You can execute HOSTACCESS startup command line options from any application that can execute a command, such as DOS, WordBasic, Visual Basic, Excel.

Some Web browsers such as Netscape support specific command lines for specific purposes.

The following command line switches are available:

- 7 Strip the top bit from the network traffic.
- **x** Exit program when the host disconnects.
- **z** Start tracing immediately the session starts.
- t Define trace file to use.

em Emulation.

- ip ip address.
- Using command line options with WordBasic.
- Using command line options with Netscape.

#### Using command line options with WordBasic:

You would use the Shell statement, e.g. Shell application \$[, Window Style]

So you could have:

Shell "C:\host\host.exe/em vt100/ip 194.127.1.5 "

## Using command line options with Netscape:

**Note:** This is not supported with Netscape v4.00 and above.

- 1. In Netscape, from the Options menu, select Preferences and click on the Applications and Directories tab.
- 2. At the Telnet application prompt, type

"pathnameof host /em emulationtype /ip"

e.g. "C:\host\host.exe /em vt100 /ip"

The following switches are available:

- po Specify an alternate IP port to connect to for WinSock network.
- ip Specify an IP/URL address for the WinSock network.
- em Specify an emulation.

Note: the menu options may vary slightly depending on the version of Netscape you have.

Note: the ip address is provided by Netscape.

When connecting to sessions over the Internet, it is recommended that you do not have AutoConnect selected. This is because if your Internet connection is not up, then you will have to wait for the Telnet integration to time-out before you can change the session.

The following topics describe how you can set your screen in different ways to suit the way you work. They also explain how you can reset the screen in the event of screen errors and how you can reset your network connection.



Resizing the screen.

Resetting the network.

The standard screen setting is to have HOSTACCESS set to maximum with a toolbar and status bar. If HOSTACCESS is not maximized, you can click the Maximize button. This is a standard Windows button in the top right hand corner of any Windows program.

 Windows 3.1.

Windows 95/98/NT.

You can view the screen with or without the tool bar and the status bar.

You can expand HOSTACCESS's window to the full size of your screen, this is called Ultimising the screen. This is useful if you want to use the session as a traditional terminal, that is without Windows features. You can also select whether the Ultimised screen has a toolbar and status bar or not.

Ult	imis	ing t	he s	creen

Configuring the toolbar.

Configuring the status bar.

Resetting the screen.

# To Ultimise the screen:

- Press Alt+Enter to switch HOSTACCESS's window between full screen mode and normal window size. You can also select the Full screen option from the System menu to Ultimise the screen, but to reset the screen, you will need to press Alt+Enter. Note: Ultimise "loses" the title bar and menu bar.
- You can also resize the screen by dragging the thin borders at the top, bottom and sides of the screen. If you do this, it is recommended that you configure the font you use to <u>Maintain</u> Aspect Ratio, otherwise the text on your screen might look stretched.

## To view the toolbar:

Enable the View toolbar option in the Configure menu. This will hide/display the HOSTACCESS toolbar.

# To view the status bar:

Enable the View status bar option in the <u>C</u>onfigure menu. This will hide/display the HOSTACCESS status bar.

Select the <u>Reset</u> screen option from the System menu. It is equivalent to "switching off and on" a terminal. This facility is useful if communications with the host have been interrupted and seem unable to continue.

**Note**: Host applications can also suspend communications by sending Xoff characters. Often a simple CTRL/Q will restart communications.

# To reset your network connection:

Select the Reset <u>n</u>etwork option from the System menu. Use this option if your network connection is disrupted for some reason. If you have to reset the network, your connection will be terminated, and you will have to log on again.

**Dynamic Data Exchange** (DDE) is used to transfer data between Windows applications. The following topics provide you with working examples that demonstrate how to send data to a HOSTACCESS session, how to request data from a HOSTACCESS session and how to how to execute macros and commands from a DDE client.

With HOSTACCESS, you can use DDE to exchange data between 2 Windows applications. HOSTACCESS provides server capability for any application that is able to act as a DDE client.

**Note:** You must have a resilient link from the PC to the host. DDE cannot work remotely unless full flow control and error checking are in place.

DDE was designed to form a standard way of communicating between Windows applications. However, the fact that each Windows applications support DDE differently (or sometimes not at all) can make it difficult to understand.

Two applications participate in DDE engage in what is known as a DDE conversation. The application that initiates the conversation is known as the **client** application, and the application that responds to the client is known as the **server** application.

DDE Server support
DDE Request - Requesting data from a HOSTACCESS session.
DDE POKE - Sending data to a HOSTACCESS session.
Executing macros from a DDE Client.
DDE example.
DDE Ward 6/05 Maara Evanable

- DDE Word 6/95 Macro Example.
- DDE Word 97 Macro Example.

Any Windows product that supports DDE as a server application must have a **server name**. In HOSTACCESS's case this is:

Servernam e:	(For 6.30) HA6
	(For 7.10) HA7
Topic:	Session name
ddereques t:	Read text from screen (RxCxNx) where R=row, C=column, N=no. of characters to read
ddepoke	Text send keystrokes to application

"key stack commands' text"

To request data from the HOSTACCESS session you will need to request the data specifying the x & y co-ordinate you wish to start from and the number of characters you wish to retrieve. Most PC languages will have a DDE request command :

### **Example: WORD Basic**

```
Sub MAIN
request$ = "R7C20N30"
i = DDEInitiate("HA6", "Session")
answer$ = DDERequest$(i, request$)
DDETerminate i
MsgBox(answer$, "DDE Request")
```

### End Sub

This example reads text from screen where R=row, C=column, N=no. of characters to read.

You can send data to a HOSTACCESS session as a user would normally send keystrokes. You may send normal keys as well as special keys like Carriage Return, Escape etc. To do this you must specify the text you wish to send in single quotes and the special keys outside these quotes.

#### For example :

DDEPoke DDEChannel, "Keys", " 'Hello World' CR"

The example above will send the keys to print Hello World on the screen with a carriage return (CHR\$ 13) at the end. Note that the text is in Quotes and the special keys are not.

It is also possible to send data direct to the host, this information does not get translated via the internal keyboard mappings in HOSTACCESS.

#### Example :

DDEPoke DDEChannel, "Network", "Hello World" + Chr\$(13)

The example above would send the text in the quotes followed by the carriage return.

#### Example : WORD Macro

#### Sub MAIN

```
i = DDEInitiate("HA6", "Session")
DDEPoke i, "Keys", "'ED PROGS TEST'" + "CR"
DDEPoke i, "Network", "DE999" + Chr$(13)
DDEPoke i, "Keys", "'EX'" + "CR" + "'Y'CR"
DDETerminate i
```

End Sub.

The example above shows the options available for sending keystrokes to a HOSTACCESS session You can concatenate strings and text with <u>mnemonics</u>.

There are a number of keys that can be used to send to the host in the following format:

<b>Mnemonic</b> LA RA	<b>Represents</b> Left Arrow Right Arrow
UA	Up Arrow
DA	Down Arrow
PU	Page Up
PD	Page Down
HM	Home
EN	End
IN	Insert
DE	Delete
TA/TB	Tab
ST/BT	Shift Tab (Back Tab)
ES	Escape
BS	Backspace
SP	Backspace
CR	Enter
LF	Ctrl-Enter
DQ	The double quote
SQ	The single quote
F	Function key
BR	Break

Macros, including single macro commands can be run in HOSTACCESS from the DDE Client.

# Example: Word Basic Macro

# Sub MAIN

macro\$ = "c:\host \auto.mcr"

```
i = DDEInitiate("HA6", "Session")
```

DDEExecute i, macro\$

DDETerminate i

End Sub

### You can execute one line of a macro by replacing the line:

macro\$ = "c:\host \auto.mcr"

### With:

macro\$ = "Sendterm user, chr\$(13"

## Where:

Sendterm user, chr\$(13

is a valid macro command.

The following WordBasic example provides a list of the available system items, topics and formats supported by the application:

```
Sub MAIN
DDETerminateAll
n = DDEInitiate("HA7", "system")
a$ = DDERequest$(n, "SysItems")
MsgBox(a$, "SysItems")
b$ = DDERequest$(n, "Topics")
MsgBox(b$, "Topics")
c$ = DDERequest$(n, "Formats")
MsgBox(c$, "Formats")
DDETerminate n
```

End Sub

Some applications that support DDE: Microsoft Word for Windows, Excel, Visual Basic

The following is a working example of a WordBasic macro which shows you how you can use Word 6/95 with HOSTACCESS 6.2 (16 bit version). It demonstrates sending data and requesting information from the screen and runs HOSTACCESS macros.

Click <u>here</u> to see a macro that demonstrates how you can use Word 97 with HOSTACCESS 7 (32 bit version). Please note that the Word 97 macro language is slightly different to that in previous versions of Word - please refer to your Microsoft documentation for further information on this.

```
REM HOSTACCESS DDE Server Services demonstration program
REM Copyright (C) Pixel Innovations Ltd 1994-1997.
REM All Rights Reserved
Sub MAIN
  data$ = ""
   request$ = ""
restart:
   On Error Resume Next
   While 1
      Begin Dialog UserDialog 400, 252, "HOSTACCESS Control"
        GroupBox 10, 10, 170, 110, "Send &Data ..."
        textbox 20, 30, 150, 20, .data$
        PushButton 20, 60, 150, 20, "... as keys", .Push1
        PushButton 20, 90, 150, 20, "... as network data", .Push2
        GroupBox 10, 130, 170, 80, "Send CR ..."
        PushButton 20, 150, 150, 20, "... as a key", .Push3
        PushButton 20, 180, 150, 20, "... as network data", .Push4
        GroupBox 210, 10, 170, 110, "Re&quest"
        TextBox 220, 30, 150, 20, .request$
        PushButton 220, 60, 150, 20, "System", .Push5
        PushButton 220, 90, 150, 20, "Session", .Push6
       CancelButton 116, 220, 155, 20
       GroupBox 210, 130, 170, 80, "E&xecute"
       TextBox 220, 150, 150, 20, .macro$
       PushButton 220, 180, 150, 20, "Execute", .Push7
      End Dialog
      Dim dlg As UserDialog
      dlg.data$ = data$
      dlg.request$ = request$
      but = Dialog(dlg)
      Select Case but
         Case 1
            data$ = dlg.data$
            On Error Goto CatchInit
            i = DDEInitiate("HA6", "Session")
            On Error Goto CatchDo
            DDEPoke i, "Keys", data$
            DDETerminate i
            On Error Goto 0
         Case 2
            data$ = dlg.data$
            On Error Goto CatchInit
            i = DDEInitiate("HA6", "Session")
            On Error Goto CatchDo
            DDEPoke i, "Network", data$
            DDETerminate i
            On Error Goto 0
         Case 3
            On Error Goto CatchInit
            i = DDEInitiate("HA6", "Session")
            On Error Goto CatchDo
            DDEPoke i, "Keys", "CR"
            DDETerminate i
            On Error Goto 0
         Case 4
            On Error Goto CatchInit
            i = DDEInitiate("HA6", "Session")
```

```
On Error Goto CatchDo
            DDEPoke i, "Network", Chr$(13)
            DDETerminate i
            On Error Goto 0
         Case 5
            request$ = dlg.request$
            On Error Goto CatchInit
            i = DDEInitiate("HA6", "System")
            On Error Goto CatchDo
            answer$ = DDERequest$(i, request$)
            DDETerminate i
           On Error Goto 0
           reportrequest request$, answer$
           answer$ = ""
         Case 6
           request$ = dlg.request$
            On Error Goto CatchInit
            i = DDEInitiate("HA6", "Session")
           On Error Goto CatchDo
           answer$ = DDERequest$(i, request$)
           DDETerminate i
           On Error Goto 0
           reportrequest request$, answer$
           answer$ = ""
         Case 7
           macro$ = dlg.macro$
           On Error Goto CatchInit
            i = DDEInitiate("HA6", "Session")
           On Error Goto CatchDo
           DDEExecute i, macro$
           DDETerminate i
         Case Else
           REM This is the only way out of the 'while 1' loop
           Stop - 1
     End Select
   Wend
CatchInit:
   On Error Resume Next
  MsgBox "Unable to initiate link with HA6", "DDE Test"
   err = 0
  Goto restart
CatchDo:
   On Error Resume Next
  Select Case err
                 ' Invalid channel number
     Case 501
        msg$ = "Invalid channel number. Has HOSTACCESS closed its session?"
      Case 503
        msq$ = "DDE instruction rejected"
        DDETerminate i
     Case 513
        msg$ = "DDE result too long"
      Case Else ' Other error
        msg$ = "Error " + Str$(err) + " occurred"
   End Select
  MsgBox msg$, "DDE Test"
  err = 0
  Goto restart
End Sub
Sub reportrequest(rq$, data$)
   datalabel$ = "Data (" + Str$(Len(data$)) + " characters)"
   Begin Dialog UserDialog 600, 200, "Requested Data"
     GroupBox 10, 10, 580, 40, "Request"
     Text 20, 20, 560, 20, rg$
     GroupBox 10, 50, 580, 100, DataLabel$
     Text 20, 60, 560, 80, data$
     OKButton 266, 165, 88, 21
```

```
End Dialog
Redim dlg As UserDialog
Dialog dlg
End Sub
```

The following macro example shows you the possibilities of using DDE from Word 97 with HOSTACCESS 7. This macro creates a dialog box which enables you to send data, requests and to execute macros.

It is created in the following modules:

Code module.

DDE module.

Macro1 module.

RPC module.

Public Sub MAIN() WordBasic.Font "Courier New" WordBasic.FontSize 10 WordBasic.Bold End Sub

```
Rem HOSTACCESS DDE Server Services demonstration program
Rem Copyright (C) Pixel Innovations Ltd 1994-1997.
Rem All Rights Reserved
Public Sub MAIN()
Dim app $
Dim data $
Dim request$
Dim exec$
Dim dlg As Object
Dim topic$
Dim item$
Dim but
Dim i
Dim answer$
Dim msq$
   app $ = "HA7"
   data $ = ""
   request$ = ""
    exec$ = ""
restart:
   On Error Resume Next
    While 1
        WordBasic.BeginDialog 580, 250, "HOSTACCESS Control"
          WordBasic.GroupBox 10, 10, 170, 110, "Send &Data ..."
          WordBasic.TextBox 20, 30, 150, 20, "data$"
          WordBasic.PushButton 20, 60, 150, 20, "... as keys", "Push1"
          WordBasic.PushButton 20, 90, 150, 20, "... as network data", "Push2"
          WordBasic.GroupBox 10, 130, 170, 80, "Send CR ...."
          WordBasic.PushButton 20, 150, 150, 20, "... as a key", "Push3"
          WordBasic.PushButton 20, 180, 150, 20, "... as network data", "Push4"
          WordBasic.GroupBox 210, 10, 170, 160, "Request"
          WordBasic.Text 220, 30, 150, 20, "Topic", "Text1"
          WordBasic.TextBox 220, 50, 150, 20, "topic$"
          WordBasic.Text 220, 80, 150, 20, "Item", "Text2"
          WordBasic.TextBox 220, 100, 150, 20, "item$"
          WordBasic.PushButton 220, 140, 150, 20, "Send Re&quest", "Push5"
          WordBasic.GroupBox 400, 13, 170, 112, "Execute"
          WordBasic.TextBox 410, 64, 150, 20, "exec$"
          WordBasic.PushButton 410, 95, 150, 20, "&Execute", "Push6"
          WordBasic.Text 410, 30, 150, 34, "Macro name, or *CMD"
          WordBasic.CancelButton 210, 220, 160, 20
        WordBasic.EndDialog
        Set dlg = WordBasic.CurValues.UserDialog
        dlg.Data$ = data $
        dlg.topic$ = topic$
        dlg.item$ = item$
        dlg.exec = exec
        but = WordBasic.Dialog.UserDialog(dlg)
        Select Case but
            Case 1
                data $ = dlg.Data$
                On Error GoTo -1: On Error GoTo CatchInit
                i = WordBasic.DDEInitiate(app $, "Session")
                On Error GoTo -1: On Error GoTo CatchDo
```

```
WordBasic.DDEPoke i, "Keys", data $
                WordBasic.DDETerminate i
                On Error GoTo -1: On Error GoTo 0
            Case 2
               data $ = dlg.Data$
               On Error GoTo -1: On Error GoTo CatchInit
               i = WordBasic.DDEInitiate(app $, "Session")
               On Error GoTo -1: On Error GoTo CatchDo
               WordBasic.DDEPoke i, "Network", data $
               WordBasic.DDETerminate i
               On Error GoTo -1: On Error GoTo 0
            Case 3
               On Error GoTo -1: On Error GoTo CatchInit
                i = WordBasic.DDEInitiate(app $, "Session")
               On Error GoTo -1: On Error GoTo CatchDo
               WordBasic.DDEPoke i, "Keys", "CR"
               WordBasic.DDETerminate i
               On Error GoTo -1: On Error GoTo 0
            Case 4
               On Error GoTo -1: On Error GoTo CatchInit
                i = WordBasic.DDEInitiate(app_$, "Session")
               On Error GoTo -1: On Error GoTo CatchDo
               WordBasic.DDEPoke i, "Network", Chr(13)
               WordBasic.DDETerminate i
                On Error GoTo -1: On Error GoTo 0
            Case 5
               topic$ = dlg.topic$
               item$ = dlg.item$
               On Error GoTo -1: On Error GoTo CatchInit
               i = WordBasic.DDEInitiate(app $, topic$)
               On Error GoTo -1: On Error GoTo CatchDo
               answer$ = WordBasic.[DDERequest$](i, item$)
               WordBasic.DDETerminate i
               On Error GoTo -1: On Error GoTo 0
               reportrequest item$, answer$
               answer$ = ""
            Case 6
               exec = dlg.exec$
               On Error GoTo -1: On Error GoTo CatchInit
                i = WordBasic.DDEInitiate(app $, "Session")
                On Error GoTo -1: On Error GoTo CatchDo
                WordBasic.DDEExecute i, exec$
               WordBasic.DDETerminate i
               On Error GoTo -1: On Error GoTo 0
            Case Else
               Rem This is the only way out of the 'while 1' loop
                Exit Sub
       End Select
   Wend
CatchInit:
   On Error Resume Next
   WordBasic.MsqBox "Unable to initiate link with HOSTACCESS", "DDE Test"
   Err.Number = 0
   GoTo restart
CatchDo:
   On Error Resume Next
```

```
If Err.Number = 503 Then
       Rem DDE reject
        msg$ = "DDE instruction rejected"
        WordBasic.DDETerminate i
   ElseIf Err.Number = 513 Then
       Rem String too Long
       msg$ = "DDE result too long"
   Else
       Rem Other error
       msg$ = "Error " + Str(Err.Number) + " occurred"
   End If
   WordBasic.MsgBox msg$, "DDE Test"
   Err.Number = 0
   GoTo restart
End Sub
Private Sub reportrequest(rq$, data_$)
Dim datalabel$
   datalabel$ = "Data (" + Str(Len(data_$)) + " characters)"
   WordBasic.BeginDialog 600, 200, "Requested Data"
        WordBasic.GroupBox 10, 10, 580, 40, "Request"
        WordBasic.Text 20, 20, 560, 20, rq$
        WordBasic.GroupBox 10, 50, 580, 100, datalabel$
        WordBasic.Text 20, 60, 560, 80, data $
        WordBasic.OKButton 266, 165, 88, 21
   WordBasic.EndDialog
    Dim dlg As Object: Set dlg = WordBasic.CurValues.UserDialog
   WordBasic.Dialog.UserDialog dlg
End Sub
```

```
Public Sub MAIN()
WordBasic.EndOfLine 1
WordBasic.MarkIndexEntry Range:="", Bold:=0, Italic:=0, CrossReference:="",
EntryAutoText:="MarkIndexEntry1", CrossReferenceAutoText:=""
WordBasic.EditFindStyle Style:="Heading 2"
WordBasic.EndOfLine 1
WordBasic.CharRight
WordBasic.EditFind Find:="?", Direction:=0, MatchCase:=0, WholeWord:=0, PatternMatch:=1,
SoundsLike:=0, Format:=1, Wrap:=1
WordBasic.StartOfLine
End Sub
```

```
Public Sub MAIN()
Dim all
Dim conv
Dim asn$
WordBasic.DDETerminate all
conv = WordBasic.DDEInitiate("ha6", "remote")
asn$ = WordBasic.[DDERequest$](conv, "PROGS:PIH")
WordBasic.DDEExecute conv, "BUILDLIST"
WordBasic.DDEPoke conv, "item", "data"
asn$ = WordBasic.[DDERequest$](conv, "PROGS:PIH")
WordBasic.DDETerminateAll
End Sub
```

The following topics describe:

- The Edit menu.
- OLE support in HOSTACCESS 7
- How to configure editing.
- Editing styles
- Backpages
- How to use the Command Stacker.
- The Special Key function.

