script. More than one label can be passed on the command line. Labels are case insensitive. Please see the script command section entries on if.

/k forces OPhone into local keyboard mode. Use this switch to run OPhone without a fossil installed. Data typed at the keyboard is echoed back in the sysop window, and all local functions are active. This is for testing purposes.

NOTE:

OPhone will also behave as if it is in local mode under the following condition; running with an Opus 1.1x lastuser file with the baudrate field in that file equal to zero. That type of record is generated by Opus 1.1x when it is in local keyboard mode. In either case the /k or -k switch is not needed.

/p# passes the port number to OPhone, where # is 1 to 4. If the port number is not explicitly specified then OPhone will use the port number in the .PRM file.

/t# passes the Opus 1.1x task number to OPhone, where # is the task number. This task number is merged with the internal file mask LASTUSER.DAT to produce a file named LASTUS##.DAT. For example, /t1 produces LASTUS01.DAT. This will ONLY occur if the /u switch is not used.

NOTE:

The /t# switch is automatically passed by Opus 1.1x, and should not be explicitly encoded by you.

/u{userfile} passes an alternate lastuser file and/or path to OPhone. You may use this with the Avatar extensions to create the proper LASTUSER file name, especially with the Avatar task metacharacters (see the Opus 1.1x documentation for further details).

/iphone.inf passes an alternate information file to OPhone. Use this if you have multiple Opus nodes, because OPhone uses templates in the information file to search for the capture, abort, lastuser, and PRM files.

bbsfile.prm passes the real Opus PRM file name. The default that OPhone looks for is BBS.PRM. If your PRM file is named differently or is not in the current path in which you run Opus and OPhone, then should pass the full path and file name to OPhone. Though OPhone will run without it, important information is needed in the PRM file.

config allows you to bring up OPhone in configuration mode. This mode allows you to start OPhone without any supporting files or any loaded FOSSIL driver.

Example:

phone config

chat allows OPhone to be brought immediately up in chat mode.

Example:

phone chat [other switches/files/etc...]

noblock
block

blocks all caller chat requests. Use this verb to temporarily override any event settings you may have. You must use noblock to allow normal chat requests to work, or bring OPhone up in config mode and modify the block flag under the Options section.

Examples:

phone block ; block caller chat requests.
phone noblock ; allow caller chat requests.

OPhone generates exit codes for use in batch files. These exit codes are:

- 0 Normal exit.
- 1 FOSSIL not loaded or not captured.
- 2 exit due to carrier loss while in remote node.
- 3 could not open LASTUSER or LASTUS##.DAT file.

2 Changes and New Features

OPhone 2.66 has been extensively rewritten. The primary changes include the addition of windowing routines and code to manipulate the user record output by Opus 1.1x in the lastuser data file. How these changes can affect operation of your Opus 1.1x system are outlined below.

- OPhone does not run on "generic" MS-DOS systems. This includes but is not limited to DEC Rainbows, some of the older Epsoms, and Tandy 2000 systems.
- OPhone does not use the Fossil to gather local keyboard data. OPhone uses Turbo C++'s runtime function bioskey() to check for and to obtain raw keyboard entries. As a result you must run OPhone 2.66 on a PC clone that is ROM BIOS compatible with the defacto IBM PC/XT/AT standard, such as Phoenix, AMI, etc.
- OPhone does not use the Fossil to write to the local screen. A custom windowing package is used extensively to write directly to screen memory. This requires that you run your BBS with a MDA, CGA, HERC, EGA, or VGA compatible subsystem in TEXT mode. I did this for performance reasons in implementing the windowing package. As a consequence I can not guarantee what impact it may have on systems running certain multitaskers, such as DoubleDOS.
- OPhone uses the FOSSIL fpr serial reads and writes.
- OPhone is somewhat DESQView aware. It will check for the presence of DESQView and, if DESQView is running, it will query for and use the DESQView provided screen buffer pointer to do direct screen writes. If OPhone is running under DESQView it will yield idle time back to DESQView for use by other MS-DOS applications also running under DESQView. I have tested OPhone 2.66 under DESQView 2.31 running on a 33Mhz 80386 system with QEMM386 5.11. When running under DESQView the word "DESQView" will appear on the far left of the second line on the sysop's side of the screen.
- OPhone is somewhat Windows 3.0 aware. OPhone will only run in a DOS subwindow or DOS full screen, but if it detects the presense of Windows it will release time back to Windows if idle. When running under Windows the word "Windows" will appear on the far left of the second line on the sysop's side of the screen.
- OPhone is an Opus 1.1x and 1.2x aware utility.

- OPhone allows the display and editing of the caller's user record in LASTUSER. If Opus 1.1x or 1.2x are configured to reload the lastuser file (via the SECURE PRM file verb; check the Opus docs for further details), then you can change a caller's record on the fly within OPhone and have Opus save the changes back out to the LASTUSER file when the caller finally leaves.
- OPhone no longer has an opening script file. The configuration data is now stored in a binary file called PHONE.INF. You manipulate this file with the Options menu. See the section on Options for further details.
- DEFINED words are no longer case sensitive.
- OPhone allows for a default file. The default onabort file is PHONE.ABT. The default capture file is PHONE.CPT. As an absolute minimum you can quickly install OPhone into the main menu of Opus using the following:


```
_OUTSIDE Priv. !Locks "OPhone" = RUN Phone.exe
```
- OPhone 2.66 recognizes the '/t#' task switch. It will properly format the file template "lastuser.dat" and open the correct lastuser file associated with the current Opus task (see usage and restrictions above).
- OPhone uses the .PRM file for important information. Specifically it will load the task number, sysop's name, and language selections as well as using the version number in the file to determine if it is running under Opus 1.1x or Opus 1.2x.
- OPhone will swap to EMS or disk during a spawn. This feature must be enabled in the Options/Section menu; it is disabled by default.
- OPhone will use a mouse. This feature must be enabled in the Options/Section menu; it is disabled by default.
- OPhone will pass the high-bit on all characters. This is done to support extended language character sets, as required by many European languages and Chinese. This "fix" curtesy Doug Boone.

