

The Disk Manager and Parcels

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Introduction

The disk manager service enables the manipulation of files and directories on both local and remote machines from within WISDN. Remember that the disk manager deals with the remote machine in much the same way as it deals with the local machine. This means that, for example, copying and transferring files require the same actions.

Differences with File Manager

The disk manager service is similar to Windows File Manager in terms of the features that are supported, sorting, display option, rename, delete, etc. The main differences between the two pieces of software are:

- Drives are included as part of the left hand directory structure rather than as icons on the caption bar.
- *Duplicate* has been added to the system menu to display a second version of the active directory.
- One additional include option is the ability to display files on the basis of date.
- The right hand mouse button can be used to select files for transfer as well as the Control and Shift key options available with the left hand mouse button.
- Files can be renamed and/or deleted on the local or remote machine depending on the files that are displayed and the access rights that are allowed.
- Copying (see below)

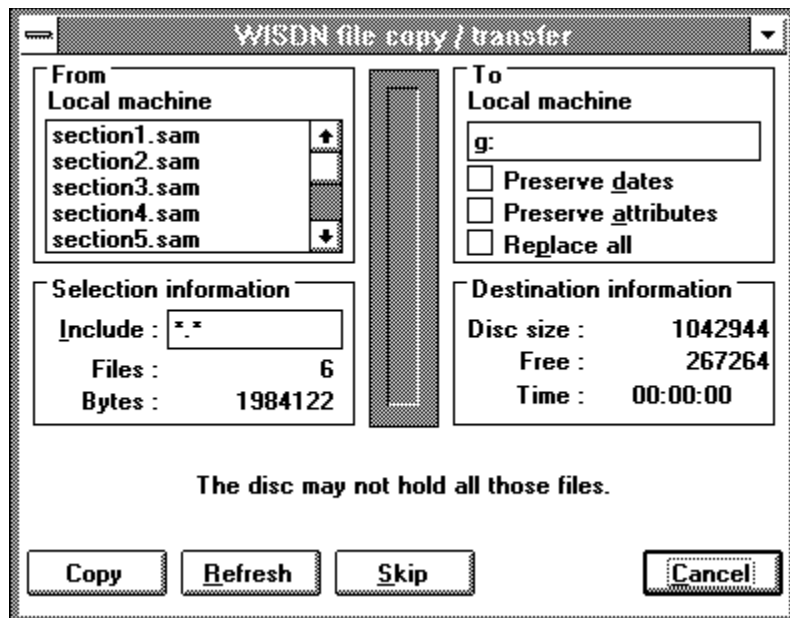
Copying and transferring files

Once you have dragged the selected items to their destination letting go of the left

or right mouse button will display the *Copy* dialogue box described in this section. Remember that What-You-See-is-What-You-Copy, which means that if sub-directories are included in the selection to be copied, then the *Include* options currently in force apply to that sub-directory. Only those files which you would normally see if that sub-directory was open will be copied.

The source and destination machines can be either local or remote machines. This means that copying and transferring files are effectively the same thing, but beware access restrictions may apply on a remote machine.

The left side of the *Copy* dialogue box gives details of the source files, whilst the right side shows details of the destination. Between these is the progress meter. Along the bottom is a message area and the main buttons.



Status lines

Whilst copying is in progress, the status lines show the paths and names of the source and destination files. If the path is too long, some of the sub-directories will be replaced with dots, for example c:\long\path\file may be shortened to c:\...\file. The name of the file being read or written will also appear on the status bar on the remote machine.

If a problem occurs, the nature of the problem will be indicated in the status lines. It is not always possible for the disk manager to know the exact problem, so some hints are usually provided, indicating possible causes.

Disk full

If there is not enough space on the destination disk, a message will be displayed in the status lines. Copying can still be completed using either the *Recopy* or *Retry* buttons, after taking the appropriate action.

More than one copy

When copying is in progress, WISDN and the disk manager service are still able to carry out other activities, including copying. This means that several *Copy* dialogue boxes can be simultaneously displayed, each actively copying files. This is of limited use with a modem and single PSTN line.

Automatically ending the call

To automatically end the call after copying, close all other windows using the call when copying has begun, leaving the *Copy* dialogue box as the only window using the call.

