

wIntegrate®

**FILE TRANSFER TIPS  
AND  
TROUBLESHOOTING**

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## WINTEGRATE TECH TIPS

### CHECKING THE VERSION OF THE HOST ROUTINES



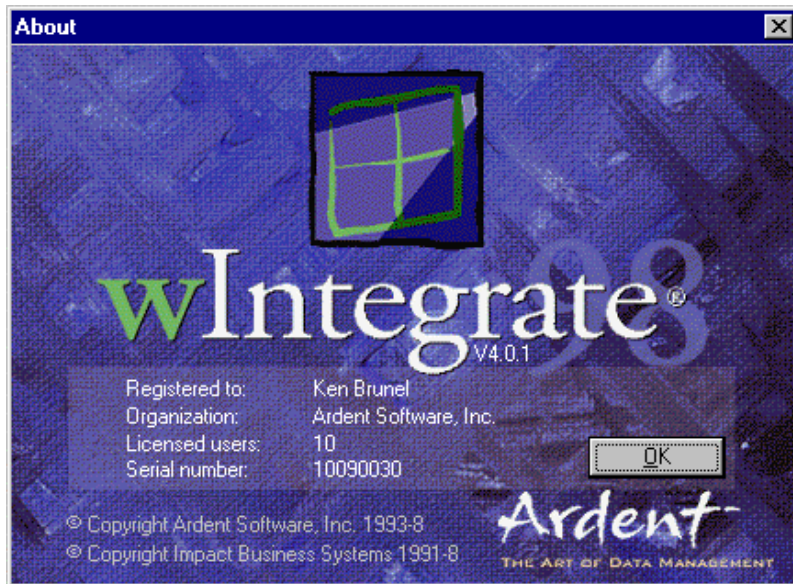
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Often, problems encountered when transferring files with wIntegrate are a result of mismatched versions of the host routines compared to the wIntegrate program running on the PC. Common problems include Check Sum errors, and other “peculiar” behavior.

Follow these simple steps to check the versions of wIntegrate on both the host and the PC.

#### ***CHECKING THE VERSION OF WINTEGRATE ON THE PC:***

From the wIntegrate Main Menu, click on the Help menu item and select the “about” option. The welcome screen will be displayed with information about the license, including the version of wIntegrate.



***CHECKING THE VERSION OF THE WINTEGRATE PROGRAM ON THE HOST:***

At the TCL prompt type WIN.TRANSFER. This will display:

868ConnectOK

Anything you type now will not be echoed to the screen, so type carefully.

Type: 742Version (Note that the “V” is uppercase)

You will now see some text displayed looking something like:

316P**VER3.0.05** 27/11/97 (UD)

The highlighted portion of this, VER3.0.05 is the version of the host routines installed on that system. If the host routines are older than the version of the program you’re running on your PC, you must upgrade the host routines. For instructions on installing the wIntegrate host routines, please refer to the “Using wIntegrate” manual.

To get back to the TCL prompt, press enter once and then type:

215END (Note that “END” is all uppercase)

## WINTEGRATE TECH TIPS

### DEBUGGING BINARY FILE TRANSFERS



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wIntegrate provides a number of methods for transferring data between the PC and host. Two of these, found on the 'Run' menu, are 'Receive Binary File' and 'Send Binary File'. These are used to transfer entire files outside of the host database environment. For example, you might want to copy a word processing file from your PC to a directory on your host outside of your database account. Send Binary File would be the appropriate choice for this task.

When you use Receive or Send Binary File you must select a transfer protocol to use – Kermit, Xmodem, Xmodem 1K, Ymodem, or Zmodem. You must also have the appropriate protocol available on your host.

Communications between computers can be a rather complicated process and you may find that the transfer fails. This may be due to wIntegrate, your host, or both. There is a 'hidden', undocumented debug feature you can use to capture to a PC file the 'discussion' between the PC and host. wIntegrate Customer Support can use this file to determine where the problem lies.

#### ***TRANSFERS USING RUN, RECEIVE/SEND BINARY FILE***

When you select *Run, Receive Binary File*, or *Run, Send Binary File*, you are presented with a dialog box prompting for such things as the name of the file to transfer, protocol, etc. Once you fill in the appropriate information for your transfer, press Alt-D before you click 'OK'. The debug information will be captured to the \WINTEG\TRANSFER directory. The name of the debug file will be created from the filename specified for the transfer, with the first character replaced by '\$', and REC as an extension. For example, if the file name used was DEFAULT, the debug file will be \$DEFAULT.REC.

***TRANSFERS USING A SCRIPT OR BASIC PROGRAM***

As with import, export and Query Builder, you can save the parameters for the send or receive process and run the script later. You can also run the script from a basic program on the host. An example script saved from Send Binary File would look like:

```
* Send File Save
* Saved on Mon May 04 11:10:14 1998
Dialog RunSendFile
Configure
Protocol="Zmodem"
DOSFile="c:\test.csv"
Retries="10"
Timeout="5"
Inform="0"
AutoExit="0"
PreserveCase="0"
Debug=""
Update
```

The variable 'Debug', though not available on the dialog box, is saved in the script and can be used to capture debug information. Simply change the line to Debug='1' and save the script. This will create the debug file when this script is used with the transfer process.

## WINGRATE TECH TIPS

### EXPLODING MULTI-VALUED FIELDS HORIZONTALLY



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You can import data from a database file on your host to the PC in a variety of formats. Both single- and multi-valued attributes can be transferred, as well as virtual attributes. When importing multi-valued attributes to a spreadsheet using Capture mode the attribute is exploded, that is, each sub-value is placed in a separate cell vertically.

In the following example, the multi-valued attribute, **Address**, is imported using Normal mode. Note how the fields are stored in a single cell separated by a value mark (ý).

CUSTOMER	Customer Name	Address
90	Steven Spender	1212 W. 44thýApt. 204
900	Smith, Leif	Pattern ResearchýBox 9845ý403 S. Pennsylvania
9	Chase, Carl	12 W. MainýSuite 1414

Next, we import the same data using Capture mode. Note how the individual fields in **Address** are exploded into separate cells vertically.

CUSTOMER	Customer Name	Address
90	Steven Spender	1212 W. 44th
		Apt. 204
900	Smith, Leif	Pattern Research
		Box 9845
		403 S. Pennsylvania
9	Chase, Carl	12 W. Main
		Suite 1414

This format mimics how the data would be presented on the screen using a LIST command.

Though probably not a common need, you can explode a multi-valued attribute horizontally, as in the following example.

CUSTOMER	Customer Name	Address		
90	Steven Spender	1212 W. 44th	Apt. 204	
900	Smith, Leif	Pattern Research	Box 9845	403 S. Pennsylvania
9	Chase, Carl	12 W. Main	Suite 1414	

As you can see, if the number of sub-values is not consistent for each record, alignment problems occur. If you are importing more than one multi-valued attribute this problem can be compounded,



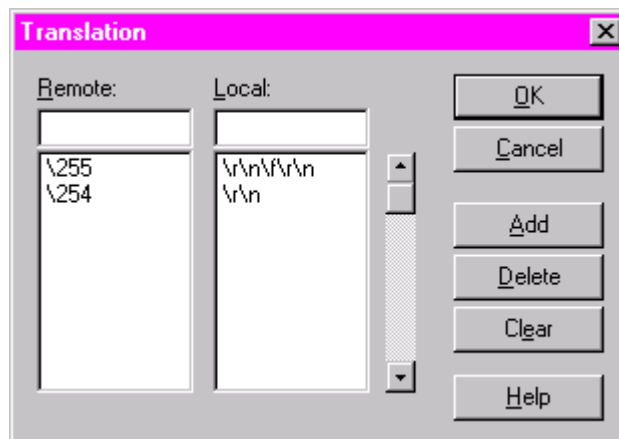
reducing the usefulness of this format. Also, the multi-valued attribute should be the last one imported so that any other single-valued attributes are not misaligned.

### *Changing the Translations*

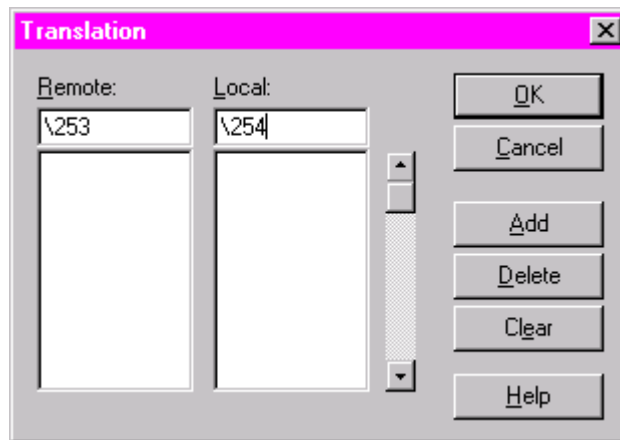
wIntegrate automatically translates attribute marks to cell boundaries and record marks to end-of-records while creating the output file using Normal mode. The translation table is normally only used for importing to ASCII format and has translations defined for the attribute and record marks that are different than would be used for non-ASCII formats. For this reason, you don't typically want to define translations if you are creating a non-ASCII file.

In Normal mode, the value mark, CHAR(253), is not translated so we can re-define it without affecting anything else. In order to explode the sub-values within a multi-valued attribute horizontally, and therefore create individual cells for the sub-values, we need to translate the value marks to attribute marks.

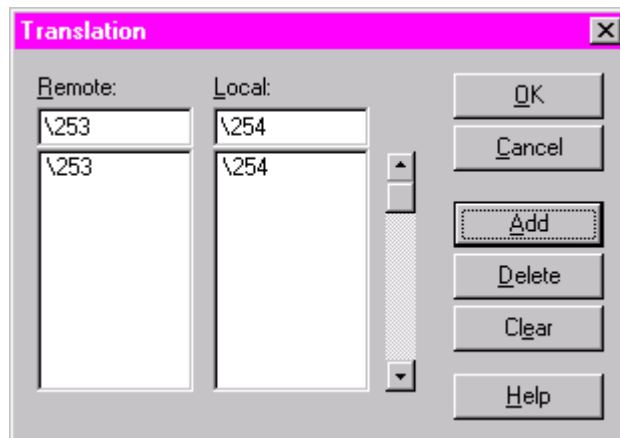
Click **Run | Import File**, then click the **Translation...** button at the lower left corner of the dialog. The **Translation** dialog will be displayed showing the default values.



Click the **Clear** button to clear the current definitions. Click the box under **Remote:** (**Host:** on version 3) and enter \253. Next, click the box under **Local:** (**PC:** on version 3.0) and enter \254.

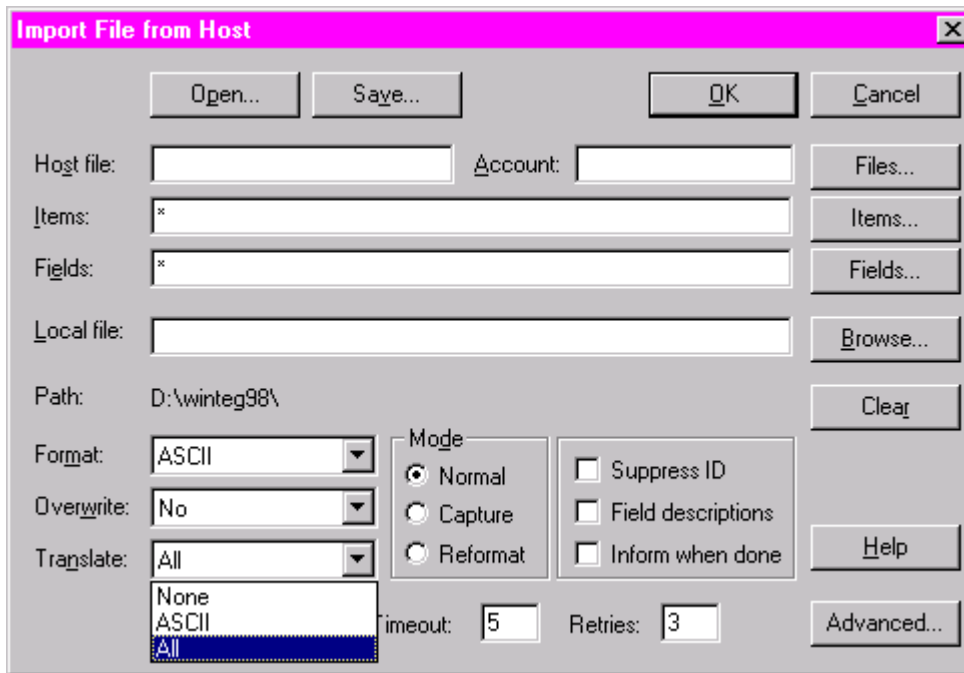


Now click **Add**.



You now have a single translation defined which converts a CHAR(253), the value mark, to CHAR(254), the attribute mark. Click **OK** to close this dialog.

The final step is to select **All** for the translation by clicking the **Translate** listbox in the lower left part of the **Import File** dialog.



Now complete the rest of the dialog with the information appropriate for what you want to import. The resulting PC file will explode the multi-valued attribute horizontally.

If you will be using this translation frequently, save the contents of the dialog by clicking the **Save** button and assigning a name to this script. Be sure to use a .WIS file extension. When you next need to use this script, click the **Open** button and select the script.

Note these translations will be retained for the duration of the session. If you will be importing other files that don't use this translation, set **Translate** to **ASCII**, and re-define the translation table to its original state. Alternately, close the session then re-open it.

## WINTEGRATE TECH TIPS

### FILE TRANSFER PROBLEMS WHEN USING PICK D3



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Customers using Pick D3 discovered two unusual behaviors when using wIntegrate (3.0.03 and earlier) to import data to a PC file. The first, and most common, problem is the inclusion of 2 lines of header information at the top of the PC file into which the data was imported. The data was transferred without difficulty but included these 2 extraneous lines. The second, less frequently observed, problem was the inclusion of a percent sign (%) after every 100 lines of data.

Both problems can be resolved by changing one line of code in the host routine, WIN.PARAM.AP. Using an editor on your host, open WIN.PROGS WIN.PARAM.AP. Change line 22 from:

```
R.PARAM<7> = 'ID-SUPP NI-SUPP (CTN' ;* Capture statement flags
```

to:

```
R.PARAM<7> = 'ID-SUPP NI-SUPP (CN' ;* Capture statement flags
```

Now compile and catalog this routine. The only change is the removal of the 'T' in 'CTN'.

