# JBBackup User Guide

## Version 1.6

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# Conventions

This guide uses the following text formats:

- Command buttons appear in all capitals. For example, tap OK.
- Menu, Dialog, and Pick List names appear capitalized. For example, the Options menu.
- Menu and Pick List items, and System prompts appear in quotations. For example, choose "Preferences" from the Options menu.
- References to other applications and other sections appear in italics. For example, see *About JBBackup™* on page 5.
- Notes appear in a smaller font. For example:

**Note:**    This is an example of a note.

# Table of Contents

# About JBBackup™

**JBBackup** is a powerful and flexible backup and compression utility that allows you to back up and restore data directly on your Palm™ handheld or appropriate remote storage device.

**JBBackup stores these backups on the handheld itself or the storage media attached to it—not the desktop**. If you experience a battery failure or hard reset, you can retrieve your data without needing to use the HotSync® function.

> **Note**:   Visors using the CompactFlash™ adapter might still require the HotSync® function. For information on why this is required, see *Restoring on the Visor with the CompactFlash* Adapter on page 30.

**JBBackup** allows you to create backups and/or archives of the following:

- the entire contents of memory by creating a "memory image" (on handhelds with external storage)
- all databases and applications on your handheld
- databases for the built-in applications, such as the Address Book, Date Book, Mail, Memo Pad, To Do List, and Expenses
- databases and applications that you select

You can back up selected files immediately, or schedule backups to occur at a particular time or repeating interval.

**JBBackup** understands that in Palm™ environments, storage space is valuable. To accommodate your storage needs, **JBBackup** allows you to do the following:

- choose to compress the backup
- archive data to free up RAM without deleting applications

Depending on the type of handheld you have and the storage capabilities available, you can create backups on a variety of different storage media including:

- Flash Memory
- SD/MMC Extension cards
- Handspring™ Visor Flash Springboard module
- Sony™ Clié Memory Stick
- CompactFlash™ card

> **Note**:   The amount of data you can back up will depend on the type of storage available for your handheld. For example, you can probably back up all your data on a SD Card, but the limited amount of free Flash space available makes it suitable for backing up only the most critical data and applications.

## How JBBackup Can Save Your Data

During installation, **JBBackup** is placed in the storage available for that device (Flash, SD/MMC etc). Suppose you schedule a repeating backup of your important data every night at midnight and your batteries fail before you have the opportunity to replace them.

Since all your backups and **JBBackup** itself are in storage, after you replace your batteries, you can immediately run **JBBackup** and restore the databases that you backed up without needing to use the HotSync® function.

> **Note**:   Visors using the CompactFlash™ adapters might still require the HotSync® function. For information on why this is required, see *Restoring on the Visor with the CompactFlash* Adapter on page 30.

For detailed information on how to retrieve your data after a hard reset or battery failure, see *Restoring After a Battery Failure or Hard Reset* on page 28.

## JBBackup Works in Conjunction with HotSync®

**JBBackup** allows you to back up your critical data so that if you are away from your desktop, you can instantly restore your data without needing to use the HotSync® function. However, **JBBackup** does not replace the HotSync® function.

The HotSync® function allows you to do the following:

- Back up data
- Install new applications
- Synchronize data between the Palm and PC
- Download web pages and email

Used in conjunction with the HotSync® function, **JBBackup** is an invaluable tool that will keep your critical data safe.

## Compatible Palm Handhelds

**JBBackup** is compatible with the following handhelds:

| Manufacturer | Handheld Computers |
| --- | --- |
| Palm | Palm™ m500, Palm™ m505, Palm™ III, Palm™ IIIc, Palm™ IIIx, Palm™ IIIxe, Palm™ V, Palm™ Vx, Japanese Palm™ Vx |
| IBM | WorkPad™ c3, WorkPad™ 20x, WorkPad™ 30x, WorkPad™ 50u, WorkPad™ 50J |
| Symbol | Symbol™ SPT |
| Handspring | Visor™ |
| Sony | Clié™ (300, 320, 500, 600, 610, 700, 710) |
| HandEra | TRGpro™, HandEra 330 |

### Compatible Flash Software

**JBBackup** is compatible with the following Flash software:

| JackFlash | Version 2.02 or later is supported |
|-----------|-------------------------------------|
| FlashPro | Version 1.09 or later is supported |
| | In order for **JBBackup** to read/write to the Flash, you must select the "Enable API" checkbox in the FlashPro preferences. |

# Backup Terminology

This section defines the terms used in this manual and describes the various storage devices available.

### What are Memory Images?

A memory image is a complete "snapshot" of the RAM memory of the device. Creating a memory image allows you to quickly create a comprehensive backup. For detailed information on memory images, see *Working with Memory Images* on page 24.

The ability to create a memory image is available only on handhelds that have an external storage that is the same size as, or larger than, the amount of RAM on the device. Currently, this capability is available only on the following handhelds:

- Palm m500 and m505
- Sony Clié (with Memory Stick)
- Handspring Visor (with Springboard or CompactFlash)
- HandEra TRGpro (with CompactFlash)
- Handera 330
- axxPac equipped Palm IIIx and IIIxe

### What are Backups and Archives?

Backup refers to making a copy of the application or database to the chosen storage device. The original remains in RAM and a copy exists in storage.

Archive refers to copying the application or database to the chosen storage device and removing the original from RAM. Only a copy exists in storage and you cannot use it until you restore it.

Archiving is useful if you need to keep a large application with you but do not need to access it frequently. For example, you may need to keep a large database file or a large reference manual. With **JBBackup**, you can keep a compressed archive in storage and uncompress it when you need to use it.

## What Storage Options are Available?

Storage refers to the internal or external location in which you create the backup or archive. Depending on the type of handheld and the storage options available, you can create backups in the following storage locations:

| Manufacturer | Handheld Computers | Available Storage |
|---|---|---|
| Palm | Palm™ III, Palm™ IIIc, Palm™ IIIx, Palm™ IIIxe, Palm™ V, Palm™ Vx, Japanese Palm™ Vx, Clie (most of the models) | Flash memory |
| Palm | Palm ™ m500, Palm™ m505, HandEra 330 | Flash memory Extension cards (SD/MMC) |
| IBM | WorkPad™ c3, WorkPad™ 20x, WorkPad™ 30x, WorkPad™ 50u, WorkPad™ 50J | Flash memory |
| Symbol | Symbol™ SPT | Flash memory |
| Handspring | Visor™ | Springboard Flash Module CompactFlash card adapter |
| Sony | Clié™ (all models) | Memory Stick |
| HandEra | TRGpro™, HandEra 330 | CompactFlash card |
| Palm | IIIx, IIIxe | Smart Media card, if equipped with an axxPac card |

This section describes the various internal and external storage options available.

