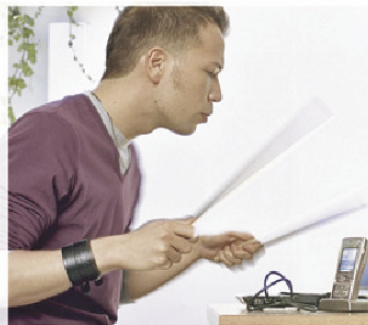


NOKIA N91



Nokia N91
Hard drive maintenance

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Hard drive maintenance

The purpose of this document is to help you to perform basic maintenance tasks such as defragmenting and scanning for errors with your compatible PC, as well as other hard drive maintenance and troubleshooting.



Note: Before doing any maintenance back up your hard drive data to a compatible computer.

Backing up and restoring data

There are four different ways to back up your data

- Device memory: Use Nokia PC Suite (this is especially important if you have digital rights management (DRM) protected content)
- Hard drive data: Using compatible PC and File Manager (Select Mass Storage mode and drag and drop your device hard drive contents to your compatible PC)
- Hard drive data: Using Apple Macintosh (Select Mass Storage mode and drag and drop your device hard drive contents on to, for example, your Mac desktop)

- Music on hard drive: If you want to back up only your music, you may also use Windows Media Player and synchronize the music.

When the hard drive is formatted, all data on the drive is permanently lost. Back up data you want to keep before formatting the hard drive. You can use Nokia PC Suite to back up data to a compatible PC. If your device needs to be repaired or replaced, a backup copy is required to restore data protected by digital rights management technologies (DRM).

Digital rights management technologies may prevent some backup data from being restored. Contact your service provider for more information about the DRM used for your content.



Note: In case your device is swapped, completely erased, or you have no copy of your License rights, it is recommended keep a list of all the purchased DRM protected content that you have. A copy of, for example, your credit card invoice is good proof of purchase in case you need to ask for your licenses back from the content provider.

Hard drive troubleshooting using your Nokia N91 device

With your Nokia device you can format the hard drive and back up your device's memory to hard drive. How to perform these tasks is described below.

- 1 To access hard drive tools with your Nokia device go to *Menu* (☰) > *My Own* > *Hard Drive*
- 2 Select *Options* > *Tools* (make sure your device is fully charged or plugged into a charger before performing any of the tasks below)

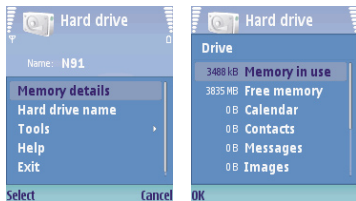


- 3 Format hard drive
Full format (normally takes >25 min) scans the drive for errors before formatting. Quick format (normally takes <1 min) deletes all the information from the disk without scanning the disk first. Use this option for a previously formatted disk, if you are sure the disk is not damaged.
- 4 Back up device memory to hard drive
- 5 Hard drive is shut down when:
 - Vibra is active
 - Operating temperature limits are reached (high of +70°C or a low of 0°C)
 - Device detects free fall
 - Back cover is removed

Checking Memory Usage

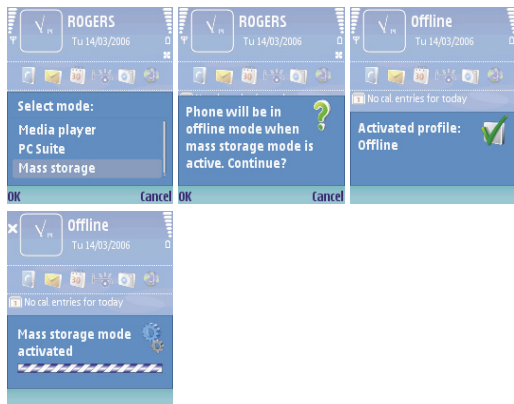
You can check the memory status of your Nokia device hard drive as follows:

- 1 Go to *Menu* () > *My Own* > *Hard Drive* to access hard drive Memory details with your Nokia device
- 2 Select *Options* > *Memory details* as shown below



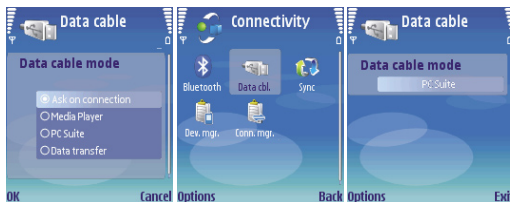
Hard drive troubleshooting using your compatible PC

Connect your Nokia N91 to your compatible PC using a DKE-2 USB cable. Once a connection is made the following screens will be displayed on the Nokia N91.