## WINGRATE TECH TIPS

### FILE TRANSFER RESTRICTIONS



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When you select Run, Import or Export File, or Bridge Copy, you are presented with a dialog box in which you can enter such information as host file name, items, fields, etc. There are certain restrictions regarding the amount of information that can be put in some of these boxes as well as on the amount of data that can be transferred.

#### ***HOST FILE/ACCOUNT***

The name of the host file and the account name are limited to 63 characters, each.

#### ***ITEMS***

You can specify a list of individual IDs or a database query, e.g. SELECT, SORT. The total number of characters used to list IDs or the query cannot exceed 511.

#### ***FIELDS***

There are 3 restrictions imposed on the Fields box: 2 always apply, 1 only applies when using Capture mode.

1. You are limited to 255 fields
2. The total number of characters used in the names of the fields cannot exceed 1023 characters
3. If using Capture mode, the total of the dictionary widths of the fields to be imported cannot exceed the maximum number of characters allowed in a line for your given database. This value is the maximum value you can set using the TERM command and varies from host to host.

#### ***FIELD SIZE***

Individual fields (attributes) may not exceed 255 characters when importing to an XLS, WK\* or DBF format.

***RECORD SIZE***

When importing data using the Advanced settings, Explode Values feature, a record cannot exceed 60k in length.

## WINGRATE TECH TIPS

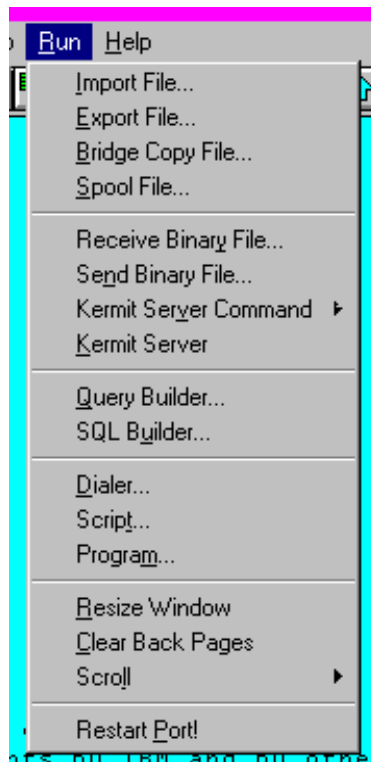
### HOW TO DISABLE FILE TRANSFER OPTIONS ON THE RUN MENU IN WINGRATE 3.0 AND 98



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#### *FTMENU.WIS – WINGRATE 3.0*

The various file transfer options on the wIntegrate 3.0 Run menu are controlled by the script, \winteg\wintsys\menu\ftmenu.wis. Ftmenu.wis is run automatically when you first start wIntegrate so any changes made to it will be applied to all sessions. By commenting out the appropriate line in ftmenu.wis, you can remove any or all of the first 10 items from the Run menu.



Using any text editor, open \winteg\wintsys\menu\ftmenu.wis. The first part will be as follows. Highlighted items are the actual lines of code that enable the specific menu options.

\* Query Builder menu option

qb\_added = 0

If Not(IsOnMenu(Run, "RunQuery")) Then

Menu AddItem Run, RunQuery, L("&Query Builder..."), "Script 'query\query'", 1

Menu Help Run, RunQuery, L("Build and execute enquiries on the host database")

qb\_added = 1

Menu Separator Run, 2

EndIf

If Not(IsOnMenu(Run, "RunSQL")) Then

Menu AddItem Run, RunSQL, L("SQL B&uilder..."), "Script 'sql\sqlbuild'", 1 + qb\_added

Menu Help Run, RunSQL, L("Build and execute SQL enquiries on the host database")

If Not(qb\_added) Then Menu Separator Run, 2

EndIf

\* Binary File transfer menu option

If Not(IsOnMenu(Run, "RunReceiveFile")) And IsMenuItem(RunReceiveFile, 1) Then

If Not(IsMenu(RunKermitCommand)) Then

Menu Create RunKermitCommand

Attach RunKermitGetFile, L("&Get File..."), 1

Attach RunKermitSendFile, L("&Send File..."), 2

Attach RunKermitFinish, L("&Finish"), 3

EndCreate

EndIf

Menu Attach Run, RunReceiveFile, L("Receive Binar&y File..."), 1

Menu Attach Run, RunSendFile, L("Se&nd Binary File..."), 2

Menu Attach Run, RunKermitCommand, L("Kermit Ser&ver Command"), 3

Menu Attach Run, RunKermitServer, L("&Kermit Server"), 4

Menu Separator Run, 5

EndIf

\* Unidata, etc. file transfer

If Not(IsOnMenu(Run, "RunImportFile")) And IsMenuItem(RunImportFile, 1) Then Menu

Attach Run, RunImportFile, L("&Import File..."), 1

Menu Attach Run, RunExportFile, L("&Export File..."), 2

Menu Attach Run, RunBridgeCopy, L("&Bridge Copy File..."), 3

Menu Attach Run, RunSpoolFile, L("&Spool File..."), 4

Menu Separator Run, 5

\* Add Next line if you want Bridge copy disabled if only one session

\* Menu OnOpen Run, "Menu Enable Run, 'RunBridgeCopy', (Sessions(0) > 1)"

EndIf

EndScript



To disable any of the 10 Run menu options, simply comment out the line for the particular option by placing an asterisk at the beginning of the line. Save the file. Now, when you start wIntegrate the options you commented out will not appear on the Run menu.

For example, if you wish to remove the options for Import File, Export File and Bridge Copy File, locate the following lines in ftmenu.wis:

```
Attach Run, RunImportFile, L("&Import File..."), 1
  Menu Attach Run, RunExportFile, L("&Export File..."), 2
  Menu Attach Run, RunBridgeCopy, L("&Bridge Copy File..."), 3
```

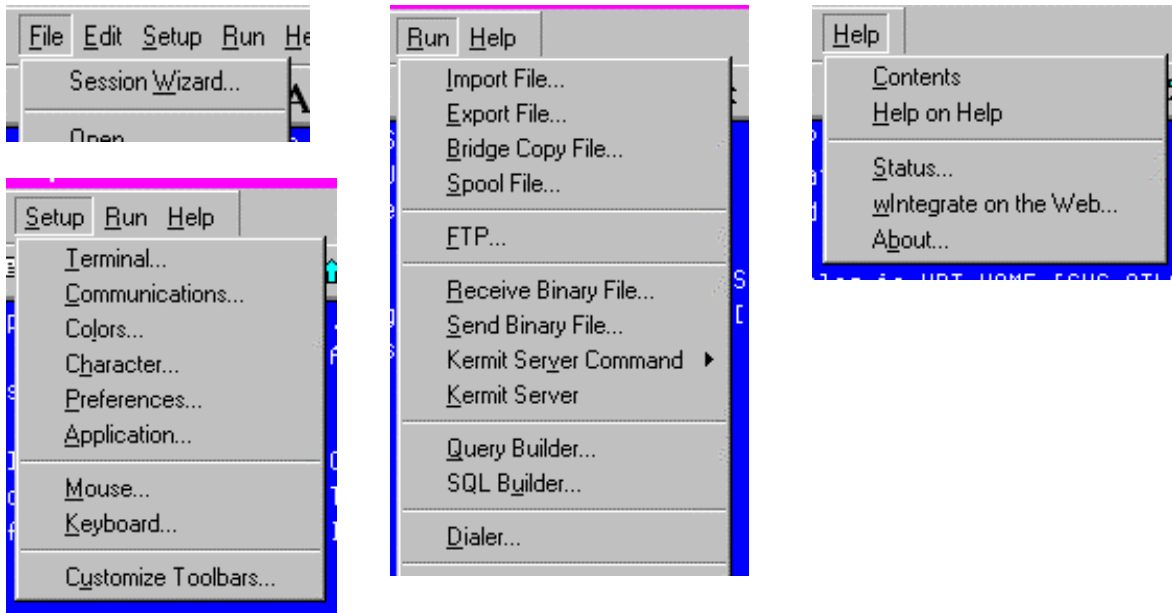
Disable them by placing an asterisk at the beginning of each line:

```
*Attach Run, RunImportFile, L("&Import File..."), 1
* Menu Attach Run, RunExportFile, L("&Export File..."), 2
* Menu Attach Run, RunBridgeCopy, L("&Bridge Copy File..."), 3
```

### ***NEWSSESS.WIS – WINTEGRATE 98***

With wIntegrate 98 you have the ability to control not only what's displayed on the Run menu but some items on the File, Setup and Help menus, as well. On the File menu, you can disable the Session Wizard; on the Setup menu Customize Toolbars; on the Help menu wIntegrate on the Web; on the Run menu Import File, Export File, Bridge Copy File, Spool File, FTP, Receive Binary File, Send Binary File, Kermit Server Command, Kermit Server, Query Builder, SQL Builder, and Dialer. These options are controlled by the script, \winteg\wintsys\script\NewSess.wis.

Using any text editor, open NewSess.wis. As in wIntegrate 3.0, you comment out the appropriate lines in this script to disable various options. In the following sample of NewSess.wis, the lines



which create the menu options have been highlighted.

\* Setup a new Session

\* 980824 Version: 4.0.1

\* Session Wizard menu option

If Not(IsOnMenu(File, "FileSessionWizard")) Then

Menu AddItem File, FileSessionWizard, "Session & Wizard...", "Script wintsys\script\SessWiz", 1

Menu Help File, FileSessionWizard, "Run the Session Wizard to create a new session"

Menu Separator File, 2

EndIf

\* Customize toolbar option

If Not(IsOnMenu(Setup, "SetupCustomizeToolbar")) Then

Menu Separator Setup

Menu AddItem Setup, SetupCustomizeToolbar, "C&ustomize Toolbars...", "Script 'wintsys\script\custtbar.wis'"

EndIf

\* Dialer menu option

If Not(IsOnMenu(Run, "RunDialer")) Then

Menu AddItem Run, RunDialer, "&Dialer...", "Script 'wintsys\script\dialer'", 1

Menu Help Run, RunDialer, "Set up names and phone numbers for Dialer"

Menu Separator Run, 2

EndIf

\* Query Builder menu option

qb\_added = 0

If Not(IsOnMenu(Run, "RunQuery")) Then

Menu AddItem Run, RunQuery, "&Query Builder...", "Script 'query\query'", 1

Menu Help Run, RunQuery, "Build and execute enquiries on the host database"

qb\_added = 1

Menu Separator Run, 2

EndIf

If Not(IsOnMenu(Run, "RunSQL")) Then

Menu AddItem Run, RunSQL, "SQL B&uilder...", "Script 'sql\sqlbuild'", 1 + qb\_added

Menu Help Run, RunSQL, "Build and execute SQL enquiries on the host database"

If Not(qb\_added) Then Menu Separator Run, 2

EndIf

\* Binary File transfer menu option

If Not(IsOnMenu(Run, "RunReceiveFile")) And IsMenuItem(RunReceiveFile, 1) Then

If Not(IsMenu(RunKermitCommand)) Then

Menu Create RunKermitCommand

Attach RunKermitGetFile, "&Get File...", 1

```

Attach RunKermitSendFile, "&Send File...", 2
Attach RunKermitFinish, "&Finish", 3
EndCreate
EndIf
Menu Attach Run, RunReceiveFile, "&Receive Binary File...", 1
Menu Attach Run, RunSendFile, "&Send Binary File...", 2
Menu Attach Run, RunKermitCommand, "Kermit Ser&ver Command", 3
Menu Attach Run, RunKermitServer, "&Kermit Server", 4
Menu Separator Run, 5
EndIf

* FTP menu option
If DesktopType = "PC" Then
  If Not(IsOnMenu(Run, "RunFtp")) Then
    Menu AddItem Run, RunFtp, "&FTP...", "Script 'wintsys\script\ftp'", 1
    Menu Help Run, RunFtp, "TCP/IP file transfer"
    Menu Separator Run, 2
  EndIf
EndIf

* Unidata, etc. file transfer
If Not(IsOnMenu(Run, "RunImportFile")) And IsMenuItem(RunImportFile,1) Then
  Menu Attach Run, RunImportFile, "&Import File...", 1
  Menu Attach Run, RunExportFile, "&Export File...", 2
  Menu Attach Run, RunBridgeCopy, "&Bridge Copy File...", 3
  Menu Attach Run, RunSpoolFile, "&Spool File...", 4
  Menu Separator Run, 5

* Add Next line if you want Bridge copy disabled if only one session
* Menu OnOpen Run, "Menu Enable Run,'RunBridgeCopy', (Sessions(0) > 1)"
EndIf

* Help from the Web
If Not(IsOnMenu(Help, "WOW")) Then
  Menu AddItem Help, WOW, "&wIntegrate on the Web...", "Run
'http://www.ardentsoftware.com/rtt/products/wintegrate'", "HelpAbout"
  Menu Help Help, WOW, "Visit the Ardent Software wIntegrate Web pages"
EndIf

* Right Click Menu for Icon bars
CommandBar OnRightClick,"Script 'wintsys\script\cbmenu'"

```

For example, to remove the option for Query Builder from the Run menu, comment out the highlighted line in the following section of the script:

```
* Query Builder menu option
```

```
qb_added = 0
If Not(IsOnMenu(Run, "RunQuery")) Then
  Menu AddItem Run,RunQuery,"&Query Builder...", "Script 'query\query'",1
  Menu Help Run,RunQuery, "Build and execute enquiries on the host database"
  qb_added = 1
  Menu Separator Run, 2
EndIf
```

The new code would appear as:

```
* Query Builder menu option
qb_added = 0
If Not(IsOnMenu(Run, "RunQuery")) Then
* Menu AddItem Run,RunQuery,"&Query Builder...", "Script 'query\query'",1
  Menu Help Run,RunQuery, "Build and execute enquiries on the host database"
  qb_added = 1
  Menu Separator Run, 2
EndIf
```