The  $\underline{E}$ dit menu allows you to copy and paste selected text if your emulation supports these functions. These functions will only be activated once you have selected text.

HOSTACCESS 7 users also have the following functions: Insert new object, Delete object and Delete all objects. These items are inserting and deleting OLE objects.

	Copying
--	---------

Pasting

OLE.

You can select and copy text from normal pages and from Backpages using the same methods.

### To select text:

Hold down the CTRL key whilst dragging the mouse across the relevant area. This is configurable in the Configure Editing dialog.

## To copy selected text from the current session into the Clipboard:

Select the <u>C</u>opy option from the Edit menu. If the Context menu's are enabled then you can copy text by using the right mouse button then select the Copy option from the menu that is displayed.



# To paste text from the Clipboard into the current session:

From the  $\underline{E}$ dit menu, select the  $\underline{P}$ aste option, or click the toolbar button shown below:



OLE automation (Object Linking and Embedding) allows you to export a programming interface from an application for use by another application. This allows one application to drive another. For example, most of Excel's macro language is available to other applications via OLE automation. You can insert OLE objects into a HOSTACCESS session.

Inserting an OLE object.

Deleting an OLE object.

Delete all OLE objects in a session.

# To insert an OLE object:

- 1 Select Insert new object from the . <u>E</u>dit menu.

.

2 Select the Object type from the list.

Create New	If you select Create <u>N</u> ew, you will get a list of objects that you can insert into your document. For example, if you selected Bitmap Image, an object would be inserted into your document which would allow you to create an bitmap image.
<u>D</u> isplay as icon	Enabling <u>D</u> isplay as icon inserts a shortcut into the document which represents the file.
Create from File	If you select Create from <u>File</u> , this will insert the contents of an existing file into the document and you will be able to edit it using the program that created it. Type the file name that you want to select, or use the browse button.
<u>L</u> ink	Enabling the Link button inserts a picture of the file contents into the document. The picture will be linked to the file so that changes to the file will be reflected in your document.

# You can delete a selected OLE object:

- 1 Select the object you want to delete.
- .
- 2 Select <u>D</u>elete object from the <u>E</u>dit
- . menu.

# You can delete all OLE objects in a session:

Select Delete  $\underline{a}$ II Objects from the  $\underline{E}$ dit menu.

You can configure the following options using the Editing option from the Configure Menu:

### Select a boxed area of the screen:

Use the Block select button pull down list box to choose which keys to use.

#### Choose the editing style:

Select WordStar, WordPerfect or Windows editing styles.

### Select an area of the screen containing text lines:

Use the Line select button pull down list box to choose the keys to use.

#### Select copy and highlight keys:

Use Copy selection button to choose keys that select and copy text to the Clipboard.

#### Insert a carriage return for every new line of selected text:

Use Insert newlines to insert a carriage return for every new line of text that is pasted.

#### Remove trailing spaces:

Use Strip spaces to remove trailing space from pasted text.

#### **Display Context menus:**

Use Enabled checkbox.

#### Enable HOSTACCESS's command stack:

Select Command Stack Enabled. Use the Stack Size box to define the size of the command stack (default is 20) and use the minimum command length to define the minimum number of keystrokes stored by the command stack.

You can write an <u>AutoConnect macro</u> which will prevent your login and password from being stored in the command stack.

#### Define number of backpages

Use the Number of pages box to define the number of backpages.

#### **Enable vertical scrollbar**

Use Vertical scrollbar navigates backpages to enable a vertical scrollbar that allows scrolling through HOSTACCESS's backpages. This feature is only available if the Snap to Frame option is enabled (use the Font dialog from the Configure menu).

Note: Each backpage uses about 10k of memory and too many may cause HOSTACCESS to run slowly.

To input or amend textual data in edit boxes or windows, HOSTACCESS provides a set of local editing functions. You can control these functions using some of the keys shown below.

HOSTACCESS supports three local editing styles:

- Windows compatible (for example, ALT/V to paste from the Clipboard)
- WordPerfect compatible
- WordStar compatible

To select one of these styles, use the <u>Editing</u> dialog from the <u>C</u>onfigure menu.

Below is a common subset of local editing keys, for general text processing.

Local Edit Key	Function
<insert></insert>	Toggles between insert (the default) and overwrite modes. A line cursor is used in insert mode, a block cursor in overwrite.
<delete></delete>	Deletes the character currently under the cursor.
<up arrow=""></up>	Up one line.
<down arrow=""></down>	Down one line.
<left arrow=""></left>	Moves the cursor one position to the left.
<right arrow=""></right>	Moves the cursor one position to the right.
<backspace></backspace>	Deletes the character to the left of the cursor
<home></home>	Moves to the first character of the input field.
<end></end>	Moves to the last character of the input field.
<enter></enter>	Successfully ends the input or amend operation and returns the result to HOSTACCESS.
<escape></escape>	Aborts the input or amend and leaves the original contents unaltered.

Following is a complete list of other editing keys in WordPerfect and WordStar styles:

Local Edit Key		Function
WordPerfect	WordStar	
Ctrl, Left Arrow	Ctrl/A	Word left
Ctrl, Right Arrow	Ctrl/F	Word right
Home, Left Arrow	Home	Beginning of text line
Home, Right Arrow	End	End of text line
Home, Up Arrow	N/A	Top of screen (in an edit window only)
Home, Down Arrow	N/A	Bottom of screen (in an edit window)
Home, Down Arrow	N/A	Bottom of screen (in an edit window only)
Ctrl Backspace	Ctrl/T	Deletes word to right of the cursor
Ctrl/End	Ctrl/Q then Ctrl/Y	Deletes the remainder of the entire line
Ctrl/Del	Ctrl/Y	Deletes complete line.

Ctrl/Page Down	N/A	Deletes the remainder of the entire page (in an edit window only).
Ctrl/F1	Ctrl/R	Restores the text to its original content.

There are several different ways you can move through backpages in HOSTACCESS:

Toolbar buttons	The up and down arrow buttons on the toolbar allow you to move through backpages one page at a time and are available whenever you have backpages set (see Define number of backpages in the <u>C</u> onfigure, <u>Editing</u> dialog).
Page Up and Page Dn keys.	You need to have Page Keys set to Backpages ( <u>C</u> onfigure, <u>Terminal</u> ). They will move you through backpages one page at a time. Pressing Alt +Page Up or Page Dn will move you up or down one line at a time.
Vertical scrollbar	You need to have the following options set:
	<u>V</u> ertical scrollbar navigates backpages

Use the <u>Editing</u> dialog from the <u>Configure menu</u>.

#### Snap to Frame

Use the <u>Font</u> dialog from the <u>C</u>onfigure menu).

If you have Snap to Frame turned off, you can pan over the terminal screen using the vertical scrollbar.

The Vertical scrollbar only moves in the terminal screen, not through backpages. You can, however, use the Page Up, Page Dn keys and the toolbar buttons to move through backpages.

This is useful when you have a low resolution monitor and you are trying to view terminal screens that are effectively larger than your monitor size or the size of the HOSTACCESS application window. For example if you are looking at a 132 column report displayed on screen, you can increase the font size to improve readability and view the whole report by panning down and across the terminal screen.

The <u>Command stacker option stores the last 20 commands entered per session while using HOSTACCESS</u>, if set.

By default, the Command stacker is turned off, to enable the Command Stacker, see Configuring editing.

## Warning:

If you use the Command Stacker it may also store any user-ids and passwords typed during connection to a host. To prevent this, you can write a <u>special login macro</u>which will stop your login and password from being stored in the command stack while logging on.

You can also write an AutoConnect login macro that will automatically log you on to a system.



You can re-send previously entered commands to the host system. You may edit any of the stored commands. If you send a previously used command, it automatically moves to the top of the command stack.

HOSTACCESS will store commands which are:

- At least 4 characters long, although you can alter this setting, see configuring editing.
- Do not contain any control characters.
- Terminated by a Carriage Return (for IBM emulations, the terminator is the emulation-specific ENTER key).
- Do not duplicate the most recently used command.

#### To disable the stack:

Deselect the relevant check box in the Editing option of the Configure menu.

Each HOSTACCESS session will maintain its own command stack. So if you have multiple open sessions, you will have multiple command stacks available.

The Special Key function allows you to enter characters that are not on your keyboard into a session, characters such as c, Å, Æ, é. The function is menu driven from a menu called Special Key, and you can use short cut keys to insert certain characters, for example **Alt+k**, **apostrophe**, **e** will give you **é**.

You can select the special keys either from the menu, where the characters are grouped by accent or character type, or you can use short cut keys to insert certain characters.

**Note:** Not all emulations support the full range of characters so they may not always be available. Also, the host may not accept certain characters and could echo them back differently.

#### To use the Special Key Menu

- 1 Pull down the Special Key menu and
- select the character grouping that you need, for example, Acute or Grave.
- 2 Select the key you want, by either using
- the short cut key for lower case letters, by selecting with your mouse or arrow keys and by pressing the return button.

You can also select the keys from the HOSTACCESS Character Map. Selecting characters from the character map means that you can leave the Character Map open while you are doing other work in your session.

Using the character map.

## Special keys - select

### To use Character Map:

- 1 Choose Select from the Special <u>K</u>ey
- menu. Click on the key that you want, then click Select, or double click on the key. Repeat this for as many keys as you need.
- If you are using the keyboard to select
   keys, use the arrow keys to select the key, then press the return key.
- 3 Click on the Close button to close the
- . Character Map or press the Esc key.

The following topics describe the support HOSTACCESS provides for foreign characters using a host character code override mechanism.



Background information - you should read this before making any changes.



Using the host code mapping mechanism

An example.

Note: The Microsoft book Developing International Software for Windows 95 and NT is an invaluable reference for this subject.

When a character with an ASCII value greater than 127 (0x7f in hex) is received from the host, most of the 7-bit async emulations will display an emulation-dependent character.

For example Wyse60 will display a character from its Multinational character set. 8-bit emulations such as Dec VT220 will also display emulation-dependent characters, but use the values in the range 0x80 to 0x9f for controls. For example on Dec VT220, the code 0x85 represents NEL (next line), which causes a cursor movement/screen scroll rather than the display of a character.

Host systems operating in foreign countries often make use of the character codes in the range 0x80 to 0xff to represent extra characters which may be required for that locale. These include characters with modifiers such as accents, diereses, cedillas, ogoneks etc. Often there are a number of different coding systems used to represent these characters.

HOSTACCESS accommodates these differing coding systems with a general purpose host character code over-ride mechanism allowing you to override the standard mappings. By editing a text based character mapping file, you can define your own custom mappings on a per session basis. Each entry in the map file associates/binds a host character code to a Unicode value. Unicode values are unique 16-bit numbers which represent any character from any coding system. The mechanism applies for all supported asynchronous emulations.

When HOSTACCESS receives one of these mapped characters from the host, it will use the mapping table to extract the Unicode value, and this Unicode value is used to generate the character for display. This means that for a given host code, the same character will be generated on a Polish system (with code page 1250) as for an Estonian system (with code page 1257). Currently it is only possible to display those characters in the Microsoft ANSI code pages, and the 16-bit version of HOSTACCESS can only display those characters from code pages 1250 (Latin2 Central Europe), 1251 (Cyrillic), 1252 (Latin1 ANSI), 1253 (Greek), 1254 (Turkish), and 1257 (Baltic rim). The 32-bit version works with any Microsoft ANSI code page.

The same mechanism works when dealing with foreign characters generated from the keyboard. When HOSTACCESS sees a key which has its Unicode value in the map file, the associated host code is sent to the host. Because the Unicode representation of the key code is used, it doesn't matter what sort of foreign keyboard is being used, or how that key was generated (different keyboards may generate the same Unicode character by different key strokes), HOSTACCESS will always send the host the code value it expects for that character.

Invoke the host code mapping mechanism by adding the following line in the [Settings] section of the session (.ses) file.

hostcodemap=mapfilename

#### Where:

mapfilename	The mapping file to be used; the full path name for the file may be used if the map file is not present in HOSTACCESS's working directory. The map file would normally have a name appropriate to the coding system on the host e.g. CP852.map if the host is using 852 (Latin 2) coding.
the 16-bit version of	f HOSTACCESS, an extra line is required in the same section
windows	cp=nnnn

Where:

In

nnnn Is any of the supported code pages (see <u>Host</u> <u>character over-ride mechanism - background</u> <u>information</u>).

The map file consists of one section with the name:

[Displaymap]

Followed by up to 128 entries. An example entry would be as follows (this works with a host using CP852 coding)

Disp.nn=xxxx # plus text

#### Where:

Disp.nn	Is the character code (in hex) which the host will send if it has been set up with CP852,
XXXX	Is the Unicode value (in hex) which HOSTACCESS will then use to display the character in the current font.
# plus text	Is a comment describing what the character

is.

See this example:

Disp.86=0107 # LATIN CAPITAL LETTER C WITH ACUTE

The range of Unicode values permissible are:

0000-058f	Which covers all the European languages
	including Greek and Turkish.

**2500-257f** Which covers the box drawing characters supported by HOSTACCESS.

### Notes

For 8-bit emulations (e.g.VT220), the mechanism will not over-ride character codes in the range 0x80-0x9f, because these are used for control purposes, not for displaying characters.

When the mechanism is active, the "ALT+Z" method of toggling line-tracing is disabled. This is because ALT+Z will generate a valid character on some foreign keyboards. Line tracing can still be controlled via the menu.



Take the micro sign, otherwise known as the Greek small letter mu ( $\mu$ ).

This character is generated on a German keyboard using the combination AltGr-m.

If the user's PC uses German as the system locale (i.e. the Language and Keyboard are set to German) then it will be using the ANSI code-page 1252.

On this code page, the micro sign is at the code point 0xB5.

The Unicode value (a unique number 16 bit number which represents any character from any coding system) for the micro sign is 00B5. Assuming that the host system uses the same coding for this character, you would set up the following map entry in the map file:

Disp.b5 = 00b5 #MICROSIGN

(The comment #MICROSIGN is optional).

If the host was using a different character code (say 0x95 for example) to represent the same character, we would use this value and still use the same Unicode value (e.g. Disp.95 = b5b5). You would still use the same keyboard combination to generate this character because HOSTACCESS will do the mapping on the PC based on the Unicode value, not the value received from/sent to the host.

There are two basic classes of emulation supported by HOSTACCESS. These are sometimes known as block mode emulations and asynchronous, or character mode emulations. Block mode emulations work by sending blocks of text to the host. Asynchronous mode emulations will send one character at a time to the host.

Block mode emulations tend to be those designed to work with large mainframes, for example IBM 3270 and IBM 5250. Asynchronous emulations tend to be those designed for smaller, mid-range systems such as the DEC VT100, VT220, VT320 and VT420 emulations. Because these emulations work differently, hotspots also work differently.

Hotspots in Block mode emulations



Hotspots in asynchronous mode emulations. A Hotspot is text on the screen which has been programmed by the host application so that when you move the mouse pointer over the text and click the right button, a particular function is activated. Clicking anywhere on the character string 'F3=Exit' will execute the exit function. However clicking on the 'Assistant' part of function 'F13=Information Assistant', will have no effect. This is because hotspots are delimited by spaces. You would need to click on 'F13=Information' to execute that function.

Hotspots can be used in the following emulations: IBM 3270 and IBM 5250.

#### **Cursor control**

You can control your mouse pointer in the following block mode emulations: IBM 3270, IBM 5250, ICL 7561. First position your mouse pointer anywhere on the screen, then click your left mouse button. Note that if left mouse clicks are required, then left mouse button events must be turned on via AiF.

Hotspots in asynchronous mode emulations work differently to those in block-mode emulations. This topic describes how hotspots work in asynchronous mode emulations and how you can configure these features by editing the ha7ehot.ini file. Hotspots do not require any changes to the host program. These changes should only be made by the systems administrator or an advanced user.

A hotspot is a word, or sequence of characters on the screen that is separated by whitespace. By default the whitespace character is simply a space, although this may be defined as another character by editing the ha7ehot.ini file. A mouse click on a hotspot will enable a defined function.

Hotspot reference table.

Whitespace.

Eatchars.

A NONE sequence.

Editing the ha7ehot.ini file.

Name	Definition	Command	
Cursor control	Cursor control allows the user to position the cursor on the screen using the mouse. This only works with host applications that recognise cursor key sequences such as full screen editors.	CURSORPOS	
Hot function keys	You can use hot function keys with host applications that recognise the appropriate function key sequence. For example, in the System Administration Shell on UNIX, pressing the F1 function key on your keyboard brings up Help and so clicking on the text F1 performs the same operation as pressing the F1 function key.	ALIAS_FNKEY	
Hot alias user words	This allows you to define an alternative sequence for a word on the screen. So for example a user can set up an alternative sequence for the word EXIT such as ESC so clicking on the word EXIT will have the same effect as pressing the ESC key.	ALIAS_USERWORDS	
Hot words	You can click on any alphanumeric sequence displayed on the screen. This sequence will then be sent to the host. For example, if you are using a full screen text editor and you want to search for a word, you can bring up a search prompt and click on a word displayed on the screen. This will start a search for that word.	HOTWORD	
Editing the ha7ehot.ini file.			

# **Defining whitespace**

You can define the whitespace character so that characters other than just space can separate words. Whitespace is defined using the whitespace command, e.g. whitespace = <SPACE>[] in the ha7ehot.ini file so the following line displayed in the terminal window:

**F1 HELP [EXIT]** | would contain three hotspots: F1, HELP and EXIT.

# **Defining eatchars**

The eatchars command defines characters which will be removed from hot words. For example, if you clicked on the text string 'help-screen' and you had defined the character '-' as an eatchar, the string 'helpscreen' would be set to the host.

# **A NONE sequence**

A NONE sequence means that no command will be performed unless a post click sequence has been defined. A post click sequence is a sequence that is sent to the host after a click.

## To edit the ha7ehot.ini file:

You need to edit the part of the ha7ehot.ini file that defines which mouse key will perform the action, eg.

Right\_click = HOTWORD

post\_right\_click =

The left mouse button is set so that when a hotword on the screen is clicked, it will be sent to the host.

You can set a left mouse key to send a combination of hotspots, for example:

ALIAS\_USERWORDS + ALIAS\_FNKEY + CURSORPOS

However, HOTWORD and CURSORPOS are mutually exclusive, you can have one or the other but not both.

The order in which HOSTACCESS searches for the sequences are as follows:

ALIAS\_USERWORDS, FNKEY, HOTWORDS or CURSORPOS

Defining a post-click sequence.

Activating cursor positioning.

Activating hotwords.

Activating and defining alias user hotwords.

Activating function keys.

A post-click sequence is a sequence which is sent if none of the commands can be achieved, for example, if a user clicks on a word on the screen that is not a hotword. This is defined in:

post\_right\_click =

You can define it to send a sequence of characters and/or keystrokes. If it is left blank, nothing will be sent at all.

For example:

post\_right\_click = <cr>

will send a carriage return to the host.