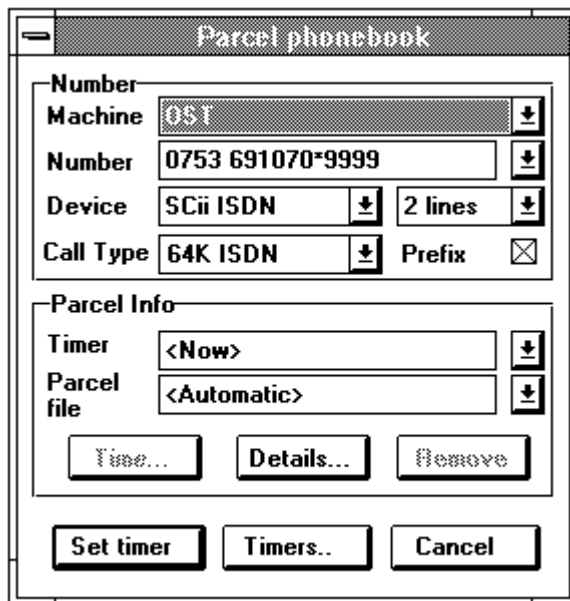
When copying has finished, the *Copy* dialogue box will automatically be closed. Since a call is ended when the last window using the call is closed, the call will be ended. When the call is ended in this way, the normal confirmation message will not be displayed.

Parcels, Automatic and Delayed Transmission

As well as providing an interactive method of viewing, sending and receiving files WISDN provides other methods of transferring files. These methods provide you with a range of tools to transfer files that could meet a number of requirements and include methods for:

- Setting up an address, 'Post box ', to which files can be dragged and the call will begin and end automatically.
- Collecting files together in 'Parcels' so that they can be sent or received in a non-interactive manner.
- Using the 'Parcel' as a basis for delayed transmission based on a 'Timer'.

The alternative methods of transferring files all make use of the Parcel phone book. Selecting the Deferred Transfer Option from the Call Menu will display the Parcel Phone book.



This dialogue requires similar details to the *Data Call* dialogue box for call setup plus additional information for the files to be transferred 'parcels' and timer details for deferred transfer.

Automatic Transfer

Automatic transfer sets up a Window or icon on the desktop. When files are dragged to the icon WISDN will dial the number, send the files and end the call.

The only details that must be completed in the *Parcel Phonebook* are the name and

number as defaults will be provided for all of the other components. After selecting the name of the remote machine and checking that the detail for Timer is <Now> and Parcel File is <Automatic> then selecting the Send button will close the window and display an icon.

The title of the icon will include the Name selected from the address book. Files can be dragged from WISDN or File Manager to the icon. When files are dropped on to the icon then WISDN will make a data call to the number associated with it and send the files. Other files can be dragged to the icon while the call is in progress and the call will continue as long as there are files to send. The call will be ended automatically when there are no files left to send.

The phonebox icon can be closed by bringing up the system menu by clicking on the icon and choosing the Close option. The phonebox icon can be also restored to a Window which displays information about the deferred transfer and can be used to edit the details associated with it. The Window will be displayed either as a simple window with two buttons and a display area, or a more complicated window with all the information on the automatic transfer. These can be switched by using the Show details and hide details button

Parcels

In developing delayed transmission for WISDN the concept of a parcel has been used. File names are collected together to form 'parcels' which are stored to await transfer. A parcel is simply a text file, usually with the extension .PAR, which lists the files to be transferred. The parcel can be stored on either the local or remote computer and the files can be either received or sent. Each parcel has a timer associated with it.

Creating and editing a Parcel.

In order to use delayed transmission it is necessary to create a list of files or 'parcel'. To do this select the Copy (F8) menu option from the File menu or press the F8 key. This will display the Parcel Window. If files had been selected before the copy button is pressed then these files will be included in the Parcel when it is opened. If no selection had been made then the parcel will be empty.

There are two methods of adding to the list of files in a parcel. One of the important considerations in developing the Parcel utility was that the parcel can contain files which do not exist when the parcel is created, but will exist at the time of transmission.