### Flash Memory

There are two types of ROM memory used in Palm handhelds: Mask ROM and Flash ROM.

| Mask ROM | Flash ROM |
|---|---|
| Used by Palm™ IIIe, m100, m105, Clie (most of the models), and Handspring™ Visor | Used by all other Palm handhelds |
| Programmed at the factory level and cannot be modified | Programmed at the factory level, but with the exception of the Palm™ VII and most Japanese Palm™ handhelds, the operating system does not use all the Flash, and programs can modify it. |

### SD and MMC Extension Cards

The SD and MMC extension cards are removable mass storage devices that are compatible with Palm ™ m500, Palm™ m505 or HandEra 330 handhelds. These extension cards are available in capacities from 8MB to 256MB.

### Visor Springboard Flash Module

The Visor Plugin works with Handspring Flash modules (8/16MB), Hagiwara modules (8/16MB), and ThinModem+.

**JBBackup** is not compatible with the Backup module.

### Sony Clié Memory Stick

Sony makes several Memory Sticks that can add up to 128MB to your Clié handheld.

### CompactFlash Card

CompactFlash™ is a removable mass storage device. CompactFlash cards are designed with Flash technology and are available in capacities from 8MB to 192MB.

Currently, there are several Springboard CompactFlash adapters that allow you to use a CompactFlash card on Handspring handhelds.

> **Note**:    At this time, **JBBackup** supports only CompactFlash adapters
> for the Handspring Visor that use drivers provided by Kopsis
> Engineering Inc. A MemPlug compatible plugin will be available
> in the future.

The HandEra TRGpro handheld provides a slot for a CompactFlash card.

### SmartCard

SmartCards™ are removable mass storage devices similar with CF cards but much slimmer in size.

At this time JBBackup supports the axxPac™ SmartMedia adapter for Palm IIIxe devices from AMS™.

## About the Plugins

**JBBackup** provides the following plugins that correspond to the available storage options.

### VFS (Virtual File System) Plugin

The VFS plugin allows you to create backup on VFS compatible devices:

**VFSPlugin.prc**    The VFS plugin allows you to create backups and
archives on a Clié with a Memory Stick, and an m500
or m505 with a MMC or SD extension card.

### Flash Plugin

The Flash plugin allows you to store your backups and archives in Flash memory. There are three versions of the Flash plugin.

| | |
|---|---|
| **JFPlugin.prc (3K)** | This Flash plugin integrates with our **JackFlash** software and allows you to create backups and archives in Flash memory. This plugin installs if you currently have **JackFlash** installed on your handheld. |
| **FPPlugin.prc** | This Flash plugin allows **JBBackup** to create backups and archives in Flash written in FlashPro format. This plugin installs only if you currently have FlashPro installed on your handheld. |
| **JFPlugin.prc (36K)** | This Flash plugin allows you to create backups and archives in Flash. It should be installed if you do not have **JackFlash** or FlashPro on your machine. It is installed by JBBInstall.prc  which formats the Flash in a manner compatible with **JackFlash**. |

### CompactFlash Plugin

The following are the CompactFlash plugins:

| | |
|---|---|
| **TRGCFPlugin.prc** | This CompactFlash card plugin allows you to create backups and archives on the CompactFlash card for a HandEra TRGpro. |
| **VisorCFPlugin.prc** | This CompactFlash card plugin allows you to create backups and archives on a Handspring Visor with a CompactFlash card and adapter. |

### Visor Plugin

This is the Visor plugin:

| | |
|---|---|
| **VisorPlugin.prc** | The Visor plugin allows you to create backups and archives on Flash modules. The Visor Plugin works with Handspring Flash modules (8/16MB), Hagiwara modules (8/16MB), and ThinModem+. |

### axxPac Plugin

This is the axxPac SmartMedia plugin:

| | |
|---|---|
| **axxPlugin.prc** | The axxPac plugin allows you to create backups and archives on SmartMedia cards modules. The axxPac Plugin works with Palm IIIx and IIIxe devices equipped with the axxPac adapter |

# Installing/Updating/Uninstalling JBBackup

## Installing the plugins

Based on the device you are configuring you need to install the following from the distribution files:

| Handheld | Files and Location |
| --- | --- |
| Flash-compatible with **JackFlash** installed | **JBBackup** and Compression Library in Flash, JFPlugin (3K) in RAM. Make a backup copy JackFlash and JFPlugin using JBBackup. |
| Flash-compatible with FlashPro installed | **JBBackup** and Compression Library in Flash, FPPlugin in Flash. |
| Flash-compatible without Flash software installed | **JBBackup** and Compression Library in Flash, JFPlugin (36K) in RAM. See Using JBBInstall for more details. |
| Visor with Springboard | **JBBackup**, Compression Library, and VisorPlugin on the module |
| Visor with CompactFlash Adapter/card | **JBBackup**, Compression Library, and VisorCFPlugin in RAM. Copies of all the above should be stored on the CF to be able to recover after hard reset. |
| Clié with Memory Stick | **JBBackup**, Compression Library, and VFSPlugin in RAM. Copies of all the above should be stored on the Memory Stick to be able to recover after hard reset. |
| TRGpro/Handera with CompactFlash card | **JBBackup**, Compression Library, and TRGCFPlugin in RAM. Copies of all the above should be stored on the CF to be able to recover after hard reset. |
| Handera with SD/MMC card | **JBBackup**, Compression Library, and VFSPlugin in RAM, **JBBackup** in SD/MMC extension card. Copies of all the above should be stored on the SD/MMC to be able to recover after hard reset. |
| Palm IIIxe with axxPac SmartMedia Adapter | **JBBackup**, Compression Library, and VFSPlugin in RAM. Copies of all the above should be stored on the Smart to be able to recover after hard reset. |
| Palm m500, 505 with SD or MMC extension cards | **JBBackup**, Compression Library, and VFSPlugin in RAM. Copies of all the above should be stored on the SD/MMC to be able to recover after hard reset. |

**Note:**  All the necessary files can be found in the distribution archive under their respective folder in the Plugins directory.

## Using JBBInstall

Installing/updating the native Flash plugin involves installing and running the **JBBackup** installer (JBBInstall.prc) and JackSafe.prc:

1.  Use the Install Tool to install JBBInstall.prc on your Palm Desktop.

2.  Use the HotSync® function to make JBBackup.prc and JakSafe.prc available on your Palm handheld.

3.  Tap the JackSafe icon to run install the hard reset recovery code in the Flash.

4.  Once JackSafe is installed, you can safely delete it from RAM.

5.  Tap the JBBInstall icon to run the **JBBackup** installer. A confirmation window appears.

6.  Tap INSTALL JBBACKUP. If the installer detects a previous version of **JBBackup** on the handheld, the button displays UPDATE JBBACKUP.

7.  Once **JBBackup** is installed, you can safely delete the **JBBackup** installer (JBInstall.prc) from RAM.

> **Note:**   If you receive an error message that states you must run RemoveFP, you must install and run RemoveFP.prc before you can continue with the installation. For more details, refer to ***Error! Not a valid bookmark self-reference.*** on page 11.

## Using RemoveFP

**JackSafe** is not compatible with files that have been stored in Flash by InstallPro. Several companies use InstallPro to move their software into Flash during installation. The current examples of this are: OmniSky, BackupBuddy Software, and Palm devices purchased with Hebrew support preinstalled.