# To activate cursor positioning:

Edit the ha7ehot.ini file so that a mouse key is set to CURSORPOS, for example:

right\_click = CURSORPOS

# To activate hotwords:

Edit the ha7ehot.ini file so that he right mouse key is set to HOTWORD, for example:

right\_click = HOTWORD

A hotword is defined in the host application. If you want to define a hotword in the ha7ehot.ini file, you define an ALIAS\_USERWORD in the [alias] section of the .ini file. So for example, you could define the word BREAK to send the sequence  $^C$  to the host.

1 Insert the text:

 $BREAK = ^C$ 

in the ha7ehot.ini file in the [alias] section.

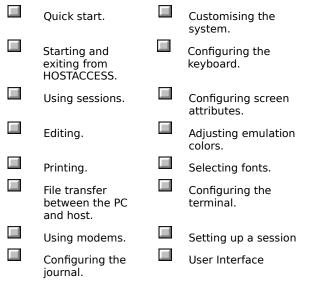
2 Edit the ha7ehot.ini file so that it says:

right\_click = ALIAS\_USERWORD

For hot function keys to work, the application screen must display function keys. The range is F1 through to F24. If ALIAS\_FNKEY is activated, when a user clicks on a function key on the screen, the character string that represents that function key will be sent to the host. If the host recognizes the character string it will perform the function.

#### Overview

Click on the buttons below to find out more about the topics listed.



This Quick Start section is designed to take you, step by step, through a typical PC to host connection i.e. to a UNIX host using Windows Sockets. The basic steps are much the same for any connection, but the details differ.

#### 1 Start HOSTACCESS.

In Windows 3.1, double-click on the HOSTACCESS icon from Program Manager.

In Windows 95/98/NT, click on the Start button at the bottom of your desktop, select Programs then select the HOSTACCESS icon from the HOSTACCESS program group.

#### 2 Connect to a new session

•

Select <u>N</u>ew from the <u>S</u>ession menu or click on the session toolbar button.

A Configure session dialog box will appear.

#### 3 Configure AutoConnect.

Click on the Autoconnect tab and check the Start Session When Application Starts box (do **not** click OK).

This will connect you to your session logon screen whenever you open the session. You can also set up a session to automatically log on using a macro.

# 4 Select the appropriate network and . emulation

Click on the Session tab then highlight the appropriate network and emulation, in this case Windows Sockets and DEC VT100.

Configure, either by double clicking on the selected network, or by clicking on the Properties button.

### 5 Configure the network and emulation

.

In the Configure Windows Sockets dialog:

- Configure your network by typing in the Host Address.
- Configure your emulation by clicking on the DEC VT100 tab then setting the Display and Screen Size.
- Click on OK when finished.

Your session screen should now appear.

You can now log on to your host system.

## 6 Save the session

To save your session you can:

Select Save  $\underline{a}s$  from the  $\underline{S}ession$  menu or click the Save toolbar button.



Enter the Name in the Name Field. You can choose an image from the pull down list box.

The session will be saved with a .ses file ending in your HOSTACCESS working directory. Although the session name can have a number of words, the filename itself will be no longer than 8 characters followed by a .ses extension. You can use IND\$FILE file transfer facilities using the IBM 3270 emulation connected to an IBM mainframe host.

IND\$FILE is really two protocols:

A block mode protocol which can transfer up to 32K of data per transaction, vastly reducing the number of times the host has to switch processes and the number of network packets. This is the protocol of choice for a terminal that supports extended data stream.

An async mode protocol. This can transfer less than 2K per transaction, causing a higher load on both the mainframe and the network. CICS does not support this transfer mode.

Note: the \$ symbol depends on your Nationality setting. While most Nationalities will use \$, the British nationality setting uses the f symbol (INDfEILE) and the Scandinavian setting uses the Å (INDÅFILE).

You can start IND\$FILE in two ways, from the command line.or from the HOSTACCESS menu.

#### Notes:

IND\$FILE transfer is used by the following IBM mainframe programs:

5664-281 IBM 3270-PC File Transfer Program for VM System.

5665-311 IBM 3270-PC File Transfer Program for TSO System.

5789-DQH CICS/VS 3270-PC File Transfer Program.

# To use IND\$FILE file transfer from the command line

- 1 While running a 3270 session, open the
- HOSTACCESS session and issue the IND\$FILE command at the host command prompt.

The commands you can use are

PUT, this sends data from the PC and transfers it to the host.

GET, this sends data from the host and transfers it to the PC

IND\$FILE GET `RICK.TSO.CLIST(CLIST1)' ASCII CRLF

- 2 Press enter, a dialog box will appear. Fill it . in as follows:
- - File Fill in the Destination or Source PC file name, or select using the Browse key.
  - Inte Session partner ID. You can use this r option to do an inter-session transfer. With this option, you need to define the session id in both sessions when initiating the transfers.
- 3 Select OK to initiate file transfer.

To use IND\$FILE from the menu, you must be running 3270 and your cursor must be at the command prompt.:

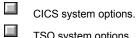
- 1. Select Start <u>File</u> Transfer from the System menu.
- In the Start IND\$FILE File transfer dialog box, select Direction, <u>Send to host or Get</u> from host.
- 3. Select the host system:  $\underline{C}ICS$ ,  $\underline{T}SO$ ,  $\underline{V}M$ .
- In the Local File Name field, type in the name of the file you wish to send or receive.
- The Host File Name is the name of the file (CICS or VM) or dataset (TSO) on the mainframe.
- You can either enter it directly in the field, or use the use the Specify button. This button brings up a different dialog box depending on the type of host system and makes sure you fill in the correct parameters:
- **CICS** Enter the Host File <u>N</u>ame, up to eight letters or digits.
- **TSO** Specify the dataset name, with or without quotes(mandatory), the

Member name (for a partitioned database only) and the dataset Password if required (it will not be displayed).

Enter the File  $\underline{N}$  ame, the File  $\underline{T}$  ype, the File  $\underline{M}$  ode. VM

If you select the Options button, you can specify advanced options depending on the direction of the file transfer and the host system type.

# Send to host



- TSO system options.
- VM system options.

### Get from host

IND\$FILE options.

## **CICS** system options

<u>R</u> etries	The number of times which HOSTACCESS should attempt to resend data if an error is detected.
Timeout	A timeout period (in seconds) after which HOSTACCESS may assume that the host program has failed.
Block Size	The block size to be used for the transfer. This is the transmission size and you can specify values up to 32767.
<u>A</u> dd CR/LF at end of line	Whether to convert CR/LF to space- padded records. Typically used for text files along with the <u>Convert ASCII</u> to EBCDIC option.
<u>C</u> onvert ASCII to EBCDIC	Whether to convert the ASCII characters to EBCDIC characters.

## VM system options

<u>R</u> etries	The number of times which HOSTACCESS should attempt to resend data if an error is detected.
Timeout	A timeout period (in seconds) after which HOSTACCESS may assume that the host program has failed.
Block size	The block size to be used for the transfer but only if the host agrees to use IBM's Block Mode of transfer. This is the transmission size and you can specify values up to 32767.
<u>A</u> dd CR/LF at end of line	Whether to convert CR/LF to space- padded records. Typically used for text files along with the <u>Convert ASCII</u> to EBCDIC option.
<u>C</u> onvert ASCII to EBCDIC	Whether to convert the ASCII characters to EBCDIC characters.
Append to existing file	Whether the data being sent will be appended to the name file, or will overwrite the file.
Record Format (RECFM)	Select either: <u>D</u> efault, <u>F</u> ixed or <u>V</u> ariable
Logical Record Length (LRECL)	The record length of the field.

## **TSO** options

i e e e puene	
<u>R</u> etries	The number of times which HOSTACCESS should attempt to resend data if an error is detected.
Timeout	A timeout period (in seconds) after which HOSTACCESS may assume that the host program has failed.
Block Size	The block size to be used for the transfer but only if the host agrees to use IBM's Block Mode of transfer. This is the transmission size and you can specify values up to 32767.
<u>A</u> dd CR/LF at end of line	Whether to convert CR/LF to space- padded records. Typically used for text files along with the <u>Convert</u> ASCII to EBCDIC option.
<u>C</u> onvert ASCII to EBCDIC	Whether to convert the ASCII characters to EBCDIC characters.
Append to existing file	Whether the data being sent will be appended to the name file, or will overwrite the file.
Record Format (RECFM)	Select either: <u>D</u> efault, <u>F</u> ixed, <u>U</u> ndefined or <u>V</u> ariable.
Logical Record Length (LRECL)	The record length of the field in bytes. If left blank, this value is determined by the host.
BLOCK Size (BLKSIZE)	The physical block size to use on the mainframe.
Space Allocation	Specify the size of the Primary allocation of the host file in allocation units.
	You can also specify the size of <u>S</u> econdary space allocation in case the primary allocation is not enough.
Disk Storage Unit	Select either <u>T</u> racks, Cylinders or Bl <u>o</u> cks. If you select Bl <u>o</u> cks, you can specify in bytes the average block Size.
Retries	The number of times which HOSTACCESS should attempt to resend data if an error is detected.
Timeout	A timeout period (in seconds) after which HOSTACCESS may assume that the host program has failed.
<u>A</u> dd CR/LF at end of line	Whether to truncate spaces at the end of each line and insert a Carriage Return/Line Feed. Typically used for text files along with the <u>Convert EBCDIC to ASCII option</u> .
<u>C</u> onvert EBCDIC to ASCII	Whether to convert the EBCDIC characters in the mainframe file to ASCII.

The 32-bit version of HOSTACCESS provides facilities enabling you to upload and download files to and from a remote FTP server. The presence of the file 'wininet.dll' is required. This is usually installed with Micosoft Internet Explorer. If Internet Explorer is not installed, the dll is installed using 'wintdist.exe' when HOSTACCESS is installed.

FTP file transfers can be invoked from the System menu by selecting the Start <u>FTP</u> file transfer option. This option is greyed out if wininet.dll is not present.

FTP file transfer can also be carried out using the AiF 'Start file transfer' sequence. Refer to the Developer's Guide for details.

FTP file transfers may be carried out at any time during a session. When a transfer is invoked a connection is made to the FTP host by HOSTACCESS, so it is not necessary for you to be connected to the host, or to be using a TCP/IP connection. Only one FTP transfer can be active at a time.

Starting FTP Transfers from the System menu

#### To transfer files:

- Select the Start <u>F</u>TP file transfer option on the System menu. The Start FTP dialog is displayed.
- Specify the remote FTP server address in the FTP server <u>a</u>ddress box. The entry defaults to the last used FTP address. If you are currently connected to a host via TCP/IP, then the address of that host can be selected as a secondary entry in the box.

The server address may have a file path appended, for example:

ftp.microsoft.com/services/technet

Whenever the address is modified, you will be asked if the Username is to be changed as well. If yes, the FTP Options dialog is displayed in order to facilitate this (see 5).

- In the Direction box, select the direction of the transfer, either <u>Send</u> to Host or Receive From Host
- 4. In the Type box, specify the transfer type, either Binary or Text
- Further entries can be made on the <u>FTP</u> <u>Options dialog</u>, accessed by selecting the <u>Options button</u>.
- In the File Names box, specify the Local file name. To search for a file, select the <u>B</u>rowse button. This activates a standard file selection dialog, in a which file can be searched for and selected.
- In the File Names box, specify the <u>Remote file name</u>. To search for a file, select the Brows<u>e</u> button. When selected, a connection is made to the FTP server, and the initial path on the server is set to the appended path on

the server address (/services/technet on the example above).

If no appended path has been specified, the initial path will be whatever path the FTP defaults to for the Username/Password. If the connection is successfully made, the initial path appears in the remote file name field, and the directory tree is displayed in the area below it.

- The directory tree can be browsed by expanding/contracting the nodes (representing directories on the FRP host). Directories to which is accessed is denied are marked with a '!', and the directory name appended with 'Access denied'.
- The remote and local file names are updated as you browse the directory tree; this process is dependent of the direction of the transfer as follows:

When sending a file: The local file name remains static, but the remote file path (and name if applicable) changes to that selected on the directory tree. When uploading a file for the first time, select a directory. The entry for the remote file name field is populated with the selected directory name and the name of the selected local file. When uploading a file that has been transferred before, select the name of the file on the directory tree. The entry for the remote file name field is populated with the selected directory name and the name of the remote file.

When receiving a file: The remote file name is set to whatever you select in the directory tree, and the local file name field is populated with the selected directory name and the name of the remote file.

 To initiate the transfer, selected the Start button, or double-click on the selected directory/file name in the directory tree. A dialog is activated which displays the progress of the transfer and notifies the user on completion. The dialog may also be used to cancel the transfer.

**Note:** The file size may not be available from some FTP servers and the progress of the transfer will not be displayed.

Accessed by selecting the Options button on the Start FTP dialog. Used to specify the Username and Password used to login to the FTP server, and to enter the number of retries and the timeout setting.

This topic describes the interface between the user and HOSTACCESS

The menu bar	Title bar
Minimize button	Main toolbar
Maximize button	Test file navigation toolbar
Border	Record macro toolbar
Control box	Status Bar
Scroll bars	Help
Application area	Tool tips

The HOSTACCESS menu bar. This contains the menus for all the HOSTACCESS functions.

#### To access a menu item using keystrokes instead of a mouse:

Hold down the left Alt key and then press the shortcut key (the underlined letter) for the menu. For example for the <u>C</u>onfigure menu, this is C. This opens the menu. Then press the shortcut key for the function you want to perform without holding down the Alt key, Fi<u>l</u>e transfer would be I. This opens the File Transfer Setup dialog. You can tab to the fields you want to alter.

Clicking this button minimizes HOSTACCESS while leaving it running.

This button expands HOSTACCESS to its fullest size.

You can resize HOSTACCESS by dragging the borders using your mouse. Pass your mouse pointer over the border until the mouse pointer changes shape. Hold the left mouse button down and drag to whatever size you require. To get the best effect, select a true type font such as Arial Monospaced and configure it to maintain aspect ratio.

Fonts.

This enables you to Restore, Move, Size, Minimize, Maximize and Close HOSTACCESS.

You use scroll bars to move up and down the screen when they are visible. You can either drag them up or down by dragging the little box using your mouse, or you can click in the space above or below the box. The position of the box is determined by your current position on the screen. If you are half way down, the box will be half way down the scroll bar. You can also use your up and down arrow keys to move up and down the screen.

Horizontal scroll bars do not appear when your session is set to Snap to Frame mode, although the vertical scroll bar does.

This is the area in which you work.

The title bar holds the name of the application you are using and the name of your session if it has been saved.

HOSTACCESS for Windows has a user-friendly toolbars, containing a wide range of functions accessed via pushbuttons. These functions usually duplicate HOSTACCESS commands.

To display HOSTACCESS's toolbar, select the View tool<u>b</u>ar option.

The toolbar is fully floatable and can be resized. It can be docked on the top, bottom or either side of the window. Facilities to customize the toolbar are provided.

6	Open session		Save current session
는	Connect session	۲	Disconnect session
	Сору	Ē.	Paste
	Record macro	∎↓	Start macro
뮹	File transfer	≣€	Show command stack
at	Increase font size	aļ	Decrease font size
	Previous backpage	€	Next backpage
	Echo to printer	5	Print screen
$\textcircled{\ }$	Configure session	쯺	Configure attributes
R	Configure system	1	About HOSTACCESS
₩?	Help mode	<u>.</u>	Exit

## See also:

Customizing the toolbar Opens an existing session file.

Opens the Configure session dialog and allows the user to create an entirely new session.

Saves a session file with the previously saved name.

If the session has not been previously saved, a Save As dialog will appear allowing a new session name to be entered. A session name can consist of a number of words which will be truncated to 8 characters for the session filename, which will also have a .ses extension. The session file is saved in the working directory. This can be defined by holding down Alt+Enter on the HOSTACCESS icon on the Windows workspace. Saves the current session with a new name.

If the session has not been previously saved, a Save As dialog will appear allowing a new session name to be entered. A session name can consist of a number of words that will be truncated to 8 characters for the session filename, which will also have a ses extension. The session file is saved in the working directory. This can be defined by using Alt+Enter on the HOSTACCESS icon on the Windows workspace. Connects to the current session.

Disconnects from the current session.

A host will probably have a defined number of ports, physical ports for direct serial connections, or a license which allows access to a certain number of users at any one time. Terminals or terminal emulators can connect to ports and if you leave the emulator connected, even at a login prompt, it may still be accessing a port, preventing another user from using the host. Disconnecting HOSTACCESS after logging off will free up a port so that other users may access it. Copies selected text to the Clipboard. This is only enabled when you select an area of text.

Pastes selected text from the clipboard. This is only enabled when the clipboard contains something which may have been copied from HOSTACCESS or from another Windows product.

This opens up a macro record dialog which allows you to record a simple macro.

Starts a macro file. In most cases you will require an open session to run a macro.

Opens the file transfer setup dialog.

Opens the command stack screen. The  $\underline{C}$ ommand stacker stores the last 20 commands entered per session while using HOSTACCESS, if set.

Increases font size by one point. The screen is auto-re-sized.

Decreases font size by one point. The screen is auto-re-sized.

Goes to the next terminal session backpage. This is only available if you are currently in a backpage. It takes the screen closer to the current window.

Goes further into the history of the contents of the backpage.

Toggles hardcopy printing on or off.

Prints the active screen.

Brings up the Configure session dialog where the properties can be altered to define screen size, display modes, key definitions or even alter the emulation type and network stack.

Brings up dialog boxes to enable you to configure:

- The journal
- Editing setup.
- Printing setup.

Brings up dialog boxes to enable you to configure the terminal setup, ie:

- Screen attributes.
- Emulation colors.
- Fonts.
- Terminal configuration.

Activate help on a topic. A "? "symbol appears by the cursor. For help, click the mouse, pointing at the relevant topic.

Find out release information about your version of HOSTACCESS.

Closes HOSTACCESS and updates the session file if alterations have been made.

Toolbar buttons can be removed, added and moved around the toolbar. A customization dialog is available to perform these function (see below), but buttons can be removed and moved without using this.

Hold down the shift key and click on the toolbar button using the left mouse button. With the left mouse button held down, the selected toolbar button can be dragged to another position on the toolbar. To remove a button from the toolbar altogether, drag it off the toolbar. Release the left mouse button when the button is in the required position. To remove a separator from the toolbar, drag a button onto it.

#### Using the customization dialog:

- 1 The customization dialog is accessed by right
- . clicking on the toolbar and selecting customize... from the context menu.
- 2 The dialog includes a list of buttons that are
- available to be added to the toolbar, which consists of buttons previously removed, and a list of buttons and separators currently on the toolbar.
- 3 To add a button to the toolbar, select the
- . button name on the available buttons list and select the

<u>A</u>dd -> button. The button name moves to the top of the list of toolbar buttons. The button is added to the toolbar in that position.

- 4 To remove a button or separator from the
- toolbar, select the button name or separator on the toolbar buttons list and select the <-<u>Remove button</u>. The button name moves to the available buttons list. The button is removed from the toolbar. Separators are not moved to the available buttons list and must be reinstated using the Reset button (see below).
- 5 To change the position of a button or separator
- on toolbar, select the button name or separator in the toolbar buttons list and select the Move Up or Move Down button. The button/separator changes its position on the toolbar, moving up/left or down/right.
- To restore the toolbar to its default setting,
   select the Reset button.

Displayed when loopback or test file networks are selected. When loopback is selected, the toolbar is greyed out. When using test file, the toolbar is used to navigate through the test file.

The toolbar is fully floatable and can be resized. It can be docked on the top, bottom or either side of the window.

Restart replay I> Play replay

Stop replay

Restarts the network traffic replay.

Plays the network traffic replay.

Stops the network traffic replay.

Displayed when a macro is being recorded. Used to pause and stop the recording.

The toolbar is fully floatable and can be resized. It can be docked on the top, bottom or either side of the window.