## WINTEGRATE TECH TIPS

### HOW TO USE FTP TO TRANSFER FILES



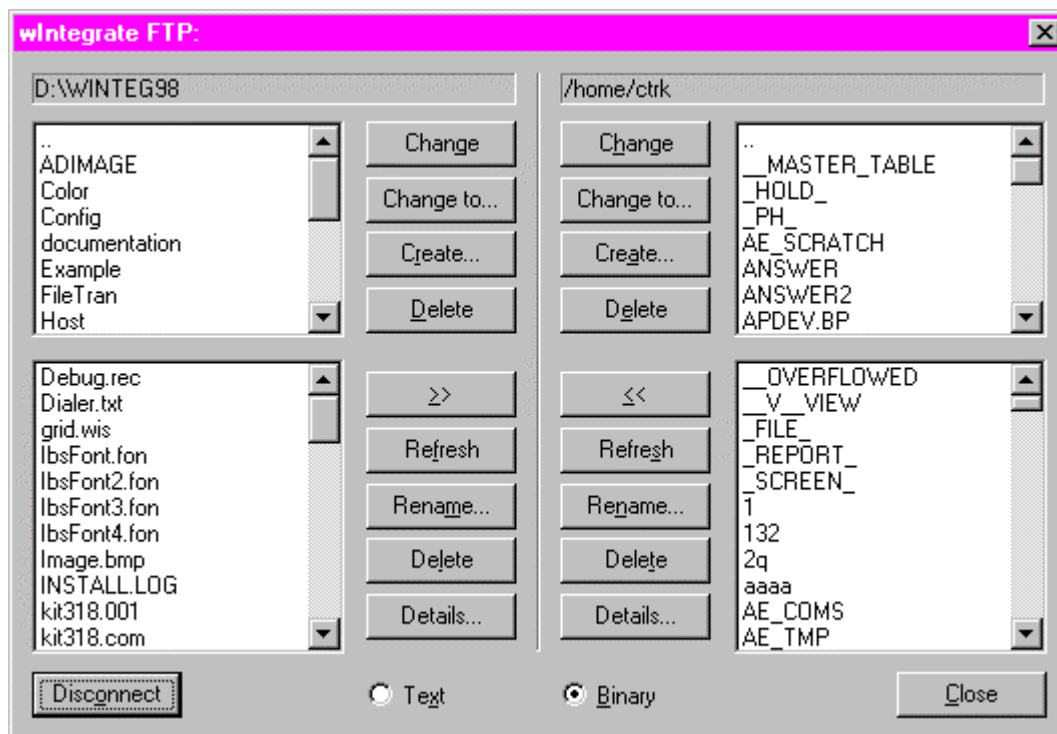
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wIntegrate 98 introduced the capability to use FTP to transfer files between the PC and the host outside of the database environment. Previously, you were restricted to the use of X-, Y-, Z-modem, and Kermit for this task. Now, through the use of a GUI interface, you can easily transfer files to or from the host without specific knowledge of FTP or its commands.

#### *FTP DIALOG BOX*

To use wIntegrate's FTP feature, you will need to have wIntegrate 98, use Windows sockets to connect to your host, and have FTP installed on that host (it must be able to be invoked using the command 'FTP').

Click **Run | FTP** on the wIntegrate menu. The following dialog box will be displayed.



The left side of the dialog displays the connection information for the PC; the right side displays the connection information for the host. The current directory for both the PC and the host is displayed at the top of the columns. The right side of the dialog box will not display directory or file information until a connection to the host is made.

### **Directory level options:**

The upper part of the dialog box displays directory information: the PC directory on the left, the host directory on the right. Command buttons allow you to **Change** directories, **Change to...** a specific directory, **Create** a new directory, and **Delete** an existing directory.

#### *Change*

You can change the current directory by double-clicking on the directory name or highlighting the name and clicking the **Change** button.

#### *Change to...*

To change to another directory without drilling up or down through the displayed list, click **Change to...** A dialog will be displayed in which you can enter the entire path of the new directory. The syntax will depend on whether you are changing the PC directory or the host directory.

#### *Create...*

Click **Create...** to create a new directory. A dialog box will be displayed in which you can enter the name of the directory to be created.

#### *Delete*

You may delete a directory by highlighting its name in the list box, then clicking **Delete**.

### **File level options:**

The lower part of the FTP dialog box displays the list of files found in the current directories on the PC and host. Command buttons allow you to transfer files between the PC and host (<<, >>), **Refresh** the file list, **Rename** a file, **Delete** a file, and display detailed information about a file.

>>, <<

To transfer a highlighted file from the PC to the host, click on >>. To transfer a file from the host to the PC, click <<.

#### *Refresh*

The files listbox displays a snapshot of the directory at the time the connection was made. Other applications can add, delete, or rename files after the snapshot was taken. If there is a possibility that this may happen on your PC or host, click the **Refresh** button to update the files list.

### *Rename...*

Click **Rename...** to change the name of the highlighted file. A dialog box in which to enter the new name will be displayed.

### *Delete*

You may delete the highlighted file by clicking **Delete**. Remember, once you have deleted the file you cannot undelete it.

### *Details...*

**Details...** displays the name, size (in 512k blocks), date and time of creation. On some hosts, only the name can be displayed.

### *Connect*

Before using FTP you must connect to a host which supports FTP. Click **Connect** to display the **Connect to Remote Host** dialog box.

### *Disonnect*

When you are ready to close the FTP session, click **Disconnect**. Disconnect will only be displayed while there is a connection to the host.

### *Close*

To exit the FTP dialog box, click **Close** or the 'X' at the far left of the dialog box title line.

### *Text*

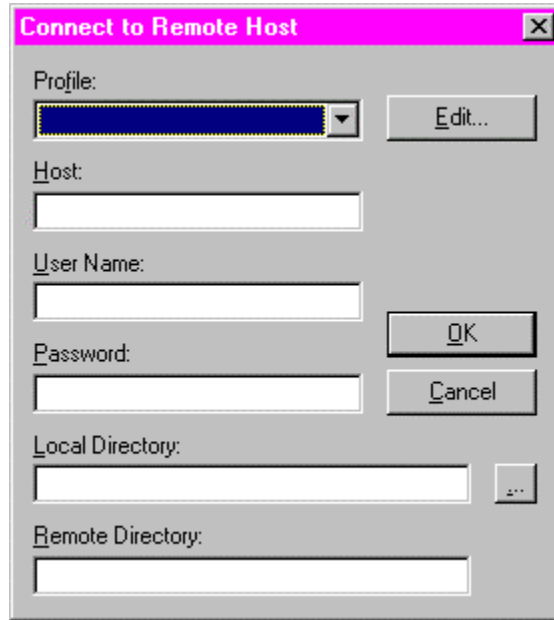
Select **Text** mode when transferring ASCII files.

### *Binary*

Select **Binary** mode when transferring binary files, for example, executable images. This is the default setting.

## ***MAKING A CONNECTION***

1. On the Run pull-down menu, click FTP. The wIntegrate FTP dialog box appears.
2. In the wIntegrate FTP dialog box, click the Connect button. The **Connect to Remote Host** dialog box appears.



Edit	create, modify or remove a profile
Profile	select a profile from list of saved connection profiles (see Connection Profiles, discussed later)
Host	enter the name of the host computer with which you want to connect
User Name	enter your user ID for this host
Password	enter your password for this host
Local Directory	enter the name of the directory on the PC you wish to start from (defaults to wIntegrate directory)
Remote Directory	enter the directory on the host to which you are connecting (defaults to your login directory)

### ***TRANSFERRING A FILE***

1. Click the **Connect** button. Enter the appropriate information for your host (see Making a Connection, above).

After you have logged on to the host, the right side of the dialog box displays your default directory on the host computer.

2. Select **Text** or **Binary**, depending on the type of file you are transferring.
3. Highlight the file to be transferred, PC file on left, host file on right.



4. Click >> to transfer a PC file to the host; << to transfer a host file to the PC.
5. Repeat this process for additional files to be transferred.

If you need to disconnect from the current host so you can connect to a different host, click the **Disconnect** button. The current connection closes. Return to Making a Connection to connect to another host.

6. Close wIntegrate FTP. The wIntegrate FTP dialog box closes and the wIntegrate main window appears.

### ***CONNECTION PROFILES***

When making a connection to your host you must provide the host name, user name, password, and, optionally, the local and remote directories to connect to. If you only need to make a one-time connection to the host you would, most likely, simply enter the information in the appropriate boxes on the **Connect to Remote Host** dialog box. If you will be making repeated connections to the host, or repeated connections to multiple hosts, you can store each connection as a profile, then recall the profile whenever you wish to connect to a specific host.

Click **Edit...** on the Connection dialog box. The **Edit Profiles** dialog box will be displayed.

*Add*

	Profile Name	Host	User Name	Password	Local Directory	Remote Directory
1						

When you click **Add**, a new record is created and the white boxes, as shown in the above figure, are displayed. Click in each box (Profile Name, Host, User Name, Password, Local Directory, Remote

Directory) to enter the appropriate information. The password is not encrypted. If security is a concern, leave Password blank. Then, when making the connection using the profile, enter the password at that time. As mentioned previously, Local and Remote Directory are optional fields.

*Remove*

To remove an entry, click on the number of the entry, then Remove.

The information for the profiles is stored in \winteg\ftpdata. Ftpdata is a tab-delimited text file containing a line for each profile in the order it appears on the **Edit Profiles** dialog box.

## WINGRATE TECH TIPS

### HOW TRANSLATION WORKS WHEN IMPORTING A FILE



wIntegrate®

When importing a file from the host, you can specify remote (host) characters wIntegrate will translate to other characters when creating the local (PC) file. It's this translation process that separates the attributes in your host database file into the cells in a spreadsheet, or separate records in a text file. You can change or delete the existing translations or add new ones of your own. Because the translations affect how data is parsed when coming from the host, use care when modifying them.

Under normal circumstances, translations only come into play when using the ASC (Ascii) format. As such, this Tech Tip will address changing the translations from the perspective of using the ASC format.

#### *CHANGING TRANSLATIONS*

When you select **Run | Import File** you are presented with the **Import File from Host** dialog box. Translation features are found in the lower left part of the dialog.

**Import File from Host**

Open... Save... OK Cancel

Host file:  Account:  Files...

Items:  Items...

Fields:  Fields...

Local file:  Browse...

Path: C:\WING98\ Help

Format: ASCII

Overwrite: No

Translate: ASCII

Mode

Normal  Suppress ID

Capture  Field descriptions

Reformat  Inform when done

Translation... Timeout: 5 Retries: 3 Advanced...

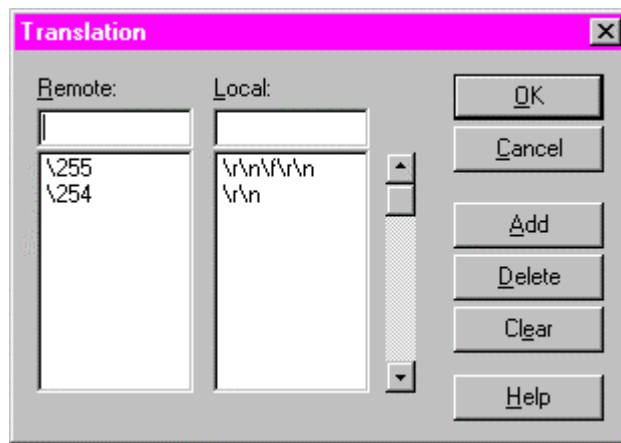
## Translate

wIntegrate provides 3 translation options. The default value is ASCII.

Option	Description
None	wIntegrate does not translate characters while importing them.
ASCII	wIntegrate translates characters only when importing a file into the ASCII format.
All	wIntegrate always translates characters regardless of the file format.

## Translation...

When you select **Translation...** the following dialog will be displayed:



The entries under the **Remote** column represent the characters on the host that are to be translated. Entries under the **Local** column represent what the associated host characters are to be mapped to on the PC. The translations for CHAR(255) and CHAR(254) are provided by default.

When you import a file, wIntegrate translates values as it receives them, before the editor converts values to specific file formats. Be careful not to translate remote characters that the editor requires to create the local file.

If you are using the **ASCII** translate option to import host data to an ASCII text file, you will normally use the default translations for characters 254 and 255. The default translations are required to create line breaks and page breaks in the text file. The attribute mark CHAR(254) is set up to translate as a line break sequence, consisting of a carriage return (\r) and new line (\n). The record mark CHAR(255) is set up to translate as a page break sequence, consisting of a carriage return (\r), new line(\n), new page (\f), carriage return (\r), and new line (\n).

If you are using the **All** translate option, delete the system default translations for characters 254 and 255. For example, if you are importing host data to an Excel file, wIntegrate uses attribute marks and record marks to split incoming data into separate columns and rows of the spreadsheet. If you translate these characters, Excel cannot create a spreadsheet.

**TRANSLATION CONTROL CHARACTERS**

The default translations use special characters, such as formfeed and linefeed. Rather than use the specific ASCII code wIntegrate allows you to use shortcuts to represent these special characters. If you were to enter the ASCII code for one of the characters represented by a shortcut, you would find that wIntegrate converts that code to the shortcut.

The following table shows shortcuts for some common control characters.

	<b>Shortcut</b>	<b>Decimal</b>	<b>Hex</b>
Escape	\e	\027	\x1b
Carriage return	\r	\013	\x0d
Line feed	\n	\010	\x0a
Form feed	\f	\012	\x0c
Tab	\t	\009	\x09

**EXAMPLE**

When you use the ASC format to import files, and the ASCII translation, the default translations for CHAR(254) and CHAR(255) will be used. Each attribute will be on a separate line, with each record separated by a formfeed, as follows

206

Public, John Q.

1700 Pennsylvania Ave.

Washington, DC

<FF>

208

Gore, Al

1700 Pennsylvania Ave

Washington, DC

<FF>

Should you wish to change the format, you simply need to modify the translations. As an example, let's say you need to have each attribute in a record on a single line rather than on separate lines, with a space between each attribute, and you don't want a formfeed between each

record. To accomplish this, we will change the translations for both CHAR(254), the attribute mark, and CHAR(255), the record mark.

The existing translation for CHAR(254), \r\n, converts CHAR(254) to a carriage return/linefeed. We will change this to CHAR(32), a space. CHAR(255) is converted to \r\n\r\n, a carriage return/linefeed, formfeed, then carriage return/linefeed. We want this to be a carriage return/linefeed.

