

# IBM Rapid Restore PC

powered by Xpoint - v2.02 (build 6015a)

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User's Reference Guide  
Internal IBM Use Only

This document only applies to the software version listed above and information provided may not apply to future releases of this application.

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## **Part 1. What is Rapid Restore PC?**

- IBM Rapid Restore PC is a managed data-recovery solution designed to protect your operating system, applications, and data files.
- Rapid Restore PC provides a localized recovery solution that can quickly recover a system from the IBM Service Partition. This recovery often takes as little as 15 to 20 minutes. This protects against unexpected computer disasters such as image corruption and data loss.
- Backups are stored in the IBM Service Partition. The service partition is a hidden, locked area of your hard disk. On disk to disk machines, this is integrated with the existing service partition.
- On a machine with a CD-R drive Rapid Restore allows you to create your own set of CD backups that can be used to recover your system in the event of a hard disk failure.
- Rapid Restore PC enables you to view, select, and recover one or more individual files from an incremental backup.
- Works with S.M.A.R.T. technology to proactively predict and detect hard disk failure.

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## Part 2. Hardware and Software Required

### Minimum System Requirements:

Operating System	Windows '98 SE → FAT32 Windows ME → FAT32 Windows NT 4.0 SP6 (no incremental backup support) → FAT16/NTFS Windows 2000 w/SP2* → FAT32/NTFS Windows XP Pro/Home* → FAT16/FAT32/NTFS  *Dynamic Disks are not supported
Memory	Standard OS recommendations
Disk Space for installation	20MB
Disk Space for backup	Up to 40% of total disk space (Initially 20% of total disk space is partitioned for backup use). Actual backup and service partition size will vary depending on the amount of data on your hard disk.  If you use all of the disk space in the service partition, you will be asked by the program if you wish to increase the size of the service partition to accommodate the new disk space requirements for your backup.  The backups are stored in addition to the original IBM preload service partition if one is present.
Optional: Floppy Drive	Only required if a service partition does not already exist on your hard disk
Optional: CD-R Device	Only required to create CD-R Archive

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## Part 3. Setup and Installation

### Installation – Phase 1

Once you have downloaded the IBM Rapid Restore file you will need to locate the area on your computer you have saved it to and launch the setup by double clicking the program icon. The below setup window will appear.



- 1) Click next. You will be presented with the license agreement.
- 2) Once you have read and agreed to the terms presented, choose to accept the terms and click next. A window titled "Remove Installation Files" will appear.

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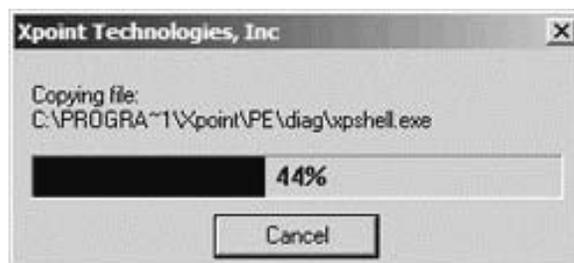
## Part 3. Setup and Installation



3) The first choice shown will remove temporary setup files once the installation is complete. This is recommended.

The second option will allow you to choose the directory to store setup files and will leave this setup directory alone once the installation has been completed.

4) Click next after making your choice. Files will be extracted to your hard disk. Upon completion, phase 2 of the installation will begin.



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## Part 3. Setup and Installation

### Installation – Phase 2

If you cancel this phase of the installation before completion, you must restart by using the icons that have already been placed on your start menu.



During this phase of the installation you must again read and agree to the license agreement before continuing.

If your computer does not already have a service partition on the hard disk, or you are using Windows NT, you will be prompted to provide a blank diskette. A bootable image will be written to this diskette that will allow a service partition to be created. If you already have a service partition then your existing partition will be modified on reboot so it is compatible with Rapid Restore and no diskette is required.