3 Basic Requirements

The following is a quick list of items to check before bringing up OPhone for the first time. These are minimum requirements that should all be met.

DOS OPhone requires MS-DOS 3.1 or higher. Lower versions of DOS will cause OPhone to exit.

Memory OPhone is written in the small memory model (64K code, 64K data space). As a consequence it should be provided 128K of memory to run (to be exact, it requires at least the current file length + 256 bytes for the PSP + 64K for the data segment). It does not use the far heap. It is capable of running under DESQView's small Dos (128K) window.

Fossil OPhone requires a Revision 5 or higher compliant Fossil to operate. It requires the basic services to send and receive data through the serial port, ability to flush the buffers, and ability to check for control C from the remote user. This includes, but may not be limited to, Opus!Com 5.31 and X00 1.2x or higher. BNU has not worked for me in the past and may not in the future.

Hardware OPhone uses calls to the ROM BIOS for keyboard reads, and writes directly to the video hardware in text mode (80 character by 25 line). Video hardware can be MDA, CGA, Hercules, EGA, VGA, and MCGA. Monochrome monitors used with VGA and MCGA may cause problems because the autodetect code (a call to the ROM BIOS) determines that MCGA or VGA are color. If a monochrome monitor is connected to the VGA or MCGA output, the resultant display may not be satisfactory. In that case you may use the Colors selection under Options to change the display to your liking.

Files

Phone.INF OPhone generates a file called PHONE.INF every time it exits. This file contains all the initialization data required by OPhone on start-up, as well as the sysop's operating preferences. PHONE.INF is first searched for on the drive and path from which PHONE.EXE is invoked. If that is not supplied, then PHONE.INF must be in the current subdirectory from which PHONE.EXE is invoked. It is the FIRST file OPhone opens.

Prm OPhone needs the Opus PRM file in order to locate certain information. If it does not find the PRM file, then the language strings will not be read in for the Language pick menu, and the sysop's name (YOUR name) will not be displayed in the top menu. Further, if a task is not passed on the command line, then OPhone will default to the task number in the .PRM file. It should have done so all along, but frankly, I just never thought to do it. The PRM file is now the SECOND file that OPhone opens (it has to open Phone.INF first).

Lastuser OPhone requires that it know where LASTUS##.DAT is located. If it does not find the lastuser file it will abort.

Capture OPhone will always attempt to open a capture file. If it succeeds, the name of the capture file will be based on the template in the Options/Files/Capture string. Logging information is written to the capture file. If the Capture flag is ON, then the chat conversation is logged to the file as well. If the file already exists, then it will be opened in append mode. If the file does not exist, it will be created. If OPhone is unable to open a capture file, it will continue to operate. The default capture file name is PHONE.CPT.

Abort If a caller's page is blocked, times out during normal paging limits, or attempts to page outside of the normal paging limit, then OPhone will attempt to send a file to the caller called the abort file. The default is PHONE.ABT, and can be changed in the Options/File/Abort section of the menus.

4 Quick Setup

4.1 First Time Users

To bring OPhone up the first time, place OPhone in the subdirectory you intend to invoke it from. It can either be in the Opus directory, or some other directory in your path. To configure OPhone, at the prompt type

```
phone config
```

to bring OPhone up in config mode. In this mode OPhone does not need the FOSSIL, lastuser, or .PRM data files. In this mode type ALT O to drop the Options menu. From there you can select colors, determine default operating modes, and set up paths for the various support files that OPhone will use. Once you've set up all your options, escape back to the main command bar and type ALT Q to exit OPhone and save your preferences and options.

Your second task is to tell Opus about OPhone, so that callers can use it. In the Opus control file, in the MAIN MENU section, you could have the following:

```
_OUTSIDE Disgrace "Phone" = RUN phone.exe
```

This will allow anyone with Disgrace priv or higher to invoke OPhone by typing the letter 'P' at their prompt. For the local side, where the sysop invokes phone, you need to create a file in the Opus Misc subdirectory that corresponds to a function key you want to start OPhone with. For example, you want to invoke OPhone for chat via the F1 key on your side. In the Misc subdirectoy create a file called F1.BBS with the following in it:

```
^L
The sysop wishes to chat with you...
One moment please...
^OCphone chat
```

OPhone will pick up the necessary parameters from the lastuser and PRM files.

For those of you who want to change or edit the user record and/or allow for on-line time adjustment, then you must not only set the appropriate OPhone features, but you must tell Opus to read the lastuser file back in. You do this with the Opus control file, in the Session Section, Outside information. You need to change or add the Secure command. Mine is "Secure 3". For further information please rummage through the Opus documentation.

After you have configured Opus to read the lastuser file back in, you may want to configure OPhone to compensate for time spent chatting so that when the caller returns to Opus they will not be penalized for time spent outside. To do this automatically, go to the Options/Session menu and set Time adjust and Update user to auto. Selecting Time adjust will also set Update user. If you want to update the caller only when you feel it's deserved, you may set Update user back to manual. Just remember that you must write the caller's record back out before exiting, via the Write selection on the main user editor menu.

4.2 Previous Users

If you've used previous versions of OPhone, then put the new binary in the same subdirectory the previous version resides in. That's it. OPhone will read the PHONE.INF file and automatically convert it to the current data structure, saving nearly all your preferences. The only thing that does not get converted is the last selection of each menu. OPhone remembers where the select bar is on each menu, so that when you invoke that menu again you can quickly go to the most common portions you normally use. When new versions of OPhone read in prior .INF files, it zeroes your last-used menu selections.

5 Local Menus

OPhone uses drop-down menus on the sysop's side to access its many functions. This allows for the organization of like features and the presentation of as uncluttered a screen as possible. When OPhone is first started, the same basic split window is presented to the sysop and caller as in previous versions. Users of previous versions may note how much faster the screen is drawn on the local side and how more colorful (if they have color) it is than in previous versions.

The sysop has a command bar at the very top line, starting with the word ALT and followed by Quit, Help, User, Dos, Window, Screen, Options, and Capture. This shows the range of primary commands available to the sysop and how to invoke them, via the Alt Q, Alt H, Alt U, etc, key sequences. Once a menu has been selected in this way normal (non-ALT) keystrokes will move around the menus.