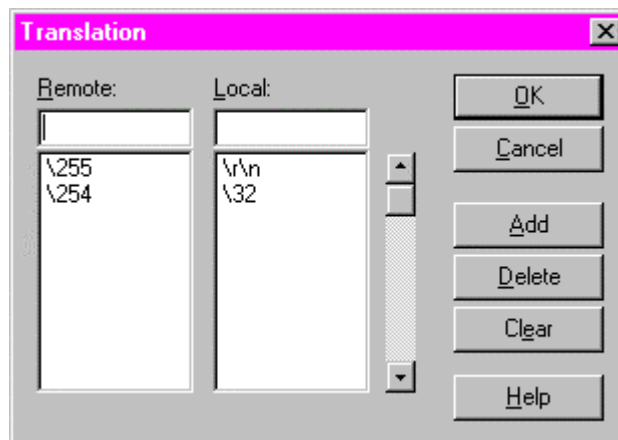
1. On the **Import File from Host** dialog, click **Translation....**
2. On the **Translation** dialog box click **Clear** to remove the existing translations.
3. Enter the new translation for the attribute mark. In the top box under **Remote:** enter \254. In the top box under **Local:** enter \32. Now click **Add** to add the new translation to the table. This changes the attribute mark, CHAR(254), in the host file to a space, CHAR(32), in the PC file.

Note: you can represent any character using a backslash and its ASCII code, e.g. \32 for a space

4. Enter the new translation for the record mark. Again, in the top box under **Remote:**, enter \255. In the top box under **Local:**, enter \r\n. Click **Add**. This changes the record mark, CHAR(255), in the host file to a carriage return/linefeed in the PC file.

After entering both translations you should have the following:

Note: the order of the translations is not important.



5. Click **OK** to exit back to the **Import File from Host** dialog.
6. Perform the import. The PC file will now look like the following:

206 Public, John Q. 1700 Pennsylvania Ave. Washington, DC

208 Gore, Al 1700 Pennsylvania Ave Washington, DC

In this example, we used shortcuts for carriage return and linefeed, and the ASCII code for a space, CHAR(32). You can also translate host characters to text on the PC. For example, rather than use \32 for the translation of the attribute mark, we could have put “\*\*\*\*” on the **Local:** side and have the attribute marks be translated to asterisks.

The new translations will only apply to the current file transfer. If you wish to use these for future file transfers you must save them to a file, as follows:

1. Click **Saye...** Enter the file name to be created.
2. Click **Cancel**. This exits the dialog without performing the transfer.

When you need to use the new translations, open the saved file, from above, change any parameters as necessary, then run the transfer:

1. On the Import or Export dialog, click **Open...** Enter the name of the file created in the above procedure.
2. Change any parameters (host file name, PC file name, fields, etc.), then click **OK**.

## WINGRATE TECH TIPS

### IMPORTING ASCII (FLAT) FILES TO LOTUS OR EXCEL



wIntegrate®

wIntegrate can import data from any file within your database environment to a PC file in a variety of formats. Two of the most commonly used formats are WK1, used by Lotus 123, and XLS, used by Microsoft Excel. When importing from a typical database file, that is, one in which the items are not file names, each attribute is stored in an individual cell in the spreadsheet, each record on a row. If you import an ASCII file, and use ASC format, the file will be in the same format on the PC as on the host, one record per line. If, however, you select a spreadsheet format each line in the ASCII file will fill a cell and the entire file will be on one row. This Tip will show you how to import an ASCII file to a spreadsheet.

#### ***HOW WINGRATE PARSES DATA***

When you import data from a database file, wIntegrate needs to know how to delimit attributes, sub-values, and records. We use the standard delimiters used in the database to do this: CHAR(255) for record marks, CHAR(254) for attribute marks, and CHAR(253) for value marks. Files that don't contain these delimiters will be imported as a single record. If you want to import an ASCII file to a spreadsheet, and have that data parsed into individual cells, you will need to modify the file to include separators such as value marks, field marks, and record marks.

#### ***EXAMPLES***

##### *Example 1 - import to Excel from a database file*

In a database file, called CUSTOMER, we have name, address, city, state and zip code information. We might use a command like *LIST CUSTOMER NAME ADDRESS CITY STATE ZIP* to display the information on the screen:

```
204 Frobisher,      P.O. Box 9845      Denver      CO      80209
    Kamal
        Suite 10
90 Steven Spender 1212 W. 44th      Denver      CO      80401
12 Jamieson, Dale 999 Independence Way Seattle      WI      98733
 9 Chase, Carl    12 W. Main        Kenosha     WI      53142
    Suite 1414
```



If we import the same information to a PC file using the XLS format, the spreadsheet would look like the following.

204	Frobisher, Kamal	P.O. Box 9845 Suite 10	Denver	CO	80209
90	Steven Spender	1212 W. 44th	Denver	CO	80401
12	Jamieson, Dale	999 Independence Way	Seattle	WI	98733
9	Chase, Carl	12 W. Main Suite 1414	Kenosha	WI	53142

It would be the same as displayed on the screen.

*Example 2 - import of an ASCII file using ASC format*

In this example, we have used the same data as in Example 1 but this time rather than display it to the screen we sent it to a HOLD file. When this file is printed we still have the same result as had we displayed it to the screen.

```
204 Frobisher,      P.O. Box 9845      Denver      CO      80209
    Kamal
    Suite 10
90 Steven Spender  1212 W. 44th      Denver      CO      80401
12 Jamieson, Dale  999 Independence Way Seattle      WI      98733
9 Chase, Carl     12 W. Main        Kenosha     WI      53142
    Suite 1414
```

If we import this file using ASC format, and examine the file in a PC editor, we again find that it appears as it did on the host.

```
204 Frobisher,      P.O. Box 9845      Denver      CO      80209
    Kamal
    Suite 10
90 Steven Spender  1212 W. 44th      Denver      CO      80401
12 Jamieson, Dale  999 Independence Way Seattle      WI      98733
9 Chase, Carl     12 W. Main        Kenosha     WI      53142
    Suite 1414
```

But, if we import using the XLS format, we end up with a single, unusable record.

P000	204Frobisher, POBox9845 Denver CO 80209	Kamal
------	---	-------

The solution to this predicament is to embed delimiters within the data at the points where you want the cell breaks to be.

*Example 3 - adding delimiters to host file*

When you create an ASCII file, you might use a line of BASIC code similar to the following to write the data. The file will not have any delimiters and thus, when imported, will result in a single line in the spreadsheet.

```
PRINT ID, NAME, ADDRESS, CITY, STATE, ZIP
```

After adding the delimiters to separate the attributes and terminate each record, the same line then becomes:

```
PRINT ID, CHAR(254), NAME, CHAR(254), ADDRESS, CHAR(254), CITY,  
CHAR(254), STATE, CHAR(254), ZIP, CHAR(255)
```

Now, when you import the ASCII file, wIntegrate will use those delimiters to parse the data into individual cells in the spreadsheet.

204	Frobisher, Kamal	P.O. Box 9845ýSuite 10	Denver	CO	80209
90	Steven Spender	1212 W. 44th	Denver	CO	80401

Multi-valued attributes will not be exploded during the import. If you wish to explode these values you will need to modify your BASIC program to print each value on a separate line, the last value ending in an attribute mark.

## WINTEGRATE TECH TIPS

### IMPORTING MULTI-VALUED ATTRIBUTES



wIntegrate®

wIntegrate supports a variety of file formats when importing data from a host to a PC. The most commonly used are comma-separated (CSV), Excel (XLS), dBase (DBF), and 123 (WK1). All support the use of multi-valued (MV) attributes, although there are some advantages to using XLS, DBF or WK1 (discussed later).

wIntegrate mimics the behavior of your host application when formatting data during an import. For example, if using the UniData RDBMS you might want to display data to the screen. This is accomplished using the following syntax:

LIST <filename> <attribute list>

ex. LIST CUSTOMER NAME ADDRESS CITY STATE ZIP

or,

SORT <filename> BY <attribute> <attribute list>

ex. SORT CUSTOMER BY NAME NAME ADDRESS CITY STATE ZIP

An MV attribute, in this case ADDRESS, will display as:

```
9 Chase, Carl  12 W. Main      Kenosha  WI  53142
              Suite 1414
```

This is also the format wIntegrate will use when importing MV attributes to a PC file.

If you want a different format to be used when importing data you need to define it as you would at ECL (or TCL). For example, you'd like to include all of the information on each line, as follows:

```
9 Chase, Carl  12 W. Main      Kenosha  WI  53142
9 Chase, Carl  Suite 1414      Kenosha  WI  53142
```

At ECL, one command to produce this output would be:

```
LIST CUSTOMER BY @ID BY .EXP ADDRESS NAME ADDRESS CITY STATE ZIP
```

In wIntegrate, at the Import File dialog box, you can enter an ECL command for the 'Items' to do the same thing. Using our example, enter the following information:

Items: SELECT CUSTOMER BY @ID BY .EXP ADDRESS

Fields: NAME ADDRESS CITY STATE ZIP

Also, be sure to use Capture mode. This will import the data with all of the information on each line, not just the first line.

### **WHY YOU MIGHT WANT TO USE XLS, WK1 OR DBF FORMAT**

When you import data to a PC file wIntegrate uses field marks, value marks and record marks to separate attributes. In XLS, WK1, or DBF formats the data between field or value marks is placed in cells. In CSV format the data is separated by quotes and commas.

Let's say we have the following in an attribute in a data file:

Wrench, crescent, 9", insulated grip

Importing to an XLS, WK1 or DBF format will maintain the entire content of this attribute in a cell. However, if you use CSV format you end up with:

```
1,"Wrench, crescent, 9", insulated grip"
```

The problem here is that the 9" acts as a value mark, leaving the rest of the data to be parsed as additional fields or attributes. So a good practice would be to use XLS, WK1 or DBF if the data you're importing contains quotes.

## WINTEGRATE TECH TIPS

### LARGE FILES WON'T IMPORT



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The wIntegrate file transfer process imposes a restriction on the size of the file that can be imported from the host to the PC. On older Pick-based systems (Adds Mentor, Ultimate, and IN2) the largest file you can transfer is 32K. This is due to a limit on the maximum record size imposed by those operating systems. On Prime, the maximum file size that can be transferred is 1MB, and on all other machine types it's 10MB.

#### *INCREASING THE MAXIMUM FILE SIZE*

If your host doesn't impose a limit on the maximum record size, you may increase this parameter in wIntegrate.

*WIN.PARAM.xx*

The various file transfer parameters are stored in the host routine WIN.PARAM.xx, where 'xx' is the machine type you used when you installed the host routines. For example, if using UniData 'U' flavor, the parameters would be in WIN.PARAM.UD.

Edit WIN.PROGS WIN.PARAM.xx using the appropriate editor for your database. (On VMS edit WIN\_PROGS WIN\_PARAM\_xx). Locate the following section of code:

```
*
R.PARAM = "
R.PARAM<1> = 9999999    ;* Max record size
```

Change the value of R.PARAM<1> to a size that allows you to transfer your file. If, in the above example, we wish to increase the maximum record size from 10MB to 100MB, the changed line would be:

```
*
R.PARAM = "
R.PARAM<1> = 99999999    ;* Max record size
```

Save the file and be sure to compile and catalog it. Remember to make this change again whenever you upgrade the host routines.

## WINGRATE TECH TIPS

### LEFT-JUSTIFYING NUMERIC VALUES DURING AN IMPORT



wIntegrate®

When you import data to a spreadsheet from a host database, attributes containing alphanumeric data will be left-justified and attributes containing numeric data will be right-justified. This conforms to the convention used to display these types of data.

Frequently, you may have an attribute that can have both alphanumeric and numeric data. For example, product part numbers or zip codes might have combinations of numbers and characters. When these are imported you expect all of the values to be left-justified as they aren't really 'numbers' in the sense that you would use them for calculations. What you will find, however, is a mix of left-justified alphanumeric values and right-justified numeric values. In the sample data below, the last column is the zip code.

210	Wagner, Esther	1455 30th Avenue	Kenosha	WI	53140
10	Faber, Harry	1919 Woody Way	Edmonton	AB	N3J 4K6
208	Dillon, Matt	Dodge City	Dodge City	KS	50505

When this is imported into a spreadsheet, this data becomes:

210	Wagner, Esther	1455 30th Avenue	Kenosha	WI	53140
10	Faber, Harry	1919 Woody Way	Edmonton	AB	N3J 4K6
208	Dillon, Matt	Dodge City	Dodge City	KS	50505

Notice, the zip codes are left- and right-justified depending on the content. We want them to be consistent – left-justified. To do this, we use the STRING() function when importing the data.

To do a typical import of this data you click **Run | Import File**, then fill in the appropriate information, as follows.

**Import File from Host** [X]

Open... Save... OK Cancel

Host file: CUSTOMER Account: Files...

Items: 210 10 208 Items...

Fields: NAME ADDRESS CITY STATE ZIP Fields...

Local file: test.xls Browse...

Path: D:\WINTEG98\ Help

Format: Excel (4.0) Mode

Overwrite: No

Translate: ASCII

Normal  Suppress ID

Capture  Field descriptions

Reformat  Inform when done

Translation... Timeout: 5 Retries: 3 Advanced...

This would result in the mixed justification for the zip code. If we replace the field name ZIP with STRING(ZIP), as follows,

**Import File from Host** [X]

Open... Save... OK Cancel

Host file: CUSTOMER Account: Files...

Items: 210 10 208 Items...

Fields: NAME ADDRESS CITY STATE STRING(ZIP) Fields...

Local file: test.xls Browse...

Path: D:\WINTEG98\ Help

Format: Excel (4.0) Mode

Overwrite: No

Translate: ASCII

Normal  Suppress ID

Capture  Field descriptions

Reformat  Inform when done

Translation... Timeout: 5 Retries: 3 Advanced...

we will achieve the result we want, that is, all cells in the spreadsheet representing the zip code will be left-justified:

210 Wagner, Esther	1455 30th Avenue	Kenosha	WI	53140
10 Faber, Harry	1919 Woody Way	Edmonton	AB	N3J 4K6
208 Dillon, Matt	Dodge City	Dodge City	KS	50505

The `STRING()` function can be used on any field containing a combination of alphanumeric and numeric data to force the data to be imported as alphanumeric, and therefore, be left-justified.