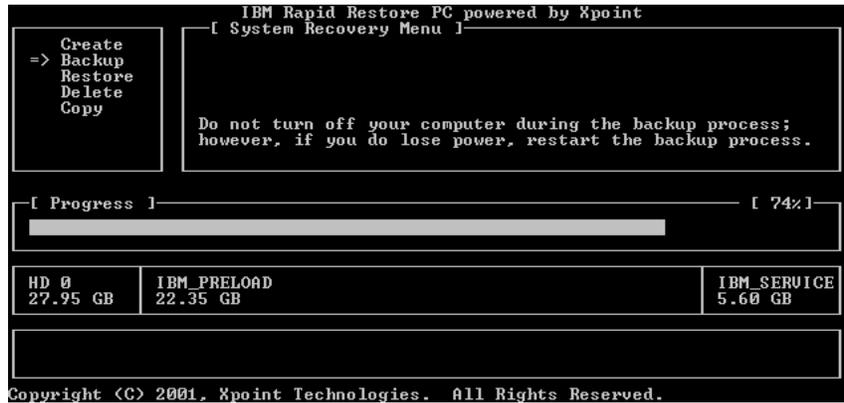
If a diskette is required follow the instructions on screen to create and then boot from the created diskette. (If you encounter problems creating the diskette, reformat the diskette and try again.) This process will create a service partition on your hard disk as shown below.

```
IBM Rapid Restore PC
(C) 2001 Copyright Kpoint Technologies, Inc.
Creating partition. Please wait...
```

Once your service partition is ready, remove the diskette if prompted, your base or initial backup will occur. If there is no diskette required, the backup will occur immediately upon reboot.

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## Part 3. Setup and Installation



During the installation, the following steps are performed:

- a) Create – will create a partition that is 40% of the drive. This is performed to ensure a successful recovery if the service partition grows to 40%.
- b) Boot to Windows (for Windows 2000 & XP) – this boot allows windows to recognize the adjusted partition. The user will be prevented from logging onto the computer.
- c) Backup – is the phase where the computer data is captured
- d) Create – will resize the partition to 20% of the drive

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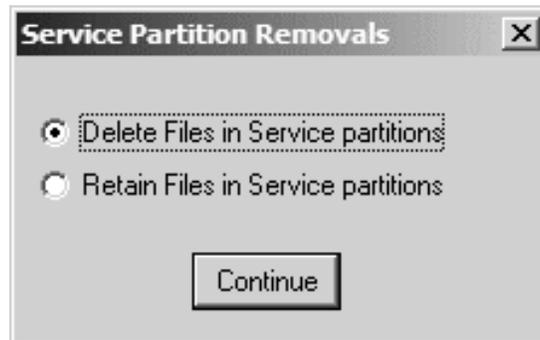
## Part 3. Setup and Installation

### Uninstalling

To uninstall the application use the Add/Remove Programs applet within Control Panel or launch the icon titled Removal in the IBM Rapid Restore PC program group.



During the uninstall process, you will need to choose if you wish to delete or retain files in the service partition.



If you choose to delete the files in the service partition, they will be lost (including the original factory preload, or IBM Product Recovery), and can not be recovered.

If you choose to retain them, The IBM Product Recovery (Disk to Disk) data will be retained. We recommend choosing "Retain".

You will be required to restart your computer to complete the uninstall process.