5.1 Basic Menu Functionality

Once a primary menu has been pulled up, the following is generally common to them all:

- If a mouse is installed on your system, you may use it to move around the menus. I have developed OPhone on my system which uses the Microsoft two-button mouse. The right button will select an item, while the left button will exit from a selection.
- Keyboard Escape or a right mouse button click will exit from any menu and from any text and numeric entry fields. If escaping from an entry field or the security lock, then the previous contents are redisplayed.
- All menus have a selection bar that moves up and down the selections.
- Selections outside the menu select bar appear as normal intensity characters, with capitalized letters or special characters as high intensity. The high intensity letters/characters are the selection characters.
- Menu entries may be selected by typing the highlighted letter or character, by using the up and down arrow keys to move the select bar to that item and then hitting return, by using the up and down arrow keys to move the bar and then using the right arrow key to select the item, or by moving to the entry with the mouse cursor and clicking the left button.

- Some menus will disappear when an item is selected. These menus allow you to pick one item from a list of multiple choices (a pick list). Some menus allow you to alter many different data items and will only disappear when Escape is pressed or the right mouse button is clicked.

The following sections will give specific directions on each menu's use.

5.2 Primary Command Bar

The primary command bar is the first line at the top of the screen and provides the functions Quit, Help, User, Dos, Screen, Window, and Capture. These commands are accessed via the ALT+character sequence, the character being highlighted.

Quit (Alt Q) pops up a simple button (figure 1) that asks if you want to Exit OPhone. Pressing Return will exit back to the BBS. Pressing Escape will return to OPhone.



Figure 1: Exit Menu

Help (figure 2) amplifies on the basic commands by listing them with a little more text. You can access the primary commands from this menu by selecting the highlighted letter as apposed to the Alt letter on the primary command bar.

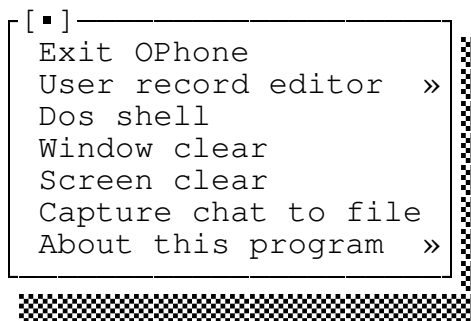


Figure 2: Sysop Help Menu

About is the only selection not on the primary command bar. When selected, About will display a simple information window giving the revision level and date of compilation of OPhone and the compiler used to compile OPhone.

User record editor (Alt U) is explained in detail later in this document.

Dos shell (Alt D) shells to another copy of command.com if there is enough room in the current Dos TPA. From there you can do whatever is necessary that can't be done from within OPhone. If you have swap on shell enabled in the Options/Session menu, then when you shell to dos all but 1K of OPhone will be swapped out. When you return, OPhone will swap back in again.

Window (Alt W) and Screen (Alt S) clear keys redraw the sysop window and the full screen, respectively. Window and screen clear are only on the ANSI mode screen. If the caller calls in ASCII mode, then the window and screen clearing functions are absent from the command bar as well as from the help menu.

Options (Alt O) selects the sections of menus that allow you to change the configurable parameters of OPhone. Options is explained in detail later in this document.

Capture (Alt C) toggle turns conversation capture to a local file on and off.

The second line of the main screen contains a simple clock. It is updated once every second as part of the loop that scans for data from the local and remote keyboards. The middle of the second line will also contain the sysop's name if in ANSI mode or the caller's name if in ASCII mode.

6 User Record Editor Menu

The User Record Editor menu (figure 3) is the central menu from which caller data is viewed and altered. This menu is entered directly with the ALT U command at the primary command bar or via the U (User) command on the sysop's Help menu.

```
[▪]-----
Name
aLias
Password
Access                                     »
City
phone #
Help level                                 »
Security lock  ABCDEFGHIJKLMNOPQRSTUVWXYZ012345
Remaining time (min)
-----
User options                               »
Matrix mail cost accounting                »
File upload/download accounting           »
Write changes to user information file
```

Figure 3: User Record Editor Menu

Five of the first six lines of the main User Record Editor menu (Name, aLias, Password, City, and Phone #) are text strings. You may edit these fields by typing the highlighted capital letter or character ('N' for name, 'L' for aLias, or '#' for Phone number, for example) on the main menu or by selecting them with the mouse. When this occurs the current field contents are left justified, and the full extent of the field is identified by blocks going from the right end of the string to the field's rightmost limit. Text editing on these fields may be exited via Keyboard Escape or a right mouse button click (which abandons any edits) and Return return or a left mouse button click (which accepts any edits). If data is entered in the text string fields, all leading and trailing spaces are stripped, and the first letter of each word is capitalized, with the remainder of the word in lower case.

While in string field editing mode the following keys are active:

- The Insert key allows you to toggle insert or overwrite mode. Overwrite mode is acknowledged with a single-line cursor, while insert mode is acknowledged with a full-character-box cursor. The default is overwrite.

- The Home and End keys go to the start and end of the line, respectively.
- Destructive backspace allows deleting of text from right to left. If backspacing takes place in the middle of a string, text to the right of the string follows the cursor back towards the left.
- The Delete key allows in place deleting except at the end of the string, at which point it behaves like destructive backspace;
- The left and right arrow keys allow nondestructive movement within the string body, up to the very first and last characters in the string.

The Write command allows you to write the changes you've made to the user record back out to the lastuser file. This is useful if you have configured Opus to reread the lastuser file when the caller returns to Opus (via Opus' PRM file verb SECURE; please see the Opus docs for further details). When Write is selected you can be prompted by a single line dialogue pop up box. It will contain the name of the lastuser file OPhone read the information from. The field is a standard text field, so you can manipulate the file name text, but if you type return you will write the changes out to the modified file name. To abort just type Escape.

