GRASS VALLEY GROUP

User Guide

software release **2.0**

PROFILE & PROFILE XP InSync
MIRRORING SOFTWARE

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Revision Status

Rev Date	Description
March 2000	Initial release of the Profile & Profile XP InSync User Guide, 071-8008-00.
February 2001	Updated to include bi-directional mirroring mode, and to support v. 2.0.
April 2001	Updated to include PVS 2000 in supported systems.

Contents

Grass Valley Group Product Support

You can get technical assistance, check on the status of problems, or report new problems by contacting our Product Support Group.

United States and Canada

Monday–Friday 5:30AM–5:00PM Pacific Time
(800) 547-8949

Europe

Monday–Friday 9:00AM–5:30PM

France	01 69 86 83 47	United Kingdom	01628 405830
Germany	0221 9477 446	Other	+44 1628 405840
Italy	02 25086606		

Asia and South America

Australia	02-9888 0100	Japan	81-3-3448-3111
- from overseas	61-2-9888 0100	Korea	82-2-528-5299
Beijing	86-10-62351230	Mexico	52-5-666-6333
	ext. 711	Singapore	65-356-3900
Brazil	55-11-3741-8422	Taiwan	886-2-27571571
Hong Kong	852-25856655		

World Wide

24-hour Emergency Hotline (530) 478-4148 (Contract and warranty customers)

World Wide Web	http://www.grassvalleygroup.com/support/
FTP Site	ftp.grassvalleygroup.com
Users Group	profile-users@grassvalleygroup.com

Using InSync

Introducing InSync

Regardless of how reliable any broadcast device is, for mission-critical applications like broadcast, many facilities require full redundancy in their play-to-air servers. Disk mirroring, normally the responsibility of the controlling application, can add significantly to the complexity of the application. With InSync, mirroring is accomplished within the Profile system. InSync ensures that the contents of two systems are maintained as a mirrored pair. In the event of a failure the user routes control of replay function to the backup system, which InSync keeps synchronized with the main.

InSync can also provide bi-directional mirroring between two Profile systems. In this mode InSync runs on both systems, allowing each system to operate as a main system while serving as backup to the other.

Profile System requirements

• Supported on these Profile systems:

System	Profile Software requirement	System	Profile Software requirement
PDR 200/300	V2.5 or later	PVS 1000	V4.0 or later
PDR 400	V3.2 or later	PVS 2000	V4.1 or later

Not supported on PDR 100.

• Backup system must be configured to have the same number and type of active channels (channels used for record and play) as the main system.

• Fibre Channel or Ethernet video network installed and configured. For information about configuring a network, see the *Profile User Manual* for the PDR family or the *Profile XP System Guide*.

• InSync must be installed on the main Profile unit. If you use bi-directional mirroring, InSync must be installed on both Profile units.

• PortServer must be running on the backup Profile unit. If you use bi-directional mirroring, PortServer must be running on both the main and backup Profile units. For information about starting or checking PortServer, see the *Profile User Manual* for the PDR family or the *Profile XP System Guide*.

NOTE: Grass Valley Group recommends that the storage capacity of the main and backup Profile units be the same. If the capacity of the backup unit is smaller, you must carefully manage the backup of material to avoid exceeding the storage capacity of the backup Profile unit. Exceeding the capacity of the backup Profile unit can result in the loss of backup material.

Important information about using InSync

These are some constraints that you must be aware of when using InSync.

- Loop recording cannot be used with InSync.

- Clips of pre-defined length, such as those created by BVW Insert Edit, do not back up correctly with some versions of system software. To obtain system software that supports these operations, please contact Grass Valley Group Product Support (see page 4).

- When you are using the bi-directional mirroring mode you must not create, and you must not allow an automation program to create, a clip with the same name in the same directory *at the same time* on both units. Doing so creates contention that can result in the loss of one of the clips created.

- When you are using the bi-directional mirroring mode you must not edit the same clip in the same directory at the same time on both units. Doing so results in the loss of edits to the clip closed first.

- You cannot cancel a transfer once it starts, as you might with Media Manager; you must allow the transfer to complete.