RemoveFP moves these files to RAM and configures the handheld so that **JackSafe** can access the Flash. Software originally installed by InstallPro will continue to work correctly after being moved to RAM.

RemoveFP.prc is in the RemoveFP subdirectory of the **JBBackup** folder.

To use RemoveFP:

1.  Use the Install Tool to install RemoveFP.prc on your Palm Desktop.

2.  Use the HotSync® function to make the application available on your handheld.

3.  Tap the RemoveFP application icon. RemoveFP displays the procedure it will follow to remove FlashPro libraries from your handheld.

4.  Tap REMOVE FLASHPRO. RemoveFP confirms that you have FlashPro-format files installed.

5.  RemoveFP examines the Flash area of your Palm handheld:

- If you have files stored in Flash, RemoveFP displays these files in a list. Tap PROCEED to copy these files to RAM.

OR

- RemoveFP indicates that you do not have files stored in Flash. Tap REMOVE FLASHPRO to remove FlashPro support.

6. Tap RESET to reset your handheld.

7. Tap START HOTSYNC to back up the files that used to be in Flash.

8. Delete RemoveFP from your handheld.

## Removing JBBackup

To remove **JBBackup**:

1. Delete all the files related to JBBackup from RAM: JBBackup, JBViews and any plugins found. (The JckB creator ID identifies the files.)

2. Delete all the files related to JBBackup from the storage.

# Getting Started

This section describes how to get started using **JBBackup**.

## Opening JBBackup

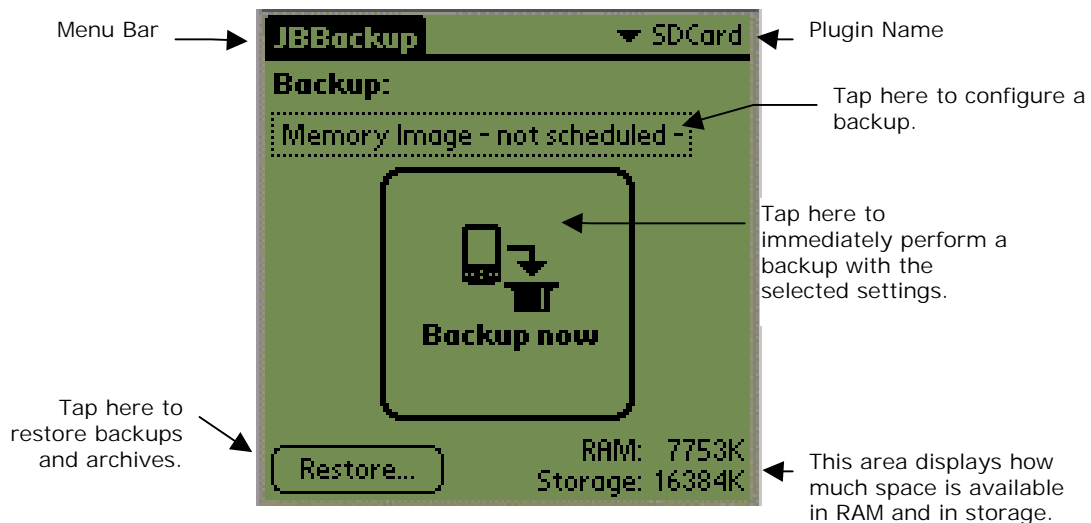To start **JBBackup**:

- Tap the **JBBackup** application icon.

## About the JBBackup Interface

**JBBackup** contains two major screens:

- The Main screen allows you to immediately back up and restore data with the touch of a button.
- The Advanced screen allows you to create archives, and restore and delete backed up data.

### Main Screen

When you open **JBBackup**, a Main screen similar to the following appears:



Menu Bar

Plugin Name

Tap here to configure a backup.

Tap here to immediately perform a backup with the selected settings.

Tap here to restore backups and archives.

This area displays how much space is available in RAM and in storage.

The Main screen contains the following items:

| Item | Description |
| --- | --- |
| Menu Bar | To display menu options, tap the Menu icon. For more information on menu options, see *About the Menu Options* on page 18. |
| Plugin Name | This area displays the current storage plugin for your handheld. If applicable, tap the pick list to choose a plugin. For more information on plugins, see *About* the Plugins on page 9. |

| Item | Description |
|------|-------------|
| Backup: | This area displays the configuration you have selected for your backup. |
| | Tap this area to do the following: |
| | • choose which databases to back up |
| | • choose to create a memory image |
| | • choose file compression options |
| | • schedule a backup for a certain time or repeating interval |
| | For more information on configuring your backup, see *Configuring a Backup* on page 20. |
| Backup Now Button | Tap this button to immediately perform a backup based on your configured backup settings. |
| Restore... Button | Tap this button to restore backups and archives. For more information, see *Restoring Backups and Archives* on page 27. |
| RAM: Storage: | This area displays how much space is available in RAM. Storage refers to the memory available on the currently selected storage device. When you back up your data, this display updates. |

### Advanced Screen

When you choose "Advanced" from the Backup menu, a screen similar to the following appears:
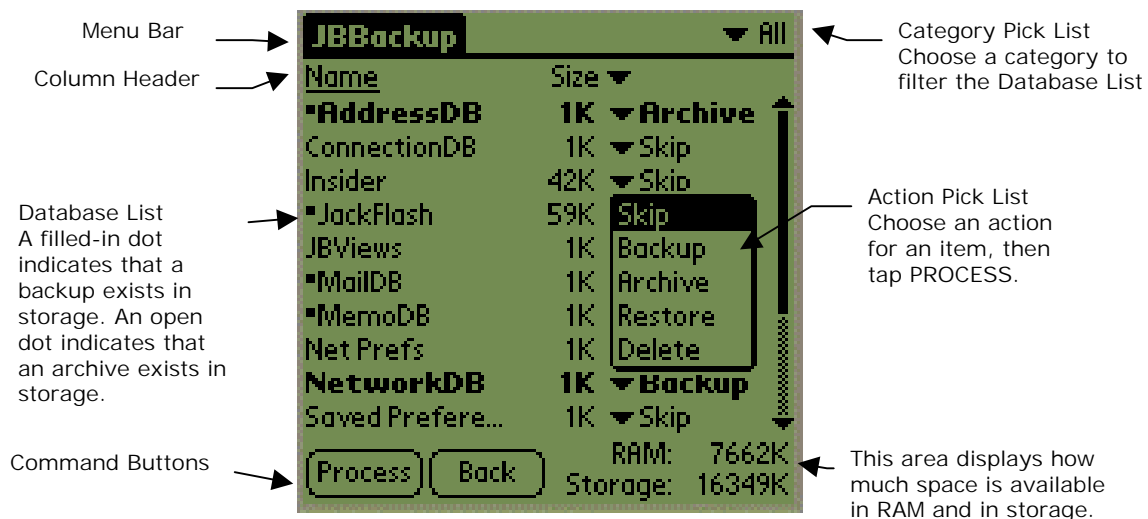