6.1 User Access Levels

The Access Levels (figure 4) are selected from the main User menu. Access Levels allow the selection of all the major access or privilege levels. When invoked with the 'A' command on the main menu the selection bar will appear on the current access level. You may select another access level by typing the highlighted letter of the access you wish to give the caller. If you make your selection via the letter, then the access menu will disappear and the new access will be displayed in the default field on the main menu. Of all the access levels, the last, Hidden, is an unknown to me at this time. I included it because under Opus 1.03 it was useful in keeping unwanted callers off the system. By marking their record as Hidden I could bounce them as soon as they logged on, faster than even Twitting.

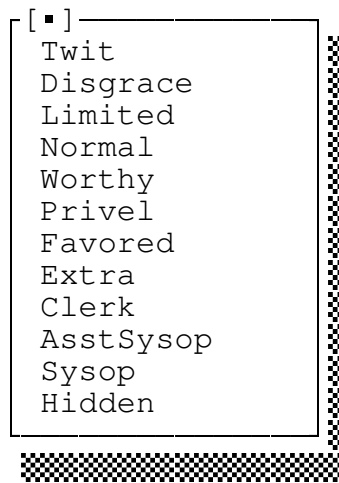


Figure 4: User Access Levels

6.2 Security Lock

The Security Lock (figure 5) is a set of bits in a 32-bit word that allow much finer caller access to Opus functions (please read the relevant Opus documentation for more details).

```
| Security lock  ABCDEFGHIJKLMNOPQRSTUVWXYZ012345 |
```

Figure 5: Security Lock

You may select the Security Lock with 'S' or with the mouse. Once in the edit mode, pressing any letter or the numbers 0 to 5 will toggle that bit. If the letter is upper case, the corresponding bit is set; if lower case, the bit is clear. For the numbers, if the bit is set the number is visible; if clear, only a period is shown. You can also use the mouse to toggle these bits by placing the mouse cursor over a bit and clicking the left mouse button.

To return with the settings you have selected, click on any part of "Security Lock" with the left mouse button or press Return on the keyboard. To escape and restore the previous settings, click with the right mouse button or press the keyboard Escape.

6.3 User Help Levels

The Help Levels menu (figure 6) is selected from the main menu with the 'H' key. When selected it will appear with the current help level in the menu selection bar. Press the highlighted letter of the help level you wish to give the caller or 'Q'uit or Escape to exit without changing. When a new help level is selected the menu will disappear and the new help level will appear on the main user menu. Expert, Regular, and Novice levels are still the same as they were in Opus 1.03. The new Hitek creates the Lotus style menu bar across the top line of the caller's screen. This help level seems to be working better under Opus 1.13. Full Tilt Boogie is something that was added to the Opus 1.13 header file, and is included for completeness. I have no real idea what it is.

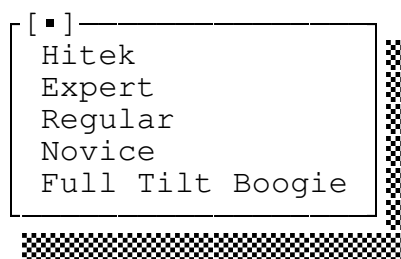


Figure 6: Help Levels

6.4 Session Time Control

The Remaining time selection on the main user menu allows you to adjust the caller's time left on line. You may change it to any value, and when you exit OPhone, that value will be given to the caller. Please note that the remaining time is always being updated by OPhone, so that if you make the change early on when answering a page, then the value finally given to the caller will be that original amount less the time spent talking to him. The toggle selection beneath Remaining time, Time adjusted..., can be used to automatically compensate for chat time by adding the time spent in chat back to the caller's remaining time. This feature is only useful if you have selected Write changes to user information file to be Yes.

6.5 Matrix Mail Cost Accounting

The Matrix mail cost accounting menu (figure 7) allows you to set the credit and debit costs of sending long distance netmail messages. The menu fields are free form and allow the entry of money as dollars and cents (US). The maximum amount allowed in either field is \$655.35 because the size of the field is 16 bit with a max unsigned value of 65535.

```
[.]-----  
Credit  $  0.00  
Debit   $  0.00
```

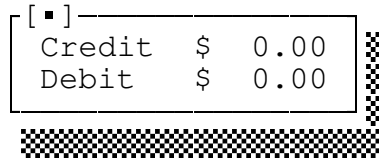
A screenshot of a terminal window showing a menu for Matrix Mail Cost Accounting. The menu is enclosed in a rectangular box with a checkered border. At the top left of the box is a cursor symbol '[.]'. Below the cursor, there are two lines of text: 'Credit \$ 0.00' and 'Debit \$ 0.00'. The text is left-aligned. The background of the terminal is dark, and the text is light-colored.

Figure 7: Matrix Mail Cost Menu

Select the field you wish to modify. When selected, you may enter data in the Credit and Debit fields as absolute values, or in the alternate OMAN method of prefixing the value with a plus or minus. Thus entering 10 in the credit field would fix it at \$10, while entering +5 would add 5 dollars to the value already there. Entries are accepted with a return, while escape will abort the entry.

6.6 File Upload/Download Accounting

The File upload/download accounting menu (figure 8) allows you to change caller's upload and download totals. There are three fields, total upload in K, total download in K, and today's download in K. You may change these fields to allow caller's more download capability if needed.

```
[.]-----  
Upload           0K  
Download         0K  
Today            0K
```

A screenshot of a terminal window showing a menu for File Upload/Download Accounting. The menu is enclosed in a rectangular box with a checkered border. At the top left of the box is a cursor symbol '[.]'. Below the cursor, there are three lines of text: 'Upload 0K', 'Download 0K', and 'Today 0K'. The text is left-aligned. The background of the terminal is dark, and the text is light-colored.