Method 1: Select and Drag - Parcel supports the dragging of files and directories from WISDN and Windows File Manager. If the selection includes a directory the Add Directory dialogue box will be displayed.

Method 2: Using the Edit Fields - Select and drag provides a mechanism for quickly building up a list of files in the parcel. The Path and Files Edit Fields provide a mechanism for fine tuning the contents of a parcel.

Individual files can be added to the list by typing in the details. These files do not have to exist when entered. The wildcard characters '*' and '?' can be used as part of the file name to provide a template for files to be included at the time of transfer. This makes it possible for more than one template to be used in the same parcel. So, for example, various different types of data files can be included without the executable programs.

Removing files from the parcel

To remove an individual file name from the parcel, select the file in the parcel's File display window and press the Delete key on the keyboard or select Remove file(s) in the Edit menu. The file name will be removed from the parcel. Any directories left

empty by this action will be removed from the tree display.

To remove all files in a given directory from the parcel, select the directory in the parcel's tree display window and press the Delete key on the keyboard or select Remove directory in the Edit menu.

Managing Parcel Files

Once the details of a parcel are correct they can be saved to disk using the Save or Save As options from the File menu. If a the parcel needs changing or updating it can be reloaded from disk. To do this select the Open option from the File menu to display a standard Open File dialogue box (similar to that of Save As). To close any one parcel, first of all select the parcel window to close and then select Close from the system menu attached to the parcel window caption bar or use the function key Ctrl + F4. If the parcel has been altered since it was last saved then a warning will appear and appropriate action will need to be taken.

Transferring Files using Parcels

It is not necessary to save the list of files in the parcel before sending them. Selecting Transfer Button, without saving the Parcel File will display the Parcel phone book with the details of the list included and create a temporary file name that will be displayed in the Parcel File field. If a Parcel had been loaded or a new parcel saved then the details of the Parcel would be contained in the Parcel File of the Parcel phone book. After selecting the name of the remote machine and checking that the detail for Timer is '<Now>' then selecting the Send button will close the window, attempt to set up the call, transfer the files on connection and end the call on completion. Details will be saved to the transfer log in line with the current settings.

Files can be received from the remote machine if the details of the transfer are changed using the Timer Details Window.. If they are changed to receive the list of files rather than send them then the Send Button will change to a Receive Button.

Deferred Transfer

In order for a deferred transfer to take place the name of a parcel and timer need to be selected. you should also check that if the remote site expects a password then the .option has been set in the *Security dialogue box*.

Choosing a Parcel

The Parcel file list contains details of the most recently changed parcels and the parcel to be sent can be chosen from this list. If the required Parcel is not in this list then selecting the <select parcel> option in the *Parcel file* list will display a standard dialogue box. The default for the file extension will be .PAR.

Setting the Timer

The Timer is an important feature of the delayed transmission because it contains not only the time and date information and the remote site details but also additional details relating to the delayed transfer. A number of standard timers can be produced by giving each its own name and details. A parcel can be associated with more than one timer making it possible to send the same data to different sites. The normal default is '<Now>' as this is used for immediate copying. A new Timer name can be typed directly over the top of the '<Now>' timer. Selecting the '<New Timer>' will clear the field and also allow a new timer name to be entered.

Selecting the *Time..* Button then displays a dialogue box that allows the time, date and frequency information for a specified timer to be edited.

The other details for a deferred transfer, the number of retries and the duration

between retries are set in the Data Call Options dialogue box. The current values of these two parameters at the time of transfer will be used.

<Automatic > Icons and Timers

Automatic Icons can be associated with timers in the same way that any named parcel can, but the timer details cannot be set. Instead the timer acts as a flag to indicate that icon is to be started each time the WISDN software is started. Unlike with the <Now> timer which will be removed when WISDN is closed.

Removing a Timer

An existing timer can be removed by selecting the timer to remove and pressing the Remove Button in the Parcel phone book. The <Now> and <new Timer> timers cannot be removed.

Viewing a Timer

Timers that use a named parcel (not automatic) and are not *Once only* can be viewed by selecting the *Timer* button from the *Parcel phonebook* dialogue box. This will display a dialogue box with the following information.