Installing InSync

The first step to installing InSync is to run the Setup program on the InSync CD-ROM. If you intend to use bi-directional mirroring, you must install InSync on both Profile units that you will use. Even if you do not plan to use bi-directional mirroring, you still might want to install InSync on the backup Profile unit as well as the main. Having InSync installed and ready to run can be convenient if you need to operate the backup Profile unit as main and assign a new backup to maintain redundancy.

To install InSync you must be logged on as Administrator. For information about logging on as Administrator, see the *Profile User Manual* for the PDR family or the *Profile XP System Guide*.

1. Insert the CD-ROM into the drive on the Profile unit you've chosen to be main. If the Setup program does not start automatically, choose **Start | Run** and browse for *Setup.exe* on the CD-ROM.

2. When Setup prompts you for a directory name in which to store the files, accept the default *C:/Profile/*InSync.

3. When Setup prompts you, enter the name of the Profile system you've chosen to serve as backup.

When Setup is complete, it places shortcuts for InSync and InSync Configuration on the Desktop. These shortcuts are also added to the Start Menu under Profile Applications.
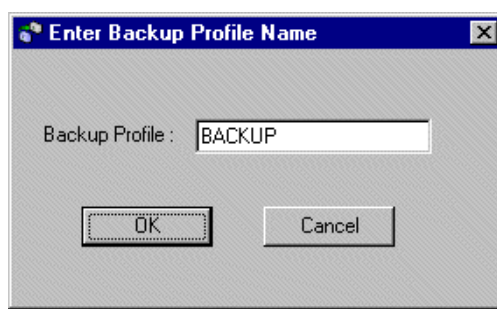
Starting and running InSync

As InSync runs, it provides continuous, automatic mirroring of the main Profile unit on the backup Profile unit (unless you configure it to only back up manually). When you start InSync, you select whether it backs up the main unit, restores the main unit, enters bi-directional mirroring mode, or does none of these and simply starts running. Then InSync retreats to the background to continue automatically synchronizing the backup to the main.
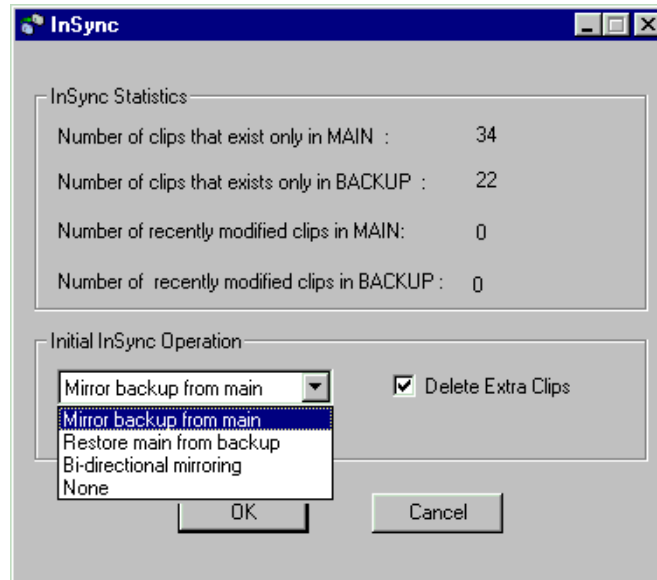
NOTE: If you intend to use bi-directional mirroring, be sure to read "About bi-directional mirroring mode" that follows this procedure.

1. Start InSync by double clicking the InSync shortcut icon on the desktop. The following dialog box appears requesting the name of the backup Profile unit. The first time you start InSync, the name that appears in the text box is the one you entered for backup during setup. For subsequent starts, the name that appears in the text box is the name of the Profile unit last designated as backup.