## WINTEGRATE TECH TIPS

### NUMBER CONVERSION AND NORMAL/REFORMAT MODE OPTIONS DURING AN IMPORT

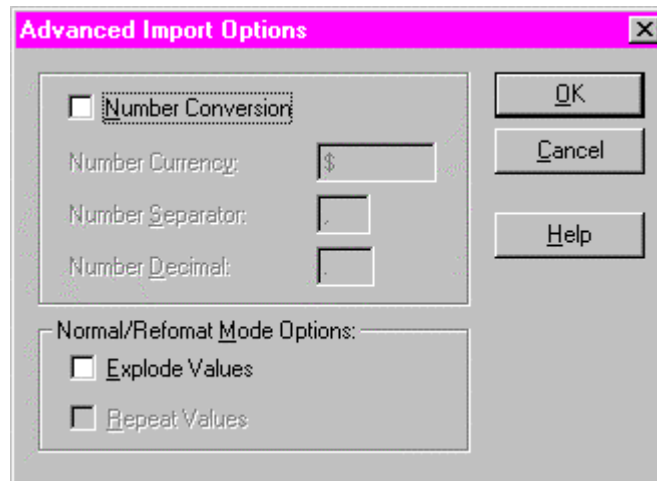


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A new Advanced button was added to the Import File dialog box which allows setting a new Number Conversion option and Normal/Reformat Mode Options. The Number Conversion feature was added at version 3.0.1, the Normal/Reformat Mode Options were added at version 3.0.3. These features can be found by clicking on the **Advanced** button on the Import dialog box or the **PC Process** dialog in Query Builder.

#### *Importing a file*

If importing a file, click **Run | Import File** to display the Import dialog box, then click the **Advanced** button in the lower right corner. If using Query Builder, click **Run | Query Builder**, click the **PC Process** radio button in the lower left part of the Query Builder dialog box, then the **PC...** button to display the **Local PC Destination Parameters** dialog box. Now click the **Advanced** button on this dialog box. Whether using Import File or Query Builder, clicking the **Advanced** button will display the following dialog box.



#### Number Conversion

When set this causes the import to recognize and convert numbers in the import data for Excel (XLS), Lotus 123 (WKS & WK1) and Comma Separated Values (CSV) formats. The conversion uses the

fields below to recognize a number and strip the Separator and Currency symbols from the imported data. These fields can be edited only when Number Conversion is checked.

Number Currency

The currency symbol used in the host data.

Number Separator

The symbol used to separate thousands in the host data.

Number Decimal

The symbol used for a decimal point on the host.

Example:

Setting Currency to \$, Separator to "," and Decimal to "." will do the following conversions:

Host data	PC data
-4,000.02	-4000.02
\$-4,000.03	-4000.03
ABC123	ABC123 (no conversion)
-7,000,000.02	-7000000.02
7,000,000.02	7000000.03
10.12.96	10.12.96 (no conversion)
1,2	1,2 (no conversion)

Normal/Reformat Mode Options

You can specify that each multivalued create a new line (row) in the PC file when importing data using **Normal** or **Reformat** mode. When you select the **Explode Values** option, you can choose a second option, **Repeat Values**, that repeats the last value in a field to fill in blank columns.

Explode Values

Creates new rows/columns for multivalued.

Repeat Values

Repeats last value in a field to fill in blanks (only when **Explode Values** is set).

Note: **Repeat Values** repeats the last value in a field, so it is appropriate only when the report contains single and matched multivalued.

Example:

We listed data from a host file to the screen.

Product	INVENTORY. Name	Color	Price	Quantity
10140	Camera	Black	\$129.97	12000
		Silver	\$129.97	149

When you click on the **Advanced** button, and then **Explode Values**, data is imported with each multivalue on a separate line:

51090	Telephone	Tan	\$39.95	95
10140	Camera	Black	\$129.97	12000
		Silver	\$129.97	149
10150	Camera	Black	\$48.82	800
		Silver	\$48.82	14985
56070	Mouse Pad	Red	\$12.99	400
		Blue	\$12.99	500
		Grey	\$14.99	394
		Rose	\$12.99	399

If both the **Explode Values** and the **Repeat Values** options are set, the data imports as:

51090	Telephone	Tan	\$39.95	95
10140	Camera	Black	\$129.97	12000
10040	Camera	Silver	\$129.97	149
10150	Camera	Black	\$48.82	800
10150	Camera	Silver	\$48.82	14985
56070	Mouse Pad	Red	\$12.99	400
56070	Mouse Pad	Blue	\$12.99	500
56070	Mouse Pad	Grey	\$14.99	394
56070	Mouse Pad	Rose	\$12.99	399

Note that @ID and PROD\_NAME are repeated to fill in the columns.

(This works only in Normal mode, not in Capture mode. In Capture mode, the values do not repeat in the Excel document.)

Limitations

When the **Explode Values** option is checked the following limitations apply to the record on the host to be transferred:

Maximum Size: 60K (61,440 bytes)

Maximum number of fields: 128 (fields, not values, each field can have any number of values)

### ***USING ADVANCED OPTIONS IN SCRIPTS***

The script names for the variables on the Advanced Import Options dialog box are: **NumberConversion**, **NumberCurrency**, **NumberSeparator**, **NumberDecimal**, **ExplodeValues**, and **RepeatValues**. The syntax for each is as follows:

Set Number Conversion = value; 1 = On, 0 = Off  
Set Number Separator= value; enclose in quotes, e.g., ","  
Set Number Currency = value; enclose in quotes, e.g., "\$"  
Set Number Decimal = value; enclose in quotes, e.g., "."  
Set Explode Values=value; 1=Yes, 0=No  
Set RepeatValues=value; 1=Yes, 0=No

Example:

If setting up a script to import a file, these parameters would be defined as follows.

```
Dialog RunImportFile
Set Account = ""
Set File = "ORDERS"
:
:
Set FieldDescriptions = 0
Set NumberConversion = 1
Set NumberCurrency = "$"
Set NumberSeparator = ","
Set NumberDecimal = "."
Set ExplodeValues = 1
Set RepeatValues = 1
:
:
Update
```

### ***USING ADVANCED OPTIONS IN BASIC PROGRAMS***

You use WIN.IMPORT to import a file from the host to the PC. See the Tech Tip, *How to Write a BASIC Program to Import a File*, for explicit details about calling WIN.IMPORT.

The command syntax for WIN.IMPORT is:

```
WIN.IMPORT("PCFILE", "FILE", "ITEMS", "FIELDS", "OPTS", "STATUS")
```

OPTS is a dynamic array holding the various options for the import (Format, Translate, etc.). There are elements of this array that are used to store the values for the Advanced options.

OPTS<13,1> - Number Conversion, "1"=On, "0"=Off

OPTS<13,2> - Number Separator, enclose in quotes, e.g., ";"

OPTS<13,3> - Number Currency, enclose in quotes, e.g., "\$"

OPTS<13,4> - Number Decimal, enclose in quotes, e.g., "."

OPTS<14,1> - Explode Values, "1"=Yes, "0"=No

OPTS<14,2> - Repeat Values, "1"=Yes, "0"=No

Include the particular elements you need when defining the OPTS array in your program.

Example:

In our sample program we define the variables, then pass them to WIN.IMPORT. Under normal circumstances you would only define the specific elements in this array that would be different from the default.

```
* Define all of the variables
PCFILE = "C:\TEST.CSV"
FILE = "CUSTOMER"
ITEMS = 'SELECT CUSTOMER WITH STATE="CO"'
FIELDS = "NAME ADDRESS CITY STATE ZIP"
STATUS = ""

OPTS = ""
OPTS<1> = "CSV" ;* Use Comma Separated Value format
OPTS<2> = "Yes" ;* Overwrite PC file
OPTS<3> = "Normal" ;* Use Normal mode
OPTS<4> = "1" ;* Suppress the ID
OPTS<5> = "0" ;* Don't include field descriptions
OPTS<6> = "ASCII" ;* Use translation for ASCII format only
OPTS<7> = "\255,\r\n\f\r\n,\254,\r\n" ;* Default translations
OPTS<8> = "1" ;* Exit after transfer completes
OPTS<9> = "0" ;* Inform when transfer completes
OPTS<10> = "30" ;* Timeout, in seconds
OPTS<11> = "1" ;* Number of retries
* The following are set on the Advanced options dialog
OPTS<13,1> = "1" ;* Set number conversion
OPTS<13,2> = "," ;* Number separator
OPTS<13,3> = "$" ;* Number Currency
OPTS<13,4> = "." ;* Number decimal
OPTS<14,1> = "1" ;* Explode values
OPTS<14,2> = "1" ;* Repeat values
CALL WIN_IMPORT(PCFILE,FILE,ITEMS,FIELDS,OPTS,STATUS)
END
```

## WINTEGRATE TECH TIPS

### PROBLEMS PARSING DATA DURING A FILE TRANSFER



wIntegrate®

#### *INTRODUCTION*

When importing in capture mode we must know the exact size of the fields as they will appear on the screen when the ECL statement(s) are run so we can pull them out into fields for the PC files. Different host systems (and, sometimes, different versions of the same host system) seem to have different rules which are applied to formatting the fields to the screen.

There are five items which may or may not have an effect on the importing of data.

1. The field length specified in the dictionary
2. The length of the description of the field
3. The length of the field name
4. The fact that wIntegrate suppresses the column heading in its report
5. Extra spacing put between fields (for machines which do this wIntegrate adds a command to put the field spacing back to 1 space).

At wIntegrate versions 3.0.9 and 4.0.3, the following logic is used to determine field size.

```
desc_length = length of description
name_length = length of field name
field_length = field length from dictionary
```

*Machine Types: GENERIC, AP, GA, IN, MD, ME, PR, SQ, UL*

If desc\_length is zero, use the largest of name\_length or field\_length, otherwise use the largest of desc\_length or field\_length.

Note: desc\_length is only the length of the first multi-value in the description.

*Machine Type: PI*

Use field\_length.

*Machine Types: UC, UD*

If desc\_length is zero, use the largest of name\_length or field\_length, otherwise use the largest of desc\_length or field\_length.

desc\_length is the length of the largest line of the header (separated by value marks or "{") in the description.

Note: Early versions of UniData 4.1 had a problem. See the comment in WIN.PROGS WIN.DICT.UD for details.

*Machine Type: UP, UV*

Pick flavor dictionary items (Field 1 = "A" or "S")

Use field\_length unless it is zero, in which case, name\_length is used.

Ideal flavor dictionary items (Field 1 = "D" or "I")

Use field\_length. If it is less than one, use 1.

The actual code used can be found in WIN.PROGS WIN.DICT.xx, where xx is the machine type.

***PROBLEM***

wIntegrate uses the specific logic described previously to parse attributes when importing to, or exporting from, a PC file. In rare situations the way an attribute is defined in the host file dictionary and the logic used to parse the data may result in the contents of multiple attributes being truncated together.

Using a small database file, we will demonstrate the behavior when data is truncated when importing to a spreadsheet on the PC and from a spreadsheet to the host.

The sample file dictionary contains 7 attributes:

Key.....	TYP	LOC.....	CONV	MNAME.....	FORMAT	SM	ASSOC.....
@ID	D		0	Key	10L	S	
CHEKNO	D		0		10L	S	
BANKNO	D		1		3L	S	
ACCTNO	D		2		10L	S	
CHKAMT	D		4		12L	S	
CHKDTE	D		5		8L	S	
REFINFO	D		6		37L	S	

There are 5 records in the file:



```
CHECKNO... BA. ACCTNO.... CHKAMT..... CHKDTE.. REFINFO.....
0000010033 001 0000123456 000000053825 051399 000000
0000010034 001 0000123456 000000695920 051199 000000
0000010035 001 0000123456 000000610333 051799 000000
0000010032 001 0000123456 000000999999 051199 000000
0000010036 001 0000123456 000000029456 051399 000000
```

*Importing*

When our sample data is imported to a spreadsheet on the PC, we would expect it to be parsed in the following manner:

BANKNO	ACCTNO	CHEKNO	CHKAMT	CHKDTE	REFINFO
001	0000123456	0000010033	000000053825	051399	000000
001	0000123456	0000010034	000000695920	051199	000000
001	0000123456	0000010035	000000610333	051799	000000
001	0000123456	0000010032	000000999999	051199	000000
001	0000123456	0000010036	000000029456	051399	000000

However, using Capture mode we find truncation of the data has occurred:

BANKNO	ACCTNO	CHEKNO	CHKAMT	CHKDTE	REFINFO
001 00	0123456 00	0010033 00	000053825	51399 00	000
001 00	0123456 00	0010034 00	000695920	51199 00	000
001 00	0123456 00	0010035 00	000610333	51799 00	000
001 00	0123456 00	0010032 00	000999999	51199 00	000
001 00	0123456 00	0010036 00	000029456	51399 00	000

*Exporting*

We start with a spreadsheet containing our data, as in the first example above, and export it to the host. When we list all the data we find it has not been parsed as expected, resulting in truncation of the data.

```
CHEKNO.... BAN ACCTNO.... CHKAMT..... CHKDTE.. REFINFO.....
0010034 00 001 0123456 00 000695920 51199 00 000
00
0010035 00 001 0123456 00 000610333 51799 00 000
00
0010032 00 001 0123456 00 000999999 51199 00 000
00
0010033 00 001 0123456 00 000053825 51399 00 000
00
0010036 00 001 0123456 00 000029456 51399 00 000
00
5 records listed
```

**SOLUTION**

Truncation occurs when the following conditions in the host file dictionary are met.

*Importing*

If desc\_length = "" and name\_length > field\_length

*Exporting*

If desc\_length > field\_length

If desc\_length = "" and name\_length > field\_length

To resolve the problem, you can either, 1) modify the dictionary for each attribute being transferred so that the desc\_length is <= field\_length, or 2) create another attribute where the desc\_length is <= field\_length.

## WINTEGRATE TECH TIPS

### PROBLEMS TRANSFERRING FILES AFTER CLIENT UPGRADE



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Many of our customers have been upgrading their versions of wIntegrate 3.0 or 98 to the currently shipping versions. Following the upgrade, some have had problems importing files, experiencing problems such as checksum errors, which were not explainable. Commonly, unexplainable errors are the result of mismatched client/host routine versions.