Figure 8: File Upload/Download Accounting Menu

6.7 User Options Menu

The User Options menu (figure 9) is selected from the Main Caller Statistics menu. This is a flags modification menu. Selecting a given flag toggles the flag so that it is 'Yes' or 'No'. Flags are modified by selecting the item via its highlighted capitalized letter. Modification of the flag is immediate. For example, typing 'H' for hex message areas will toggle that flag to 'No' if it were yes. The exception to this is the 'Video mode' selection, which presents another menu (see below). You should check your Opus 1.1x documentation (if and when it should finally arrive) concerning what all the flags mean for the caller. Unlike some of the other menus, this menu will stay up until you either press Escape or 'Q'uit.

```
[■]
Hex msg areas  Yes
IBM chars     Yes
Editor        LORE
More prompt   Yes
Video mode    Avatar»
talKer        No
Formfeed      Yes
Phone verify  No
Alias used    No
Name listed   Yes
Time listed   Yes
City listed   Yes
Language      English »
```

Figure 9: User Options

6.7.1 User Display Menu

The Display menu in figure 10 is selected from the User Options menu with the 'V' command. It allows you to select between straight Ascii, standard Ansi, and Avatar for the display of Opus text and optional colors. As defined in other documentation, straight ASCII is unembellished text with no cursor-positioning escape sequences; Ansi provides these escape sequences, along with additional screen color information; and Avatar is the Opus 1.1x display method in which the oAnsi or Avatar embedded screen control information is sent raw to the caller for local interpretation. The caller should have a terminal program capable of interpreting the Avatar control sequences on his or her end. When the Display menu is shown, the current default is highlighted by the selection bar. You may select another Display mode by pressing the appropriate highlighted letter. Once selected, the menu disappears and the new video mode appears next to the 'Video mode' prompt. NOTE: Selection of the Display mode DOES affect operation under OPhone. If you change from Ansi to Ascii you will change the local screen from two windows to the single screen. Only two lines will be visible at the top on the local side. If you change from Ascii to Ansi you will go to the two-window mode. If you change the user's name in Ascii mode it will be reflected on both sides of the screen.



Figure 10: Display

6.7.2 User Language Menu

Pressing L from the User Options menu selects the Language menu (figure 11). The Language menu selects the caller's language set in the user record. The strings used in the Language menu are read from the Opus 1.1x .PRM file. Only those languages defined in the PRM file are read from the .PRM file and placed in the menu. If the Opus .PRM file can not be opened, then all six language selections are displayed, but a single question mark is displayed in all six languages.



Figure 11: Language Menu

If OPhone can't find the .PRM file, then the following Language menu will be displayed (figure 12).

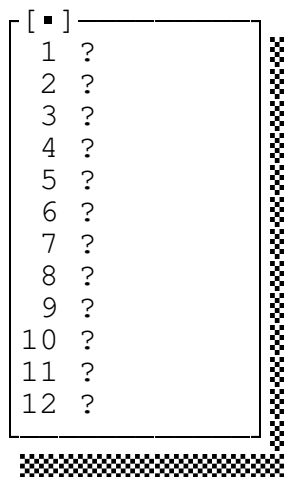


Figure 12: Default Language Menu

7 Options Menu

The OPhone Options menu (figure 13) allows the setting of general OPhone parameters.

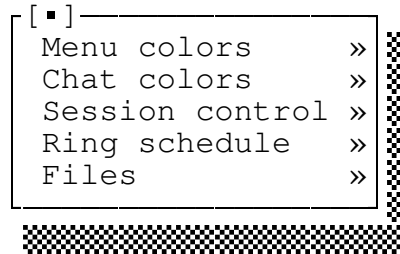


Figure 13: Options Menu

Menu colors allow you to change the colors of the pull down menus.

Chat colors allow you to change the colors of the chat window(s) and surrounding borders.

Session control allows you to set/clear automatic caller record update, automatic caller time compensate, and caller initiated chat block/open.

Ring control allows you to set the ring schedule for all 7 days of the week, the number of times to sound the alarm, and the type of alarm to sound.

Files allows you to specify the file name and path of the capture and abort files.

7.1 Menu Colors

The Menu Color menu (figure 14) allows you to set the colors for the pull-down menus.

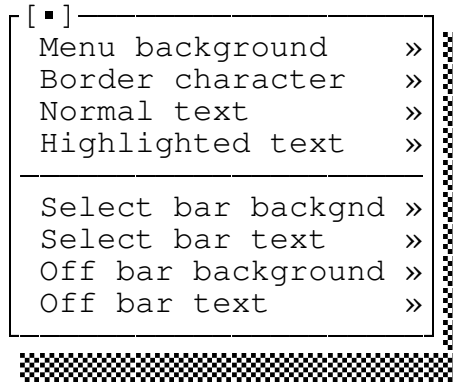


Figure 14: Menu Colors

Menu background selects the menu background for all the menu text and the menu border.

Border character selects the menu border character color when the menu is active.

Normal text selects the non-highlighted text in the menu.

Highlighted text selects the color for the capital letters and special characters that help select a menu option.

Select bar background sets the background color of the menu select bar text.

Select bar text sets the text color of the menu select bar.

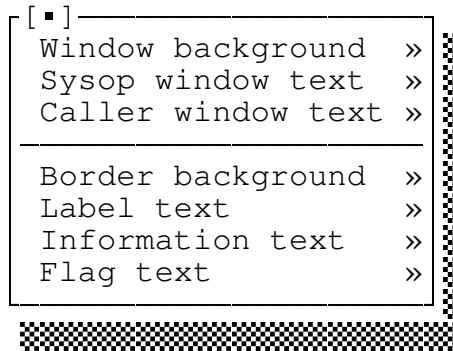
Off bar background selects the background color of the menu bar when you have selected that menu item.

Off bar text sets the text foreground color of the menu select bar when you have selected that menu item.

If any colors are changed, the change becomes immediately apparent on the Menu Color menu, and the color changes take place as you move back up the menu chain to the primary command bar.

If you change any of the menu colors (except the menu bar foreground or background colors), then when you exit the Options menu, OPhone will redraw both the local and remote screen, and present a fresh screen on both sides.

7.2 Main Screen Colors



[]
Window background »
Sysop window text »
Caller window text »
Border background »
Label text »
Information text »
Flag text »

Figure 15: Main Screen Colors

Windows background allows you to set the local background color of the sysop and caller windows.

Sysop window text allows you to set the color of the sysop's local text.

Caller window text allows you to set the color of the caller's local text.

Border background allows you to set the background color of the upper and lower bars that border the windows as well as the center bar when the caller is in ansi mode.

Label text allows you to set the text color of the labels on the bottom line of the local screen.