II Pause recording

Stop recording

Pauses the recording of the macro.

Stops the recording of the macro.

To display HOSTACCESS's status bar, use the View stat<u>us</u> bar option from the <u>C</u>onfigure menu. HOSTACCESS's status bar appears below the emulation screen. HOSTACCESS for Windows provides you with a comprehensive help system on all menu options and dialog box items.

- Use the Inde<u>x</u> option from the <u>H</u>elp menu to obtain general help on HOSTACCESS for Windows.
- Use the <u>U</u>sing help option from the <u>H</u>elp menu to obtain help about Windows Help.
- Select <u>About HOSTACCESS</u> from the <u>Help</u> menu to display extensive product information.

HOSTACCESS's tool tips feature gives you a quick summary of the functions of each push-button available on HOSTACCESS's toolbar.

### To access tool tips:

Position the mouse pointer over the relevant push-button, and press the left mouse button. A summary of the button's function appears directly below the button.

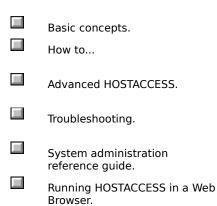
For example, the tool tips help for the Connect Session button appears like this:



Tool tips help automatically appears for a button if you leave the cursor over the button for a short time.

Welcome to HOSTACCESS. Using HOSTACCESS you can achieve instant connectivity with your host. You can then enhance the look and feel of your screen.

This Help system provides you with several routes into HOSTACCESS features. Click on the buttons below to find out more.



Benefits and Features.

### Internet Access



If you have a web browser on your PC you can access the very latest support bulletins on frequently asked questions by clicking this button.

proc imm	TACCESS brings data from host applications into your familiar Windows- and DOS- based spreadsheets, word ressors and other programs. Using HOSTACCESS as a terminal emulator, you can achieve connectivity rediately. However, HOSTACCESS is not just a terminal emulator. This topic provides you with information on TACCESS's benefits. Windows 95 Users can make use of some additional features.
	AutoGUI.
	Hotspots. Customizing your keyboard.
	Connecting to multiple sessions. Macros.
	Special Keys. Windows 95 enhancements.

You can transform the look of legacy applications into Windows style applications with ease, without any code changes to the host application.

For example, you can give most traditional green on black emulations a modern, Windows-like feel by changing the color attributes to black text on a pale grey background. If your application uses line drawing, you can also create a 3D sculpted line effect. The following two pictures show how a green on black emulation can look using these features.

Before AutoGUI.



After AutoGUI.

## See also

Auto sculpture.

**Before AutoGUI** 

03/31/96	Telesales S	System Fruit Veget
Product Last Order Outstanding Order	APPLES 1st Dec 96 2400	Stock New Orders Shipping
Supplier Country of Origin Cost Per KG Carrier	FAST FRUITS Africa 1231.12 Fast fruits	Description Bright Red Apples s soft to touch. Sell supermarket shelves displayed predomine xref APP017 for alt
F1 - Product F2 - Su	ppliers F3 - Carrie	ers F8 - Save F9 - Exit F

# After AutoGUI

Telesales Sy	/stem Frui Vege
APPLES	Stock
1st Dec 96	New Orders
2400	Shipping
FAST FRUITS	Description
AFRICA	Bright Red Apples soft to touch. Sel
1231.12	supermarket shelve
FAST FRUITS	displayed predomin
	xref APP017 for al
	APPLES 1st Dec 96 2400 FAST FRUITS AFRICA 1231.12

A Hotspot in the block mode emulations IBM 3270 and IBM 5250 is text on the screen which has been programmed by the host application so that when you move the mouse pointer over the text and click the right button, a particular function is activated.

Hotspots in asynchronous mode emulations work differently to those in block-mode emulations. You can use them to add mouse pointer positioning in a full screen editor and you can add the ability to point and click on words and functions displayed on the screen.

These features need to be configured on your PC and do not require any changes to the host program.

See also

Hotspots.

You can customize your keyboard by using the <u>Keyboard mapping</u>... option to define functions for PC keys. You can also map keys to macros or specific character strings.

# See also

Configuring the keyboard.

HOSTACCESS allows any number of host sessions to be run concurrently. This is limited only by available PC memory, or by any other restrictions imposed by, say, network communication protocols.

Multiple Sessions.

HOSTACCESS's powerful macro facility allows you to automate standard tasks. You can either use the Macro recorder to automate simple tasks, or you can write a program in HOSTACCESS's macro language to automate almost any host task. The macro language has a similar syntax to Visual Basic.

Using macros

Users of Windows 95 and Windows NT will be able to make use of the enhancements described below:

The ability to create and change session properties when HOSTACCESS is closed.
Context menus.
Improved modem support.
A dockable toolbar.
OLE support.
Web Browser

You can create a new HOSTACCESS session and change a session's properties without HOSTACCESS running.

You can bring up a context menu in HOSTACCESS by right clicking your mouse. This will bring up a menu with items that are relevant to the tasks you are performing, for example, cut and paste if you are editing.

Connecting to a modem in HOSTACCESS 7 has been enhanced to make full use of Windows 95 technology. You now connect to a modem when you create a new session.

In HOSTACCESS 7, you can drag and drop the toolbar to any position on your screen using the mouse. You can also attach or dock the toolbar to the bottom and both sides of the screen.

OLE (Object Linking and Embedding) automation allows you to export a programming interface from an application for use by another application. In HOSTACCESS 7 only, you can embed other applications into the terminal window. OLE packages such as Excel can use OLE to automate the loading process of HOSTACCESS to start a macro or close a session.

OLE Support.

With HOSTACCESS (7.1 or greater, 32 bit only) when installed on a Windows 95 or NT machine with Microsoft Internet Explorer 3.02 or 4.0 installed, session files entered in the browser address window, will run automatically in the browser window. Also, HOSTACCESS can be embedded in Netscape via a plugin.

Running			
HOSTACCESS			
in a Web			
Browser			

# **Basic concepts**

The following topics explain basic concepts for people who are new to terminal emulators:

How terminal emulators work.
 What is an emulation?
 What is a session?
 What is a modem?
 What is a hotspot?
 TCP/IP and HOSTACCESS.

In the past, you could access information, programs, processing power and functions such as printing from a host using <u>dumb terminals.</u>

As technology has become more advanced, terminals have become increasingly intelligent, that is, more and more processing is done by the terminal rather than by the host.

In 1983, the <u>personal computer (PC)</u> was introduced. This has, by and large, replaced the terminal. In order for a terminal to communicate successfully with a host, the terminal must speak the same language as the host, but the PC does not do this. Terminal emulation software such as HOSTACCESS enables the PC to do this.

A terminal emulator is program that allows a PC to act like a particular brand of terminal, for example a VT100. The PC appears as a terminal to the host computer and accepts the same escape sequences for functions such as cursor positioning and clearing the screen.

A terminal emulator enables you to connect to one or more hosts across different <u>networks</u> using many different emulations. You also need the correct protocol software (for example TCP/IP) loaded onto your PC and the host.

TCP/IP and HOSTACCESS.

# **Dumb terminals**

Dumb terminals are so called because they have no processor, all the work is done by the host computer (the mainframe or mini computer).

# Personal computer (PC)

The PC contains a Central Processing Unit (CPU) which enables it to process information. It is designed to be used by one person and can work in stand-alone mode, which is not connected to a host, or it can be linked to a host via a network or serial connection using a modem.

# Network

A group of computers connected together. A network can be anything from 2 computers connected together in a room to many linked over hundreds of miles. The advantage of a network is that many PCs or terminals can share the resources of one or more hosts. Resources can be applications, processing power, databases, printing facilities etc.

Host machines built by different companies often require different terminals, and so terminal emulation software must be able to support emulations (imitations) of terminals.

There are two basic classes of emulation supported by HOSTACCESS. These are sometimes known as:

Block mode emulations.

Asynchronous, or character mode emulations.

## **Block mode emulations**

A block mode emulation is where data is edited within the terminal before it is transferred as a block to the host. They tend to be those designed to work with large mainframes, for example IBM 3270 and IBM 5250.

# Character mode, asynchronous mode

A character mode emulation, also known as asynchronous mode, is where each character is sent to the host as it is keyed into the keyboard, that is it sends one character at a time to the host. They tend to be those designed for smaller, mid-range systems such as the DEC VT100, VT220, VT320 and VT420 emulations.

When you make a connection to a host from your PC using HOSTACCESS, you open what is called a session. In HOSTACCESS, you can create a new session, save a session, open an existing session, have more than one session running at once and switch between open sessions. This is much like opening a new file.

When you create a new session, you have to tell HOSTACCESS which software protocol you have installed on your PC and the host, and which<u>emulation</u> you are using. For example, you may want to connect to a UNIX host using PC/NFS protocol software and a VT100 emulation.

You can then configure the following:

You can set the session so that it autoconnects
to the host next time you open the session.

You can alter the screen colors so that instead of using a traditional green on black emulation, you could have dark gray on light gray.

- If the host application you are accessing uses line drawing, you can set HOSTACCESS so these lines and boxes appear sculpted. This gives your session a Windows look and feel.
- You can configure your editing keys, i.e. you can choose keys that select and copy text to the Clipboard, and which keys select a block of text.

You can define the size of your command stacker, that is how many commands stored that you can replay.

When you save a session, all the aspects of the session that you configured are saved for that session. If you have more than one session open at once, each session will have its own configuration as it has been defined.

More advanced features of HOSTACCESS that you can configure are:

- The HOSTACCESS macro language that enables you to automate tasks, e.g. you can create a macro that will automatically connect and log you on to a session.
- The keyboard mapping feature that you can use to map PC keys, emulation keys, character strings or even macros.

Modems convert a computer's binary language into a form that can be sent anywhere in the world using ordinary telephone lines as long as there is a modem at the receiving end. At the receiving end, the modem converts the information back into the computer's binary language.

A modem allows you to connect from your PC to a host remotely. For example, if you are working from home using a standalone PC (one not connected to a network), you could connect to a host using a modem and a telephone line, as long as the host has a modem. Modems connect to the host using a serial connection. Modems can be used for sending and receiving information along a telephone line allowing you to access any host from a remote location.

Some common modem terms:

**Bps:** A modem's speed is measured by bits-per-second (bps).

Parity: An extra bit added to a byte or word to reveal storage or transmission errors in storage.

Baud: The speed of transmission.

Start bit: A bit which signals the start of transmission of a character on a serial line.

A hotspot is a word, or sequence of characters on the screen that is separated by a space, referred to as white space. When the word is clicked on using a defined mouse button, a sequence, command or operation will be performed.



Hotspots in block mode emulations.

Hotspots in asynchronous mode emulations.

A Hotspot is text on the screen, which has been programmed into the host application so that when you move the mouse pointer over the text and click the right button, a particular function is activated.

Hotspots can be used in the following <u>block mode emulations</u>: IBM 3270 and IBM 5250.

Hotspots in <u>asynchronous mode emulations</u> work differently to those in block-mode emulations. Hotspots do not require any changes to the host program and can be configured by editing the hotspot.ini file supplied with HOSTACCESS. The systems administrator or an advanced user should only make these changes.

To enable a terminal emulator to connect to a host across a network, you need to have the correct protocol software loaded onto both your PC and the host. Protocol software, often called a stack, gives your PC the right information to be able to send data across a network. The host also needs to have protocol software to be able to interpret the data.

A protocol is a set of formal rules, a bit like a language, which enables communications between hosts and PCs. TCP/IP is a common protocol used with HOSTACCESS.

**Note:** Choosing the WinSock network option in HOSTACCESS allows your PC to talk to the using TCP/IP, as long as your host has the correct software.

The Journal option configures HOSTACCESS's journaling. This is a powerful feature which reports messages back to the user whilst running HOSTACCESS. You should only use the journal to trace errors, debugging application code, or when encountering problems as enabling Journaling will slow HOSTACCESS down noticeably.

The following topics tell you how to turn the Journaling option on and off, how to display the journal in a window and how to set the options.

The following topics tell you how to turn the Journaling option on and off, how to display the journal in a window and how to set the options.

Viewing the journal.

Configuring the journal.

# To display HOSTACCESS's journal in a separate window:

Select Journal from the Configure menu. This displays the Journal dialog. Check Journaling Enabled box and click on OK.

#### You set the journal options as follows:

- 1 Check Journaling Enabled box to enable the
- journaling option.
- 2 You can define your own output file to send journal information to by typing a file name in the Journal to file field.
- 3 You can automatically save all journal
- entries when they are made by enabling Flush On Write. If the session crashes, the journal file is not then lost.
- To have new journals appended to the same 4 file, enable the Append new journals to same file.
- 5 Highlight the item in Area that you wish to receive information on.
- 6 Select the level of information you wish to receive in Level.
- 7 Alter the number of lines in the Journal
- window using the Number of lines to display in journal window option. The default is 1,000.
- Click on OK. 8
- 9 Select the View journal option in the
- Configure menu. The journal must be enabled before you can view it (if the journal is not enabled, this menu item is grayed out)

### To clear the journal from your screen:

De-select the View Journal option from HOSTACCESS's Configure menu, or close the journal window itself. The journal is still active if you do this, however - messages continue to be written to the journal.

### To close the journal:

De-select Journal Enabled.

A real terminal keyboard can differ from a standard PC keyboard in the following ways:

- Different physical layout.
- Different keys.
- Extra keys.

For example, a PC keyboard usually has twelve function keys, F1 - F12 and on a DEC VT100 terminal there are usually 20 function keys.

HOSTACCESS has been programmed with a standard set of function keys normally relevant to the particular emulation, so in a DEC VT100 emulation, to use the Insert Here key, you would press the Home key on your keyboard.

HOSTACCESS's keyboard mapping facility enables you to see which Emulation keys are mapped to which PC Keys and it enables you to alter this mapping, so for example, in a DEC VT100 emulation you can remap the Insert Here key to a key on your number pad. You cannot change the functionality of the Emulation key as you could on a real terminal, this must be done by the host.

Additionally, you can remap a PC key to a string or a macro. A string could be textual or a special format to represent control characters, i.e. Esc could be mapped to a  $^{[}$ .

**Note 1:** You should consult your systems administrator before making any changes as your systems administrator may have set up HOSTACCESS to a standard terminal mapping.

**Note 2:** If you are running the 16 bit version of HOSTACCESS (HOSTACCESS 6.2) in a 32 bit environment (Windows 95/98 or Windows NT), the keyboard language will always appear as the default (USA).

#### To map a PC Key:

- 1 First, configure your session.
- •
- 2 Log onto your application. Your application
- . may
  - re-program your keys automatically. Test out the keys you want to remap.
- Select the Keyboard Mapping option from the
   Configure menu. The keyboard mapping dialog will appear on the screen showing the PC keyboard layout
- Go to either the Emulation key, String orMacro sections below depending on what you want to map.
- Emulation key.
- String.
- Macro.

**Note:** If you wish to use only the keyboard for configuration entries, use the Type <u>K</u>ey button as follows:

- Select ALT+K or select the Type Key button. A message box appears
- Press and hold a key sequence (e.g. ALT+SHIFT+F1). Once the keys are released they appear selected in the dialog
- Select either Emulation Key, String or Macro and bind the relevant data to the key sequence

The emulation keys relevant to your emulation are displayed in the Emulation Key list box.

## To change the mapping for an emulation key:

- 1 Find out the current keyboard mapping for
- . the emulation key you want to remap.

Scroll through the list box and click once on the emulation key so that it is highlighted, for example click Find. The <u>Show Binding</u> button will become enabled.

Click on the <u>Show Binding button</u>. The PC Key which is mapped to the Emulation key will become highlighted.

- 2 Click the PC Keys in the Keyboard mapping
- dialog that you want to map to an Emulation key. The keys should appear highlighted. For example, click Ctrl and F12.
- 3 Under the Map PC Key to section, select
- . Emulation Key.
- In the Emulation Key list box, highlight the
   key you want to map the PC Keys to. For example, click Find.
- 5 To set the mapping to your selection, click . on the <u>B</u>ind button.

## To reset keyboard mappings:

To restore the default setting of a specific key, highlight the key you want to restore and click on <u>R</u>eset Key.

To restore **all** the key settings to the default, click on the Reset <u>All key</u>.

This option associates a string to a PC key. This allows you to set a key so that every time it is pressed, a string will be sent to the host. For example, you could use this option so that you can log off from a host at the touch of a button, by associating a command such as the word OFF with a key such as ESC. You cannot assign a string to a key that has been assigned as an emulation key. To do this you must first move the emulation binding.

### To associate a string to a PC key

- 1 Ensure the PC key has not been assigned to an emulation key by clicking on the PC key. If it is assigned to an emulation key, the key will be highlighted in the Emulation Key list box.
- 2 With the PC key still selected, under the Map
- . PC Key to section, select String.
- 3 Enter the required text in the field to the
- right of String. If a carriage return is required as well, then enter a Control symbol (^) followed by a capital M.
- 4 Click on the <u>B</u>ind button.

**Note:** For IBM 3270 and IBM 5250 emulations, if you wish to associate a character string such as 'hello' with a key, instead of typing 'hello' into the String field, you will need to convert the text using the EBCDIC table following. For example, to bind '**Hello**' to a key, you would need to type '200^133^147^147^150' in the String field.

# EBCDIC conversion table.

## To reset keyboard mappings:

To restore the default setting of a specific key, highlight the key you want to restore and click on Reset Key.

To restore **all** the key settings to the default, click on the Reset <u>All key</u>.

# **EBCDIC** conversion table

Char	Value	Char	Value	Char	Value	Char	Value	Char	Value
А	^193	Ν	^211	а	^129	n	^149	0	^240
В	^194	0	^212	b	^130	0	^150	1	^241
С	^195	Р	^213	с	^131	р	^151	2	^242
D	^196	Q	^214	d	^132	q	^152	3	^243
Е	^197	R	^217	е	^133	r	^153	4	^244
F	^198	S	^224	f	^134	s	^162	5	^245
G	^199	Т	^225	g	^135	t	^163	6	^246
Н	^200	U	^226	h	^136	u	^164	7	^247
I	^201	V	^227	i	^137	v	^165	8	^248
J	^207	W	^228	j	^145	w	^166	9	^249
К	^208	Х	^229	k	^146	х	^167	space	^64
L	^209	Y	^230	I	^147	у	^168		
Μ	^210	Z	^233	m	^148	z	^169		

Macros are used to automate tasks. If there is a macro that you use frequently, it would be worth associating a macro with a PC key so that whenever you pressed that key, the macro would be run.

### To map a macro:

- 1 Ensure the PC key has not been assigned to an emulation key by clicking on the PC key. If it is assigned to an emulation key, the key will be highlighted in the Emulation Key list box.
- 2 Click on the Macro radio button and enter
- . the full path name of the macro in the field next to it, or select it using the Browse button.
- 3 Click on the Bind button at the bottom of the
- . dialog then click on the OK button.
- 4 Every time the chosen key is pressed, the
- . macro will be executed.

### To reset keyboard mappings:

To restore the default setting of a specific key, highlight the key you want to restore and click on Reset Key

To restore **all** the key settings to the default, click on the Reset <u>All key</u>.

The following topics describe the advanced features of HOSTACCESS. These features are designed for systems administrators and experienced HOSTACCESS users.

Using macros.

- OLE Automation.
- File Transfer between UNIX and DOS.
- IND\$FILE.
- FTP File Transfer
- Hotspots.

HOSTACCESS has a powerful macro facility which you can use to automate routine tasks. You can record a series of everyday task using HOSTACCESS's macro recorder, or you can create and edit macros manually using HOSTACCESS's Macro Language to automate almost any host task.

Macros can be automatically started to take the user seamlessly into the depth of the host application, you can set up automatic connections, and much more.

The following topics summarise the macro language commands available to the user, and gives an example of how you can use the macro language to automatically log onto a session.

There are two ways of creating a macro in HOSTACCESS. You can either write it from scratch, or you can use the macro recorder.