The Advanced screen contains the following items:

| Item | Description |
|------|-------------|
| Menu Bar | To display menu options, tap the Menu icon. For more information on menu options, see *About the Menu Options* on page 18. |
| Database List | This list displays the applications and databases installed on your Palm handheld. This list is filtered based on the selected category. |

| Item | Description |
|---|---|
|  | If you have created a backup or archive of the application or database, a dot appears to the left of the item's name. A filled-in dot indicates a backup and an open dot indicates an archive. |
|  | If your current backup configuration is for a memory image, the Database List displays the contents of the image. |
| **Action Pick List** | Tap the Action Pick List next to the selected item to do one of the following: |
|  | • Choose **Skip** to skip the item and not process it. |
|  | • Choose **Backup** to create a copy (a backup) of the item in storage. |
|  | • Choose **Archive** to create a copy of the item in storage and delete the original. For more information about creating archives, see *Creating Archives* on page 31. |
|  | • Choose **Restore** to restore the item from the backup or archive in storage. This option appears only if a backup or archive of the item exists in storage. For more information about restoring, see *Restoring Backups and Archives* on page 27. |
|  | • Choose **Delete** to delete the copy in storage. The original in RAM is not deleted. This option appears only if a backup or archive exists in storage. |
|  | When you select an action, the item's name becomes bold to indicate a change in status. |
|  | If **JBBackup** is in "image mode", the only options available on this list are "Skip" and "Restore". For more information about Image Mode, see *Working with Memory Images* on page 24. |
| **Process Button** | After you choose an action from the Action Pick List for one or more items, tap **Process** to perform the selected action(s). |
| **Back Button** | Tap **Back** to return to the Main screen. |
| **Category Pick List (Viewing Filters)** | Tap the Category Pick List to filter the Database List by the following categories: |
|  | • Choose **All** to view all applications and databases on your Palm handheld. |
|  | • Choose **Apps** to view all applications on your Palm handheld. |
|  | • Choose **DBs** to view all databases on your Palm handheld. |
|  | • Choose **Backups** to view only the backed up applications and databases in storage. |
|  | • Choose **Archives** to view only the applications and databases that you have archived. (The original has been removed and a backup exists in storage only.) |
|  | • Choose **Backups & Archives** to view only |

| Item | Description |
|---|---|
|  | the items for which a backup or archive exists in storage. |
|  | A filled-in dot to the left of the item's name indicates that a backup of this item exists in the selected storage. An open dot indicates that an archive of this item exists in the selected storage. |
| Column Header | Tap the Name Column Header to sort the Database List by Name. Tap the Size/Type/Creator/Archive Size Column Header to sort by the current setting. |
|  | By default, the second column displays size. To view type, creator or archive size, choose the appropriate item from the Column Pick List. |
|  | The column that is the current sort criterion appears underlined. |
|  | To reverse the sort, tap the Column Header again. |
| RAM:<br>Storage: | This area displays how much space is available in RAM. Storage refers to the memory available on the storage associated with the currently selected plugin. The totals update when you select items. |

## About the Menu Options

The Main screen and Advanced screen display different menu options. The Backup menu on the Main screen contains the following options:

| Item | Description |
|---|---|
| Configure | Select this option to configure the following backup options:<br><br>• choose which databases to backup<br>• choose to create a memory image<br>• choose file compression options<br>• schedule a backup for a certain time or repeat interval<br><br>For more information on configuring a backup, see *Configuring a Backup* on page 19. |
| Advanced | Select this option to access the Advanced screen. For more information about advanced backup options, see *Advanced Backup Options* on page 30. |
| Log | If an error occurs during a backup, **JBBackup** records it in a log file. Select this option to view the log file. For more information, see *Viewing and Correcting Log File Error Messages* on page 34. |

The Image menu on the Main screen contains the following options:

| Item | Description |
|---|---|
| Delete | Select this option to delete the memory image in storage. For more information, see *Deleting a Memory Image* on page 25. |
| Restore | Select this option to restore the entire memory image to RAM. For more information, see *Restoring a Memory Image* on page 25. |

**Note**:    The Image menu appears only if you have configured **JBBackup** to create a memory image. For more information about configuring a backup, see *Configuring a Backup* on page 20.

The Options menu contains the following options:

| Item | Description |
|---|---|
| Preferences | Select this option to customize the way in which **JBBackup** operates when restoring databases and performing scheduled operations. For more information on setting preferences, see *Setting Preferences* on page 26. |
| Help | Select this option to view a help screen. |
| About JBBackup | Select this option to view which version of **JBBackup** you have installed on your handheld. |
| Log | This menu option appears on the Advanced screen. If an error occurs during a backup, **JBBackup** records it in a log file. Select this option to view the log file. For more information, see *Viewing and Correcting Log File Error Messages* on page 34. |

The Selections menu on the Advanced screen contains the following options:

| Item | Description |
|---|---|
| Backup All | Select this option to create a backup of all items. |
| Archive All | Select this option to archive all applicable items. |
| Restore All | Select this option to restore all backed up and archived items. |
| Delete All | Select this option to delete all backups and archives in storage. |
| Skip All | Select this option to skip all. |

# Creating Backups and Archives

This section describes how to back up your data with **JBBackup**.
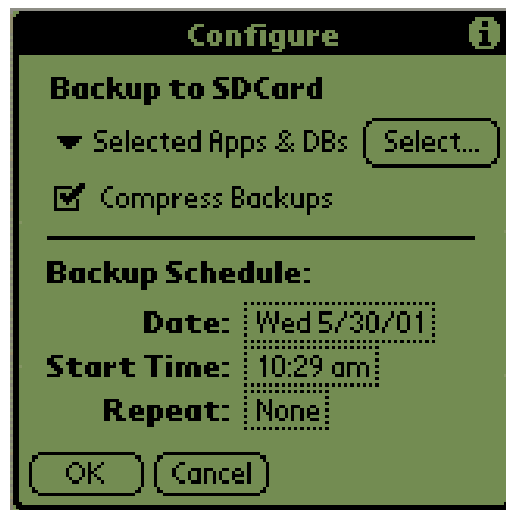
## Configuring a Backup

To configure a backup:

1. Tap the dotted box underneath the word Backup: on the Main screen.

   OR

   Tap the Menu icon and choose "Configure" from the Backup menu.