If the **Select Mode** menu does not appear when the cable is connected to your compatible PC, go to **Connectivity** and select the appropriate connectivity method.

- 1 To access Connectivity options with your Nokia device go to **Menu** (☰) > **Connect.** > **Data cbl.**
- 2 Select **Options** > **Change** and select **Ask on connection** as shown below.

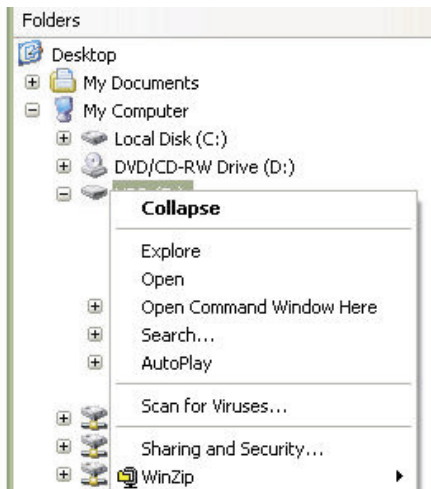


Before disconnecting the device from your PC be sure to eject it using **Safely Remove Hardware** (as shown below).



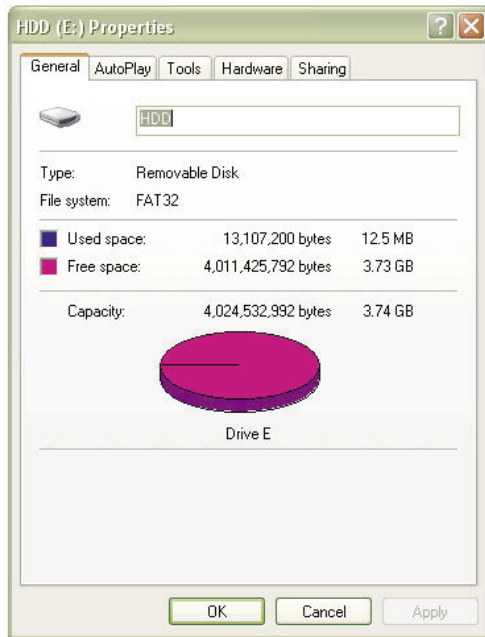
Accessing hard drive properties

You can access your Nokia N91 hard drive using either My Computer or Windows Explorer (shown below).



Select your Nokia N91 hard drive from the list of drives and right-click with your mouse on the Nokia N91 hard drive. Select "Properties" from the menu.

You should now see the Properties window for your Nokia N91 hard drive as shown below.



Tools tab

There are two tools available in the Tools tab.

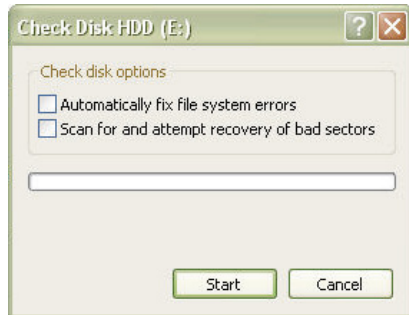
- Check Now...
- Defragment Now...



"Check Now" will scan the disk for errors and repair minor errors. "Defragment Now" will organize blocks so the drive will be faster to use.

To check your disk, select the "Check Now" option.

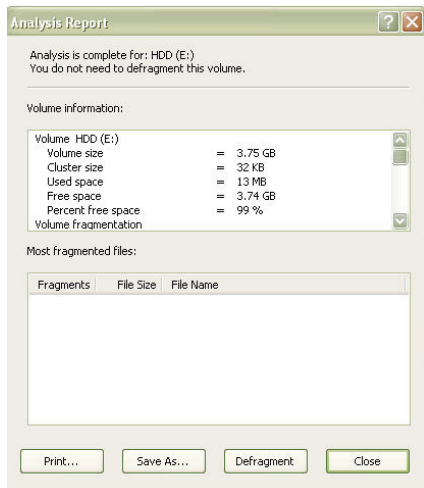
If you believe that there are problems with your hard drive, select the "Automatically fix file system errors" and the "Scan for and attempt recovery of bad sectors" options.