Name , Type, Date : these are both a heading and a button. As headings they indicate the type of information shown in the table below the heading. When pressed the order the table is sorted in will be by the type of information chosen. *Show Details/Hide Details* this button is used to increase or decrease the size of the dialogue box to show or hide the details of the timer and the parcel associated with it.

Select timer Selects the timer, adds it to the timer edit field of the parcel phonebook and closes the dialogue box.

Cancel closes the dialogue box without making any changes to the timers.

'Once only' timers are deleted from the list of timers once they have been used. If WISDN was not active when the timer expired, it will be removed and not activated.

Changing the Timer details

Normally the requirement will be to send files from the local computer using a parcel stored on the local computer. This is the default for all new timers and a requirement for automatic transfers. However, it is also possible to receive files from the remote machine or use a parcel list on the remote machine. This allows a number of flexible combinations to be made for delayed transfer. Selecting the *Timer Details* button will display the details that are associated with the timer.

When WISDN is first run there are a standard set of defaults for the first timer that is created. Some of these default details are also used in all subsequent timers until explicitly changed while for others the defaults used will be the same as the last timer used. These defaults are summarised in the table.

Overwrite Transfer Log	last setting, initially Overwrite is on
Transfer log name	last used , initially WISDN.TRL
Send/Receive	Always defaults to Send
Local/Remote	Always Local
Time	Always <Now>

The Transfer

Once the details of time and transfer requirements have been entered the

transmission of parcels occurs automatically. It is important that the remote and local machines have been set up so that automatic answering is allowed and the appropriate security has been allocated. For example, if the parcel is stored on the remote machine then the local machine needs to have both read and write access to the remote machine.

At the selected time WISDN will attempt to connect with the remote machine and display the Parcel icon on the screen.

If there are no problems WISDN will transfer the files in the parcel to the required destination. Any directories which are required will be created and existing files are overwritten. The Parcel icon can be restored to a Window. This Window displays information about the current file transfer. If there is no current activity then nothing is displayed. Details of every transfer are written to the log file specified in the *Details dialogue box*.

If a transfer is timed to start whilst a previous transfer is still in progress, it will be rescheduled to take place soon after the active transfer has finished. If there is a problem making the call (e.g. if the line is engaged), WISDN will try the call again after the time set in the phone options, and up to value set as the maximum number of retries. If after the maximum number of retries the call has still not connected the transfer is abandoned. Problems transferring individual files will be logged in the log file, but there will be no further attempts to transfer the file.

The log file

Each time a deferred or automatic transfer takes place, the chosen log file will be updated. If the log file exists, the new entries will be written *after or over* the existing entries, depending on the status of the *Overwrite Checkbox*. Each log gives the date and time when the telephone number was dialled, the telephone number, an indication of whether the call was successful and the transfer details. The name of each file transferred is also written to the log. If successful, the file name is preceded by spaces, otherwise two asterisks precede the name and the following line describes the problem. The message is preceded by an arrow (the caret character ^) as a reminder that the problem occurred in the file given on the previous line. If the parcel is on the remote machine, the first file transfer will be when the log file is copied to the local machine.

In order to view the Transfer Log, select the *Transfer Log* option of the *Options Menu* item of the main application. This will display a dialogue box to open a transfer log. The default file will be the most recently used log. Selecting a log file and opening it will open Windows notepad and display the transfer log details.

The sample log shown below includes entries for a call without a parcel, with a temporary parcel and with a named parcel, as well as a failed transfer.

Deferred transfer log Wed Jul 06 09:50:16 1994

Dialling 760813

Call established.

C:\WISDN14\ICON1.BMP

Deferred transfer complete Wed Jul 06 09:50:20 1994

Deferred transfer log Wed Jul 06 11:28:37 1994

Dialling 071713 5070

Call established.

Opened parcel : C:\WISDN14\HELP\TEMP.PAR

C:\WISDN14\SLIDE02.BMP

C:\WISDN14\SLIDE03.BMP

C:\WISDN14\SLIDE16.BMP

Deferred transfer complete Wed Jul 06 11:29:25 1994

Deferred transfer log Thu Jul 21 14:27:09 1994

Dialling 760813

** The call ended before it was answered.

Where there are filenames with no path name specified (not shown) the destination directory is the shared directory specified by the receiving machine.