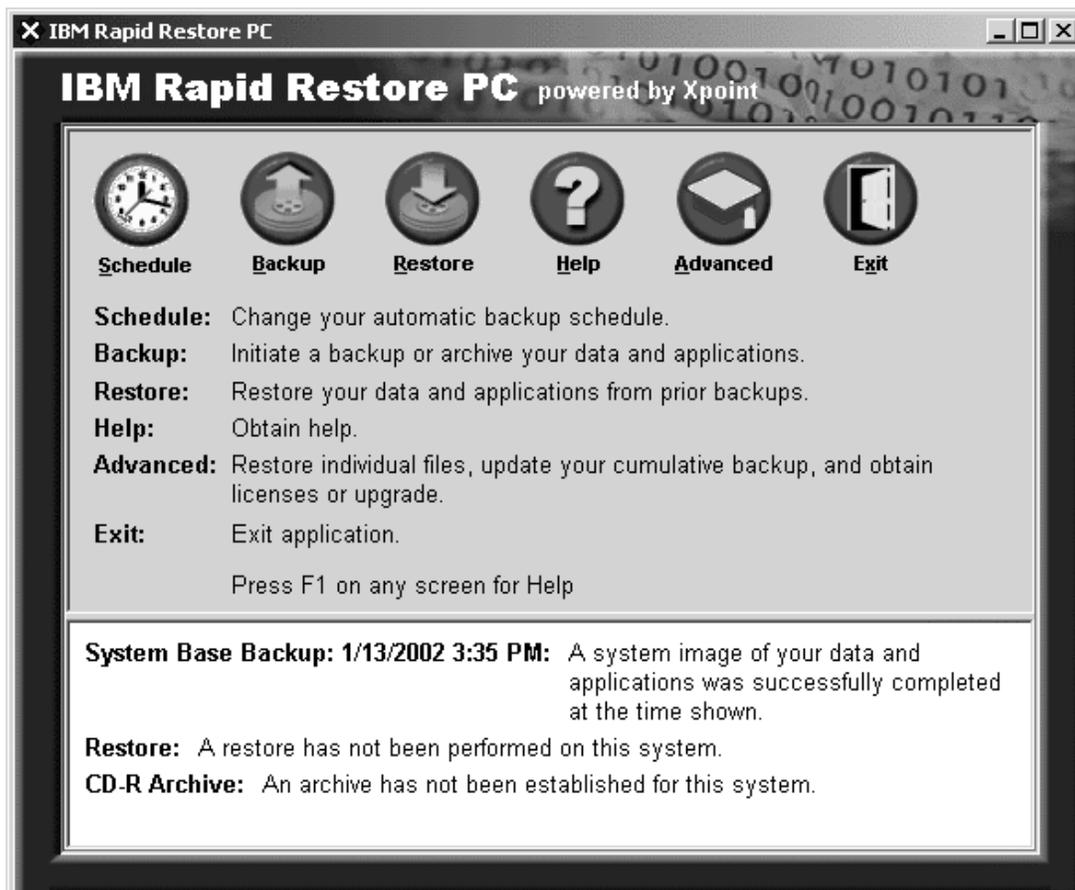
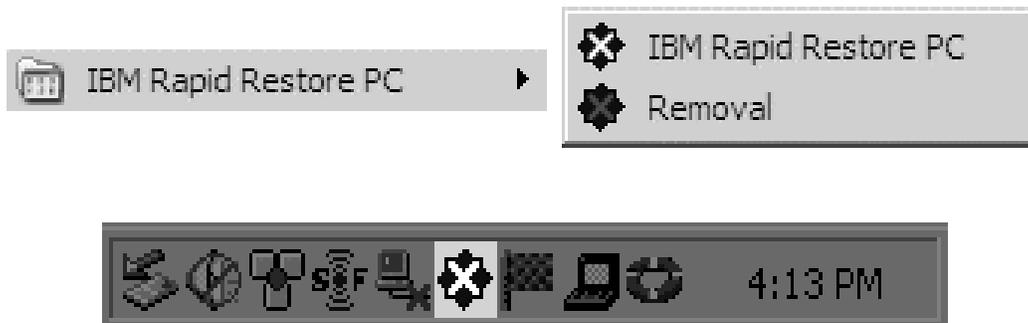
If you choose to reinstall the program when Rapid Restore PC backups already exist on your hard disk, they will no longer be available.

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## Part 4. Backing up and Restoring Files

### Program Interface

To launch the Rapid Restore PC application, use the icons located on the start menu, or the icon in the system tray.