   A Configure dialog similar to the following appears:

   ```
   Configure                          ⓘ
   Backup to SDCard
     ▼ Selected Apps & DBs  [ Select... ]
     ☑ Compress Backups
   ─────────────────────────────────
   Backup Schedule:
          Date:  Wed 5/30/01
    Start Time:  10:29 am
        Repeat:  None
   [ OK  ] [ Cancel ]
   ```

2. Tap the appropriate pick list item to select which databases you want to back up:

| Choose: | To do the following: |
|---|---|
| Backup All Apps & DBs | Back up all applications and databases installed on your handheld. If you are backing up to Flash memory, you will likely not have enough space to back up everything. Instead, choose "Backup Selected Apps & DBs" and choose your most important items. |
| Backup Built-in DBs | Back up the databases for the applications that are built-in to the operating system of your handheld. These include the Address Book, Date Book, Mail, Memo Pad, To Do List, and Expenses databases. |
|  | This is the default setting on |

| Choose: | To do the following: |
|---|---|
| | handhelds without memory image capability. |
| Backup Selected Apps & DBs | Back up databases that you select. |
| | When you choose this item, a SELECT... button appears to the right of the pick list. Click this button to select databases. |
| | For detailed information on selecting databases to back up, see *Backing Up Selected Databases* on page 21. |
| Memory Image | Create a memory image of the entire contents of RAM. This is the default setting for handhelds with memory image capability. |
| | For more information about memory images see *Working with Memory Images* on page 24. |

3. To compress your backup, tap the "Compress Backups" checkbox. Compression is an optional setting. Depending on the type of files you choose, compression can decrease file size by approximately 30-50%.

   **Note**:     This checkbox does not appear if you have selected "Memory Image" in step 2.

4. Schedule a backup, if desired. Scheduling is an optional setting.

   To schedule a backup, select the appropriate options in the "Date", "Start Time", and "Repeat" fields.

   **Note**:     For detailed information on scheduling a backup, see *Scheduling Backups* on page 22.

5. Tap OK to accept the new backup configuration. You return to the Main screen. The settings you selected appear in the "Backup:" area of the Main screen.

   **Note:**     To immediately perform a backup on the Main screen, tap BACKUP NOW.

## Backing Up Selected Databases

To select databases to back up:

1. On the Main screen, tap the dotted box underneath the word "Backup:". The Configure dialog appears.

2. Choose "Selected Apps & DBs" from the Pick List. A SELECT... button appears to the right of the Pick List.

3.  Tap SELECT… A screen similar to the following appears:
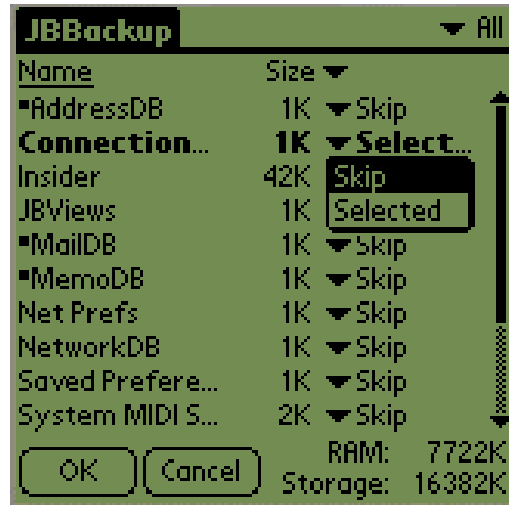


4.  For each application or database you wish to back up, tap the pick list next to the application or database name and choose "Selected". The item you selected appears in bold.

    **Note:**   Sort the list by "Creator" to find the databases for a particular application.

    If a backup of the item exists in storage, a filled dot appears to the left of the item's name. Changing the option from "Selected" to "Skip" means that you no longer want to back up the item. If you choose to "Skip" an item for which a backup exists, **JBBackup** confirms that you also want to delete the existing backup.

5.  When you finish selecting items, tap OK to return to the Configure dialog.

    **Note:**   Tap CANCEL to return to the Configure dialog without changing the selection for applications or databases.

## Scheduling Backups

To schedule a backup:

1.  On the Main screen, tap the dotted box underneath the word "Backup:". The Configure dialog appears.

2.  Set the date:
    *   Tap the "Date" field. The Set Date dialog appears.
    *   Tap the appropriate month and day, or press TODAY.

    You return to the Configure dialog. The "Date" field displays the date you selected.

3.  Set the time:

- Tap the "Set Time" field. The Set Time dialog appears.
- Tap the hour and/or minute boxes and then tap (or press to scroll) the up or down arrows to select the time.
- Tap the AM or PM button.
- Tap OK.

You return to the Configure dialog. The "Set Time" field displays the time you selected.

4. Set a repeat interval, if desired:

- Tap the "Repeat" field. The Change Repeat dialog appears.
- Tap the appropriate repeat interval: hourly, daily, or weekly and then select the hour(s), day(s), or week(s) of the repeat.
- Tap OK.

You return to the Configure screen. The "Repeat" field displays the repeat interval you selected.

5. Tap OK to close the Configuration dialog and return to the Main screen.

When the scheduled backup is ready to occur, a Reminder dialog similar to the following appears:
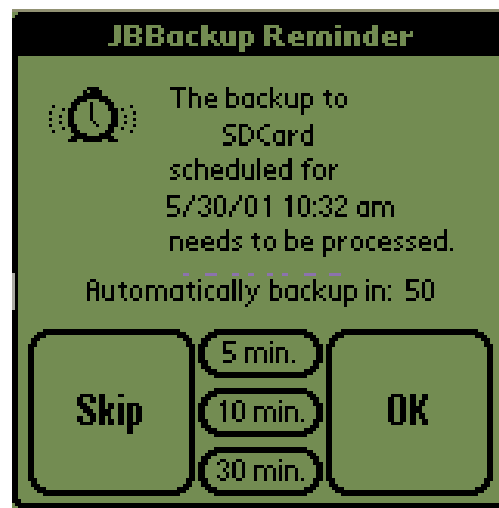


When this dialog appears, you can do one of the following:

- If you want to perform the backup immediately, tap OK.
- If you want to cancel the backup, tap SKIP.
- If you are in the middle of a task and want to perform the backup later, tap the appropriate minute button to make the Reminder dialog reappear in 5, 10, or 30 minutes.

**Note:** If you do not tap any buttons, the Reminder dialog counts down for one minute and then automatically performs the backup.

## Performing Backups

The Main screen allows you to perform an immediate backup at the touch of a button.

To immediately perform a backup:

- Tap BACKUP NOW.

  **JBBackup** performs a backup based on the settings you have configured for the currently selected storage plugin. These settings appear under "Backup:" at the top of the Main screen.

  **Note**:   Tapping BACKUP NOW does not affect any backups you have scheduled. They will still occur at the scheduled time.

When **JBBackup** creates a backup in storage of an item, a filled-in dot appears to the left of the item's name in the Database List on the Advanced and Selection screens. If you have not configured backup options, **JBBackup** backs up with the following default settings:

- Backup built-in databases on non-image-capable handhelds
- Backup memory image on image-capable handhelds
- Compression enabled
- No backup scheduled

For more information on configuring and scheduling a backup, see *Configuring a Backup* on page 20.

## Working with Memory Images

To quickly create a comprehensive backup of a handheld, you can create a memory image. A memory image is a complete "snapshot" of the RAM memory of the handheld.

Using a memory image to back up a handheld is much faster than backing up all files individually because the operating system treats the backup as one large operation instead of many small backup operations.