Information text allows you to set the text color of the caller's name, the sysop's name, and the information displayed along the bottom line of the local screen.

Flag text allows you to set the color of the "DESQview" and other (future) special text that appears on the local screen.

7.2.1 Color Menu

The background and foreground color menu (figure 16) allow the selection of all sixteen colors for background and foreground text and characters. Selections are made via number or menu bar.



Figure 16: Color Menu

Please note that only on EGA and VGA can you show all 16 colors in the background. For example, you can have blue letters on a white background. If you select such a combination for CGA, mono, or Hercules mon cards, then such colored text will flash.

7.3 Basic Session Control

Session control (figure 17) allows you to set flags that will allow automatic time adjust for time spent in chat, automatic update of the user's LASTUSER file on exit, and if OPhone is open to chat requests per the hours specified in the Ring Schedule menu.

```
[■]
Time adjust: manual
Update user: manual
Caller ring: open
Verify quit: yes
  Mouse used: no
  Shell swap: no
```

Figure 17: Session Control

Time adjust allows OPhone to add the time spent in chat to the time the caller must be off the system. This keeps the chat time from impacting the total time a caller is allowed on line. When in manual, you can add time to the caller's time from the User Record Editor menu. When in auto, this is done automatically. Please note that when time adjust is in auto, the time left, displayed on the lower right corner, is not updated. Also note that when you toggle time adjust from manual to auto, that you also toggle update user from manual to auto. It makes no sense to toggle one without toggling the other, and OPhone does this for you. However, if you do not want update user in auto, you may then toggle update user back to manual.

Update user allows OPhone to automatically write the user record back out when OPhone exits. This is useful on those Opus systems configured to read the user record back in again (see your Opus documentation for further details). If you do not have update user in auto and you make changes to the user record, you must use the write command on the User Record Editor menu to save your changes.

Caller ring allows you to block all caller chat requests regardless of the settings in your schedule file. You can set this flag from the command line with the "phone block" and "phone noblock" commands, or you can do it here. When open, caller's can request a chat. When blocked, caller's are blocked.

Verify quit turns on or off the verify button when you press ALT Q. If you don't want the hassle of being queried every time you exit, then turn off this training wheel.

Shell swap allows you to swap most of OPhone out to disk or EMS when you shell to dos, thus reclaiming all that memory for other use. It allows you to shell on systems with tight memory constraints or in small multitasker partitions. If EMS is present, and if there is enough, then all but about 1K is swapped to EMS. If EMS is not present, then it is swapped to a temp disk file at the root of the current disk. IF THIS FEATURE CAUSES PROBLEMS TURN IT OFF.

7.4 Ring Schedule Control

OPhone contains its own internal schedule structure. This menu allows you to manipulate that on the fly with Ring Schedule (figure 18).

```
[▪]-----
Sun 10:00 22:00 6 Silent »
Mon 10:00 22:00 6 Silent »
Tue 10:00 22:00 6 Silent »
Wed 10:00 22:00 6 Silent »
tHu 10:00 22:00 6 Silent »
Fri 10:00 22:00 6 Silent »
sAt 10:00 22:00 6 Silent »
Global (all days) »
```

Figure 18: Ring Schedule

You can modify any day of the week or all days with the Global selection. With Global you can set the start time for all days, and then pick those days you want different. In all instances you get another menu, Daily Events.

7.4.1 Daily Event Editor

Daily Events (figure 19) allows you to set the Start and End times when a chat is allowed, how many Times to signal on the local side, and the type of Alarm. Start and end time are entered in military time, and can range from 00:00 to 23:59. Values outside of this range are ignored. Times can range from 1 to 99. The alarm type is chosen from the pick list menu Alarms (figure 20).

```
[▪]-----
Start: 10:00
End: 22:00
Times: 6
Alarm: Silent »
```

Figure 19: Daily Events

At initial startup the default start time is 10:00 and the default end time is 22:00. The default alarm type is Silent for six alarms. Please note at this time that the start time may not be greater than the end time, and that times may not cross midnight, i.e. the end may not be greater than 23:59.

7.4.2 Alarm Selection



Figure 20: Alarm Selection

7.5 OPhone File Configuration

The OPhone Files menu allows you to specify the capture file, abort file, lastuser, and PRM names. You may use environmental variables and metacharacters in their names (see section on use of environmental variables and metacharacters).

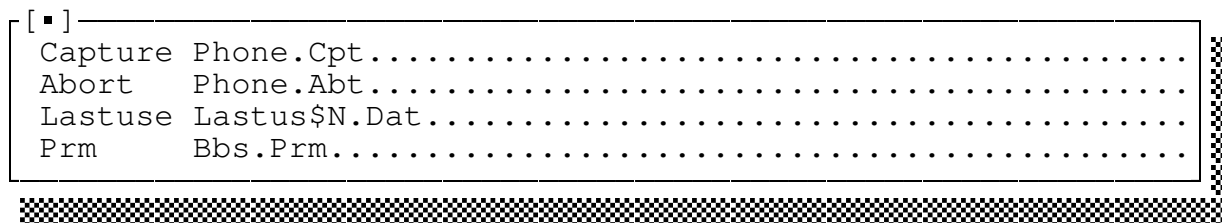


Figure 21: OPhone File Configuration

Figure 21 shows the default file names.

The Capture file is the path and/or file name OPhone will open on startup. In this file is written the log of the current chat session, as well as any captured conversation.

The Abort file is the path and/or file name OPhone will execute if the caller attempts to chat outside of the time limits, is blocked by sysop action, or times out during regular chat hours.

The Lastuser file is the path and/or file name OPhone will read in when it starts up. This file is written out by Opus, and is of the form LASTUS##.DAT, where '##' is the hexadecimal task number for that instance of Opus. The default string has the metacharacter '\$N'. OPhone will replace this with the task number passed to it or read from the Opus parm file.

The Prm file is the path and/or file name OPhone will read in for additional operating information. The PRM file is Opus' prime configuration file.