**Main Program Screen**

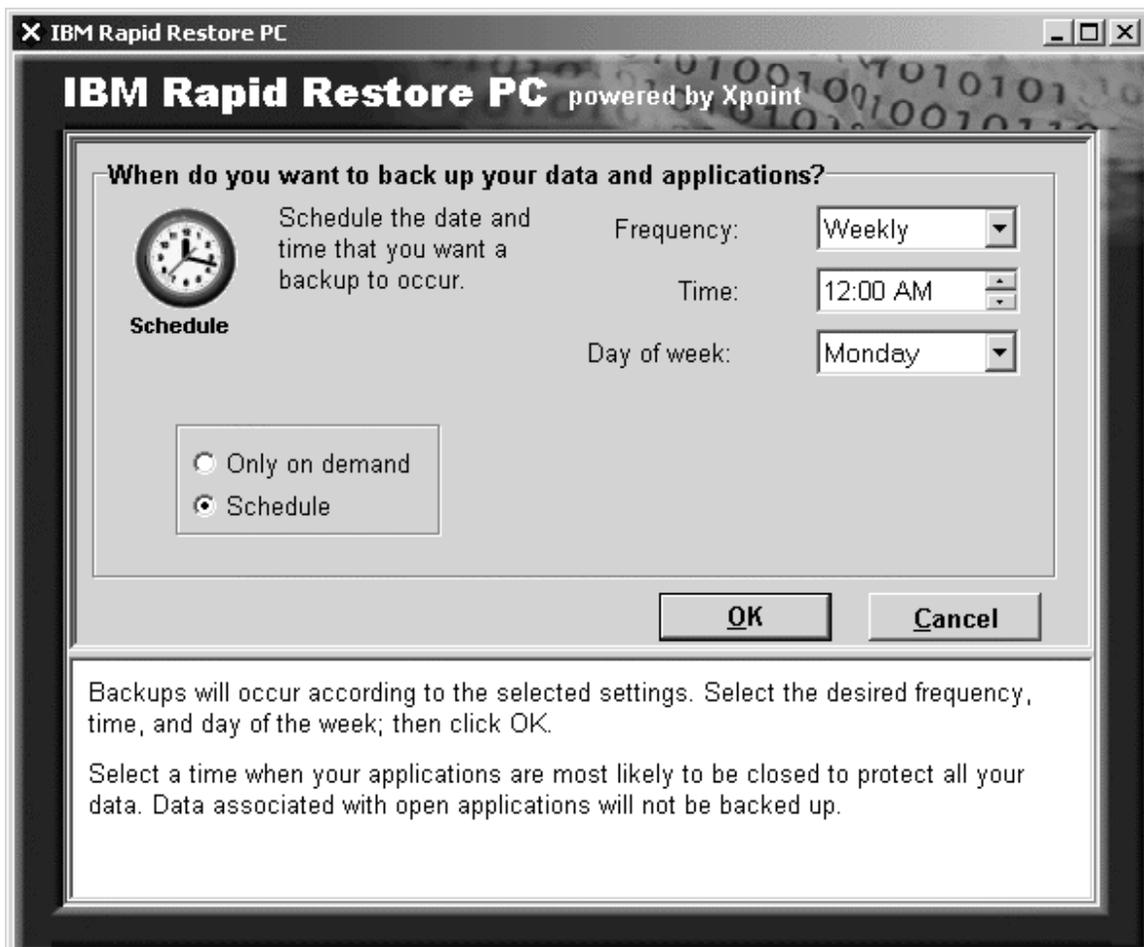
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## Part 4. Backing up and Restoring Files

### Scheduled Backups

Click the schedule button from the main interface to modify the automated backup schedule. By default, a backup will be created weekly, on Monday at 12:00am.

If your computer is off or in suspend when the backup is schedule to take place, you will be asked if you wish to run the backup when you next use the computer.



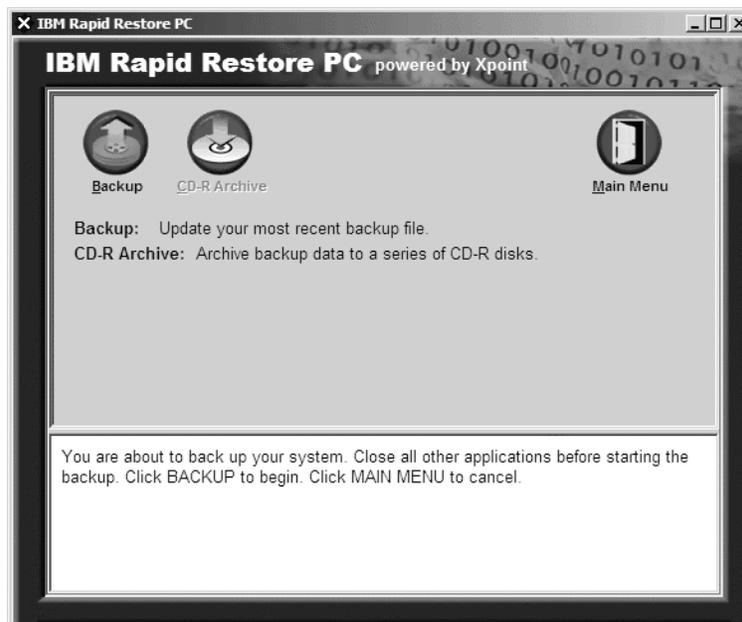
Rapid Restore PC does not allow you to specify a backup on the 29th, 30th, or 31st day of any month, but you can schedule a back up for the end of a month.

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## Part 4. Backing up and Restoring Files

### Creating a Backup

To initiate a backup, use the backup button from the main interface, and choose backup from the screen below. This will be an incremental backup which only adds files which have changed to your service partition. Since you have an initial backup, and a backup of files which have changed, you can choose to restore to either of these.



Once you've clicked backup, you'll see a progress bar on the screen. During the backup you can exit the application and your backup will continue to complete in the background.