Each version of the wIntegrate client has a companion version of the host basic routines, used for such activities as transferring files. The version numbers for the client and host routines are as follows:

<u>Client version</u>	<u>Host routine version</u>
3.0.00	2.6
3.0.01	3.0.01
3.0.03	3.0.01
3.0.05	3.0.05
3.0.06	3.0.06 (WIN.TRANSFER – 3.0.05)
3.0.7	3.0.07 (WIN.TRANSFER – 3.0.05)
4.0.00(98)	3.0.05
4.0.1(98)	3.0.06 (WIN.TRANSFER – 3.0.05)
4.0.2(98)	3.0.08 (WIN.TRANSFER – 3.0.05)
4.0.3(98)	3.0.09
4.1.0(98)	4.1.0 (WIN.TRANSFER – 4.1.0)

When we release new versions of wIntegrate we frequently enhance the host basic routines, resolving defects or improving their capabilities. We always provide backward compatibility, meaning you can install the current version of the host basic routines and run earlier versions of the client without difficulty. However, the opposite is not true. You can not install the current client software and use earlier versions of the host routines without the possibility of encountering problems doing file transfers.

When you upgrade your wIntegrate clients, be sure to install the host routines shipped with the client. This process is documented in the *Using wIntegrate* manual. If you purchased wIntegrate from a reseller, be sure to contact them before you install the new host routines as there may be application-specific considerations only the reseller would be aware of.

## WINTEGRATE TECH TIPS

### PROBLEMS WITH FILE TRANSFERS ON UNIVERSE



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In certain cases when attempting to import files, users may find that when they try to access the available files in a given account, nothing is displayed in the Host file field after clicking on the “Files...” button. Likewise, if a file is entered into the Host file field manually, clicking on the “Items” and “Fields” buttons will also return nothing.

This is likely due to the case invert option in UniVerse, which must be switched off for wIntegrate’s file transfers to function properly.

At the TCL prompt, type `PTERM –CASE NOINVERT`. This should disable the case conversion and allow the file transfer dialog boxes to function properly.

## WINTEGRATE TECH TIPS

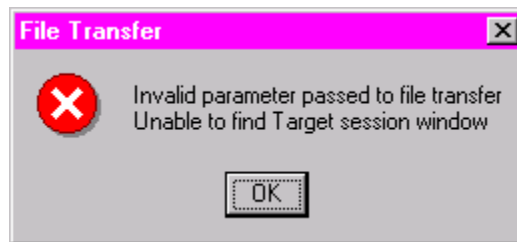
### 'UNABLE TO FIND TARGET SESSION WINDOW'



wIntegrate®

The **Bridge Copy** option allows you to transfer data between sessions. The 2 sessions can be connected to the same host but in different accounts or connected to 2 different hosts. **Bridge Copy** imports data from the source session and exports it to the target session without creating an intermediate PC file. You could accomplish the same thing using Import File followed by Export File, creating an intermediate PC file in the process.

If you use the default wIntegrate configuration for both sessions you may encounter the error message 'Unable to find Target session window'.



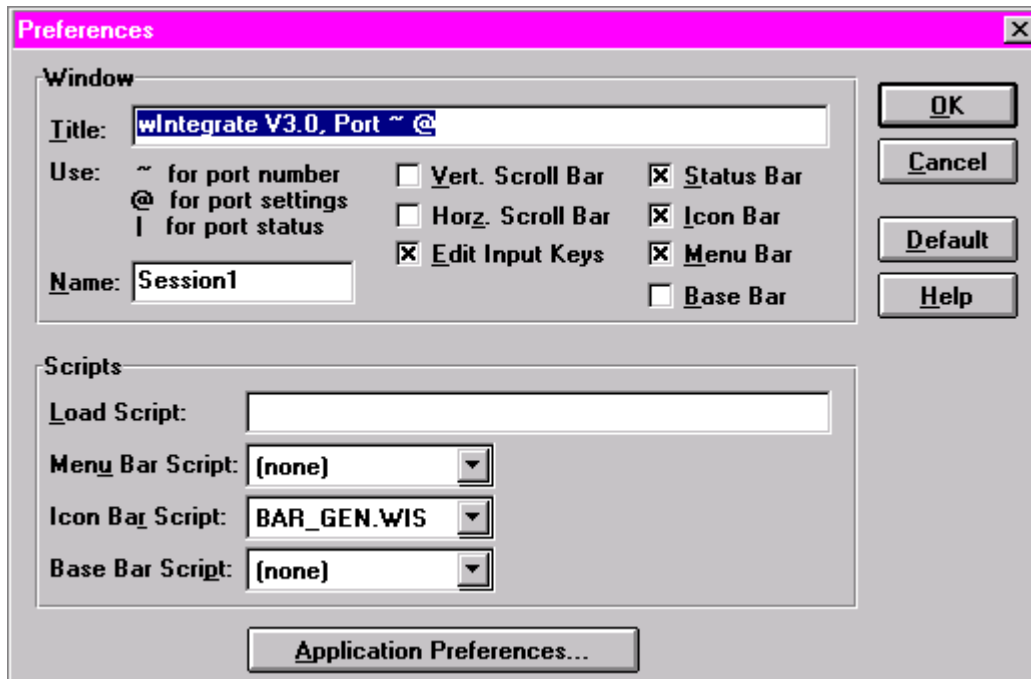
### *SESSION NAME*

**Bridge Copy** uses the session name rather than session title to identify the source and target sessions. When the name is the same in both sessions, wIntegrate is unable to find the target session and the error occurs.

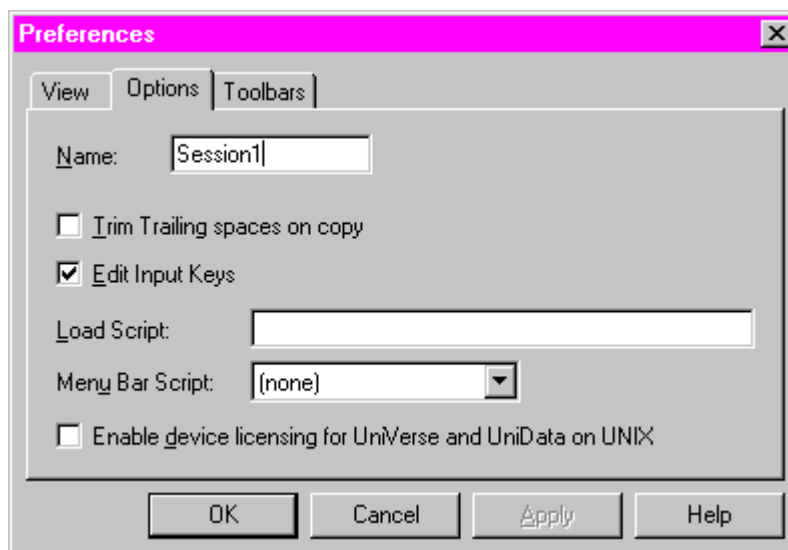
By default, the name of a wIntegrate session is 'Session1'. Assign unique names to each session to prevent this error.

*wIntegrate 3.0*

Click **Setup | Preferences** to display the **Preferences** dialog box. Change the **Name** from 'Session1' to a name of your choice. Remember to click **File | Save** before exiting wIntegrate.

*wIntegrate 4.0*

Click **Setup | Preferences**, then the **Options** tab. Change the **Name** from 'Session1' to one of your choice. Remember to click **File | Save** before exiting wIntegrate.



## WINTEGRATE TECH TIPS

### USING ASC FORMAT WHEN IMPORTING OR EXPORTING



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One of the file formats supported by wIntegrate when using the Import or Export functions is ASC. The ASC format places each attribute on a separate line, with each record separated by a CHAR(12). This format can also be used to export ASCII ('flat') files to a host file such as BP or \_HOLD\_.

#### **IMPORT**

To demonstrate how the PC file will look, we imported a single record, item 200, from a UniData sample database using ASC format. 'Suppress ID' was not checked.

```
200
Smith, Leif
Pattern ResearchyBox 9845y403 S. Pennsylvania
Denver
CO
80209
3037780880
```

◆

Item 200 had 6 attributes imported. The first line is the item ID, and each subsequent line represents the contents of the 6 attributes. Notice the multi-valued attribute on line 2. Fields within a multi-valued attribute are separated by value marks, CHAR(253), represented by 'y'. ◆ represents the CHAR(12).

If there were additional records they would be in the same format as the first, that is, the item number on the first line, each individual attribute on subsequent lines, each record separated by a CHAR(12).

When using the ASC format, the value of the 'Field Descriptions' checkbox is ignored. Also, the Normal, Capture and Reformat modes produce the same result. If you select 'Suppress ID' the item ID will not be imported and the first line of each record will contain the first attribute.

**EXPORT**

When you export a PC file to your host, you need to use the same structure as the imported data, above. The first line of each record must be the ID of the item, each attribute must be on a separate line, in the order in which they occur in the host dictionary, with a CHAR(12) separating each record. We could, for example, export the above record for item 200 back to the host file without making any changes to it.

As we mentioned earlier, you can use the ASC format to export a flat file, such as a report, to the host. For this example, we have a report saved on the PC and want to export it to the `_HOLD_` directory on the host:

Cust.....	Customer Name..	Address.....	City.....	ST	Zip Code
10	Faber, Harry	1919 Woody Way	Milwaukee	WI	50208
208	Dillon, Matt	Dodge City	Dodge City	KS	50505
2	Partner, Bonnie	19th & Elm	Lakewood	CO	80443
6	Jones, Bob	123 E. 23rd St.	Arvada	CO	80276
4	Bowie, David	129 W. 104th	Overton	WI	53140
100	Jones, Samuel	1414 E. Anglia St.	Rutherford	NJ	01212
206	LaRue, Karma	Denver	Denver	CO	80209
204	Frobisher, K	P.O. Box 9845	Denver	CO	80209-44
90	Steven Spender	1212 W. 44th	Denver	92	80401
12	Jamieson, Dale	999 Independence Way	Seattle	WI	98733
190	Belafonte,H	1234 W. Abrams	Boulder	CO	80301
14	Darrell Corden	1419 W. Evans	San Jose	CA	93221
202	Grundy, Robin	1010 Maple	Golden	CO	80403

As this is a simple ASCII file, each record is a single attribute so we don't need to break each column into individual attributes. All that is needed is the name of the item this report is to be called on the host. We will call this report 'REPORT' when we export it to the `_HOLD_` file. The name of this item, REPORT, is put in line 1 of the PC file:

```
REPORT
  10 Faber, Harry      1919 Woody Way    Milwaukee WI    50208
 208 Dillon, Matt     Dodge City         Dodge City KS    50505
  :
 202 Grundy, Robin    1010 Maple         Golden CO    80403
```

Now you can export this file to your host!



## WINTEGRATE TECH TIPS

### USING FIX FORMAT WHEN IMPORTING OR EXPORTING



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#### *IMPORTING FIXED-LENGTH DATA*

The FIX file format imports data into fixed size fields. It doesn't automatically add CR/LF to the end of each record as its main use is for applications which read records as a fixed number of bytes, so a CR/LF terminator would be meaningless.

There are times, however, when one needs to import data in a fixed-length format, keeping each record on a separate line. wIntegrate contains a function, called PAD, which can be used in the Fields box, along with field names, to insert any other characters into the imported file. This has the general form:

```
PAD(<char_code>, [<repeat_count>])
```

where <char\_code> is the character code to be put in the file and <repeat\_count> is an optional parameter which specifies the number of times to repeat the character. This defaults to 1.

For example, if your fields to be imported are:

```
NAME ADDRESS CITY STATE ZIP
```

modifying them to be:

```
NAME ADDRESS PAD(42, 3) CITY STATE ZIP PAD(13) PAD(10)
```

would change the import to contain 3 asterisks (\* = char 42) between ADDRESS and CITY, and add a CR (char 13) and LF (char 10) to the end of each record.

Most likely, if you're simply importing data and want a separate line for each record, you need only add the CR/LF:

```
NAME ADDRESS CITY STATE ZIP PAD(13) PAD(10)
```

Example:

Using the above fields, without PAD, the PC file would look similar to:

```
210    Wagner, Esther 1455 30th AvenueýWooKenosha WI53140 10    Faber, Harry 1919
Woody Way Milwaukee WI50208 208    Dillon, Matt Dodge City Dodge CityKS50505
```

Notice there are no CR/LF separators between records so the data is one continuous stream.

If PAD is added to the Fields line, as in the above example, the PC file then becomes:

```
210    Wagner, Esther 1455 30th AvenueýWoo    Kenosha    WI 53140
10    Faber, Harry 1919 Woody Way    Milwaukee    WI 50208
208    Dillon, Matt Dodge City    Dodge City    KS 50505
```

The actual widths of each column are determined by widths defined in the dictionary.

### ***EXPORTING FIXED-LENGTH DATA***

If you are exporting a fixed-length file from your PC to the host, and there is some data in the file which you want to exclude, you can use the IGNORE function to have this data ignored. IGNORE takes the form:

```
IGNORE(<bytes>)
```

where <bytes> is the number of characters to skip when importing.

For example, if you had the following data on your PC:

```
210    Wagner, Esther 1455 30th AvenueýWoo    ***Kenosha WI 53140
10    Faber, Harry 1919 Woody Way    ***Milwaukee WI 50208
208    Dillon, Matt Dodge City    ***Dodge City KS 50505
```

you would use the following command to ignore the 3 asterisks during the export to the host.

```
NAME ADDRESS IGNORE(3) CITY STATE ZIP
```

## WINTEGRATE TECH TIPS

### USING KERMIT FOR FILE TRANSFERS



wIntegrate®

Kermit is a file transfer protocol supported by wIntegrate and many hosts. You must have Kermit running on your host before using any of the wIntegrate Kermit options. Kermit, for use on your host, is not included with wIntegrate. One of the more common versions of Kermit, found on VMS and Unix hosts, is C-Kermit, available from Columbia University.

A Kermit Server is a sub-process of Kermit. The server is a dedicated process on a host that accepts, and responds to, incoming requests. If a host Kermit Server is not used to transfer files, then a host Kermit Send/Receive process must be started before each transfer (or batch of transfers). Kermit Servers are useful for transferring lots of random files.