2. If the name in the text box is correct, click **OK**. If not, enter the correct name, then click **OK**.

3. Select an initial InSync operation when the InSync dialog box appears. You can select one of the settings in the drop-down list. Normally you will want to mirror on the backup from the main or operate in bi-directional mirroring mode. If, however, you are restoring the main from the backup, select that option from the list. If you want only to start InSync without an initial backup operation, select **None.**

The Delete Extra Clips check box is available only when you select backup or restore, and is not available when you select bi-directional mirroring. When you check the box, a backup operation deletes extra clips that exist only on the backup unit, and a restore operation deletes extra clips that exist only on the main unit. Clearing the check box preserves all unique clips on both the main and backup units.
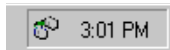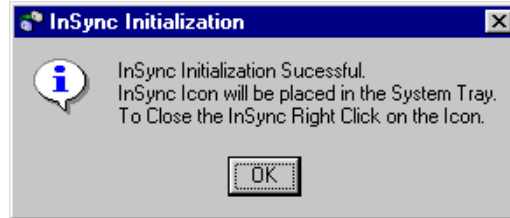
When you start in bi-directional mirroring mode, InSync performs an initial backup. When this is complete on both Profile units in use, the file systems of both units will have the same content.

The statistics block provides this information:

- the number of clips unique to the main unit. If you restore the main from the backup with Delete Extra Clips checked, InSync deletes these clips.

- the number clips unique to the backup unit. If you backup the main unit with Delete Extra Clips checked, InSync deletes these clips.

- the number of clips on the main unit that have been modified since the last restore operation.

- the number of clips on the backup unit that have been modified since the last backup operation.

4. Click the **OK** button to put InSync into operation. A progress indicator appears (unless you selected **None** as the initial operation) showing the status of the file transfer from one Profile unit to the other. When the backup or restore operation is complete, a message box like the one shown here appears to let you know the operation successfully completed.

 5. Click **OK** to close the message box and place the InSync icon in the System Tray as shown here.

About bi-directional mirroring mode

After you have installed InSync on both Profile units that you plan to use for bi-directional mirroring, start InSync running on one unit. Allow it to complete its backup operation before starting InSync on the other Profile unit. Be sure to select bi-directional mirroring as the initial backup operation on both Profile units.

When you select bi-directional mirroring for initial operation, InSync automatically configures itself as follows:

- event-based and periodic backup modes are always enabled
- extra clips are not deleted during a backup

When you are using bi-directional mirroring you cannot change the configuration of Insync, you can only view the current configuration. The first time you start InSync the periodic backup interval is set to one minute. Subsequent starts will use the interval last set. If you want to change the interval of the periodic backup, you must:

1. Exit InSync, then re-start InSync and select **None** as the initial backup operation.

2. Start InSync Configuration and change the periodic backup interval.

3. Exit InSync and InSync Configuration.

4. Re-start InSync and select **Bi-directional mirroring** as the initial backup operation.

Stopping InSync

To stop InSync, right click on the InSync icon in the System Tray and choose **Exit** from the menu that appears.

Changing the backup Profile unit to be main

If you must remove the main Profile unit (call it Unit A) from service and place the backup Profile unit (call it Unit B) on line, and you want to maintain redundancy, you must reassign Profile Unit B to be main and assign a different Profile unit (call it Unit C) as backup. To change the designation of Profile Unit B from backup to main:

1. Install InSync on Profile Unit B (if it is not already installed). Follow the installation instructions given earlier.

2. Start InSync on Profile Unit B. When prompted for a backup name, enter the name of Profile Unit C. By starting InSync on Profile Unit B and designating Profile Unit C as backup, you have designated Profile Unit B to be main.

3. Make sure that PortServer is running on Profile Unit C.

Now you are ready to return to operation with the former backup unit operating as the main unit, and with InSync mirroring the operation to meet the redundancy requirement.
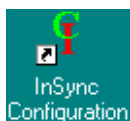
Configuring InSync

Once InSync is running, you use InSync Configuration to start a manual backup operation or to configure how InSync performs the backup function. If you are using bi-directional mirroring, you cannot use InSync Configuration to make changes to the configuration, but you can use it to view the current settings.

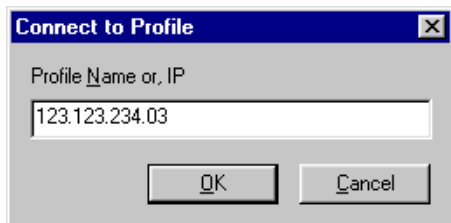## Starting InSync Configuration

Before you can use InSync Configuration you must be logged on as Administrator. For information about logging on as Administrator, see the *Profile User Manual* for the PDR family or the *Profile XP System Guide*.