   **Note**:   Currently, you can save only one image backup.

### Creating a Memory Image

The ability to create a memory image is available on handhelds that have an external storage device that is the same size as, or larger than, the amount of RAM on the handheld. Currently, this capability is available only on the following handheld computers:

- Palm m500, m505
- Sony Clié (with Memory Stick)
- Handspring Visor (with Springboard or CompactFlash card)
- HandEra TRGpro (with CompactFlash card)

To create a memory image:

1. On the Main screen, tap the dotted box underneath the word "Backup:". The Configure dialog appears.

2. Choose "Memory Image" from the Backup pick list.

3. Tap OK. The Main screen appears. **JBBackup** is now in "image mode".

   **Note**:    In image mode, the Advanced screen displays the contents of the image in storage, not the contents of RAM on the handheld.

4. Tap BACKUP NOW. **JBBackup** creates a memory image in storage.

   **Note**:    Only one memory image can exist in storage. If a memory image already exists, **JBBackup** overwrites it.

### Deleting a Memory Image

To delete a memory image:

- From the Main screen, choose "Delete" from the Image menu.

### Restoring a Memory Image

The following procedure describes how to restore the entire memory image. For information on restoring only individual files from the image, see *Restoring Backups and Archives* on page 27.

   **Note**:    If you choose to restore the entire image, **JBBackup** replaces the entire contents of RAM with the memory image, overwriting the original contents of RAM. Be certain that you wish to do this.

To restore the memory image:

1. From the Main screen, choose "Restore" from the Image menu.



2. A confirmation window appears. Tap OK. **JBBackup** restores the image and then resets the handheld.

## Setting Preferences

You can customize the way in which **JBBackup** operates by setting preferences.

To set preferences:

1.  Tap the Menu icon.

2.  Choose "Preferences" from the Options menu to open the Preferences dialog.

3.  Choose the appropriate pick list item to select whether you want **JBBackup** to always overwrite, never overwrite, or ask to overwrite existing databases when restoring.

4.  Choose the appropriate pick list item to select whether you want **JBBackup** to delete an existing database in RAM before or after restoring the backup.

| Option | Description |
|---|---|
| Delete Existing After Restoring | This is the default setting. You delete the original after restoring so that if an error occurs while restoring, the original remains intact. |
| Delete Existing Before Restoring | This setting is useful if you are working with a large file and you do not have enough space in RAM for both the original and the restored backup. |

5.  If the "Check if selection fits on target" checkbox is selected, **JBBackup** issues a warning if the space available in storage is less than the uncompressed size of what you have selected to back up.

    **Note**:     The warning appears only during an immediate backup; it does not appear during a scheduled backup.

    If you deselect this checkbox, **JBBackup** performs the backup and will not issue a warning. **JBBackup** records any items that did not fit in storage in the log file.

6.  If you would like an alarm to sound when the Reminder dialog appears, tap the checkbox to enable alarm sounds. The Reminder dialog appears to confirm a scheduled backup. For more information on scheduling a backup, see *Scheduling Backups* on page 22.

7.  Tap OK to accept the new preferences.

# Restoring Backups and Archives

Restoring involves copying the backup or archive from storage back into RAM.

> **Note:**   When restoring, the copy in storage remains. For more information on deleting backups and archives, see *Deleting Backups and Archives* on page 34.

The following procedure describes how to restore individual files. On handhelds that have memory image capabilities, use the following procedure to restore individual files from the memory image. For information on restoring the entire memory image, see *Restoring a Memory Image* on page 25.

To restore a backup or archive:

1.   Tap the RESTORE… button on the Main screen. A Restore screen similar to the following appears:
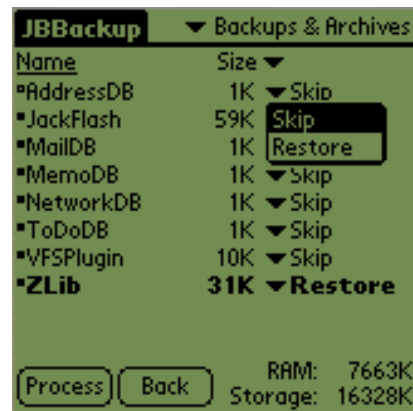


2.   For each item you wish to restore, tap the pick list next to the item's name and choose "Restore". The item you selected appears bold.

3.   Tap PROCESS.

> **Note**:   If you have configured **JBBackup** to warn you when restoring over an existing database, a confirmation window appears. Tap YES or YES ALL to continue.

**JBBackup** copies the item from storage back into RAM.

> **Note:**   If there is not enough room in RAM for the item, a warning message appears. Free up space in RAM and then attempt to Restore again.

If you have selected the "Backups & Archives" viewing filter, and you restore an archive, the dot changes from open to filled-in.

If you have selected the "Archives" viewing filter, the item name disappears from the list. A copy of the item still exists in storage,

but because it also now exists in RAM, **JBBackup** considers the item to be a backup rather than an archive.

If you are restoring a backup rather than an archive, that is, the item you are restoring already exists in RAM, the stored copy may overwrite the copy in RAM based on what you have selected in the Preferences dialog.

> **Note:** If an error occurs during a restore, an alert appears. For more information about error messages, see *Possible Errors and System Messages* on page 37.

4. When you have finished restoring, tap BACK to return to the Main screen.

# Restoring After a Battery Failure or Hard Reset

This section describes how to immediately retrieve your information if you experience battery failure or a hard reset. After you have replaced the batteries, refer to the following sections for instructions.

## Restoring on the Palm m500 and m505

To restore on the Palm m500 and m505:

1. Use a file manager of your choice to copy **JBBackup, ZLib and VFSPlugin** from the extension card to RAM.

2. Run **JBBackup**.

> **Note**: To restore from an image backup, choose "Restore" from the Image menu on the Main screen. For detailed instructions, see *Restoring a Memory Image* on page 25. To restore individual files from the memory image, proceed to step 4.

3. Tap the RESTORE... button on the Main screen and then select which files you wish to restore on the Restore screen.

> **Note**: For detailed information on how to restore individual backups and archives, see *Restoring Backups and Archives* on page 27.

## Restoring on Palm, IBM, and Symbol Handheld Computers (devices with Flash)

To restore on Palm, IBM, and Symbol handheld computers:

1. Run **JBBackup**.

2. **JBBackup** installs into Flash. The first time you run **JBBackup** after a hard reset or battery failure, **JBBackup** looks for a backup of the Flash software in Flash and automatically restores it.

> **Note**: To restore from an image backup, choose "Restore" from the Image menu on the Main screen. For detailed instructions, see

*Restoring a Memory Image* on page 25. To restore individual
files from the memory image, proceed to step 2.

2.   Tap the RESTORE... button on the Main screen and then select
     which files you wish to restore on the Restore screen.

   **Note**:   For detailed information on how to restore individual backups
             and archives, see *Restoring Backups and Archives* on page 27.

## Restoring on the TRGpro

To restore on the HandEra TRGpro:

1.   Copy **JBBackup, ZLib and TRGCFPlugin** to RAM using a file
     manager of your choice.

2.   Run **JBBackup**.

   **Note**:   To restore from an image backup, choose "Restore" from the
             Image menu on the Main screen. For detailed instructions, see
             *Restoring a Memory Image* on page 25. To restore individual
             files from the memory image, proceed to step 2.