You can set up Kermit on your host to act as a server, in which case wIntegrate will control the transfer, sending the appropriate commands to the host. wIntegrate can also be set up to act as the server, in which case the host controls the transfer process.

#### ***TRANSFERRING FILES WITH KERMIT***

The first step in transferring a file is to start Kermit on the host. Most likely, you will have a prompt similar to 'CKERMIT>'. At this point, you have a choice of ways to transfer your file. All methods accomplish the same thing, the only difference is in the number of commands you have to enter for a given method. During the transfer the file transfer monitor will be displayed showing the progress of the transfer.

Note: no matter which technique you use, you **MUST** have Kermit running on your host.

#### *Receive Binary File*

Use this option to **RECEIVE** a file from the host. Start Kermit on the host and enter 'SEND filename'. Select **Run, Receive Binary File** from the wIntegrate menu, then enter the PC file name.

Kermit can also be used to transfer multiple files from the host to the PC. When receiving multiple files, you can specify the directory (e.g. "C:\DOWNLOAD"), being sure to include the last '\', in which case, all the files will be transferred into the specified directory. If you don't specify a directory name, all files will be transferred into the default directory. In either case, on the host, start Kermit, then issue the command 'SEND \*'. wIntegrate will use the host file names when creating the PC files. If you only need to transfer a few files, you can use wildcards to specify the names on the host Kermit, e.g. 'SEND WIN\*.'

Remember, files names are limited to the 8.3 naming convention, whether on the PC or the host.

### *Send Binary File*

Use this option to SEND a PC file to the host. Start Kermit on the host and 'RECEIVE filename'. Now select **Run, Send Binary File** from the wIntegrate menu, then enter the name of the PC file to be transferred.

You can also send multiple files to the host using wildcards. You can use '\*' and '?' in the file specification to select multiple files, e.g. WIN\*.?AS.

### *Run Kermit Server Command*

In this mode, your host Kermit acts as the server, wIntegrate controls the transfer. At the Kermit prompt, enter 'SERVER'. wIntegrate is now in control of the session. Note: you can also use Send/Receive Binary File, above, however, this is not recommended.

### *Get File -*

When you select **Run, Kermit Server Command, Get File** from the wIntegrate menu, you must provide the name of the host file to be transferred and the name it is to be called on the PC. Remember, you must use the DOS 8.3 syntax when naming the PC file.

### *Send File -*

When you select **Run, Kermit Server Command, Send File** from the wIntegrate menu, you only provide the name of the PC file. It's name will be the same on the host.

You can also send multiple files to the host using wildcards. You can use '\*' and '?' in the file specification to select multiple files, e.g. WIN\*.?AS.

### *Finish -*

Once you have completed transferring files, you must stop the Kermit server on the host. Select **Run, Kermit Server Command, Finish** from the wIntegrate menu to exit the Kermit server function and return the host to the Kermit prompt.

### *Kermit Server*

Kermit Server places wIntegrate in the server mode and opens the Kermit Server Monitor dialog box. While in this mode, all transfer operations are controlled by the remote Kermit. This option would, more likely, be used to transfer files between PCs. Commands, such as GET, SEND, RECEIVE, etc., are issued by the remote system. To exit this mode, click the Stop button or issue a 'Finish' from the remote Kermit.

## WINGRATE TECH TIPS

### USING THE REPORT WIZARD



wIntegrate®

A new menu option, Report Wizard, has been added to the Run menu at wIntegrate 4.0.2. This allows the viewing or transferring of host based hold entries to the local desktop. The target destinations in this version are Excel, HTML, Word, and a new desktop viewer called Report Viewer. This release supports only UniData and UniVerse host databases.

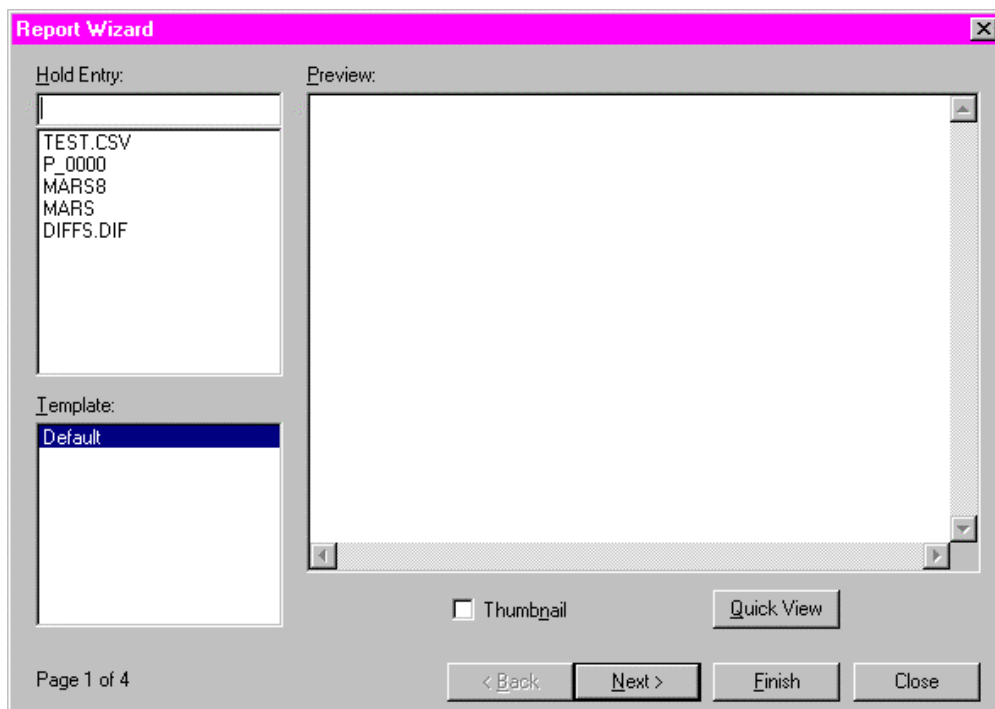
Like the Query Builder, the Report Wizard uses the WIN.SERVER host program. The 3.0.8 version of the host programs (supplied with wIntegrate 4.0.2) must be installed to use the Report Wizard.

#### *USING THE REPORT WIZARD*

The Report Wizard is started by clicking **Run | Report Wizard**. There are 4 screens that will be displayed.

#### *Choose Hold Entry*

The first screen allows you to choose the specific hold entry to be displayed.



### Hold Entry

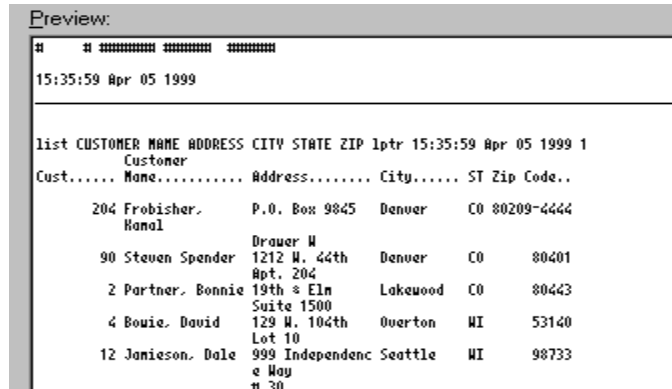
This listbox will automatically display the hold entries from the host. When you click on an entry the first 100 lines of the print report are displayed in the Preview box

### Template

Choose a template to apply to the selected hold entry. The template stores information on column widths, headings, footings to ensure the report is parsed properly. It also stores details of the destination for the report – Excel, HTML, Word or the Report Viewer.

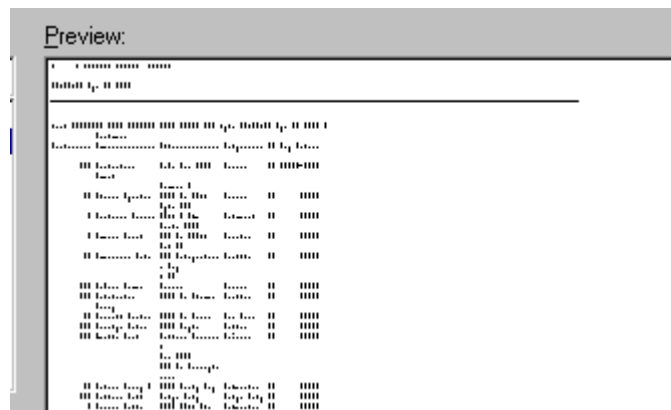
### Preview

Displays the first 100 lines of the selected report. Approximately 80 columns are displayed in a legible font.



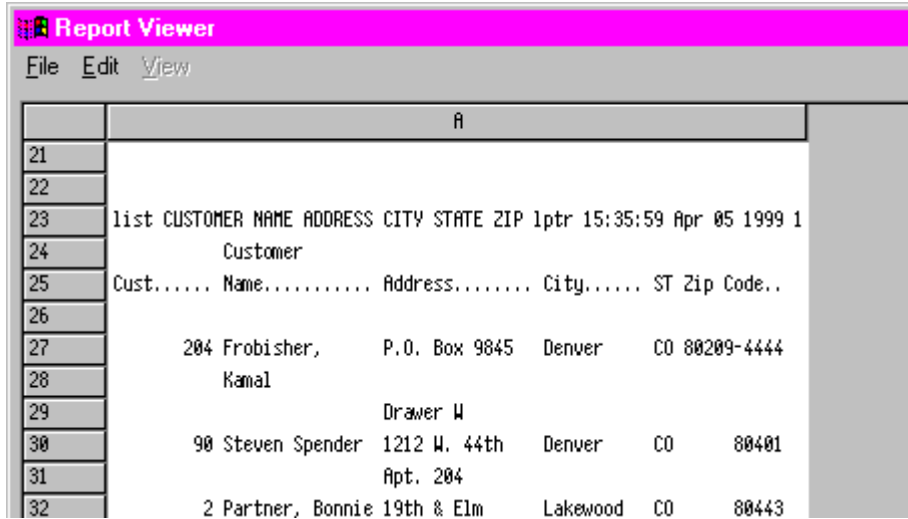
### Thumbnail

Turn on this checkbox to display the Preview in a tiny font which allows viewing of complete 132-column reports.



### Quick View

Click **Quick View** to view the hold entry immediately in the Report Viewer. No parsing will take place so you will see the report exactly as stored on the host.



### Finish

If a satisfactory template already exists for the selected hold entry, you can choose it here and click on **Finish** to skip the remaining pages of the Report Wizard. The complete report is imported from the host to the PC, and displayed in the Report Viewer.

### Next

Click **Next** to continue to the next screen to continue formatting the report.

### Close

Exit the Report Wizard without importing the file.



*Report Parameters*
**FormFeed sequence**

Enter the character(s) which separate pages. You will not normally need to change the default value.

The correct value here is almost always the industry-standard “FormFeed” character (ASCII character 12) which is represented in wIntegrate as “\f”.

**Skip Banner**

Turn on this checkbox if the first page of the hold entry is a “banner page”. These typically show the name of the user who printed the report and are to be ignored by the Report Wizard.

**Finish**

If a satisfactory template already exists for the selected hold entry, you can choose it here and click on **Finish** to import the file and skip to the Report Viewer.

Next



Position the mouse over the dividing line between column headings and drag the column divider until it matches the columns shown on the report. The mouse pointer changes into a column-divider symbol which can be placed over the data in the report for greater accuracy.

To delete a column, drag-and-drop the column divider onto another column divider. To add a column click on the column headings.

### Heading Base

On the first page of the displayed hold entry, click on the lowest line of the page headings (i.e., the line immediately above the column headings, even if this is a blank line). On many hold entries there is only one line, so click on this. It will change color as you select it.

Then click the **Heading Base** button to define where the page heading ends. The page heading will be removed from the report and displayed separately. This page heading will be shown on the Report Viewer.

### Col. Head Base

On the first page of the displayed hold entry, click on the lowest line of the column headers (i.e., the line immediately above the data of the report, even if this is a blank line). It will change color as you select it.

Then click the **Col. Head Base** button to define the column headings. These will be used later.

### Reparse Cols

Click this button to re-calculate the columns according to the current column headings.

### Reparse All

Click this button to reset the headings, footings and columns to their original settings when Page 3 was first displayed.

### Footer top

On the first page of the displayed hold entry, click on the top line of the footing (i.e., the line immediately after the data of the report, even if this is a blank line). It will change color as you select it.

### End of Page

If the hold entry contains FormFeeds between pages, the Report Wizard can automatically detect the end of the page and you will not need to change the default setting. However if you do move the End of Page mark then everything between it and the FormFeed will be discarded.

In a future release, if the hold entry does not contain FormFeeds between pages then the End of Page mark will define the number of lines per page, so the report can be parsed properly.

#### Finish

If the current target application is correct, you can click the **Finish** button to import the file and skip to the Report Viewer.

#### Next

Click **Next** to continue to the next screen to complete the report.

#### Close

Click close to exit the Report Wizard without importing the file.

Report Wizard

Target: Report Viewer

Target File: D:\WINTEG98\RepWiz1.TSV

Save settings as a template

Template name: Default

Page 4 of 4

< Back Next > Finish Close

### Target

Choose the target application from the available choices – Report Viewer, Excel, HTML or Word.

### Target File

A file will be created in the native format of the target application.

### Save settings as template

Turn on this checkbox to save the current settings as a template which can be reused in the future.

### Template name

Enter the name of the template or choose an existing name to overwrite.

### Close

Click close to exit the Report Wizard without importing the file.

**REPORT VIEWER**

The Query Builder and Report Wizard can send output to a new scripted process called Report Viewer, which gives a spreadsheet-like view of the data. You can select all or specific columns and/or rows. A right click shows a pop-up menu with options for copying selected data to Clipboard, Excel, HTML, or Word.

You can change the font and color, search for specific text (useful for large reports), display grid lines and resize the window by dragging an edge/corner.

The screenshot shows a window titled "Report Viewer" with a menu bar (File, Edit, View) and a status bar. The main area displays a list of customer records in a spreadsheet format. The columns are labeled A through F, and the rows are numbered 1 through 21. The data includes customer names, addresses, cities, states, and zip codes.