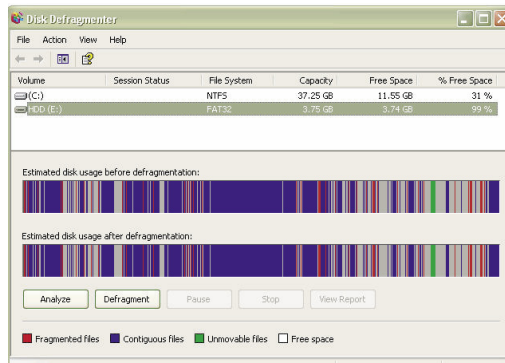
Tools tab

When selecting the "Defragment now" option, do the following:

- 1 Select "Defragment Now"
- 2 Choose your Nokia N91 hard drive from the list
- 3 Select "Analyze" if you wish to see whether there is necessary to defragment the drive

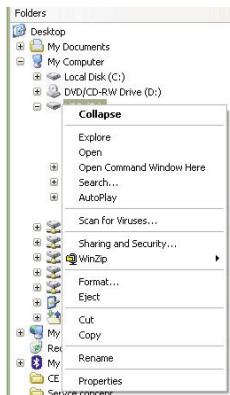



4 Select "Defragment" to defragment the drive



Formatting the disk

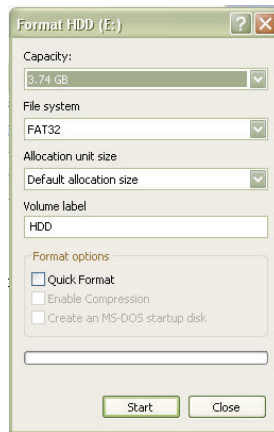
Although hard drive formatting is recommended with your Nokia device for best performance, you may also do it using a compatible PC. You can access your Nokia N91 hard drive with Windows using either My Computer or Windows Explorer (shown below).




 **Note:** Before formatting the hard drive, remember to make a backup of your hard drive. Follow the instructions on page 3.

Select your Nokia N91 hard drive from the list of drives and right-click on it. Select "Format" from the menu.

The following window is displayed.



 **Caution:** The file system must be FAT32. Otherwise, your Nokia N91 may not be able to access the drive anymore. Check the File system drop-down box.

Enter a name for your hard drive in the "Volume label" field.

In Format options, select "Quick Format". You cannot select any other options.

Hard drive Troubleshooting FAQ

Question

How do I service the hard drive on my Nokia device?

Answer

To monitor the amount of used and free disk space on the device hard drive, press the **Menu** key, and select **Tools > Hard Drive**.

To see how much disk space the different applications and data types use, select **Options > Memory details**.

To change the name of the hard drive, select **Options > Hard Drive name**.

Format the hard drive

The hard drive may be corrupted and need to be reformatted to become fully functional again. Formatting removes all the data from the hard drive.

Formatting the hard drive increases the demand on battery power and it is advisable not to use your device for anything else. Connect your device to a charger and keep the charger connected while your device formats the hard drive.

To format the hard drive, select **Options > Quick format** or **Full format**. Full format scans the drive for errors before formatting. Quick format deletes all the information from the disk without scanning the disk first. Use this option for a previously formatted disk and if you are sure the disk is not damaged.

When the hard drive is formatted, all data on the drive is permanently lost. Back up data you want to keep before formatting the hard drive.

There are three different ways to back up your device's hard drive data:

- Hard drive data: Using a compatible PC and File Manager (Select Mass Storage mode and drag and drop your device hard drive contents to your PC hard drive)
- Hard drive data: Using Apple Macintosh (Select Mass Storage mode and drag and drop your device hard drive contents to, for example, your Mac desktop)
- Music on hard drive: If you want to back up only your music, you may also use Windows Media Player and synchronize the music

If your device needs to be repaired or replaced, a backup copy is required to restore data protected by digital rights management technologies (DRM). To back up DRM licenses you need to back up your device memory using Nokia PC Suite.

Question

How do I format the hard drive on my Nokia N91?

Answer

To format the hard drive, press the **Menu** key, and select **Tools > Hard drive > Options > Quick format** or **Full format**.

Full format scans the drive for errors before formatting. Quick format deletes all the information from the disk without scanning the disk first. Use Quick format for a previously formatted disk and if you are sure the disk is not damaged.

When the hard drive is formatted, all data on the drive is permanently lost. Back up any data you want to keep before formatting the hard drive.

There are three different ways to back up your device's hard drive data

- Hard drive data: Using a compatible PC and File Manager (Select Mass Storage mode and drag and drop your device hard drive contents to your PC hard drive)
- Hard drive data: Using Apple Macintosh (Select Mass Storage mode and drag and drop your device hard drive contents to, for example, your Mac desktop)
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If your device needs to be repaired or replaced, a back up copy is required to restore data protected by digital rights management technologies (DRM). Digital rights management technologies may prevent some back up data from being restored. Contact your service provider for more information about the DRM used for your content.