3.   Tap the RESTORE... button on the Main screen and then select
     which files you wish to restore on the Restore screen.

   **Note**:   For detailed information on how to restore individual backups
             and archives, see *Restoring Backups and Archives* on page 27.

## Restoring on the Sony Clié

To restore on the Sony Clié:

1.   Run MSGate or a file manager of your choice.

2.   Copy **JBBackup, ZLib and VFSPlugin** to RAM.

3.   Run **JBBackup**.

   **Note**:   To restore from an image backup, choose "Restore" from the
             Image menu on the Main screen. For detailed instructions, see
             *Restoring a Memory Image* on page 25. To restore individual
             files from the memory image, proceed to step 5.

4.   Tap the RESTORE... button on the Main screen and then select
     which files you wish to restore on the Restore screen.

   **Note**:   For detailed information on how to restore individual backups
             and archives, see *Restoring Backups and Archives* on page 27.

## Restoring on the Visor with the Springboard Module

1.   Run **JBBackup**.

   **Note**:   To restore from an image backup, choose "Restore" from the
             Image menu on the Main screen. For detailed instructions, see

*Restoring a Memory Image* on page 25. To restore individual files from the memory image, proceed to step 2.

2. Tap the RESTORE... button on the Main screen and then select which files you wish to restore on the Restore screen.

   **Note**:   For detailed information on how to restore individual backups and archives, see *Restoring Backups and Archives* on page 27.

## Restoring on the Visor with the CompactFlash Adapter

In order to access the CompactFlash card, you need the following files from Kopsis Engineering: FALib.prc and FAFileMover.prc. These files exist in RAM, so they will not survive a hard reset in the caseof older card adapters. Because of this limitation, in order to restore on a Visor with the CompactFlash adapter, you do need to use the HotSync® function to restore these files before you can restore your data. You can skip steps 1. and 2. if you won a FlashPlus adapter.

   **Note**:   FALib.prc and FAFileMover.prc come with the CompactFlash adapter and are not included with the **JBBackup** distribution. For information on how to obtain the latest version of these files, **click here**.

To restore on the Visor with the CompactFlash adapter:

1. Use the Install Tool to install FALib.prc and FAFilemover.prc on your Palm Desktop.

2. Use the HotSync® function to make the application available on your Palm handheld.

1. Use FAFileMover to copy the **JBBackup**, **ZLib** and **VisorCF** into RAM

2. Run **JBBackup**.

   **Note**:   To restore from an image backup, choose "Restore" from the Image menu on the Main screen. For detailed instructions, see *Restoring a Memory Image* on page 25. To restore individual files from the memory image, proceed to step 8.

3. Tap the RESTORE... button on the Main screen and then select which files you wish to restore on the Restore screen.

   **Note**:   For detailed information on how to restore individual backups and archives, see *Restoring Backups and Archives* on page 27.

## Restoring on a Palm equipped with axxPac

To restore on an axxPac equipped device:

4.  Copy **JBBackup, ZLib and axxPacPlugin** to RAM using the axxPac file manager.

5.  Run **JBBackup**.

    **Note**:   To restore from an image backup, choose "Restore" from the Image menu on the Main screen. For detailed instructions, see *Restoring a Memory Image* on page 25. To restore individual files from the memory image, proceed to step 4.

6.  Tap the RESTORE... button on the Main screen and then select which files you wish to restore on the Restore screen.

    **Note**:   For detailed information on how to restore individual backups and archives, see *Restoring Backups and Archives* on page 27.

# Advanced Backup Options

This section describes how to work with **JBBackup's** advanced features. These include:

*   creating archives
*   restoring backed up information
*   deleting backups and archives
*   viewing backup log files

## Creating Archives

In addition to creating backups, you can also use **JBBackup** to create archives. When you create a backup, you place a copy of the original in storage. To create an archive, you copy the original to storage and then remove it from RAM. You create archives on the Advanced screen.

**Note**:   You cannot create individual backups and archives when you have configured **JBBackup** to back up memory images. Change the entry in the Backup pick list on the Configure screen to an option other than "Memory Image". For information on configuring a backup, see *Configuring a Backup* on page 20.

Archiving applications and databases is useful in the following situations:

*   You need to keep a large application or database on your handheld but you do not need to use it frequently
*   You do not have enough room in RAM to fit all the applications but you do not want to delete anything on your handheld

For example, you may need to keep two large reference databases (such as a dictionaries) on your handheld but you only have enough room in RAM for one. You can use **JBBackup** to create a compressed archive of one database in Flash to free up the RAM. You can then load the other database. When you need to access the archived database, you can archive other applications and databases to free up RAM and then restore the archived database.

To create an archive:

1. Tap the menu icon and then choose "Advanced" from the Backup menu. The Advanced screen appears.

2. For each application or database you wish to archive, tap the pick list next to the application or database name and choose "Archive".

   **Note:**   To create a backup instead of an archive, choose "Backup" from the list.

   The item you selected appears bold and the amount of space available in RAM and Storage updates.

   **Note:**   If you select a database that cannot be archived, a warning message appears and you have the option to create a backup instead.

3. Tap PROCESS. **JBBackup** creates archives of the items you selected. The font returns to normal and an open dot appears to the left of the items' names to indicate that archives exist in storage.

4. When you have finished creating archives, tap BACK to return to the Main screen.

## Restoring from the Advanced Screen

Restoring involves copying the backup or archive from storage back into RAM.

> **Note:**   When restoring, the copy in storage remains. For more information on deleting backups and archives, see *Deleting Backups and Archives* on page 34.

To restore a backup or archive from the Advanced screen:

1. Tap the menu icon and then choose "Advanced" from the Backup menu. The Advanced screen appears.

2. Tap the Category Pick List (top right-hand corner) and choose the appropriate viewing filter:

   - Choose "Backups" to display items that have a copy in storage and an original in RAM.
   - Choose "Archives" to display items that exist in storage only.
   - Choose "Backups & Archives" to see both.

3. For each item you wish to restore, tap the pick list next to the item's name and choose "Restore". The item you selected appears bold.

   > **Note:**   The "Restore" option is available only if a backup or archive exists in storage (a dot appears to the left of the item's name).

4. Tap PROCESS. **JBBackup** copies the item from storage back into RAM.

   > **Note:**   If there is not enough room in RAM for the item, a warning message appears. Free up space in RAM and then attempt to Restore again.

   If you have selected the "Archives" viewing filter, the item name disappears from the list. A copy of the item still exists in storage, but because it also now exists in RAM, **JBBackup** considers the item to be a backup rather than an archive.

   If you are restoring a backup rather than an archive, that is, the item you are restoring already exists in RAM, the stored copy may overwrite the copy in RAM based on what you have selected in the Preferences dialog.

   > **Note:**   If an error occurs during a restore, an alert appears. For more information about error messages, see *Possible Errors and System Messages* on page 37.