- Recording a macro.
- Writing a macro.
- Starting a macro
- Editing a macro
- Macro commands

The macro recorder records keystrokes and left mouse button clicks. The following steps take you through the tasks typically needed to record a macro to automatically log in to a host.

- 1. Open or create a session.
- Click the record macro button on the toolbar or select <u>Macro</u>, <u>Record macro from</u> the System menu.
- Type a file name in the <u>Destination field</u>, or select an existing file name using the Browse button.
- The <u>Timeout</u> and the <u>Match</u> at least \* characters options are set at a default setting. You may need to increase the Timeout setting if you have a slow host.
- Check Auto <u>C</u>onnect using this macro file to enable it. If you are not recording a default logon script do not check this box. If you check the box, the macro file name will appear in the Configure session AutoConnect dialog.
- Select the <u>S</u>tart button to begin recording. A toolbar is displayed which can be used to

pause or stop the recording of the macro.

- 7 At the password prompt, you can either type in the password and press return, in which case you should move onto the next step, or you can choose to record the macro so that when the password prompt appears on the screen, the macro waits for you to type in a password and press the Return key. The advantage of choosing this second option is that the password will not be stored in the macro file. This is much more secure.
- 8. To record the macro so that you have to type the password in manually:

From the System menu, select Macro, Passthrough, type the password at the prompt, then press Return. Pressing Return has the effect of turning the macro recorder back on.

- Once you are logged into the host you can either stop the macro recorder here, or you can perform any tasks which you always perform at the start of the session and that you would like to automate before stopping the macro recorder.
- Stop the macro recorder by clicking on the stop button from the toolbar or by selecting <u>Macro</u>, Stop from the System menu.
- 11. Save the session. Next time you open a session it will automatically log you on to the host.
- Pause.

Passthrough.

Writing a macro.

### Pause

The pause option allows you to stop recording a macro temporarily and then restart it. This is useful in a situation where, for example, you are recording an auto connect macro. You want to record the password in the macro, but you can't remember it. Clicking the Pause button or selecting <u>Macro</u>, Pause recording from the System menu at the password prompt will stop the macro from recording any time outs that may occur while you are finding out the password. Clicking or selecting pause again will restart the macro again.

# Passthrough

Using the Passthrough option in a macro will prevent a character string up to a carriage return from being stored in the macro. When the macro is played back at the point where Passthrough was used, the macro will wait for you to enter a character string then a carriage return. When you enter the carriage return, the macro will continue recording.

You can write a macro to automatically log you onto a host, or indeed any other tasks. The following steps take you through the steps needed to write an auto connect macro which will log you automatically on to a host. You can adapt this for any macro. <u>Writing a macro - example 2</u> takes you through the steps needed to create an AutoConnect macro which will prevent your password and login from being stored in the command stack while logging on.

- Create a new session or open an existing one. Click on the AutoConnect tab In the <u>Configure</u> <u>Session dialog fill in the Username and</u> <u>Password fields then click on OK.</u>
- Select <u>Macro</u>, Edit <u>macro</u> from the System menu and type a macro name such as test.mcr. A dialog box saying "Cannot find the test.mcr file. Do you want to create a new file?" will appear.
- 3. Click on yes then type the macro below:

REM This is a macro for logging REM automatically to the host.

GLOBAL USER, PASSWORD AS STRING

REM Send User from AutoConnect

SENDTERM USER, CHR\$(13)

REM Delays for 2 seconds

DELAY 2

REM Send password from AutoConnect.

SENDTERM PASSWORD, CHR\$(13)

END

- 4. Select Save from the File menu, then Exit.
- 5. Reopen the AutoConnect dialog and in the <u>R</u>un Macro on Connection field, select the macro that you just created. Click on OK, and then save the session.

**Note**: When writing a macro it is a good idea to insert comments that describe the tasks that you are automating in the macro. To insert a comment that won't actually affect a macro, you need to type in something called a REM statement. A REM statement effectively removes text from the actual macro.

Macro commands.

This example takes you through the steps needed to create an AutoConnect macro which will prevent your login and password from being stored in the command stack.

- 1. Create a new session or open an existing one and enable the <u>command stacker</u>.
- Select <u>Macro, Macro Edit from the System</u> menu and type a macro name such as command.mcr. A dialog box saying "Cannot find the command.mcr file. Do you want to create a new file?" will appear.

# 3. Click on yes then type the macro below:

```
REM This is a macro for preventing
REM your login and password from being
REM stored in the command stack
REM Stop the login from being stored in
REM the command stack
PASSKEYS
REM Stop the password from being stored
REM in the command stack
PASSKEYS
END
4. Select Save from the File menu, then Exit.
```

5 Open the AutoConnect dialog and in the <u>R</u>un Macro on Connection field, select the macro that you just created. Click on OK then save the session.

Macro commands.

## To run a specified macro:

Select <u>Macro</u>, Start macro from the System menu, or click on the start macro tool bar button shown here. Select the file you want to start, then click on OK.



# To edit a macro file:

Select Macro, Edit macro from the System menu. Find the file you want to edit, then click on OK. The macro will appear in a text editor.

Macro commands.

The following macro language commands are available:

Command	Description	Example
CALL	Calls a (previously-defined)	
	procedure.	
DELAY, DELAYTILL	Delays a set number of seconds, or until a specified time.	DELAY 5
DIM	Declares a variable as INTEGER or REAL.	DIM a AS INTEGER.
DO (WHILE) LOOP	Starts a program loop, continuing while the WHILE condition holds, exited when WHILE condition is fulfilled.	LET A=10 DO WHILE A>=2
		LET A=A-1
		PRINTA
		LOOP
END	Stops a macro.	
EXIT	Exits from the current loop or IF statement. For example, to exit a FOR loop.	EXIT FOR
FOR NEXT	Creates a loop of a specific duration.	FOR i = 1 TO 10
GOTO	Transfers control to a part of a program with a pre-	L20: : PRINT A GOTO L20
IF THEN ELSEIF	defined label. Specifies one or more	
IF I HEN ELSEIF	actions to take if a condition is fulfilled.	
LET	Assigns a value to a variable. Variables must be declared with DIM before being assigned.	DIM A AS INTEGER LET A = 5.
PASSKEYS	Suspends macro processing to allow the user to enter keystrokes to the host.	
PRINT	Prints a text message to the Host, or the session screen, or to the status bar.	PRINT "HELLO"
REM	Used for code comments.	REM This will automatically log you onto a host
SELECT	Selects alternative actions based on specified conditions.	
SENDTERM	Sends text to the host.	SENDTERM PASSWORD, CHR\$(13)
SEND, SENDWIN	Sends special characters to the host, or to the currently-active Windows application.	
WAIT (TIMEOUT)	Waits for a host response (optionally, for a maximum timeout period).	WAIT TIMEOUT 20
WHILE WEND	Specifies a loop containing	DIM B AS INTEGER
	one or more instructions to be carried out whilst a condition holds.	WHILE B >=1
		PRINT B
		LET B = B-1
		WEND

OLE Automation is an industry standard that enables application to expose their OLE objects to applications that support OLE, such as Visual Basic for Applications (VBA), the Excel Macro Language, Visual C++ and Delphi.

HOSTACCESS is an automation enabled object. This means that you can open HOSTACCESS sessions and make use of the macro language from within applications that are OLE Automation Controllers such as VBA. The commands listed below can be used in Visual Basic programs to start and close HOSTACCESS sessions and run macro scripts.

# VBA example.

[commands subject to change]

Command	Description	Parameter	Parameter description
session.setting	The name given to HOSTACCESS in the Windows registry.	-	
HOSTACCESS. LoadSession	Loads a HOSTACCESS session.	"String",	Session file (including path).
		"String",	Unused
		bool	Unused
HOSTACCESS. ScriptExec	Executes the HOSTACCESS script line.	"String"	A valid HOSTACCESS macro command
HOSTACCESS. StartScript	Runs a macro file	"String"	A macro filename including the full path.
HOSTACCESS. StartSession	Starts or restarts a loaded session	-	-
HOSTACCESS. Unload	Unloads HOSTACCESS.	-	-
HOSTACCESS. EndSession	Ends HOSTACCESS session	-	-

The following example shows how some of these commands can be used to load and start a HOSTACCESS session using Visual Basic for Applications. Further information on using VBA as an OLE Automation Controller can be found in the Microsoft Visual Basic Programmer's Guide.

```
Rem Define the variable HOSTACCESS
Rem as the data type object.
Rem This represents the HOSTACCESS
Rem application when used for OLE
Rem automation
Dim HOSTACCESS As Object
Dim MacroLine As String
Rem Create an OLE object that
Rem corresponds to HOSTACCESS.
Rem We will use this object to invoke
Rem published automation methods.
Set HOSTACCESS = GetObject("", "Session.Setting")
Rem Start a session with the
Rem given name
Result = HOSTACCESS.LoadSession("TEST", "D:\TEST.SES", True)
Rem Once HOSTACCESS has loaded,
Rem Create a Macro command
Rem Chr(34) = "
MacroLine = "print " + Chr(34) + "Hello World" + Chr(34)
Rem tell it to print something
Rem on the terminal window.
Result = HOSTACCESS.ScriptExec(MacroLine)
Rem Display a message box so you can see the product
MsgBox ("Press when finished looking at the text")
Rem Close the HOSTACCESS session
```

HOSTACCESS.endsession Rem Unload/Exit HOSTACCESS HOSTACCESS.Unload HOSTACCESS supports file transfer between the DOS PC and any UNIX host system. Installation of the host programs for these file transfer routines is documented below. Please note that the UNIX system must have a C compiler available.

HOSTACCESS also provides a suite of C programs that give access to the power of the Applications Interface. To obtain details of this program library, please contact Pixel Innovations.

Two UNIX commands are provided to transfer data between UNIX and DOS

dosunix transfers data from a DOS file to a UNIX file.

**unixdos** transfers data from a UNIX file to a DOS file.

By default the data is assumed to be textual. DOS records are mapped into a UNIX file structure, with CR/LF being replaced with LF and vice versa. This mapping can be overridden by the **Binary** option which performs no translation on the data.

During the transfer of data a window is displayed on the user screen showing the current state of the transfer and information such as the size of the file, the number of bytes transferred and the estimated time for the transfer. At the end of the transfer, the user is requested to press a key before the window is closed to allow time to read the final display.

You can fully control the two transfer commands from an application using the exec/system commands and all command line parameters may be passed, so avoiding the need for any user input.

Uploading the File Transfer Programs.
Transferring From DOS to UNIX.
Transferring From UNIX to DOS.
File Transfer Options.
Examples of Multiple File Transfers.

The files DOSUNIX.C and UNIXDOS.C are supplied for the host file transfer programs. To install these onto your UNIX system please carry out the following instructions:

- 1. Copy DOSUNIX.C and UNIXDOS.C from the directory Unix on the floppy disk labeled "HOST PROGRAMS" into the HOSTACCESS directory on your DOS hard disk.
- 2. Run HOSTACCESS and logon to your UNIX system.
- 3. Enter the following UNIX command:

cat > dosunix.c

4. Select the System menu and select Start File Transfer

The settings should be as follows :-

local file	a:\unix\dosunix.c
protocol	key
direction	send
file type	text

Click OK

5. The source code is then sent to the UNIX system. If you have problems you may have to slow down the upload process. Please refer to Chapters 2 and 4 of the User guide for

further details of configuring file transfer parameters. You should also turn off any host system case conversion on input.

When the upload has completed, press <<rr><crrL> D to close the file.

6. Compile dosunix as follows:

cc dosunix.c -o dosunix

7. Now use the command dosunix to transfer unixdos.c by entering the following:

dosunix a:\\unix\\unixdos.c unixdos.c

8. Compile unixdos as follows:

cc unixdos.c -o unixdos

9. We suggest you copy the 2 programs to a suitable directory, e.g. /usr/bin.

You may need to alter the owner and rights of the program.

UNIX users may use the routines documented in this section to provide fast error-free file transfers between DOS and UNIX environments. These UNIX file transfer routines are written in portable 'C' and will need to be compiled on the host UNIX system.

To transfer data from DOS to UNIX, use the dosunix command. The transfer stops when the DOS end of file marker is found.

dosunix [-h -b -a -z -l -r -m [listfile]] dosfile unixfile

where dosfile is the name of the DOS file to be transferred, and unixfile is the name of the UNIX file (defaults to the DOS file name). If you omit the dosfile name, you are prompted for it.

# **Examples of DOS-UNIX File Transfer**

To transfer a DOS file C:\WP\MAILSHOT.DOC to the Host UNIX file 'mail1.doc' , enter:

dosunix C:\\WP\\MAILSHOT.DOC mail1.doc

To transfer a DOS file C:\DOCS\BINARY in binary mode to a UNIX file called BINARY, enter:

dosunix -b C:\\DOCS\\BINARY

To transfer data from a UNIX file to a DOS file, use the **unixdos** command. If the DOS file exists, it will be overwritten, otherwise it will be created. By default a DOS end of file character will be written to the end of the DOS file.

Use the unixdos command as follows:

unixdos [-h -b -a -z -l -r] unixfile dosfile

where **unixfile** is the UNIX file to be transferred, and **dosfile** is the name of the DOS file (defaults to the UNIX file name). If you omit the **unixfile** name, you are prompted for it.

#### **Examples of UNIX-DOS File Transfer**

To transfer a UNIX file 'mail1.doc' to the DOS file C:\WP\MAILSHOT.DOC use the following command:

unixdos mail1.doc C:\\WP\\MAILSHOT.DOC

To transfer a UNIX file called BINARY to DOS in binary mode into the DOS file BINARY, use the following command:

unixdos -b BINARY

The following options are available with both the **dosunix** and **unixdos** commands:

- -a Append to the existing destination file.
- -b BINARY file specified override mapping.

With the dosunix command, no conversion of CRLF to LF is made, and the transfer does not stop when an end of file mark char(26) found.

With the unixdos command, no conversion of LF to CRLF is made, and no end of file character is added to the DOS file.

- -h Initiated by host so transfer status window will not wait for user acknowledgment before closing and no status message will be printed to the screen. This option is useful for automated transfers carried out under host program control. An exit code of 0-6 is returned:
  - 0: Successful Transfer
  - 1: Aborted by the user
  - 2: Unable to open DOS file
  - 3: DOS file read error
  - 4: Protocol Error
  - 5: Retry Limit Reached
  - 6: DOS file write error
- -z Suppress display of transfer status window.
- -I Local connection so use faster but less comprehensive error checking. LAN connections default to this mode.
- -r Remote connection so use full error checking. Asynchronous connections default to this mode.

-m	Transfers the files listed in the host ASCII text file [listfile] to
[listfile	the host system.
]	

The following examples show how to use text files to control multiple file transfers:

### Example 1: dosunix -m listfile

listfile contains three lines:

Line	Line Contents	Result
1	d: file1	file1 is transferred from the current working directory on the D drive on DOS to file1 in the current working directory on UNIX.
2	d:\full path\file2	file2 is transferred from the specified DOS directory on the D drive on DOS to file2 in the current working directory on UNIX.
3	d:\full path\file3 file 4	file3 is transferred from the specified DOS directory to file4 in the current working directory on UNIX.

## Example 2: unixdos -m listfile

listfile contains three lines as follows:

Line	Line Contents	Result
1	file1	file1 from the current working directory on UNIX is transferred to file1 in the TERMITE directory.
2	file2 d:	file2 from the current working directory on UNIX is transferred to file2 in the current working directory on the D drive on DOS.
3	file3 d:\full path\file 4	file3 from the current working directory on UNIX is transferred to file4 in the specified DOS directory.

Modem connection in HOSTACCESS 6.2 and HOSTACCESS 7 is achieved differently because HOSTACCESS 7 has been designed specifically for Windows 95/98/NT and so is able to make use of Windows 95/98/NT technology.

Connecting to a modem in HOSTACCESS 7.

Connecting to a modem in HOSTACCESS 7 has been enhanced to make full use of Windows 95/98/NT technology. You now connect to a modem when you create a new session.

## To connect to a modem:

- 1 Create a new session by selecting either <u>N</u>ew from . the <u>S</u>ession menu, or <u>S</u>ession from the <u>C</u>onfigure
- menu.
- 2 Highlight the Modem item in the Network list and . the emulation you are using in the Emulation list
- and click on properties.
- 3 Configure the Modem properties.
- ·
- 4 Click on the emulation tab and configure the . properties.
- Configuring the modem properties.

This topic describes how to set up a session. The following topics provide detailed information on configuring your  $\underline{network}$  and  $\underline{emulation}$  details.

- 1 In the Configure session dialog from the
- <u>C</u>onfigure menu, highlight the <u>network</u> stack you want to connect with. The correct network software must be loaded on both the PC and the Host.
- 2 Highlight the <u>emulation</u> type you are using.
- ·
- 3 Click on the Properties button.
- •

In the [Network name] dialog that appears:

Fill in the connection details. For TCP/IP networks such as WinSock this includes the Port and Host addresses. You can also configure Receive EOL, Send EOL and Break Send options but these are set to default settings and you wouldn't normally need to change them.

4 Click on the [Emulation name] tab.

You can configure the Display and Screen Size for most emulation types. Some emulations have additional options, these are set to a default setting and most of the time will not need to be changed.

5 Click on OK.

•

- 6 Click on the AutoConnect tab and check the
- . AutoConnect box. This will connect you to your session logon screen whenever you open the session. You can also set up a session to automatically log on using a <u>macro</u> using this screen.

Network connections.

Emulations.

HOSTACCESS supports a wide range of network connections.

HOSTACCESS interfaces with industry standard PC software, designed for a wide set of network cards. So you must pre-load your PC with the correct network software before you run HOSTACCESS.

HOSTACCESS 7.10a networks.

HOSTACCESS supports the following network connections. Click on the buttons next to the topics for more information.

APPC Router	Using the APPC Router you can connect to your AS/400 or System 3x.
Loopback	This option is also used to test HOSTACCESS. In simple terms, it is like connecting a cable

	that goes out if the PC and back into the PC so that everything that is entered into the product is echoed or looped back - thus a loopback session. You would normally use this option only when specifically asked to - if there was a problem for example.
Modem	This network option is available for HOSTACCESS 7 users only.
	Modems connect to the host using a serial connection and can be used for sending and receiving information along a telephone line allowing you to access any host with a modem
	For example, if you are working from home using a standalone PC (one not connected to a network), you could connect to a host using a modem and a telephone line, as long as the host has a modem.
PicLan	This allows you to plug-in a PICK system into an ethernet network
Serial port	You should use this option if your PC has a direct connection to the host you want to connect to via a serial port. You can usually tell if your PC is connected to something via a serial port connection by looking to see if there is a 9 or 25 pin D plug in the back of your PC.
	You can also use the serial port option to connect remotely to a host via a modem if both your PC and the host has a
	modem.
	modem. <b>Note:</b> If you are connected to a UNIX host via a Point to POINT Protocol (PPP) Network Client Serial connection, you should use the WinSock option.

option.

Windows Sockets

HOSTACCESS supports WinSock 1.1 which is an open TCP/IP API. It is supported by over 70 TCP/IP stacks.

It may be used over a network, or by using a modem with PPP (Point to Point Protocol).

HOSTACCESS can connect to your AS/400 or System 3x using IBM's PC Support Router function. This means you can connect without having to load IBM's Workstation function module. Contact your IBM Support for information on configuring the PC Support Router function.

### AS/400 notes

There are several ways you can connect to an AS400 host over an network using HOSTACCESS.

If you have TCP/IP on the AS400 host, you will need a TCP/IP stack on your PC. You can connect by using the Windows Sockets interface and the IBM 5250 emulation in HOSTACCESS's Configure Session option.

Note: TCP/IP is included with OS/400 V3 but extra for OS400 V2.

If you have PC Support (for OS/400 V2) or Client ACCESS/400 (for OS/400 V3) on your AS400, you will need to have either PC Support Router or NS Router on your PC. You can connect by using the NetSoft APPC Router option and the IBM 5250 emulation in HOSTACCESS's Configure Session option.