As a practical matter, do not start InSync Configuration during the initial backup. InSync Configuration cannot begin to operate until the backup is complete. In installations where low-speed Ethernet is being used for data transfer, this could become very lengthy.

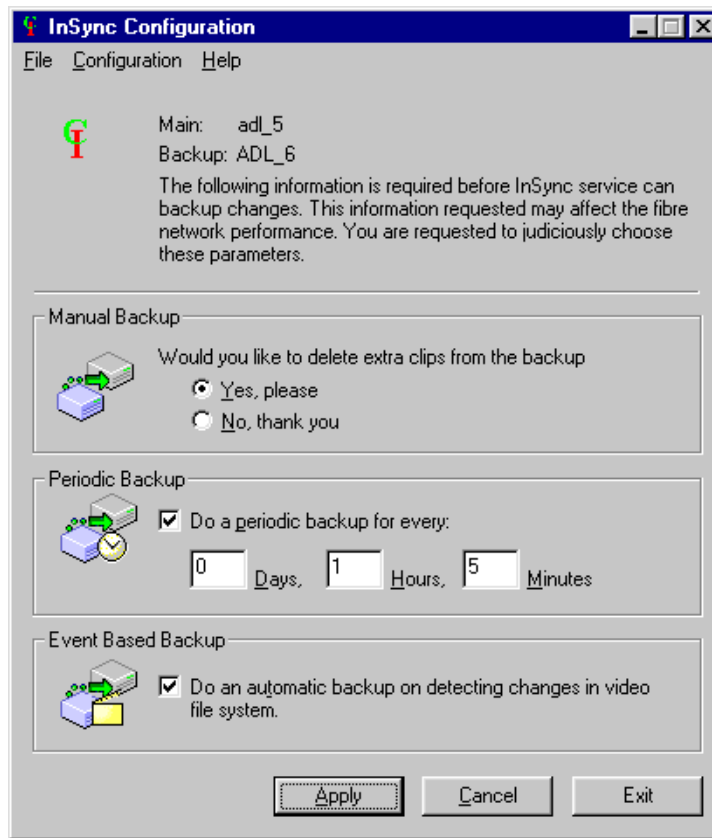To begin configuration of InSync, double-click the InSync Configuration icon on the desktop.

When you open InSync Configuration, you are prompted to connect to the main Profile unit with this dialog box:

Connect to Profile

Profile Name or, IP

123.123.234.03

[OK] [Cancel]

Enter the name or IP address of the local Profile unit to which you want to connect and click **OK** to open the InSync Configuration dialog box.

InSync Configuration

Main: adl_5
Backup: ADL_6

The following information is required before InSync service can backup changes. This information requested may affect the fibre network performance. You are requested to judiciously choose these parameters.

Manual Backup

Would you like to delete extra clips from the backup
- ● Yes, please
- ○ No, thank you

Periodic Backup

☑ Do a periodic backup for every:

0 Days, 1 Hours, 5 Minutes

Event Based Backup

☑ Do an automatic backup on detecting changes in video file system.

[Apply] [Cancel] [Exit]

Assigning a different backup Profile unit

When you installed InSync, you entered the name of the backup Profile unit. If you want to name a different Profile unit as backup, you can do so by choosing **Configuration | Backup Machine**. In the dialog box that appears, enter the machine name or IP address of the Profile unit that you are designating as backup and click **OK**.

Backup Profile
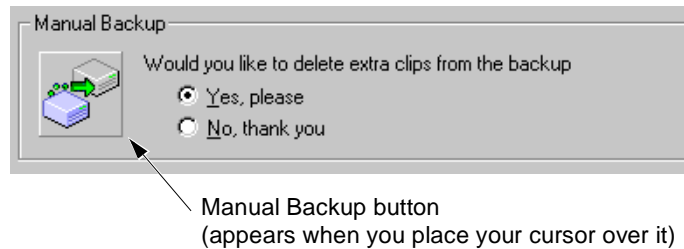
Profile Name or, IP

ADL_7

[OK] [Cancel]

You might want to change to a different backup unit if your backup Profile unit is out of service and you need another backup to maintain redundancy.