Formatting the hard drive increases the demand on battery power and it is advisable not to use your device for anything else. Connect your device to a charger and keep the charger connected while your device formats the hard drive.



Note: To help maintain the optimal performance of your Nokia device, only format your hard drive using the device's own disk format option. Never partition the hard drive. If you format the hard drive of your Nokia device using a computer, do not use any other format than FAT 32 to format the drive.

Do not disconnect your Nokia device from your computer without stopping the device first or the hard drive may be damaged. You can stop the device by clicking the Safely remove hardware icon in your task tray.

Question

What should I do if the hard disk on my Nokia device makes unusual noises?

Answer

If the drive is making any loud, unusual noises such as clicking or grinding, the drive may be about to fail and may need to be replaced. Back up any sensitive data you want to keep while the drive is still operable.

To do this, connect your Nokia device to a compatible PC using either a USB cable or Bluetooth technology. If you are using the DKE-2 USB cable, select USB as the connection method. This method gives you total control of what you move and to where, but you cannot see all the file information. You may not be able to transfer material that has been protected against copying. Additionally, use Nokia PC Suite to back up the data in the device's memory, in case the device is replaced.

If the hard drive fails or if the noises persist, contact your nearest Authorized Service Center.

Question

What can I do if my Nokia device does not detect its own hard drive?

Answer

You may have run into a hardware problem.

If the hard drive is not recognized by the operating system or any device applications, there are a few things you may try out before contacting the nearest Authorized Service Center.

Try connecting your Nokia device to your compatible PC and run disk utilities. If the connection cannot be made (in other words, your PC does not recognize your Nokia device hard drive) then try to update your Nokia device software using Nokia Software updater, which can be found at <http://europe.nokia.com/> under the support section. If updating the software is successful, format your Nokia device hard drive.

TIPs to enhance the performance of your Nokia device

TIP 1: Do not set the hard drive as your "memory in use" for messaging (SMS, MMS). This affects messaging performance and battery life.

TIP 2:

Q: I turned my device off for charging and now my personal wallpaper/theme is no longer on the display. What has happened?

A: This may happen if you store your wallpaper on the hard drive of your N91. Use the device's memory to store wallpapers.

TIP 3: For optimal application performance, install applications and games in the device's memory instead of on the hard drive if possible .

TIP 4: If you receive an "Out of Memory" message when using some applications (for example, Web Browser) this is not related to the hard drive, but to the device's RAM. Ensure all applications not in use are closed.

TIP 5: If an application will not install or run on the hard drive remember it is an S60 third edition device, so old .SIS files may not work. Before you download/ buy an application, make sure that the application is compatible with an S60

third edition. You should also verify that it is made for the N91 as well to be sure.

TIP 6: Avoid interrupting the installation of programs on start up.

TIP 7: It may appear that the hard drive is running slowly when opening Gallery for the first time after loading a huge amount of content onto the hard drive or replacing the battery. Subsequent gallery access should be faster.

TIP 8:

Q: What can I do with my hard drive to prepare for a SW update?

A: If you are planning a SW update (with new or the same SW version). Note the following recommendations before proceeding:

- 1 Backup your device's memory using Nokia PC suite (to preserve your DRM activation keys, etc).
- 2 Copy your files (Music, Videos, Documents, Images etc) from the device's hard drive to a compatible PC (recommended to use USB Mass storage mode).

- 3 Copy your applications, themes (original SISX, Java etc files before you installed them) from your hard drive to compatible PC (do not simply copy the installed directories/files over).
- 4 Format your hard drive.
- 5 Proceed with the SW update.
- 6 Type in Idle mode *#7370# (default lock code is 12345). Following data will be deleted from your Nokia Nseries device:
 - Contacts
 - Media (Images, Videos, Music, etc)
 - DRM keys
 - Calendar entries
 - Installed applications
 - Saved E-mail, MMS, SMS
 - Access points
 - Themes
 - Call logs
 - Notes
 - Changes/additions to profiles
 - Changes to settings (idle keys, backlight timeout, etc)
 - Time/Date
- 7 Restore your device's memory using Nokia PC Suite.
- 8 Copy your hard drive contents from you compatible PC back to your clean hard drive.
- 9 Reinstall your applications/themes.
- 10 Use the proper installation of applications on your hard drive. Avoid copying installed applications (for example, the actual folders and files not the SISx file) from an MMC/SD to the hard drive.
- 11 Re-synch WMDRM files using MTP (this is the only way to get WM-DRM licenses on to the phone).

Shortly: Your Nokia Nseries device will be in the state it was in when it left the factory.