## To connect to the host system

When the router software is loaded and connected to a number of systems, selecting the List of systems button causes a list of the systems that the router is currently connected to, to be displayed in the list box.

Select the required system, which is then displayed in the <u>Host/service</u> name field.

This option provides a diagnostic facility, for testing emulations.

The way it works is that anything you enter through the keyboard goes to HOSTACCESS as though it has been sent from the host. Any data that is sent out via the output buffers is sent back to the input buffers.

It can be used in combination with the journal.

This should only be used on instruction from Technical Support.

# **Configuring modem properties**

You can dial up a host from a modem using the Modem connection option in the same way as you would select a network option in the System Setup dialog i.e. by selecting the <u>S</u>ession option from the <u>C</u>onfigure menu, the <u>N</u>ew option from the <u>S</u>ession menu or the New toolbar button.



Setting the phone number.

Setting the dialing properties.

Selecting the modem.

Configuring the modem.

# To set the modem Phone Number

- 1. Click on the Modify button next to  $\underline{P}hone$  Number. The Phone Number dialog will appear.
- 2. Fill in the <u>C</u>ountry Code, the <u>A</u>rea Code and the <u>L</u>ocal fields then click on OK.

# To set the modem Dialing Properties:

Click the Modify button next the Dialing Properties.

l am dialing from	You can either type a location, select an existing location from the pull down box, or select <u>N</u> ew and type a location in the field. You can also remove a location by selecting that location from the list box, then click the <u>R</u> emove button.
The area code is	Type your area <u>c</u> ode.
<u>l</u> am in	Select your country code from the $\underline{l}$ am in list box.
How I dial from this location	Fill in the access codes in the following fields if applicable.
	To access an <u>o</u> utside line, first dial_for local, _ for long distance.
Dial using Calling Card	Fill in the field if this is applicable to your location.
This column has call waiting.	If the location you will be dialing from has call waiting facilities, enable the This location has call <u>w</u> aiting field. You can also set a code which will disable this facility.
The phone system at this location uses	Select the type of phone system your location uses: <u>T</u> one dialing or <u>P</u> ulse dialing.

# To select the type of modem you will connect using:

Select the modem type from the <u>C</u>onnect Using field. If you have no modems, you will need to load one. You can do this from the Windows Control Panel by selecting Modems.

## To configure the modem

Click the configure button next to Connect Using.

# General:

Set the Port, Speaker volume and Maximum speed.

## **Connection:**

Click on the Connection tab to set the connection settings:

Connection preferences you can set are: <u>Data bits</u>, <u>Parity and Stop bits</u>.

Call preferences you can set are:

- Wait for dial tone before dialing.
- Cancel the call if not connected within\_secs.
- Disconnect a call if idle for more than\_ mins.

You can click on the Port settings button to configure port settings.

You can click on the Advanced button to configure the following:

- Use error control.
- <u>F</u>low control.
- <u>M</u>odulation type.
- Extra settings.
- Record a log file.

## Click on the Options tab to set:

Connection control:

- Bring up terminal window <u>b</u>efore dialing.
- Bring up terminal window <u>a</u>fter dialing.

Dial control:

- Operator assisted or <u>manual dial</u>.
- <u>Wait for credit card tone.</u>

Status control:

• Display modem <u>s</u>tatus.

Click on OK.

## You can set the following basic options:

- Continuous redial.
- Redial attempts.
- Beep on connection.

PicLan is a proprietary protocol that enables you to directly "plug-in" a PC-PICK host system into an Ethernet network. At the PC workstation end, the PicLan networking software can co-exist with Novell Netware.

HOSTACCESS interfaces directly into the PicLan network drivers for enhanced and feature-rich emulation and facilities.

You will need to ensure that the Ethernet card and the PicLan software have been installed on your PC as directed by the manufacturer's instructions.

HOSTACCESS interfaces directly with the TSR driver PL-DEV supplied with the PicLan networking software.

## You can specify the host name and port number as follows:

Use the following syntax:

<hostname> : <port number>

e.g.

- RICH Connects to host RICH, using the next available circuit
- RICH:0 Connects to host RICH using circuit 0
- RICH:4 Connects to host RICH using circuit 4

You can connect HOSTACCESS directly to the host via a serial cable, in almost the same way as a normal terminal. The connector on the back of the PC may be different from the one used on a standard terminal. To use a standard terminal cable, you may need a 9-pin to 25-pin adapter between the PC and the terminal cable. You may also need to cross over pins 2 and 3 on the connection.

The options are described below:

<u>P</u> ort	Use to select your communications port number (COM1 to COM4).
Speed	Set the correct data transfer speed (in baud).
Parity	Select parity type for your connection.
Data bits	Select the number of data bits in each byte.
Stop bits	Use to select the number of stop bits.

To define how HOSTACCESS tells the host that its input buffer is full and how HOSTACCESS is told by the host that it can receive no more characters, both HOSTACCESS and the host system must use the same flow control protocol. Select the options in the In flow and Qut flow boxes as follows:

- NoneSelect to do nothing (and risk losing<br/>characters).Xon/XoffSelect to use Xon/Xoff software<br/>protocol (can only be used for serial<br/>ports).
- **Rts/Cts** Select to monitor Rts/Cts control signals. Rts/Cts will only work if you have an appropriate cable between the host and the PC.

You can configure a session to play a test file (a file with a .LOG or .TST ending) as follows:

- 1 Type or select using Browse the name and . path of the test file in the Test File Name field.
- 2 Configure the options as follows:

<u>R</u> ead buffer size	The amount of data read from the trace file each time it is accessed. This should not normally be changed. However, using a smaller size will slow down playback due to increased number of reads required in order to access
	the trace file.

- 3 Click on OK twice to return to the
- . HOSTACCESS screen.
- 4 You can play the trace using the spacebar or
- . replay icons which will appear on the Toolbar.

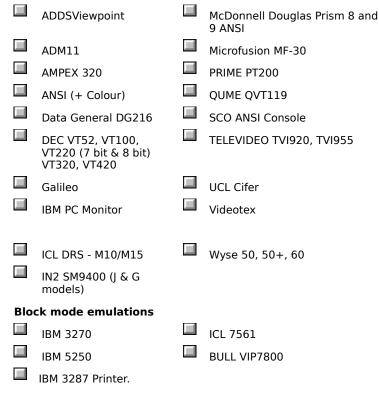
Making a trace.

HOSTACCESS supports WinSock API for TCP/IP Communications. You can use HOSTACCESS with any product that supports this interface.

## Set the options as follows:

- Fill in your Host Telnet address. This can be an IP
   address or a name if defined in the hosts database. This is usually found in your Windows directory.
- 2 Termtype is a Telnet variable. This should
- . normally not be changed.
- 3 Define your Port number, for Telnet, this is
- . usually 23.
- 4 Break sends defines the effect of sending a
- . break to the host. Select Break for a break or Interrupt for a program interrupt.
- 5 Use Echo to specify whether data keyed in is . echoed locally, (Local) or by the host (Remote).
- 6 Use Receive EOL to define the effect of the end
- of line character received from the host: Carriage Return (CR), Line Feed (LF) or Carriage Return and Line Feed (CR/LF).
- 7 Use Send EOL to define the end of line character
- . sent to the host.

## Asynchronous emulations



You can define the size of your screen, in rows or columns. Size can be pre-defined (40, 80 or 132 columns), or

<u>c</u>ustomized to fit your requirements.

You can also specify the Display mode you want to run in.

The following emulations are supported with this dialog:

ADDS VP	Microfusion MF-30
Adm11	PCMonitor
Ampex 230	QUME QVT119
Ansi	SCO ANSI
DG216	TVI920 + TVI955
Galileo	UCL Cifer
IN2 SM9400	WYSE 50, 50+, 60
MDIS Prism9 ANSI	

HOSTACCESS supports the following DEC terminals: VT52, VT100, VT220, VT320 and VT420.

You can configure the DEC terminal in two stages, an initial stage and an advanced stage.

The initial configuration stage allows you to define the screen size and display mode, i.e. which colours will be displayed.

You can either select a predefined screen size or define your own.

# To define your own screen size:

Enable Custom, then type or select the number of Columns and Rows you want:

Click on the Advanced button to configure the advanced option. Select the options as follows:

<u>U</u> ser keys	Select Locked or Unlocked to lock or unlock function keys. Selecting Unlocked has the effect of disabling host programming of user defined keys (UDK).
<u>C</u> ursor keys	Select Normal or Application to select the response the key should send to the host (this option should be set by the system administrator only).
<u>B</u> ackspace key	Select Backspace or DEL to define the character sent to the host when you press the Backspace key.
<u>K</u> eypad keys	Select Numeric or Application to choose whether keypad keys have their normal numeric function, or are specific to an application (this option should be set by the system administrator only).
Answerback	Use A <u>n</u> swerback to specify a message to be returned to the host from HOSTACCESS when the host requests an answerback message.
Auto-wrap	Select Auto- $\underline{w}$ rap to wrap text around the screen.
Use NRC (7 Bit) characters	Select Use NRC ( <u>7</u> Bit) characters to determine whether printed characters will be mapped by the Nationality setting (see below)

<u>G</u> raphics	Select <u>G</u> raphics mode to pre-load DEC
mode	's graphics table, instead of a standard ASCII table.

Nationality Select the nationality of the emulation.

You can configure the ICL DRS terminals in two stages, an initial stage and an advanced stage.

The initial configuration stage allows you to define the screen size and display mode, i.e. which colours will be displayed.

You can either select a predefined screen size or define your own.

### To define your own screen size:

Enable Custom, then type or select the number of Columns and Rows you want:

Click on the Advanced button to configure the advanced option. Select the options as follows:

<u>U</u> ser keys	Select Locked or Unlocked to lock or unlock function keys. Selecting Unlocked has the effect of disabling host programming of user defined keys (UDK).
<u>C</u> ursor keys	Select Normal or Application to select the response the key should send to the host (this option should be set by the system administrator only).
<u>B</u> ackspace key	Select Backspace or DEL to define the character sent to the host when you press the Backspace key.
<u>K</u> eypad keys	Select Numeric or Application to choose whether keypad keys have their normal numeric function, or are specific to an application (this option should be set by the system administrator only).
Answerback	Use A <u>n</u> swerback to specify a message to be returned to the host from HOSTACCESS when the host requests an answerback message.
Auto-wrap	Select Auto- <u>w</u> rap to wrap text around the screen.
<u>G</u> raphics mode	Select <u>G</u> raphics mode to pre-load DEC's graphics table, instead of a standard ASCII table.

HOSTACCESS supports the Videotex emulation, allowing you to use many major on-line services (for example, Prestel).

Use the Screen size section to define the size of your visible screen.

HOSTACCESS supports IBM 3270 emulation, over all supported TCP/IP networks.

Select your screen and display options as follows:

Display	<u>G</u> reen or A <u>m</u> ber for a monochrome green/amber display, or <u>C</u> olour for a full-colour display. Select Auto-sc <u>u</u> lpted to automatically produce a sculpted display to give a GUI look to your applications.
Screen size	To define an alternate screen size for applications which support it, select the required option in the Screen Size section. The normal screen size is always 80x24. The screen sizes correspond to the IBM 3278 terminal, models 2,3,4 and 5 respectively.
HLLAPI Session ID	This allows you to select the session ID for your HLLAPI application to communicate with HOSTACCESS.
Support Extended Data Stream	If selected, this will enable extended character highlighting. A mainframe user would generally check this box, but an AS/400 user using 3270 will need to clear this box.
Host Encoding	Host encoding refers to the "nationality" of the terminal and changes the codepage to be used for displaying the data. It can be changed dynamically, which can be useful in a multi-national configuration where a user might log in to one mainframe in a particular country via another mainframe in a different country. Select the required <u>S</u> BCS (Single Byte Character Set) for European characters or <u>D</u> BCS (Double Byte Character Set) for Far Eastern characters.
tor to activate functi	on kove at the bettern of the termina

You can use your mouse pointer to activate function keys at the bottom of the terminal screen. For example, if the text "F1=Help" appears on the screen, move your mouse pointer over it and click the right mouse button to activate that function.

You can also position the text cursor anywhere on the screen by moving the mouse pointer to the desired location then clicking the left mouse button.

**Note**: For IBM emulations, you should also set Page Keys to remote, via the Configure Terminal option.

HOSTACCESS supports IBM 5250 emulations over TCP/IP networks.

Select your screen and display options as follows:

Display	<u>G</u> reen or A <u>m</u> ber for a
	monochrome green/amber
	display, or <u>C</u> olour for a full-
	colour display.

Select Auto-sculpted to automatically produce a sculpted display to give a GUI look to your applications.

- Column The Column Separator field by default blank - specifies how Separator to show column separator fields on the 5250 terminal. Select a vertical bar or underline character as preferred to suit the host application. The associated radio buttons allow you to choose which field types get the column separator attribute. Colour screens can be either attribute x'30' to x'33' or x'30' to x'37', depending on which version of terminal specification documentation you read. Monochrome terminals always get column separators in fields with attributes x'30' to x'3F'.
- Screen size This defines an alternate screen size for applications which support it, select the required option in the Screen Size section.
- HLLAPI This allows you to select the session ID for your HLLAPI application to communicate with HOSTACCESS.
- Host Host encoding refers to the Encoding "nationality" of the terminal and changes the codepage to be used for displaying the data. It can be changed dynamically, which can be useful in a multinational configuration where a user might log in to one mainframe in a particular country via another mainframe in a different country. Select the required <u>SBCS</u> (Single Byte Character Set) for European characters or DBCS (Double Byte Character Set) for Far Eastern characters.

You can use your mouse pointer to activate function keys at the bottom of the terminal screen. For example, if the text "F1=Help" appears on the screen, move your mouse pointer over it and click the right mouse button to activate that function.

You can also position your cursor anywhere on the screen by moving your mouse pointer to where you want the cursor to be then clicking the left mouse button.

This emulation allows you to connect an IBM 3287 Printer to a host. The settings are as follows:

<u>L</u> ogical Unit Name	This is the host's name for the printer.
Paper	Select 80 columns or 132

Width columns.

The connected session will not be interactive. The host sends information to the printer.

You can select how you want your screen displayed in the Display section:

<u>C</u> olour	Select this item for a full-colour display
Auto-sculpted	Select this item to automatically produce a sculpted display for a GUI look to your applications.
Enable auto- tab	If checked, when your cursor comes to the end of a field, it will automatically move onto the next field.
Assume host data is complete	Not all connectivity options or host applications always release the terminal keyboard when the drawing text is on the screen. This set of options allows you to specify that the terminal should automatically unlock after a preset timeout, if the host does not unlock it first. Normally, timeout should only be set under guidance from Pixel.
<u>N</u> ationality	Set the nationality to that of the host.

**Note:** You can position your cursor anywhere on the screen in an ICL 7561 session by moving your mouse cursor to where you want the cursor to be then clicking the left mouse button.

On a real VIP terminal, there are a set of switches that define the terminal setting settings - HOSTACCESS implements the following VIP settings:

Text mode - sets the initial screen mode to Text (if not selected, character).

**<u>Roll mode</u>** - If set, the page will scroll upwards when data is added at the bottom of the screen.

**Enable auto-tab** - (form mode only) When your cursor is at the end of an input field, it will automatically tab to the next field.

Etx msg terminator - when set, the message terminator is ETX. When not set, the terminator is EOT

**Transmit on return** - this setting only applies if Text mode is set. If this is set, the return key will initiate a data transmission.

CrLf appended - (text mode only) A carriage return and line feed pair are send at the end of each line

**Space suppression** - (text mode ) if set, trailing spaces in each transmitted line are suppressed. (Form mode) - trailing spaces in each transmitted field are suppressed.

Enable KeyWizard - this setting gives you an extra function key toolbar.

### **Display options**

Colour - Select this option for a full colour display.

Auto-sculpted - This gives you a different default set of attributes and sculpts all input fields.

#### **Other features**

Cursor control - you can place your cursor anywere on the emulation screen using your mouse.

Status bar - this gives you additional information to the standard HOSTACCESS status bar:

- Current cursor position.
- Autoline feed indicator.
- Screen mode indicator (i.e. whether it is set to form, character or text mode).
- Operator indicator.
- Roll mode indicator whether the screen will roll up and down.
- Insert mode/overtype indicator.
- Error indication.

The following topics describe how to print, echo to the printer of DOS file and configure printing in HOSTACCESS.

Print setup.

- Printing the active screen.
- Echoing to the printer.
- Configuring printing.

Use the Print setup option from the Session menu to specify the current printer, its orientation, paper size, and paper source, as configured and installed under the Windows Print Manager. See Configure Printing and the Microsoft Windows User's Guide for further information on printer setup.

Use the Print screen option from the Session menu to print a copy of the currently active host session's screen to the current printer (as defined by the Print Setup option). This option can be useful to record error messages or contentious screen displays.

Use the <u>E</u>cho to printer option from the Session menu or use the toolbar button shown opposite to toggle on or off HOSTACCESS's hard copy printing to the default print device (for example, a local printer). A tick next to the <u>E</u>cho to Printer option in the Session menu indicates that it is selected.



The Echo to printer mode stays on and keeps printing until the user clicks the button again - at which point it stays off (until the user clicks it again).

This is a very useful means of capturing host session(s) output over a period of time. For example, when running an overnight batch job that displays its status at frequent intervals, this option would enable you to keep a record of the complete job run for later analysis.

Note: Cursor screen positioning may cause corruption to most print devices.

Use the Printing option from the Session menu to configure printing as follows:

### Send to the default print device:

The default print device is set in Windows. To send to the default printer, check the Printer radio button. If you want to alter the printer, or its setup, select the <u>C</u>onfigure button.

### Print to a file:

Check the <u>F</u>ile radio button, then enter the name of the file you want to print to in the box below this button or use the

Browse button to browse for your output file.

### Keep printer open:

Some host programs close the printer after every line sent to the printer resulting in a form feed after every line. To prevent this, i.e. to ensure that any printing in one session is done continuously without form feeds unless specifically requested, enable the Keep printer open option. This will send all the printing off to the printer once the session is closed.

To force printing part way through a session, select Flush. This will close the printer then reopen it.

If you set Close printer after idle time, this will close the printer after a set time. The printer will remain closed until the next time it is needed.

## Host application supports printer control sequences:

Select the <u>H</u>ost application supports printer control sequences. This should only be checked if the host application can and will control the printer. This box is normally unchecked, allowing Windows to control the printing.

#### Draw border a round screen prints:

Select <u>D</u>raw border around screen print.

### Enable translation of national character sets:

Select Use national <u>replacement character (NRC)</u> set to determine whether printed characters will be mapped by the Nationality setting in the Configure Terminal Setting dialog.

#### Enable printing of graphics characters:

Check the Printer Supports Graphics Characters option if your printer supports characters 128 and above. This should be checked for all but the oldest printers. It allows you to print characters such as a £ symbol and accented characters.

The <u>A</u>ttributes option from the Configure menu allows you to change the colour of your terminal display's attributes, that is, the normal setting, the bold setting and so on. You can also set the Auto Sculpture option where it is relevant.

æ	
	Changing attribute colour settings.
	Using auto sculpture.
	Flash.
	Underline.

To change the colours for an attribute:

- 1 Highlight the attribute in the <u>Attribute list</u>
- box. You may need to scroll down to find the attribute you want to change. The Sample box displays the current settings for the highlighted attribute.
- 2 Select the foreground and background
- colours for the attribute by clicking on the colour of your choice in the <u>Foreground</u> and <u>Background</u> sections. You can assign Auto Sculpture, Flash or Underline to any attribute, see the following sections for further information.
- 3 To change other attributes, repeat steps 1 . and 2. When you have finished, click on
- OK.

The Auto Sculpture option puts a sculptured box around the field with the specified attribute when the option is checked. For best results, the colours for the sculptured attributes and for normal should be set to black foreground on a light gray background.