Once completed, you will now have the option to restore your original base image, or the new modified (incremental) image. If no cumulative backup exists, the first incremental image becomes a cumulative backup.

Any new incremental backup will update/replace the last one taken, but will not replace the cumulative backup.

In order to update the cumulative backup, choose advanced from the main menu and choose snapshot. This will allow you to create a cumulative image and resets the incremental backup.

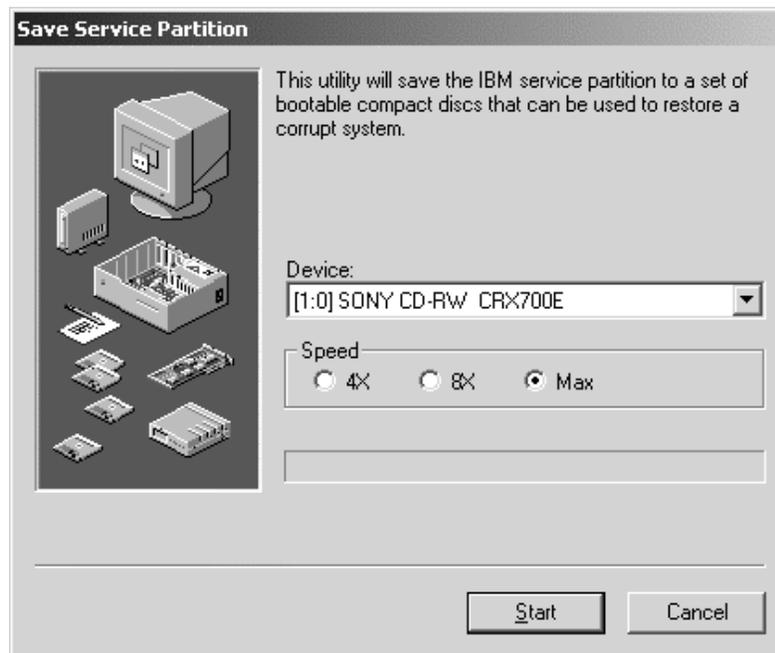
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## Part 4. Backing up and Restoring Files

### Creating a Backup on CD-R

To create a backup of your service partition to CD:

- 1) Choose the backup button from the main interface, the backup screen will appear.
- 2) Choose the CD-R Archive button. You will now see the screen shown below allowing you to choose which device to use.



- 3) Choose your CD-R device in the pull down device list
- 4) Choose the speed at which you would like to record to CD
- 5) Click on the start button. The recording process will begin, and you will be prompted for multiple CDs as required to complete the image.

**NOTE:** If the CD-R Archive option is grayed out:

- 1) The customer may not have a CD-R device supported by Windows
- 2) The customer may require updated ASPI drivers which can be installed by running C:\ASPI\ASPI32.EXE and following the instructions on screen.

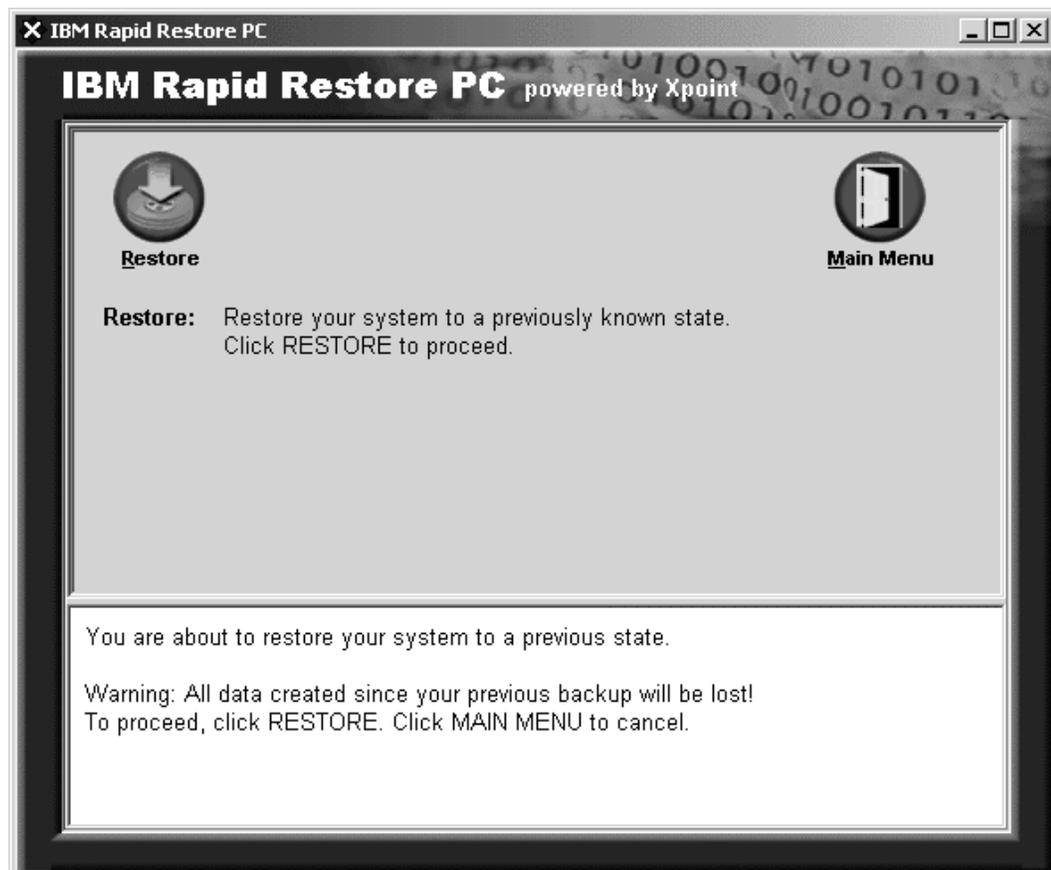
**WARNING:** To prevent errors when creating a CD please close all applications which may be running in the background.