	A	B	C	D	E	F
1	204	Frobisher,	P.O. Box 9845	Denver	CO	80209-4444
2		Kamal				
3			Drawer W			
4	90	Steven Spender	1212 W. 44th	Denver	CO	80401
5			Apt. 204			
6	2	Partner, Bonnie	19th & Elm	Lakewood	CO	80443
7			Suite 1500			
8	4	Bowie, David	129 W. 104th	Overton	WI	53140
9			Lot 10			
10	12	Jamieson, Dale	999 Independenc	Seattle	WI	98733
11			e Way			
12			# 30			
13	206	LaRue, Karma	Denver	Denver	CO	80209
14	190	Belafonte,	1234 W. Abrams	Boulder	CO	80301
15		Harry				
16	14	Darrell Corden	1419 W. Evans	San Jose	CA	93221
17	202	Grundy, Robin	1010 Maple	Golden	CO	80403
18	200	Smith, Leif	Pattern Researc	Deünver	CO	80209
19			h			
20			Box 9845			
21			403 S. Pennsylv			

## WINGRATE TECH TIPS

### WHAT 'MODE' DOES WHEN IMPORTING DATA



wIntegrate®

There are 3 modes that can be used when importing data with wIntegrate – **Normal**, **Capture**, and **Reformat**. Each of these behaves differently during the import process. There are also 2 advanced settings that can be used to further affect the behavior under **Normal** and **Reformat** modes – **Explode Values** and **Repeat Values**.

#### *MODE*

When you click **Run | Import File...** from the wIntegrate menu, the **Import File from Host** dialog box is displayed. The modes, **Normal**, **Capture** and **Reformat**, are found in the lower center part of the box.

**Import File from Host**

Open... Save... OK Cancel

Host file:  Account:  Files...

Items:  Items...

Fields:  Fields...

Local file:  Browse...

Path: D:\WINGEG98\ Help

Format: ASCII

Overwrite: No

Translate: ASCII

Mode

Normal  Suppress ID

Capture  Field descriptions

Reformat  Inform when done

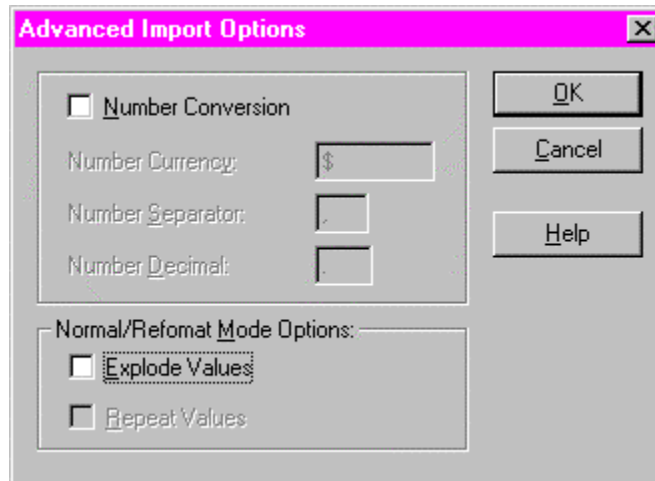
Translation... Timeout: 5 Retries: 3 Advanced...

## Mode Options

Mode	Description
Normal	wIntegrate checks the data transfer to verify accuracy. This method cannot process virtual fields (also called correlatives and I-descriptors) because the host program cannot interpret them. wIntegrate transfers data according to the attribute numbers in the dictionary items. Output conversion codes are processed.
Capture	This method handles virtual fields. However, wIntegrate does not perform host-to-PC error checking, so data integrity is not guaranteed. Multi-valued attributes are exploded.
Reformat	wIntegrate captures and writes data to a work file on the host computer, then transfers the work file to the PC using the error-checked transfer method (identical to the Normal mode file import). You can use virtual fields with error-checked transfer. The Reformat mode also removes the limits on field length required by some hosts. This process takes additional time to create the work file. You must have sufficient disk space on the host to create the work file.

### ADVANCED SETTINGS

When you click on the **Advanced...** button in the lower right part of the **Import File from Host** dialog box the **Advanced Import Options** dialog box is displayed.





**Normal/Reformat Mode Options**

Explode Values	You can specify that each multi-value creates a new line (row) when using Normal or Reformat mode.
Repeat Values	When you select the Explode Values option, you can choose a second option, Repeat Values, which repeats the last value in a field to fill in blank columns. This repeats the last value in a field, so it is appropriate only when the report contains multi-valued attributes. Use with Normal or Reformat mode.

***AVAILABLE COMBINATIONS***

The following table shows what options and combination of options can be used for each mode. Note: **Capture** mode always explodes values.

	<b>Explode Values</b>	<b>Repeat Values</b>
<b>Normal</b>	X	X
<b>Capture</b>	Default – not selectable	
<b>Reformat</b>	X	X

**EXAMPLES**

The following examples will illustrate the results of imports with each mode and normal/reformat mode option. The first example demonstrates how the data would be displayed using a host **LIST** statement. Subsequent examples will display the data resulting from an import to the PC using Excel as the file format.

*Host LIST command*

Using a UniData database, and the command **LIST CUSTOMER NAME ADDRESS CITY STATE ZIP**, the following is displayed:

204 Frobisher, Kamal	P.O. Box 9845 Drawer W	Denver	CO	80209-4444
90 Steven Spender	1212 W. 44th Apt. 204	Denver	CO	80401
2 Partner, Bonnie	19th & Elm Suite 1500	Lakewood	CO	80443
4 Bowie, David	129 W. 104th Lot 10	Overton	WI	53140
12 Jamieson, Dale	999 Independenc e Way # 30	Seattle	WI	98733
206 LaRue, Karma	Denver	Denver	CO	80209
190 Belafonte, Harry	1234 W. Abrams	Boulder	CO	80301
14 Darrell Corden	1419 W. Evans	San Jose	CA	93221
202 Grundy, Robin	1010 Maple	Golden	CO	80403
200 Smith, Leif	Pattern Researc h	Deúnver	CO	80209

In the dictionary, NAME is defined as 15T. When the name exceeds 15 characters, the text breaks between words. ADDRESS is defined as 15L, so it breaks at 15 characters. Notice that ADDRESS is multi-valued so each field is displayed on a separate line.

*Normal Mode*

**Normal mode without Explode Values or Repeat Values selected.**

204	Frobisher, Kamal	P.O. Box 9845ýDrawer W	Denver	CO	80209-4444
90	Steven Spender	1212 W. 44thýApt. 204	Denver	CO	80401
2	Partner, Bonnie	19th & ElmýSuite 1500	Lakewood	CO	80443
4	Bowie, David	129 W. 104thýLot 10	Overton	WI	53140
12	Jamieson, Dale	999 Independence Wayý# 30	Seattle	WI	98733
206	LaRue, Karma	Denver	Denver	CO	80209
190	Belafonte, Harry	1234 W. Abrams	Boulder	CO	80301
14	Darrell Corden	1419 W. Evans	San Jose	CA	93221
202	Grundy, Robin	1010 Maple	Golden	CO	80403
200	Smith, Leif	Pattern ResearchýBox 9845ý403 S. Pennsylvania	Deúnver	CO	80209

Notice ADDRESS, our multi-valued attribute, is stored in a single cell, each field separated by a CHAR(253), represented by “ý”.

**Normal mode with Explode Values selected.**

204	Frobisher, Kamal	P.O. Box 9845	Denver	CO	80209-4444
		Drawer W			
90	Steven Spender	1212 W. 44th	Denver	CO	80401
		Apt. 204			
2	Partner, Bonnie	19th & Elm	Lakewood	CO	80443
		Suite 1500			
4	Bowie, David	129 W. 104th	Overton	WI	53140
		Lot 10			
12	Jamieson, Dale	999 Independence Way	Seattle	WI	98733
		# 30			
206	LaRue, Karma	Denver	Denver	CO	80209
190	Belafonte, Harry	1234 W. Abrams	Boulder	CO	80301
14	Darrell Corden	1419 W. Evans	San Jose	CA	93221
202	Grundy, Robin	1010 Maple	Golden	CO	80403
200	Smith, Leif	Pattern Research	Deúnver	CO	80209
		Box 9845			
		403 S. Pennsylvania			

Notice ADDRESS has been exploded, with each field stored vertically in a separate cell.

Normal mode with **Explode Values** and **Repeat Values** selected.

204	Frobisher, Kamal	P.O. Box 9845	Denver	CO	80209-4444
204	Frobisher, Kamal	Drawer W	Denver	CO	80209-4444
90	Steven Spender	1212 W. 44th	Denver	CO	80401
90	Steven Spender	Apt. 204	Denver	CO	80401
2	Partner, Bonnie	19th & Elm	Lakewood	CO	80443
2	Partner, Bonnie	Suite 1500	Lakewood	CO	80443
4	Bowie, David	129 W. 104th	Overton	WI	53140
4	Bowie, David	Lot 10	Overton	WI	53140
12	Jamieson, Dale	999 Independence Way	Seattle	WI	98733
12	Jamieson, Dale	# 30	Seattle	WI	98733
206	LaRue, Karma	Denver	Denver	CO	80209
190	Belafonte, Harry	1234 W. Abrams	Boulder	CO	80301
14	Darrell Corden	1419 W. Evans	San Jose	CA	93221
202	Grundy, Robin	1010 Maple	Golden	CO	80403
200	Smith, Leif	Pattern Research	Deúnver	CO	80209
200	Smith, Leif	Box 9845	Deúnver	CO	80209
200	Smith, Leif	403 S. Pennsylvania	Deúnver	CO	80209

Notice ADDRESS is still exploded vertically but now the ID, NAME, CITY, STATE and ZIP have been repeated for each line.

*Capture mode*

204	Frobisher, Kamal	P.O. Box 9845	Denver	CO	80209-4444
		Drawer W			
90	Steven Spender	1212 W. 44th	Denver	CO	80401
		Apt. 204			
2	Partner, Bonnie	19th & Elm	Lakewood	CO	80443
		Suite 1500			
4	Bowie, David	129 W. 104th	Overton	WI	53140
		Lot 10			
12	Jamieson, Dale	999 Independenc	Seattle	WI	98733
		e Way			
		# 30			
206	LaRue, Karma	Denver	Denver	CO	80209
190	Belafonte, Harry	1234 W. Abrams	Boulder	CO	80301
14	Darrell Corden	1419 W. Evans	San Jose	CA	93221
202	Grundy, Robin	1010 Maple	Golden	CO	80403
200	Smith, Leif	Pattern Researc	Deúnver	CO	80209
		h			

Capture mode produces the same output as the LIST command on the host. The **Explode Values** and **Repeat Values** options have no effect.

**Reformat Mode**

**Reformat** mode, without **Explode Values** or **Repeat Values** selected.

204	Frobisher, Kamal	P.O. Box 9845	Drawer W	Denver	CC	80209-4444
90	Steven Spender	1212 W. 44th	Apt. 204	Denver	CC	80401
2	Partner, Bonnie	19th & Elm	Suite 1500	Lakewood	CC	80443
4	Bowie, David	129 W. 104th	Lot 10	Overton	WI	53140
12	Jamieson, Dale	999 Independence Way	# 30	Seattle	WI	98733
206	LaRue, Karma	Denver		Denver	CC	80209
190	Belafonte, Harry	1234 W. Abrams		Boulder	CC	80301
14	Darrell Corden	1419 W. Evans		San Jose	CA	93221
202	Grundy, Robin	1010 Maple		Golden	CC	80403
200	Smith, Leif	Pattern Research	Box 9845	Deúnver	CC	80209
			403 S. Pennsylvania			

Notice, the output is the same as when using **Normal** mode, ADDRESS is not exploded.

**Reformat** mode, with **Explode Values** selected.

204	Frobisher, Kamal	P.O. Box 9845	Denver	CO	80209-4444
		Drawer W			
90	Steven Spender	1212 W. 44th	Denver	CO	80401
		Apt. 204			
2	Partner, Bonnie	19th & Elm	Lakewood	CO	80443
		Suite 1500			
4	Bowie, David	129 W. 104th	Overton	WI	53140
		Lot 10			
12	Jamieson, Dale	999 Independence Way	Seattle	WI	98733
		# 30			
206	LaRue, Karma	Denver	Denver	CO	80209
190	Belafonte, Harry	1234 W. Abrams	Boulder	CO	80301
14	Darrell Corden	1419 W. Evans	San Jose	CA	93221
202	Grundy, Robin	1010 Maple	Golden	CO	80403
200	Smith, Leif	Pattern Research	Deúnver	CO	80209
		Box 9845			
		403 S. Pennsylvania			

Notice the output is the same as when using **Capture** mode.

**Reformat** mode, with **Explode Values** and **Repeat Values** selected.

204	Frobisher, Kamal	P.O. Box 9845	Denver	CO	80209-4444
204	Frobisher, Kamal	Drawer W	Denver	CO	80209-4444
90	Steven Spender	1212 W. 44th	Denver	CO	80401
90	Steven Spender	Apt. 204	Denver	CO	80401
2	Partner, Bonnie	19th & Elm	Lakewood	CO	80443
2	Partner, Bonnie	Suite 1500	Lakewood	CO	80443
4	Bowie, David	129 W. 104th	Overton	WI	53140
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206	LaRue, Karma	Denver	Denver	CO	80209
190	Belafonte, Harry	1234 W. Abrams	Boulder	CO	80301
14	Darrell Corden	1419 W. Evans	San Jose	CA	93221
202	Grundy, Robin	1010 Maple	Golden	CO	80403
200	Smith, Leif	Pattern Research	Deúnver	CO	80209
200	Smith, Leif	Box 9845	Deúnver	CO	80209
200	Smith, Leif	403 S. Pennsylvania	Deúnver	CO	80209

Notice the output is the same as when using **Normal** mode with **Explode** and **Repeat Values** selected.

### ***GENERAL OBSERVATIONS***

#### **Normal Mode**

1. Can't import calculated (I-descriptor) values.
2. Doesn't explode values (unless **Explode Values** is selected).
3. Data in long fields is retained in a single cell.
4. Can't use "REPORT" option in **Items**.

#### **Capture Mode**

1. Used when importing calculated fields.
2. Always explodes values
3. Can't repeat values.
4. Long fields are parsed into separate cells based on dictionary format.
5. "REPORT" option is valid for **Items**.

#### **Reformat Mode**

1. Creates a temporary file on host so you must have sufficient disk space available.
2. Data in long fields is retained in a single cell.
3. Can't use "REPORT" option in **Items**.