You can transform most traditional green on black emulations into a modern, Windows-like application with ease when you are configuring the emulation properties:

- 1 Select <u>Session from the Configure</u>
- . menu.
- 2 Click on the Properties button, then
- . click on the Emulation tab.
- 3 Check the <u>S</u>culpted option (if there
- is no <u>S</u>culpted option, you cannot sculpt with this particular emulation).
- 4 Click on OK.

The following two pictures show how a green on black emulation can look using these features.

Before AutoGUI.

After AutoGUI.

Some applications use flashing characters. This option enables you to turn flashing on and off where it is used in an application. When flashing is enabled, the Flash box will be checked.

# To enable or disable flashing:

Highlight the attribute then check the Flash box for flashing. Click the box again to disable flashing.

You can apply an <u>UNDERLINE</u> style to any attribute.

# To give an attribute an underline:

Highlight the attribute then enable the Underline check box.

With the <u>C</u>olour option from the <u>C</u>onfigure menu you can adjust the colours for your emulation.

# To alter a colour:

- 1 Select the colour you want to alter by clicking on the colour or the adjacent radio button under Terminal screen colours.
- 2 Adjust the Colour, Saturation and
- Brightness by dragging the bars under these sections from side to side. The colour you selected under Terminal screen colours will change as you drag the bars.
- 3 Repeat steps 1 and 2 for any other
- colours you want to alter.
- 4 Click OK.

You can return any colours to the original setting by clicking Default - this returns all 16 colours to the original settings, not just the currently chosen option.

With the <u>F</u>ont option from the <u>C</u>onfigure menu you can select font name and characteristics.

HOSTACCESS supplies its own TrueType font: Arial Monospaced which is licensed from the leading font house, MONOTYPE. You can also use the TERMITE font - this is not fully scaleable, but can be faster if your application does large amounts of line drawing.

## To select a font:

- 1 Choose <u>Font</u> from the <u>Configure</u> menu.
- •
- 2 Highlight the font you want to use in the
- . Facename list box. You may need to scroll up or down. The Sample box will display an example of the way the font selected will be displayed on the screen.
- 3 Highlight the style and the size of the
- . font you want.
- 4 With Font size automation set to Best fit
- . the terminal window is sized so that it is the best fit in the current HOSTACCESS frame size.
- 5 If you want the screen to be in
- proportion with the HOSTACCESS window size, select <u>S</u>nap to Frame. If you resize the window, the font size is changed accordingly. This is particularly suitable for high resolution screens.

If <u>S</u>nap to Frame is selected, you can only change font size by resizing the window, you cannot use the Increase and Decrease Font toolbar buttons.

<u>Snap to frame must be selected to</u> enable scrolling through backpages with a scrollbar, see <u>Configuring Editing</u>.

- 6 With the Font size automation set to
- . <u>N</u>one there is no font automation.
- 7 If you want to keep the window size
- . close to the original aspect ratio of the font selected, Select <u>Maintain Aspect</u> Ratio with <u>Snap</u> to Frame.

If the application you are using has line drawing, you can give the screen a 3D look and feel. To do this, you can Select Sculpt Line Drawing. For best effect, set the attributes to a black foreground on a light gray background.

The <u>Terminal option in the Configure menu allows you to change terminal-specific details for your session, for example, the settings for the of the Caps Lock key and Num Lock key settings at the start of a session.</u>

### To set the state of the session's terminal-specific details:

- 1 Select Terminal from the Configure menu.
- ·
- 2 Num Lock sets the initial state of the <NUM LOCK> key.
- If the Num Lock key is set to Host key, then HOSTACCESS will send whatever the numlock key is mapped to, this may be an emulationspecific sequence i.e. the DEC's PF1 or it may be a user-defined sequence. It will not perform the Num lock toggle functionality, even though the numlock light on the keyboard will change when this key is used.

If the Num Lock key is set to Num Lock toggle, then HOSTACCESS will perform the Numlock toggle regardless of what the numlock key is mapped to. HOSTACCESS will also toggle the keyboard numlock light correctly.

If the Num lock keys is set to Emulation defined and there is a mapping to the Numlock key, then HOSTACCESS will send this mapping when the num lock key is used. If there is not a default mapping to this key, then HOSTACCESS will perform the Num lock toggle.

3 Use <u>Caps</u> Lock and select either no change, force on (upper case) or . force off (lower case). For example, UNIX users might set this to off.

The state of the Caps lock is forced only when connecting the sessions; the state of the Caps lock is not saved for multiple sessions. This applies to both the 16 and 32-bit versions regardless of operating system.

- 4 Page Keys is set to show <u>Backpages</u> by default. Backpages are defined in
- the <u>Configure Editing</u> dialog. However, some host applications need to use page keys (say, for their own paging processes) by interrogating the keystrokes returned from the user's terminal emulation. For HOSTACCESS to send to the host the characters generated by the Page Up and Page Dn keys, set <u>Page</u> Keys to Host.
- 5 Use Cursor style to define each session's cursor type. You can select
- . either Block or Underlined cursor.

A **session** is a connection between your PC and the host system. When you open and close sessions, you will connect to and disconnect from the host.

By default, HOSTACCESS starts up with the session that was used the last time you ran HOSTACCESS.

If you have no previous valid session, HOSTACCESS will not connect to any system, and you must set up a session, using the New option, as described below.

You can open several sessions simultaneously by either starting multiple copies of HOSTACCESS (from Explorer or Program Manager), or via the Open Another command on HOSTACCESS's Session menu.

Starting a session does not automatically connect you to or log you on to your host system. You can configure HOSTACCESS to automatically connect and logon, however, sending your username and password to a system and you can configure HOSTACCESS to auto-start a macro and auto-dial a modem-connection.

The following topics describes how to:

Create and configure a session.
Open an existing session.
Save a session.
Saving a session under a different name.
Connecting to a session.
To autoconnect.
Disconnecting from a session.
Connecting to more than one session.

If you are using the Windows 95/98/NT version of HOSTACCESS (HOSTACCESS 7), you can configure a session and save its properties without HOSTACCESS running. You can also configure a session and its properties from within HOSTACCESS as you do with HOSTACCESS 6.X.

# See:

Create a new session with HOSTACCESS running.

Create a session without HOSTACCESS running (HOSTACCESS 7 users only).

### To set up a new session:

- 1 Select New from the Session menu. This will
- . give you the <u>C</u>onfigure session dialog from the Configure menu.

You can also use the <u>Session</u> option from the <u>Configure menu to define details of your</u> session setup. You can then define details for your network, emulation and AutoConnect, using the relevant tabbed dialog boxes

 Highlight the network stack and the
 emulation, then click on <u>P</u>roperties to configure them.

# To create a new session without HOSTACCESS running:

- 1 Click the right mouse button either in the
- . Windows 95/98/NT desktop or Windows Explorer.
- 2 Select New from the menu.
- 3 Select the item Host Session.

This will create a New HOSTACCESS Session icon on your desktop. If you double click on this icon, it will take you into the new session that you have created. You can now configure this session.

### To change a session's properties:

- 1 Highlight the session file you want to
- . configure either in Windows Explorer or on
- the desktop.
- Click your right mouse button and select
   Properties from the menu. You will get the
- Properties from the menu. You will get the Session set up dialog as though you had selected <u>N</u>ew from the <u>Session menu from</u> within HOSTACCESS.

## To save HOSTACCESS's current session:

Use the <u>Save</u> option from the Session menu or the toolbar button shown.  $\hfill \square$ 

# To save your session parameters to a file with a different name.

Use the Save <u>as option</u>.

Any changes that you have made since the last save or the beginning of this HOSTACCESS session will still be active.

### To connect up to a currently-opened session:

Select the <u>Connect</u> option from the Session menu or click the toolbar button shown.



Alternatively, to open and automatically connect to a session, when you are configuring your session, use the AutoConnect option from the Configure menu.

- 1 To change the session icon, click on the
- <u>Change Icon button</u>. On the displayed dialog, select an icon from the list, or point to another application and use its icons.
- 2 To set network details, fill in the details and . click on OK. Specific information for each network can be found in the Emulations and Networks topic. Note: The new icon appears wherever the session file can be seen, for example, in Windows 3.1x Program Manager, Windows 95/98/NT desktop, Windows 95/98/NT Explorer and HOSTACCESS.
- 3 To set emulation details, click on the
- emulation tab. As with the network details, most emulations have different parameters.

#### To open a session:

Use the <u>Open option in the Session menu or use the toolbar button shown below</u>. At the bottom of the Session menu will be a list of your previous sessions to choose from. If you open a new session, the current session is closed - you are prompted to confirm this. If you have no previously saved session, you will be prompted to create a new session.



Setting the session so that it autoconnects to the host next time you open the session.

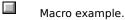
### To automatically connect when starting a session:

Enable the <u>Start</u> session when application starts box.

#### To automatically run a macro when starting a session:

Enter the macro file name in the Macro name box, or select a specific macro file to run, using the Browse button, then enter the relevant details in the dialog that appears. This is a "logging on" macro.

If you are recording a login macro, you may need to fill in the Username and Password fields.



Recording a macro.

### To disconnect from the current session:

Select the <u>D</u>isconnect option from the Session menu or click on the toolbar button shown below, whilst keeping HOSTACCESS open. This allows you to then open and/or connect to another session, without running multiple copies of HOSTACCESS.



### To open another session whilst keeping your current session open:

Select the Open another option from the Session menu. This starts another copy of HOSTACCESS using your specified session at start-up.

You can have any number of host sessions running concurrently. This is limited only by available PC memory, or by any other restrictions imposed by, say, network communication protocols.

Each concurrent terminal can run its own emulation, with its own set of backpages, under its own configuration and with its own printing facilities.

If a host system is outputting to one session whilst you are looking at another session, HOSTACCESS will not suspend the host output. You can switch between each session (using the ALT/TAB key) to see the current status of the host applications running on each of the sessions.

Click here for an example.

# Example

You could be using COM1 to a modem dial-up to a remote host. At the same time, you could have a session to a UNIX host over a PC-NFS network stack and a session to an IBM AS/400 via a TCP/IP network across the Internet to the corporate server. This does depend on you having the correct network stacks and enough memory on your PC.

Starting HOSTACCESS in Windows 3.1X.

Starting HOSTACCESS in Windows 95/98/NT.

Exiting HOSTACCESS.

There are two ways to start HOSTACCESS:

- 1. Double-click on the HOSTACCESS icon from Program Manager.
- 2. Double-click on a session (.ses) file from File Manager.

On start-up, HOSTACCESS displays an "opening credits" screen. This disappears after a few seconds, or if you click the mouse anywhere on the screen.

HOSTACCESS will then attempt to open a session, by default, the session you closed most recently. When you start HOSTACCESS for the first time, no session is opened.

To start HOSTACCESS from Windows 95/98/NT:

Click on the start button at the bottom of your desktop, select Programs then select the HOSTACCESS icon from the HOSTACCESS program group.

You can set up a short cut on your desktop to the HOSTACCESS Program Group. See your Windows 95/98/NT documentation.

Double-click on a session (.ses) file from File Manager. This will start HOSTACCESS, and open a session based on that session file.

To exit from HOSTACCESS, you can:

- Click on the Exit toolbar button.
- Click on the standard Windows Close button.
- Select the Exit option from the Session menu to exit from HOSTACCESS.
- Use the Control Menu and select the Close option.
- Use Alt +F4.

# See also

Exit All.

Select the Exit all option from the Session menu to close and exit from all currently-running HOSTACCESS sessions.

The following topics are designed for the use of Systems Administrators only.

Traces.
Command line options.
Loopback.
DDE.
Foreign character support.

A trace is used as a debugging tool. It can also be used for session recording if you want to play back a session for a demonstration for example. A trace can be a recording of all communications to and from the host. You or support can replay this trace and view exactly what the originator saw on the session, as well as analysing all the information sent from the host. This type of trace file has a .LOG ending. .LOG files are not in a readable format and can only be played back using the Test file session connection in HOSTACCESS.

A test can also be written to check the behaviour of commands etc. This type of file has a .TST ending and is written by entering emulation specific information into an ASCII text editor such as NOTEPAD. A .TST file can also be played back through the Test file playback session connection. This is useful for debugging behaviour. Pauses in playback may be added by either entering a carriage return, or a \$. If you wish to use a \$, it must be expanded to a \$24 as \$ is a reserved character used to indicate a playback control command is present.

For example, for VT100, to move the cursor to the 10 col, 10 row, then to the 20,20 position, pausing between you would write:

#### \$1B[10;10H\$\$1B[20;20H

where \$1B is interpreted as the ESCAPE character, the \$ is a pause command.

Making a trace.

Replaying a trace.

Test file options.

1 Turn on trace mode: (CTRL, ALT, Z).

.

- 2 Enter a log filename. A T will appear on . the Status Bar.
- Log onto your host system and perform
   some tasks. Turn off the trace (CTRL, ALT,Z).

- Create a new session in
   HOSTACCESS. Select Test file as your connection, select the emulation that you created the Test file in, then configure the properties so that the logfile you created is played back.
- Replay the trace using the spacebar
   or replay icons.

**Read buffer size:** The amount of data read from the trace file each time it is accessed. This should not normally be changed. However, using a smaller size will slow down playback due to increased number of reads required in order to access the trace file.

The following topics describe how to use the file transfer option to transfer files between the PC and host and how to configure file transfer.

#### **Before starting**

Before this option is selected, you must have already prepared the host computer to be ready to either send or receive the file(s).

You need to find out which file transfer programs are available on the host and select one of those to run. For example, to send a file to a UNIX host which has a version of KERMIT, you should start "KERMIT" on the host and tell it to "RECEIVE" the file. KERMIT will usually display a message such as:

#### KERMIT READY TO RECEIVE, PLEASE START THE UPLOAD PROCEDURE

At this time you should select HOSTACCESS's Start File transfer option. It is important that you select the correct protocol in HOSTACCESS to match the file transfer program which is running on the host.

Starting file transfer.

Multiple file transfers.

Configuring file transfers.

- File transfer parameters.
- Control characters used

### See also

IND\$FILE Transfer

- 1. Start the file transfer program on the host, e.g. <u>Xmodem</u>, <u>Ymodem</u>, <u>Kermit</u> and set it to send or receive files
- Select HOSTACCESS's Start File Transfer option from the System menu or from the toolbar button shown below.



**Note:** When running a 3270 emulation, an <u>IND\$FILE transfer</u> will be automatically initiated.

 Select the file transfer <u>P</u>rotocol. This must match the file transfer program on the host, eg Kermit.

#### 4a To send files:

Enter the file to be sent in the Local File field. If you want to give the file a new name on the host, specify the new name in the Remote File Name box. If this box is left empty, the file will be transferred with its original name.

Choose  $\underline{\mathsf{S}}\text{end}$  To Host then select the Send button.

#### 4b To receive files:

Use the <u>L</u>ocal File field to rename the file name to be received. This can be left blank.

Choose  $\underline{R}eceive$  From Host then select the Receive button.

- 5. Select the type of data to be transferred (binary or text), by selecting either Binary or Text in the Type group. Binary files are files such as executables (i.e. .exe), programs and documents with formatting. Text files are usually plain text files i.e. with no formatting.
- Check that the file transfer parameters for the selected protocol are configured correctly by selecting the <u>Configure</u> button.
- 7. Start the file transfer by selecting Send.

Wildcards may be used when selecting the file to be sent (not when receiving files). This may result in multiple files being sent to the host. When multiple files are sent, only the first one will be renamed to the file name specified in the <u>Remote File Name box</u>. Subsequent files will be sent with their own names before sending multiple files, check that the host file transfer program can handle them. If a wild card is used with a file transfer protocol that doesn't allow multiple file transfer, only the first one selected will be sent.

If you specified multiple file transfers on the host to be sent to HOSTACCESS, the first file will be renamed to that specified in the Local File Name box. Subsequent files will use their own names. If you specified a full path to a local directory, then all the files received will be placed in that directory.

**Note:** Not all FTPs allow multiple file transfers.

Use the File Transfer option from the Configure menu to configure the various parameters used when transferring files.

The following file transfer protocols are available: Kermit, Keyfile, ZModem and XYModem, RPC-DDE.

Note that Kermit is used for file transfer and not as a server.

You should not usually need to alter these parameters; HOSTACCESS's file transfer process is completely automatic. However, if you encounter file transfer errors, adjusting these parameters may help.



File transfer parameters.

Modem connections.

The following topics describe how to configure file transfer parameters for different protocols.

Kermit.
XYModem.
Zmodem.

Proprietary

RPC/DDE

Keyfile

The Kermit file transfer protocol is an old protocol and is usually slower than Xmodem, Ymodem and Zmodem.

#### **Parameters:**

**Timeout:** The time (seconds) HOSTACCESS waits for a response from the host before assuming the last block has been lost and must be re-sent. This may need to be increased for slow machines.

**<u>Retries</u>**: The number of times HOSTACCESS should attempt to recover from an error, re-sending a data block. Increase this setting for "noisy" lines, or modems without error checking.

The Zmodem protocol is fast and has efficient error checking. It is based on the earlier Xmodem and Ymodem protocols.

### **Parameters:**

**Timeout:** The time (seconds) HOSTACCESS waits for a response from the host before assuming the last block has been lost and must be re-sent. This may need to be increased for slow machines.

**<u>Retries</u>**: The number of times HOSTACCESS should attempt to recover from an error, re-sending a data block. Increase this setting for "noisy" lines, or modems without error checking.

The Xmodem protocol has basic error checking to ensure that information isn't lost or corrupted during the file transfer process. It sends data in 128-byte blocks.

The Ymodem protocol is based on the earlier Xmodem protocol. It sends data in 1024-byte blocks and is faster than Xmodem.

### Parameters

**Timeout:** The time (seconds) HOSTACCESS waits for a response from the host before assuming the last block has been lost and must be re-sent. This may need to be increased for slow machines.

**<u>R</u>etries:** The number of times HOSTACCESS should attempt to recover from an error, re-sending a data block. Increase this setting for "noisy" lines, or modems without error checking.

Keyfile is HOSTACCESS's own file transfer protocol .

When the keyfile transfer is started, HOSTACCESS will prompt for a Keyfile name. HOSTACCESS will then simply pass the characters in this file to the host. The keyfile holds the bootstrap program and the editing commands to enter the program into a file on the host. It also has the commands needed to compile and run the bootstrap program.

**Char Delay (ms)** and **Line Delay (ms):** The time to wait between each character and line. They are only valid if Echo Pacing is set off.

**<u>E</u>cho Pacing**: If set, HOSTACCESS waits for an echo to be returned from the host before sending each character. This adds some reliability to Keyfile transfer.

RPC/DDE is for HOSTACCESS's RPC (remote procedure call) mechanism. This sets up the way HOSTACCESS will manage an RPC session to a PICK host.

**Timeout:** The time (seconds)HOSTACCESS waits for a response from the host, before assuming the last block has been lost and must be re-sent. For slow machines, this may need to be increased.

**Betries:** The number of times HOSTACCESS should attempt to recover from an error, re-sending a data block. Increase this setting for "noisy" lines, or modems without error checking.

**Window Size:** The number of concurrent file transfer data blocks HOSTACCESS will send to/receive from the host. If you are running over a Wide Area Network (WAN), you may notice some speed improvements by increasing this parameter.

**Checksum:** Checksum is the number of checksum bytes to use. This must be set to the same number as on your host machine.

**Timeout:** The time (seconds)HOSTACCESS waits for a response from the host, before assuming the last block has been lost and must be re-sent. For slow machines, this may need to be increased.

**<u>Retries</u>**: The number of times HOSTACCESS should attempt to recover from an error, re-sending a data block. Increase this setting for "noisy" lines, or modems without error checking.

**Window Size:** The number of concurrent file transfer data blocks HOSTACCESS will send to/receive from the host. If you are running over a Wide Area Network (WAN), you may notice some speed improvements by increasing this parameter.