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## Part 4. Backing up and Restoring Files

### Restoring a Backup from Windows

Press the restore button from the main interface and you will see the below screen allowing you to initiate a restore.



If more than one backup exists, a menu will be displayed allowing the user to select one of the backup sets. If only one backup exists, clicking restore from this screen will restore your system to the last backup created. Follow any prompts presented by the program. The machine will need to reboot when the restore process is complete for changes to take effect.

**Warning:** Performing a restore will DELETE all data on your hard disk which has changed since your last backup. This includes all documents, programs, and settings.

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## Part 4. Backing up and Restoring Files

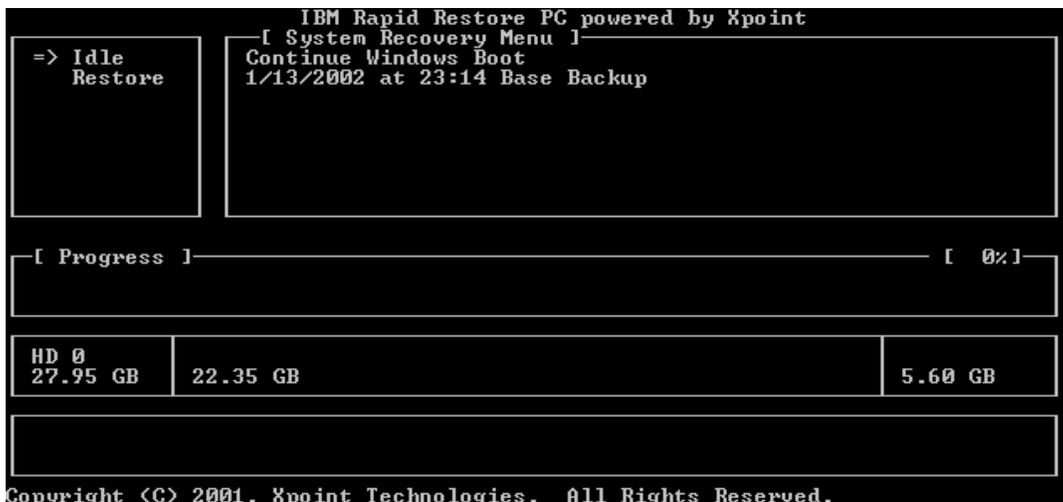
### Restoring a Backup using the F11 Option

This method of restoring a backup should be used if your computer will not boot completely to Windows. When you power on your computer, prior to the operating system loading, you should see a prompt asking you to press F11 to start the IBM recovery program.

Pressing the F11 key at this point will bring you to the Rapid Restore system recovery menu. This will allow you to restore backups which have been created using Rapid Restore. If your IBM computer has a disk to disk recovery process, you can also access the IBM recovery of your preloaded software by pressing the F5 key from the system recovery menu.