Running a manual backup

Manual backup starts the process of transferring data from the main Profile unit to the backup Profile unit when you press the Manual Backup button. (This process is the same as when you start InSync and choose to backup the main Profile.) Before you start the manual backup, you can select whether or not you want to delete extra clips from the backup Profile unit. In most instances you probably want to delete extra clips from the backup unit to ensure that the backup unit is identical to the main unit.

Manual Backup button
(appears when you place your cursor over it)

Use manual backup when you have changed a large number of clips and you don't want to wait for the periodic backup to copy the data to the backup Profile unit.
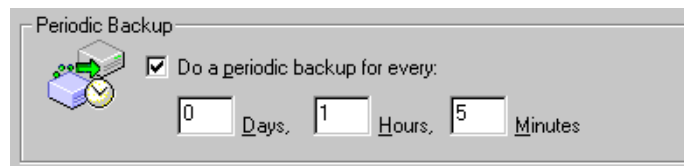
Selecting a backup type

Besides allowing you to start a manual backup of the main Profile unit, InSync Configuration allows you to select the type of ongoing backup that InSync performs. The types available are Periodic and Event Based. You can select either or both types, depending on your installation and its specific requirements, or you can select neither type if you want to do only manual backups.

Enabling periodic backup

A periodic backup is one that occurs at a time interval that you specify. When enabled, periodic backup copies all data changes from the main Profile unit to the backup Profile unit at the interval you specify.

To enable periodic backup:

1. Select the Periodic Backup check box.

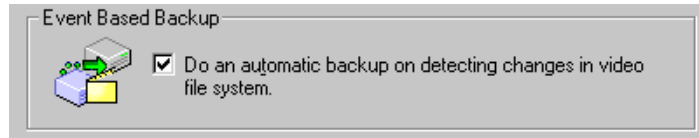2. Enter the number of days, hours, and minutes you want between backups.
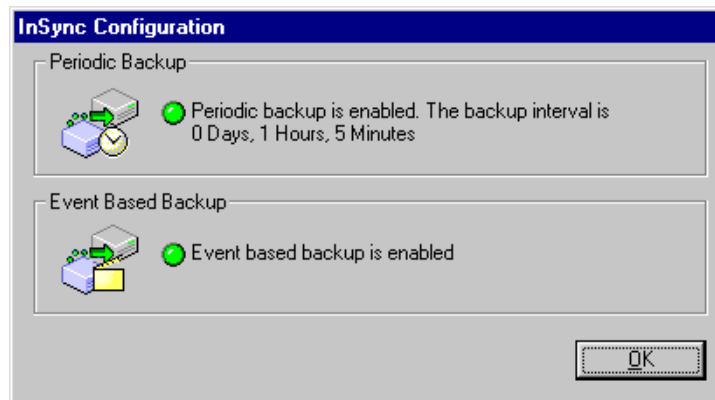
Enabling event-based backup

Event-based backup copies data to the backup Profile unit each time InSync detects a change in the file system on the main Profile unit, such as when a file is created (recorded or copied), modified (trimmed or renamed), or deleted.

To enable event-based backup, select the Event Based Backup check box.

Viewing current settings

To view the current status of the backup types, open the Configuration menu and choose **Current Settings**. The Current Settings dialog box that appears displays the current status of Periodic and Event Based Backup. When the green light is on, that backup type is enabled.

Viewing the mirroring log

Mirroring events are logged in a file that you can view by choosing **File | Open Log**. The WinTail application displays the log file as shown here.

```
WinTail - [MirrorLog]
File  Edit  View  Window  Help

; Log started
; Date: 2000/03/10 Time: 13:14:27.913 Ticks: 143e20b1 (1ms/tick)
FATAL ERROR: Set Backup Machine FAILED
FATAL ERROR: Machine ADL-6 UnReachable
Make sure that PortSrvr is Running on BACKUP
CHECK Network Connections & Settings
Make sure HOSTS File has FC Address Entries (host_fc0) for both MAIN & BACKUP
Keystone : ADL_6  Configured as Backup
INFO: MIRROR SERVICE STARTED
Connection #0 Opened SUCCESSFULLY
Connection Closed
Connection #1 Opened SUCCESSFULLY
Periodic Backup ENABLED
New PERIODIC BACUP INTERVAL: 0:1:5
Event based Backup ENABLED

Ready                                                        NUM
```