HOSTACCESS uses a few control characters during file transfer to or from DOS. These control characters must be allowed to pass through the network unchanged, and they are listed below, if you need to load the host routines:

ASCII Value	Usage
002	Start of text.
005	Compression delimiter (file transfer).
006	Record separator (file transfer).
013	Carriage return.

The following topics list the most common problems with their solutions.

If you have a web browser you can access the very latest support bulletins on frequently asked questions by clicking this button.

Technical support information.

Running HOSTACCESS on a network.

- General use.
- Connections: Asynchronous.
- Connections: Network.
- Protocol setup tips.

The HOSTACCESS installed product contains useful information about your version of HOSTACCESS. You can copy or print out this information.

From the <u>H</u>elp menu, select <u>A</u>bout HOSTACCESS.

You get information on the following:

About HOSTACCESS	Copyright information.
Support	Your technical support contact.
General	Your version of HOSTACCESS, license number and other relevant information.
Environment	This provides information on your Windows environment.

#### The network supervisor can run HOSTACCESS, but other users cannot

If your network users cannot start up HOSTACCESS:

- 1 Check that you have given them the correct file
- . access rights to use the HOSTACCESS software.
- 2 On Novell they will need to read, execute and . scan access rights to the HOSTACCESS files.
- 3 On NFS they will need to read and execute the
- . HOSTACCESS files.

### Windows Displays An Error Message "Application Needs To Run In Enhanced Mode"

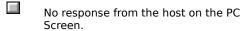
Restart Windows using enhanced mode - see your Microsoft Windows documentation on how to do this.

### Error Message "Not enough memory to run application"

HOSTACCESS needs a small continuous part of the PC's memory to run.

Close down any unused applications, and try again. If the problem persists, restart Windows to flush memory, and try to load HOSTACCESS again.

See the following topics:



Garbled or no response from the host.

Character corruption appears on the screen.

If no output is displayed on the screen by HOSTACCESS it is likely that this is because either the hardware link to the host is inoperable or there is some incompatibility between the line characteristics of the host system and the PC.

If you can:

- Check the host connection by replacing the
   PC with a terminal. If the terminal operates satisfactorily, use it to determine the Host Port parameters such as BAUD RATE using the
- appropriate Host command. Compare these settings with the HOSTACCESS session parameters.
- 2 Check the cable connections between the PC
- and the host system carefully. Ensure that the correct connector is being used on the rear of the PC and that the PC Port selected in the currently active session (COM1 to COM8 or network) is the Port being physically used. Check also that the connector is not plugged into the parallel port.
- 3 You can use a **loopback connector** in the
- communications port to test that keys pressed appear correctly on the screen. A loopback connector is a simple tool that joins **pin2** to **pin3.**
- 4 Check that the host is not hung on an Xoff
- . character. To overcome this press CTRL and Q on your keyboard.
- 5 Press Return, Break, or the space bar a couple of times to activate the host.
- 6 Check that the host port is not in debug. If a
- . "\*" or a "!" is displayed on the screen. Then enter "OFF" at the keyboard to close down the session.
- 7 Check that you have not selected the serial . mouse port as your communications port.
- 8 Check that your communications port is set
- . up with the correct IRQ and port I/O address. Refer to your port reference guide or PC manual for further information.
- 9 Check that if you have used other
- . manufacturer's software, which uses the port, that it is not left in an anomalous state. Reboot the PC to reset the port.

This is usually caused by incompatibilities in port settings between the PC and the host system.

Check that the terminal type is defined correctly for your application and that it is identical to that defined on the host port.

Check the settings of the host port (from a working terminal) using the appropriate host command. Compare these with the settings in the PC in the HOSTACCESS's menu. The most likely candidates for mismatch are the Baud or parity settings for asynchronous communications.

If letters are missing from words on the screen or spurious characters (such as cursor positioning sequences which might look like "[23;1", etc.) appear on the screen, you should make the following checks.

If using asynchronous communications, check that flow control is **ON** for both HOSTACCESS and the host port.

If the problem persists and you are running at a too high baud rate (say 19,200 bps), try resetting this to a lower baud rate, say 9600 bps. It is possible that your host system does not correctly support flow control at higher baud rates.

If this does not cure the problem, check the AUTOEXEC.BAT file on your PC for the KEYB command. If you are using the Microsoft version of KEYB, this is known to interfere with the COM port interrupts causing loss of data into the PC. Remove KEYB from the AUTOEXEC.BAT file and reboot your PC. If you are connecting through a network such as Novell, ensure that the correct network card has been installed and the network correctly configured. If necessary, use the emulator supplied with the network stack to verify the connection.



HOSTACCESS cannot connect to the host.

Protocol set up tips.

Error Message ''TCP/IP Software Not Loaded''

# Check the following:

Network protocol. 

HOSTACCESS.

Hardware.

If you have problems connecting in HOSTACCESS try the following:

- Check the protocol stack software is loaded correctly.
- Review the config.sys and the autoexec.bat files and check that the all the necessary modules are loaded.
- Check that the correct version of the stack is loaded for the Windows or DOS version running on the PC.
- Use the emulator that usually comes with the stack to connect to host. If it doesn't connect then reload the stack.
- Try another terminal emulator. For example, Windows "Terminal". Set the com port to be used then change the other parameters to suit the host. On pressing return you should get the logon banner.
- Check that the host can be connected to over the network. Are other users able to connect?
- Ensure the router software is running on the server.
- Check that the packet type is being passed across any bridge/WANs in the network.
- Check you are using the correct packet type in the PC network stack setup.
- Check the host can be connected to. Use the Ping command to access the host.
- Check the host name is in the host table and that it has been set up correctly. Ping the target host's ethernet address.
- Check that the host has the correct TCP/IP software loaded and running.

If you have problems connecting in HOSTACCESS, try the following:

- Check that HOSTACCESS has the correct host-name or ethernet address.
- Check that HOSTACCESS has the correct network interface set.
- Check that you have the network version of HOSTACCESS. Check in Help About.
- Check that the correct line speed been chosen.
- Check the emulation type is correct for the host.

If you have problems connecting in HOSTACCESS, try the following:

- Will a terminal or another PC work on the cable? (Remember that some terminals require different pin-outs to PCs)
- Check that the cable works. Swap with one from a different PC.
- Cable normally has pins 2 and 3 crossed and 7 straight-through. If a terminal works on the cable then you probably need a cross over on pins 2 and 3.
- Check that the cable is connected to the correct com port on the PC.
- Check whether flow control is set. Press <CTRL>/S or Q.
- Check that port isn't in debug. Try pressing <CTRL> break.
- Try a different port on the host.

Follow these steps:

- 1 PING yourself. If there is no "reply", ensure
- . that you have declared the correct frame type in the network configuration and bind the TCP/IP protocol to the network card.
- 2 PING the host. If there is no "reply", check
- the connection from your PC by PINGing another PC on the same domain. Check the physical network connection. If you can PING another PC then check that host is correctly set up by PINGing the host from another PC. If this works then:

You have not set the masks correctly.

You have not declared a gateway, or the gateway is not working properly.

- 3 Set up host table. You need to have either a local host table, typically called HOSTS, with line entries for each host, containing its IP address followed by its name or a domain name server which holds this file, whose own IP address is declared in the setup. The
  - domain name server may be the same device as the router.
- 4 Try HOSTACCESS. If there is no connection through HOSTACCESS but you can PING the host then:

Ensure that you are using a network version of HOSTACCESS. Check Help About from the Help menu on the installed copy, do not rely on the floppy disk label.

Try using the Terminal Emulator that comes with the stack.

Try using the Windows Terminal program.

Ensure that HOSTACCESS is configured correctly.

Are you using the correct network interface?

Ensure there is a Link Support Layer entry in net. Cfg and that the Buffers and MemPool entries are set to a high enough level, eg.

Link Support

Max Boards 4

Buffers 8 1500

MemPool 4096

- 5 If you cannot have a session on two PCs
- connected to the same host at the same time, check that you have enough host network licenses and check that the two PCs do not have the same IP address.
- 6 To access a host in another domain. Set up a
- . router (gateway) and declare the address of

this in the setup. Note: A Novell server can be set up to act in this way.

Check that the TCP/IP software kernel is loaded. For example, when using PC/TCP, **ethdrv.exe** should be loaded. To do this at the MS-DOS level, run mem /c to check which modules have been loaded into memory.

HOSTACCESS emulation sessions may be run within a Web Browser.

HOSTACCESS session files can be stored on any Web Server on the Internet. Connecting to the URL of a session file starts a pre-installed client copy of HOSTACCESS, either standalone, within a browser, or within a frame within a browser. Session files need not to be stored on the local PC or on a file server. This enables administrators to provide consistent and easily manageable session files centrally on an intranet, or globally on the Internet. Any changes to these centrally stored session files take effect for all users, the next time they connect, without having to redistribute files.

After installing HOSTACCESS (7.1 or greater, 32 bit release only) on any Windows 95/98 or NT machine with Microsoft Internet Explorer. 3.02 or 4.0 installed, session files entered in the browsers address window run automatically within the browser window. HOSTACCESS session files opened from within HOSTACCESS or started directly from the desktop start a separate standalone instance of HOSTACCESS.

HOSTACCESS includes a Multi Session Manager (MSM) component. The MSM is evoked when a single session is started in the browser. The MSM keeps a track of the multiple sessions opened in the browser, even after the browser is closed.

Web to Host Connectivity

Web Server Setup - Registering the Mime type of the .ses file on an NT server

- Embedding HOSTACCESS in Microsoft's Internet Explorer. 3.02 or 4.0
- Embedding HOSTACCESS in Netscape's Navigator\Communicator v3.0 or above
- Multi Session Manager
- Known Issues
- Frequently Asked Questions

Web to Host Connectivity is the use of a browser from an Intranet or Internet point of access to connect to host systems, run legacy applications and retrieve data.

When connecting to sessions over the Internet, it is recommended that you do not have AutoConnect selected. This is because if your Internet connection is not available, then you will have to wait for the Telnet integration to time-out before you can change the session.



User benefits of Web to Host Connectivity

Web browsers enable the users to have a consistent and easy-to-use interface for all their information requirements thereby improving the information flow.

HOSTACCESS integrates seamlessly into this environment and has the following advantages for organizations that need Web-to-Host connectivity:

#### Easy centralized configuration

Network and systems administrators can configure and manage web-to-host connectivity from one central point, without the need to configure individual workstations and without disrupting end users.

#### Increased user productivity

Access to legacy systems can be controlled by secure and automated logins, using the in-built macro language. The macro language can also assist users in navigating through host systems and automating tasks such as file transfers.

#### Version control

To ease end-user administration, a single version of HOSTACCESS can be installed on a file server, which can be accessed by clients on the LAN, as and when required.

#### **Reliable connectivity**

HOSTACCESS maintains persistent sessions to the host systems, enabling users to browse to other web pages, and then navigate back to the host sessions still held in the memory.

#### **Multi Session Manager**

HOSTACCESS includes the Multi-Session-Manager (MSM) utility as an icon on the desktop taskbar that gives users instant access to host sessions they had started. If the browser is terminated for some reason, MSM still gives users the access to their active HOSTACCESS sessions.

#### Tried and proven terminal emulation and legacy access

The web-enabled version of HOSTACCESS has evolved from, and retains the full functionality of HOSTACCESS. This means there is no loss of functionality for users accessing host systems through a web browser. A number of competitive web-to-host connectivity products are constrained by the limitations of the browser in terms of keyboard mapping and end user interaction through HTML. HOSTACCESS also supports Pixel's AiF and GUI AiF toolkits, so that host legacy applications can be rejuvenated and accessed through a web browser.

If users are using their own web server, then they might want to make HOSTACCESS available, either on the Internet or on the company's Intranet.

In order to do this, the user will need to register the HOSTACCESS session files (.ses files) with their web server. Currently, Pixel supports this for NT servers as shown in the instructions below:

1 Run Regedit.

2 Locate the following key:

KEY\_LOCAL\_MACHINE\SYSTEM\CurrentControlSet\ Services\InetInfo\Parameters\MimeMap\

3 Under this key, add a new value of the string value . (REG\_SZ) type:

Value Name: "application/x-trishna,ses,,5"

(Note: The 2 commas between ses and 5)

Reboot the server.

If the user's web server is not an NT server, contact Pixel for more information on support for other web server platforms.

- 1 The user can browse the Demo page in the browser
- by opening DEMO.HTM. If HOSTACCESS was installed from the CD this is available in C:\Program Files\HOSTACCESS\DEMO, or whatever location the user has installed to. If HOSTACCESS was installed from disks, then the Demo page is available from the Pixel web site or directly from Pixel
- 2 If the "Sessions in a frame Music link" is selected, the Active Document server demo of HOSTACCESS
- will be loaded. When embedded this way the user cannot change the session configuration. The user can pass through this demo by following the onscreen prompts. Other demos are available.
- 3 HOSTACCESS can also be started in a full browser.
- . To do this, select the "Sessions in full browser -Music" link. Other demos are available.
- Embedding HOSTACCESS in Netscape's Navigator\ Communicator v3.0 or above.
- After following the steps on how to set up the
   HOSTACCESS demo web page, run Netscape Communicator. HOSTACCESS requires the nCompassLabs (TM) plug-in in order to interface with Netscape Communicator.
- 2 To install the plug-in, run the supplied PLUGIN.COM
- file (in C:\Program Files\HOSTACCESS\DEMO, or whatever location the user has installed to) and follow all the steps. Alternatively, the plug-in can be installed via a button on the demo web page. Once completed, run Netscape Communicator.
- The user can browse the Demo page in the browser
   by opening DEMO.HTM in C:\Program Files\ HOSTACCESS\DEMO, or whatever location the user has installed to.
- 4 When the "Sessions in a frame Music" link is
- selected, HOSTACCESS will be started within the browser frame. The user can pass through this demo by following the on-screen prompts. Other demos are available.
- 5 The user can start HOSTACCESS in a full browser. To
- do this, select the "Sessions in full browser Music" link. The user can step through the demo using the space bar. Other demos are available.
- Embedding HOSTACCESS in Microsoft's Internet Explorer. 3.02 or 4.0.

A Multi Session Manager (MSM) is a device used to manage multiple sessions at one time. The MSM has the capability to open multiple sessions within the browser and/or at the same time run through other applications.

All the sessions that were opened in the browser will be displayed in the MSM list.

All the sessions can either be opened in the browser or in the standalone mode, as the user requires.

Using MSM

# Installing MSM

The MSM will be automatically loaded while the user runs HOSTACCESS files within a browser.

The MSM icon is created within the System tray. The MSM can be started, by clicking on the MSM icon.

### **MSM** in the Browser

When the HOSTACCESS sessions are activated in the browser, a small icon appears in the system tray.

When the user clicks the icon, a window appears where the listed sessions are mentioned.

Whenever the user opens new sessions within the browser, the opened sessions are listed in the MSM.

If users want to close a particular session and then return to it again, they can do so just by clicking that particular session from the MSM list.

### MSM in the Standalone Mode

The sessions that are listed in the MSM can be opened in the Standalone mode.

The user can open the session in the browser and can still view its standalone mode just by selecting that session and then selecting <u>A</u>ctivate Standalone.

# **Close Current Session**

Selecting that session and selecting Close <u>Session can close the session that is listed in the MSM</u>.

The session that was open will close.

# **Close All Sessions**

All the sessions that are listed in the MSM, can be closed simply by selecting Close All Sessions.

All sessions that were open will close.

### **Exiting HOSTACCESS**

To Exit HOSTACCESS click Exit HOSTACCESS: WEB.

# Cancel

To cancel the MSM dialog box select <u>Cancel</u>.

The majority of issues concerning the Web enabled version of HOSTACCESS involve the operational interface to the web browser. Product functionality, as far as connectivity and emulations are concerned, is the same as with HOSTACCESS.

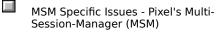
_	4		1		
	-	_			

General Issues

Browser-Specific Issues - Netscape Navigator



Browser-Specific Issues - Microsoft Internet Explorer



- When embedded, the Web enabled version of
   HOSTACCESS defaults to the browser's run-time directory and not to HOSTACCESS's run-time directory.
- 2 When embedded, context sensitive help does not work . for menu items, only for toolbar buttons.
- 3 When embedded, OLE menu items have been
- . removed, as it is not possible to delete an OLE object.
- 4 IBM 3270 and IBM 5250 auto-sculpted toolbars do not fit in a 640x480 display.
- 5 A known design flaw in the browser's caching mechanism (in both Netscape and earlier versions of Internet Explorer), means that initiating separate instances of the same-named session results in only the first instance being presented when browsing back/forward through sessions, or accessing them through the MSM from the taskbar. This problem is fixed in Microsoft's Internet Explorer version 4 and later, which will consistently start a new session.
- 1 After minimizing the Web enabled version of
- . HOSTACCESS when embedded in Netscape, focus is not returned when maximized. This problem appears to be related to the plug-in.
- 2 When embedded in a Netscape frame, the Web
- enabled version of HOSTACCESS has problems if the browser size is changed. The instance of HOSTACCESS appears to be lost, but can still be accessed through MSM. This problem appears to be related to the browser, as it occurs with other DocObject servers.
- 1 When embedded within an Internet Explorer 4 frame
- . and Internet Explorer's context menus are displayed, the HOSTACCESS toolbar disappears. We believe this to be a bug with Internet Explorer.
- When closing a session from within Internet Explorer,
   another HOSTACCESS start-up splash appears momentarily.

- 1 If sessions are active and the web browser is closed,
- . then MSM will initiate the session within the normal HOSTACCESS container. When sessions are controlled by MSM in this way (external to the browser) they can occasionally take up to 20 seconds to close, giving the appearance that HOSTACCESS has hung the hourglass pointer is the only indication.

This topic addresses the most frequently asked questions about the Web enabled version of HOSTACCESS.

- Is the Web enabled version of HOSTACCESS the same as the earlier version of HOSTACCESS?
- Is the Web enabled version of HOSTACCESS as secure as the earlier HOSTACCESS?
- Can the Web enabled version of HOSTACCESS be used for Internet access to host systems?
- What environment is the Web enabled version of HOSTACCESS best suited for?
- Which web browser can I use with this HOSTACCESS?

This version of HOSTACCESS is a 32-bit implementation of the previous HOSTACCESS configured for use within Active Document containers, such as Microsoft's Internet Explorer or the Desktop Explorer. This version of HOSTACCESS is built from the same source code as the previous HOSTACCESS and therefore contains the full functionality of our tried and proven HOSTACCESS product. HOSTACCESS can be web-enabled by using a special license activation code.

Yes. When using this HOSTACCESS, it does not change any security considerations for access to your host systems. All of the appropriate security for user logins and passwords are still maintained by the host system. If anything, this HOSTACCESS enables system administrators to add an additional level of security by making the HOSTACCESS session files only accessible from a secure web server and, optionally, password-protecting access from the browser to the appropriate HOSTACCESS hypertext links page. Yes. But remember that remote Internet clients will need a copy of the Web enabled version of HOSTACCESS installed on their PC. HOSTACCESS works on the basis that the requested session file is downloaded to the PC by the browser, which in turn invokes the HOSTACCESS application. It is not always feasible to download this HOSTACCESS across the Internet, even though it is one of the smallest executables available today.

The Web enabled version of HOSTACCESS has been designed primarily for use within Intranets for organizations that need to integrate Intranet information and systems with host legacy systems. It is designed to seamlessly integrate with web browsers so that these organizations need only support one common user interface to their varied and multiple information sources. The Web enabled version of HOSTACCESS can be installed on a LAN file server for common access by multiple users or installed on each individual client PC.

This HOSTACCESS can be used with Microsoft's Internet Explorer - we recommend version 4 or later. It can also be used with Netscape's Navigator and Communicator browsers, in conjunction with the nCompassLabs (TM) DocActive plug-in that is shipped and installed as standard with the current HOSTACCESS product.