**Warning:** If you press F5 to access your factory preloaded disk to disk recovery, you will no longer be able to access your Rapid Restore backups. To resolve this you must uninstall and then reinstall Rapid Restore, losing ALL Rapid Restore backups you have created.

Once you have pressed F11 you see the system recovery menu. Use the up and down arrow keys on your keyboard to navigate to the backup of your choice, and press enter to begin restoring that image. If you entered this screen by mistake, choose the continue windows boot option.



```
IBM Rapid Restore PC powered by Xpoint
[ System Recovery Menu ]
=> Idle Restore
Continue Windows Boot
1/13/2002 at 23:14 Base Backup

[ Progress ] [ 0% ]

HD 0
27.95 GB 22.35 GB 5.60 GB

Copyright (C) 2001, Xpoint Technologies. All Rights Reserved.
```

If an incremental backup had been created, you would also see the option to restore that backup.

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## Part 4. Backing up and Restoring Files

### Restoring from CD-R

To restore from a service partition backup you've created on CD you'll be required to boot from your CD drive. Place CD 1 of your backup set in to the drive and power on your computer.

For information on booting from a CD-ROM, please refer to your computer documentation.

You will be prompted twice to confirm that you wish to continue with this process.

**Note:** This process will delete all data on your hard disk.

Once you have accepted these warnings the restore process will continue. You will be prompted for additional CDs if required during the restore.

```
IBM Rapid Restore PC powered by Xpoint
[ System Recovery Menu ]
Volume Set Created 2002/01/14 at 10:21:26
Processing volume 1...

Create Backup
=> Restore
Delete
Copy

[ Progress ] [ 45% ]

HD 0
27.95 GB

Copyright (C) 2001, Xpoint Technologies. All Rights Reserved.
```

The restore process will recover your service partition and then prompt you to reboot and choose a recovery image to restore. Please follow the prompts on screen carefully to ensure you complete the restore correctly.

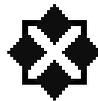
You must choose one of the backups to restore from the service partition to complete the restore process.

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## Part 4. Backing up and Restoring Files

### Restoring Individual Files

Restoring individual files is only supported in Windows ME, Windows 2000 and Windows XP. To begin, click on the advanced button from the main interface and choose single file restore, or open up the single file restore icon located in My Computer.



Single File Restore

After opening the single file restore option, you will be presented with an explorer window in which you can navigate through files which have changed since your initial backup.

You can drag files out of this window just as you would in any other windows folder.

Remember you can only restore files from the cumulative backup and most recent backup, not the full base backup.

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## Part 5. Troubleshooting and Known Issues

- The Single File Restore feature is not available on computers running Windows NT or Windows 98.
- Installing Rapid Restore PC on a computer running WindowsXP will disable fast user switching and the WindowsXP welcome screen. They can not be enabled after installation. Uninstalling the program will not resolve this issue.
- You can only use Single File Restore to restore files in the cumulative backup and most recent backup, and can not restore files that are in-use, active, or open. Active files may include documents you are working with, or any data you have open. Please close all applications to ensure that the restore process occurs without issue.
- A service partition can not be created if 4 primary partitions or 3 primary and 1 extended partition already exist on your hard disk.
- Windows 2000 assigned drive letters based on SCSI IDs for systems with SCSI hard disks. Rapid Restore PC must be installed on HD0. Make sure that the drive containing the operating system is set to the lowest SCSI ID.
- If you install Rapid Restore on an IBM machine which already has a disk to disk recovery, you can access that original preload recovery by pressing F11 on boot, and then pressing F5 on the Rapid Restore screen.

**Warning:** Once you have pressed F5 from the Rapid Restore F11 system recovery menu you will no longer be able to access the Rapid Restore backups, only the preloaded IBM image if one exists. To resolve this you must uninstall and then reinstall Rapid Restore, losing any Rapid Restore backups which you have created. This issue should be resolved in a future release of Rapid Restore PC.

- Do not use this software in conjunction with any other backup or utility software which modifies the master boot record. Any software which modifies the master boot record of your hard disk may render your backups inaccessible. Such software includes but is not limited to Roxio GoBack, System Commander, and PowerQuest BootMagic,

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## Part 5. Troubleshooting and Known Issues

- If running this software in a Windows NT/2000/XP environment, please login as a user with administrative privileges so you can access all files required during the backup process. When uninstalling the software, you must be logged in as an administrator.
- To restore a backup set from CD, your CD drive must be a supported boot option for the computer you are restoring.
- You should not be prompted for a serial number if installing this on an IBM computer for which the software has been licensed for. If you being prompt for a serial number on installation, you may be installing the software on a non-qualifying or non-IBM computer.