8 The Remote (Caller) Side

The caller's side of OPhone is either identical to standard Opus chat if the caller is in ascii mode (no Ansi screen codes) or a limited monochrome version of the local side of the screen. At the top of the caller's screen is a line of caller commands. They are currently limited to control W (^W), which re-displays their bottom window, and control L (^L) which re-displays the entire screen. Their actions are reproduced on both sides of the screen. The next line down is your name, followed by 10 lines for your window, followed by the line with the caller's name, and then the caller's window. There is currently no other information on the caller's side of the screen.

9 Script Language

OPhone's control file uses a simple script language. There is usually one command per line, followed by one or more command parameters. The commands can be prefaced with whitespace (tabs or spaces), and white space is used to delineate the parameters. This simple scripting feature allows you some flexible control on how OPhone operates. The current commands are:

9.1 Script Commands

9.1.1 Dos

`dos` Provides a way to execute programs and commands external to OPhone. These commands can be intrinsic to COMMAND.COM, an external executable, or a batch file. OPhone performs a shell with the command. This provides the external child process with a full set of file handles. The child process inherits OPhone's environment variables, and executes in whatever system memory is left. Remember, however, that OPhone is still memory resident when it does this. When the command is finished it should return back to OPhone on it's own. You should NOT execute a child process that requires user input to exit unless it is Fossil aware or you provide I/O redirection to the serial port.

There are two ways to run a dos program; with and without quoting. You use quoting around the dos string if the external program requires passing additional command line parameters, as in

```
dos "foo /a /b /c input.dat output.dat"
```

If the program can be executed without any command line parameters you can use

```
dos foo
```

to execute the program. If you have swap on shell enabled in the Options/Session menu, then when you shell to dos via the dos command all but 1K of OPhone will be swapped out. When you return, OPhone will swap back in again.

9.1.2 Dosexit

`dosexit` Provides a way to exit back to DOS with an errorlevel that can then be used in batch files. It is meant to be used with a conditional test, as in the following example:

```
if timelimit dosexit 10
```

If the caller is calling outside of regular chat hours, then OPhone will exit back to DOS (and a batch file) with errorlevel 10.

9.1.3 Print

`print` Send a quoted string of text, usually out to the caller. This string must be enclosed in double quotes.

Examples:

```
; standard print command.  
print "This is a test"  
; print the time with a metacharacter.  
print "The time is $T."  
; print an environmental variable.  
print "The temp drive is %tmp%."
```

9.1.4 Implied print

The implied print is a single double quote at the start of a string. It must be the first character on the line to be sent to the caller. The implied print is for use with oAnsi/Avatar escape sequences, but can be used in place of the explicit print command. Do NOT put a closing quote on the end of the string.

Example:

```
"This string will print.
```

9.1.5 Include

`include` Allows you to include another file. You may nest include files eight deep. Included files should be other OPhone script files.

Example:

```
include d:\OPhonedir\standard.scr
```

9.1.6 Exit

`exit` Allows you to exit from a script file before end-of-file.
Example:

```
exit
```

9.1.7 Define

`define` defines a label. Used with the `if` conditional test below. For example, if `"define thislabel"` is encountered, then `"thislabel"` is stored in the label list. If the command `"if thislabel"` is encountered, then the command block following the `if` test will be executed. This has the same exact function as the `-d{label}` command switch. Defined labels are case insensitive, as is the test for them. A test for `"ThisLabel"` is the same as a test for `"THISLABEL"`.

9.1.8 If conditional tests

`if` tests certain internal conditions flags or for the existence of a defined string flag. `IF` statements can take two broad forms. The first is a single line command that will only execute one line if the test is true.

Example:

```
if <test> command
```

The second is when executing more than one script instruction. Note the required use of `then` after the `if` test.

Example:

```
if <test> then
command
command
...
endif
```

NOTE

If the test is missing a matching command or `then`, then the error message `"Invalid if construction"` is issued to the console and the script where the error occurred is aborted. If the error occurs

in the root script, then Phone is terminated or the next script on the command line is executed.

If the test is true or the string flag exists then the line following the test or all commands in the command block after the then to the next balanced endif are executed. If the condition is false, the command after the test or all commands in the command block after the then to the next balanced endif are ignored. The conditional test can include the ! or not negate test as a prefix to the test. In this test, if the condition is false, then the block of commands to the next balanced endif is executed.

Examples:

```
if !day mon print "This is not Monday."  
if not day mon print "This is also not Monday."  
  
; if the phone capture file is not in the  
; current directory then open it elsewhere.  
if !file phone.cpt open c:\phonfile\phone.cpt
```

NOTE

The last test in a string of if tests on a similar action will have the final outcome if the final conditional is true. For example, be careful how many times you test and then set the event time.

if day will execute if it is a given day of the week according to the time of day clock. An example test would be "if day mon". All the days of the week must use the first three letters. For example, 'mon' for Monday, 'tue' for Tuesday, etc. The spelling is case insensitive.

Example:

```
; set event times for Saturday.  
; allow from noon to 6 pm.  
if day sat event 12:00 18:00
```

if !day will execute if it is not a given day of the week.

if weekday will execute if it is Monday through Friday

if !weekday will execute if it is the weekend, Saturday or Sunday.

if file will execute if a given file exists. The wild-card characters '*' and '?' can be used in the test, and a drive and path can also be specified. An example would be "if file lastus??.dat". In this instance, a test for Opus' lastuser file is made, and the '?' is a wild-card that will test even if Opus is being run multiline.

if !file will execute if a given file does not exist.

if timelimit will execute if the caller is trying to phone you outside the time limits specified with event or using Phone's defaults of 10 am to 10 pm. You can use this to bracket those lines in your onabort file so that they only see the Phone time limit when the time limit is exceeded.

if !timelimit the reverse of above. Will execute in the onabort file if within the timelimit.

if timeout will execute if the caller's page timed out during normal paging hours.

if blocked will execute if the caller's page was blocked with the block command or by the sysop pressing Alt Q at the alarm pop-up window.

if <label> will execute if a given label has been defined with the define verb or the -d command line switch. This test is case insensitive. An example would be "if MyLabel" and would execute if 'MyLabel' had been defined with define MyLabel or -dMyLabel on the command line. This feature allows custom flags to be passed to script flags using conditional execution. It is also the method by which the Yabbs utilities will be able to discriminate their part of a large config file from other applications.