5. When you have finished restoring, tap BACK to return to the Main screen.

## Deleting Backups and Archives

When you delete a backup or archive, **JBBackup** deletes only the copy in storage, never the original in RAM. You delete backups and archives on the Advanced screen.

> **Note**:    You cannot delete individual backups and archives when you
> have configured **JBBackup** to back up memory images. To
> delete the entire memory image, choose the "Delete" option on
> the Image menu.

To delete a backup or archive:

1.  Tap the menu icon and then choose "Advanced" from the Backup menu. The Advanced screen appears.

2.  Tap the Category Pick List (top right-hand corner) and choose the appropriate viewing filter:

    - Choose "Backups" to display items that have a copy in storage and an original in RAM.
    - Choose "Archives" to display items that exist in storage only.
    - Choose "Backups & Archives" to see both.

3.  For each item you wish to delete, tap the pick list next to the item's name and choose "Delete". The item you selected appears bold.

    > **Note:**    The "Delete" option is available only if a backup or archive
    > exists in storage (a dot appears to the left of the item's name).

4.  Tap PROCESS. **JBBackup** deletes the item in storage.

5.  When you have finished deleting items, tap BACK to return to the Main screen.

## Viewing and Correcting Log File Error Messages

**JBBackup** records information about the last backup operation in a log file. There is a record in the log file for each available storage plugin.

Each time you start a new backup, **JBBackup** deletes the previous log for the selected storage. The log file appears automatically if an error occurs during a backup.

To view the log file:

1.  Tap the menu icon and choose "Log" from the Backup menu. The Log file appears.

The log file can contain the following messages:

| Message | Meaning | Solution |
|---|---|---|
| Cannot delete the original | You have selected Archive as the action, but the original copy cannot be deleted. | Ensure that the item you selected is not read only or open. |
| Cannot find the source DB | **JBBackup** cannot locate the original database. You may have scheduled a backup and then later deleted the file before the backup took place. | Examine your scheduled backups and ensure that you have chosen files that still exist on the handheld. |
| Has not been found in RAM. The DB has been removed from the selection list. | A database that you selected for backup has been removed before the backup has been performed. | **JBBackup** removes the database from the list of items to be backed up. No action is required on your part. |
| Not enough dynamic memory available | | Perform a soft reset and then attempt the action again. If the problem persists, click here to contact HandFort Technical Support. |
| Not enough space in RAM | **JBBackup** requires approximately 100K of free RAM to function properly. You may also get this error if there is not enough space to restore/backup the selected item. In certain situations, you may need more than 100K free to accommodate the files you have selected. | Delete items from RAM to free up enough space for **JBBackup** to function properly. |
| Not enough space in storage | There is not enough space in storage for the backup. | Free up more space in storage by deleting unnecessary items. If applicable make the backup smaller by turning on compression. |
| OK Backup | No errors occurred. | None needed. |
| Operation canceled | The operation was cancelled. | This message appears when you tap CANCEL during a backup. |

| Message | Meaning | Solution |
|---------|---------|----------|
| Storage media or plugin not present | **JBBackup** is not detecting the plugin. The external storage media may not be attached properly to the handheld, or the plugin is not present on the handheld (you may have accidentally deleted it). | If the external storage media is not physically attached to the handheld, attach it.<br><br>If the storage media is present, the plugin has possibly been deleted or corrupted. Reinstall the appropriate plugin for your handheld. |
| Storage not accessible | **JBBackup** cannot access the storage. | On the Visor and Clié, make sure that your external storage media is attached.<br>If necessary, reinstall the plugin. |
| Unable to locate the shared library containing the compression code | The library required for compression is not present on the handheld. (You may have accidentally deleted it). | Reinstall the library from the distribution kit. |

**Note:**  To quickly see which archives are taking up space in storage,
tap ARCHIVES to see the Advanced screen filtered by archives.

2.  Tap DONE to close the Log file.

## Possible Errors and System Messages

The following table describes various system and error messages for **JBBackup**:

| Message | Description and/or Solution |
|---|---|
| <database name> cannot be restored. (<detailed reason>) | This general error message appears when **JBBackup** cannot restore a database. |
| An error occurred while attempting to automatically create a backup of the Flash support. | This message usually appears if there is not enough free space in Flash. If you have Flash software, use it to free up space in Flash (approximately 40K) and then rerun the **JBBackup** installer.<br>Also check to make sure that you have at least 100K free in RAM. |
| An error occurred while attempting to restore the Flash support files that are backed up in Flash. | This message appears the first time you start **JBBackup** after a hard reset / battery failure if **JBBackup** cannot restore the Flash support files it had earlier backed up into Flash. Until you reinstall your Flash support, you will have read-only access to the Flash. In other words, you will be able to restore from the Flash but not back up to the Flash.<br><br>You might have to reinstall the Flash plugin. You may also need to reinstall your Flash software (**JackFlash** or FlashPro). |
| An error occurred while attempting to update the log file. | This message appears if there isn't much free RAM available on the device when doing a backup. As a result, **JBBackup** cannot update the log file. |
| No active plugins have been detected on your device. | **JBBackup** cannot access the storage.  Make sure you have installed all the necessary files on the device. |
| Not enough RAM to run **JBBackup**. | Free up extra RAM on the device. **JBBackup** requires approximately 100K of free space. |
| System Version 3.0 or greater is required to run this application. | Upgrade the OS to version 3.0 or greater. |
| The compression library does not exist on the device. | Reinstall the zLib from the distribution kit or media. |

| Message | Description and/or Solution |
|---|---|
| The file could not be restored because it is compressed, and the required decompression library could not be initialized. | Reinstall the zLib from the distribution kit or media. |
| The requested plugin is not active or present. Until you reinstall the appropriate plugin, you can only restore databases from this storage. | This message appears if you have accidentally deleted the storage plugin. Reinstall the appropriate plugin from the distribution kit or media. |
| The selected database might not fit in the storage. | **JBBackup** estimates space needs based on the uncompressed size. Depending on how the file compresses, it may fit. If the file does not fit, free up space in storage and attempt to back it up again. |
| There is not enough free RAM available to restore <database name>. | Free up additional RAM by deleting or archiving data and then attempt to restore again. |
| There might not be enough space in <storage name> to hold the whole backup. Do you want to continue? | This message appears when you attempt to backup a database into storage, and it might not fit. **JBBackup** estimates space needs based on the uncompressed size. Depending on how the file compresses, it may fit. If you choose to continue, any errors that occur are recorded in the log file. |
| This database cannot be automatically deleted through archiving. | This appears when you try to archive (as opposed to back up) a system DB that cannot be deleted. Back up the database instead. |
| To free space on storage, do you want to delete the existing backup? | This message appears on the Selection screen if you change the selection from "Selected" to "Skip" for an item that has an existing backup. Choosing "Skip" for an existing backup tells **JBBackup** that you no longer wish to continue backing up the item. |
| ZLib must reside in RAM. Do you want to continue without compression support? | This message appears on Visors when the compression library is in storage but there is not enough room in RAM. Free up approximately 31K in RAM and then run **JBBackup**. **JBBackup** will restore the copy in storage to RAM. |