For a list of IBM machines for which this software is licensed on, please refer to <http://www.pc.ibm.com/qtechinfo/MIGR-4RZS2U.html>.

Users can purchase additional licenses for other machines from <http://www.xpointdirect.com>.

- You can only create a service partition on the first hard disk in the system. Backing up to a different hard disk, or network is only supported by the Pro version available for purchase from <http://www.xpointdirect.com>.
- Rapid Restore PC uses a kernel-mode device driver to back up open and locked files. This device driver must be uninstalled and reinstalled should a drive letter change. You must uninstall and reinstall Rapid Restore PC whenever a local drives drive letter changes. This means you will no longer be able to access existing backups.
- If a user is experiencing difficulty accessing the application from within Windows, they will need to uninstall and then reinstall the application. Please remember this process will remove any existing backups created by Rapid Restore PC.
- Rapid Restore PC can not be reinstalled over an existing version. The first version must be uninstalled prior to this operation.
- Rapid Restore PC provides advance alert messages for SMART hard drives. An error message may occur if a drive is failing or a partition is completely out of space. Please follow the instructions provided on screen if you should see such a message.

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## Part 5. Troubleshooting and Known Issues

- After installing IBM Rapid Restore and then attempting to write an image to your hard disk using an IBM recovery program, or a third party image utility, you may receive a message stating an error was found on your disk regarding the LBA and CHS values being different. If you are prompted to allow a fix of this error, be aware your Rapid Restore backups and service partition may no longer be accessible. (normally you can have it fixed automatically)
- Some of the error messages that may appear during the installation of Rapid Restore PC or while the program is trying to resize an existing service partition are:
  - a) The IBM service partition could not be created
  - b) There is insufficient space on the hard disk.

To resolve these messages you may attempt clear some space on your hard disk. Another option may be to install a second hard disk. RRPC will provide you the option to migrate all of your data from the first to the second drive so you can then remove the first drive. A third option when adding a second hard disk to your system is to upgrade (for a fee from <http://www.xpointdirect.com>) to the Pro version which will provide other backup configurations.

- IBM does not provide support on the Pro edition of Rapid Restore. Users which have upgraded will receive support from Xpoint and should contact them for assistance using the Pro edition.
- Rapid Restore PC is not able to resize extended partitions, only primary partitions.
- If a user uninstalls IBM Rapid Restore PC and chooses to leave the existing service partition, they can still access backups using the F11 option on boot. If they reinstall Rapid Restore PC the prior RRPC backups will no longer be available.

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## Part 5. Troubleshooting and Known Issues

- The speed of a backup will vary depending on the size and type of data being backed up, as well as the specific operation being performed. Do not run programs when creating a backup. Disabling any anti-virus programs temporarily may provide a boost of speed to your backup.
- An error message may occur if you attempt to empty the Recycle Bin or run FDISK while running Rapid Restore PC. If you receive this error message, close Rapid Restore PC and attempt the operation again.
- User accounts will be included in backup and restore operations. If you restore your system to a point when a user had a different password, or did not have a user account then that user will not be able to login.
- When encrypted data is restored from a computer running Windows 2000 or XP using NTFS, it is re-encrypted with the Administrator's keys. For users to view their files they will need to have the Administrator to have them decrypted. The user could then encrypt the data again themselves.
- If the Rapid Restore PC boot record is overwritten by another program and you need to restore that boot record please do the following:
  - a) Load a command prompt and change directory to  
C:\PROGRAM FILES\XPOINT\PE\DIAG
  - b) Run “..\pcrecsa bmgr /Fmgr.dat /D1”

Please note if another program modified the boot record, restoring it to the Rapid Restore PC boot record may cause this other program to function incorrectly. Please use caution when performing this functioning.

- If the CD-R Archive option is grayed out when attempting to create a backup set to CD-R media, one of the following is happening:
  - a) The customer may not have a CD-R device supported by Windows
  - b) The customer may require updated ASPI drivers which can be installed by running C:\ASPI\ASPI32.EXE and following the instructions presented on screen. This directory is created during the initial installation of this software.
- CD-RW media is not supported when creating a CD-R archive set. The integrity of a backup is very important and CD-RW media degrades after each use or can accidentally be erased.