NOTE

The default label is YPHONE. Use this with other Y utilities to separate sections of a single control file dedicated for each utility. As each utility is released, it will have its own uniquely defined internal label so that all control files can be combined into one master list if you so desire.

if !<label> will execute if a given label has not been defined.

NOTE

If statements can be nested. Multi-line if blocks (if... then) must have an endif. Single line if statements do not need an endif.

9.1.9 Endif

endif indicates the end of an if test.

10 Metacharacters

Metacharacters are special two character combinations that allow you to substitute information into a given string. Metacharacters begin with the dollar sign, '\$', and are followed by a single letter. When a metacharacter sequence is found in a line, it is replaced with one or more characters that it represents. Metacharacters should be considered very simple internal constants. You can never set them to a particular value, but you can read them and use them. The list of metacharacters are:

- \$B the port's baud rate is inserted in the line. For example, "1200" would be inserted for \$B.
- \$D the system's date is inserted in the line. For example, "Apr 15, 1989" would be inserted for \$D. Month names are truncated to the first three characters.
- \$E the system's event limits are inserted in the line. For example, if you have defined an allowable event window from 10:00 to 22:00 hours (10 am to 10 pm), then the string "10:00am to 10:00pm" is inserted in the line in place of \$E.
- \$F the caller's first name is inserted in the line. For example, caller John Doe would have "John" inserted in the line.
- \$L the language number, which currently ranges from 1 to 6 for Opus 1.1x and 12 for Opus 1.2x. Use this in a file name to specify which language file to open for a given caller.
- \$N the task number is inserted in the string. This is the task number passed via the '/t#' command line switch from Opus when OPhone is invoked, or the default task found in the PRM file if no task number is passed. The string is two characters, padded with a zero if less than 0Fh, and is hexadecimally based.
- \$P the port Phone is active on is inserted in the line. For example, if Phone is on com1:, '1' is inserted place of \$P.
- \$T the system's current time is inserted in the line in HH:MM:SS format. The hour field is packed with a zero if the hour is less than 10.

\$U the caller's full name is inserted in the line.

11 Environmental Variables

In addition to the metacharacter, Phone can reference environmental variables and insert them into the script line or file templates. When referenced, the name of an environmental variable is placed between two percent signs. This is the same feature found in MS-DOS (v3.3 and later) batch files. For example, you might reference the path where you open your capture file with an environmental variable, thus:

```
%bbspath%phone.cpt
```

and you would then have the following in your autoexec.bat file:

```
set bbspath=d:\bbs\capture\
```

so that when the open statement is executed, it will expand to:

```
d:\bbs\capture\phone.cpt
```

Environmental variable references allow you a greater degree of flexibility in your use of Phone. Any environmental variable can be referenced. If you reference an environmental variable that does not exist, Phone will substitute the null string, just like MS-DOS.

If you need to use a percent sign, then you can escape the percent sign by putting two in succession. For example, if you had the line:

```
print "This is a percent sign: %%"
```

then when it is printed, it would display as

```
"This is a percent sign: %"
```

You should do the same with the dollar sign, '\$', if you need an explicit '\$' character in your script. Putting two dollar sign in succession will escape the second one.

12 Using Metacharacters and Environmental Variables

Metacharacters and environmental variables are most useful in the file strings under the Options menus and in the abort file. Here are several examples for the file section.

First, consider an entry for the capture file in the Options/File menu.

```
%tmp%phone$n.cpt
```

The environmental variable %tmp%, if initialized with the SET command in a batch file, will expand to whatever it is set to. If set to "f:\foo\", then the first part of the file name will expand to

```
f:\foo\phone...
```

The metacharacter \$N will expand to the current task number. If phone is invoked by Opus with a '/t1' on the command line, then the file name will fully expand to

```
f:\foo\phone01.cpt.
```

Assuming that the subdirectory 'f:\foo' exists, and that there is space, then the file 'phone01.cpt' will be opened (or created, as the case may be).

Second, consider an entry for the abort file. Opus provides the ability to specify the caller's language. You can take advantage of this by including the \$L metacharacter in the abort file name, such as

```
phone$l.abt.
```

When the file name is expanded, the caller's language will be inserted where the \$L is located in the file name. Assuming that the caller's language is English, and English corresponds to 1, then if an abort takes place phone will attempt to apologize with the file

```
phone01.abt.
```

Finally, OPhone will recognize and expand environmental variables in the /u<lastuserfile> command line switch. For example, assume you have explicitly coded

```
phone /ulastus%task%.dat ...
```

Normally, if a standard system call is made with COMMAND.COM, then COMMAND.COM will parse the command line and expand the environmental variables. But Opus does an exec (after doing only a parse). As such the environmental variables are passed to the child process. If an environmental variable is passed to OPhone in the /U command line variable, then OPhone will replace the variable with the proper value. If for example you

```
set task=01
```

then OPhone will translate lastus%task% to lastus01. This feature is useful in multitasking Opii where a ^OC is used to call OPhone, such as from one of the function key BBS files. This is a last line of defense, as it appears the '#' Avatar character does not always work.

13 Opus Ansi or Avatar Control Codes

OPhone supports a subset of the oAnsi control codes. These codes can be incorporated into the abort file to provide additional colors and screen placement. You can incorporate these control codes in print quote strings, or you can use them stand-alone as long as the string is preceded with a double quote. This implied print must not be enclosed with a matching double quote. The matching double quote will simply be printed out to the caller. For further information please see the example abort file.

^F^B	User's full name.
^F^C	User's city and state/province.
^F^E	Current date.
^F^F	User's first name.
^F^R	Current time.
^L	Clear screen.
^V^A	Set color.
^V^B	Blinking on.
^V^C	Move cursor up one line.
^V^D	Move cursor down one line.
^V^E	Move cursor left.
^V^F	Move cursor right.
^V^G	Clear to the end of the line.
^V^H	Set cursor position.
^Y	Replicate [char] [number of times].

Please check the relevant Opus documentation for further details.

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