

**User's manual**  
Logjay V. 2.0.0

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## About Logjay

Originally conceived as an advanced non-stop audio logger, Logjay has been improved into a comprehensive application which now includes three products in a unique software package:

- No-stop long-time logger to provide your local Radio Authority with copies of sections of your broadcast on request.
- 100% customizable recorder with full trigger support, for automatic recording of satellite news feeds.
- Silence detector which tirelessly monitors your radio station output and, in case a blank occurs, automatically switches an auxiliary audio source while at the same time notifies your tech personnel by means of fast and cheap SMS messages.

Logjay has been carefully engineered on building blocks, so you may purchase just the needed channels and features and save money on your initial purchase; for example, you may purchase only 2 of the 4 available modules, the first one with just the basic features for the logging purposes, the second one with the "pro pack" which includes the most advanced scheduling and blank detection features. Of course, you may upgrade to 3 or 4 channels and/or add the "pro pack" for each channel as soon as the need arise.

It is possible to add an unlimited number of recording profiles: this way, you may program and schedule recording settings for each recording channel depending on the specific needs, from recording quality to the storage folder, enabling and programming the blank detector and numbers where to send your SMS, and so on.

You don't need any "special" or expensive hardware component to run Logjay: the software works fine with almost any PC equipped with Windows compatible sound cards (such as the one integrated into your motherboard). Accessing any of the software features turns very easy for everybody thanks to the Windows XP based interface.

### The non-stop audio logger

An advanced "last 90" (or 30, or 42, or whatever you wish) days non-stop audio logging software that takes advantage of today's PCs digital technology to store massive amounts of audio with fast access and retrieving features. You can finally get rid of those old reel-to-reel logging machines, time lapse video recorders or DATs of questionable quality and reliability, and with high maintenance costs (you have to periodically check machines, other than purchasing and periodically replace tapes).

Logjay can be set to automatically rotate logged files to keep track of a desired number of days and if you wish, can automatically erase older days to make room for the new ones. Recorded audio is automatically indexed by date and time. You can record in mono or stereo, choose recording quality depending on your needs and available hard disk space.

Logjay offers and instant access to recorded audio thanks to its exclusive indexing and locating system. Gone are the days of rewinding through miles of tapes for hours (or days) only to locate the desired passage! With Logjay you just select desired date and time, and press play to listen to the exact passage.

More than one copy of the player module can access to the same recordings across a local network, while recorder module simultaneously carries on recording. You don't need to stop recording if you wish to listen any previously recorded passage!

#### Key features:

- Automatically indexes recorded audio by record date and time
- Recorded audio can be played instantly.
- Automatic erases oldest files.
- Freely choose your audio codec: variable quality vs. hard disk space configuration.

Logjay: more power and versatility at a fraction of the cost of a conventional tape based logging system!

### The scheduled recorder

Logjay features powerful scheduling features, which allow to automatically start and stop recording according to a preset schedule for each day of the week or by means of external triggering from a satellite receiver: this way, tasks like capturing satellite news feeds or activating recording just when needed are easily performed, saving valuable hard disk space. At the same time, you may easily schedule recall of your favourite recording settings (profiles), to change recording quality or any other operating switches.

To access these extra features, you don't need any customized relay cards or other nasty stuff: just hook the start/stop and audio outputs from your satellite receiver to your sound card joystick port and line in jack: Logjay works in background and automatically starts/stops recording as soon the triggers are received marking beginning and end of the news.

You can record in mono or stereo, choose recording quality depending on your needs and available hard disk space.

Logged audio can be indexed as date/time (for example, should you wish to edit the captured news before scheduling) or always use the same file name, which will be overwritten on each new recording: this way, the on-air scheduling becomes a fully-automated task: our automation software Winjay just reads the same news file, which is simply kept updated!

#### Key features:

- Automatically indexes recorded audio by record date and time
- Recorded audio can be played instantly.
- External triggering via the joystick port, without any costly relay card.
- Freely choose your audio codec: variable quality vs. hard disk space configuration.

### The blank detector and the alarm system

Monitoring a radio station for constant audio output is at the same time a quite costly task but indeed of vital importance, especially if you own different transmission sites on different frequencies; likewise, it turns surely useful to check for crashes of your radio automation software, which could leave your radio blanked for hours until somebody realizes that a fault has arisen.

Thanks to its powerful silence detector, Logjay can tirelessly monitor your radio station output and behave as desired whenever the audio signal goes blank. Of course, the time before silence is reported as well as the silence threshold are both customizable, so you won't end up with false reports during orchestral pauses or speech, for example.

As soon as a blank is detected for each of the 4 available inputs, Logjay is able to undertake two different approaches, which may be used at the same time as well:

- Triggering a bit on the parallel port to switch an auxiliary audio source or try to reset your automation system
- Notifying your tech personnel by means of fast and cheap SMS messages: this way, it is possible to fix the failure with minimal delay from the detection, without having to continuously monitor your signal.

Audio logging and monitoring run at the same time for each channel, so you may listen for blanks while at the same time logging the incoming audio.

Here is a short summary of basic operations for speeding up Logjay initial setup. For further details we strongly suggest you to carefully read the user's manual!

**Installing your customized parallel port dongle:** Turn off your PC, and insert the supplied hardware key in one of the available parallel (printer) ports. The label engraved on the key should face your PC chassis. Should you need to connect a printer, plug the cable to the opposite (free) side of the key, which will be between your PC and printer. Do not insert the hardware key in the serial interface connector (D-type 25 pins male) since the presence of negative tensions can alter or damage the contents of the key! This should not be an issue with the most recent hardware since serial interfaces use a 9 pins male connector.

If your system is running Windows2000 or XP, you should also install the parallel dongle driver: just run once the "skeyadd" file found in the "\drivers\winNT-2000-XP\_lpt" folder in the installation CD.

### Recording workstation:

1. Insert the installation CD in your CD-ROM drive.
2. Double click on the setup.exe file in the "logjay" folder to start Logjay setup: supposing that your CD-ROM drive is identified as "D:", click on "Start", choose "Run", type in the edit box "d:\logjay\setup.exe" (without quotations) and click OK, or simply browse for the desired file from "my computer" icon.
3. Follow the on-screen guided instructions which will guide you for the rest of the setup process, then restart your PC.
4. Copy the wjlogo.bmp file from the main folder of your installation CD to Winjay installation folder (usually c:\program files\logjay if you choose the default one). This file is your station logo which is needed for software customization.
5. Click on "Start", "Logjay", "Logjay recording module" to run Logjay, the main window should appear in a matter of seconds.

### Networked player workstations:

Follow items 1-4 for the recording workstation setup, then:

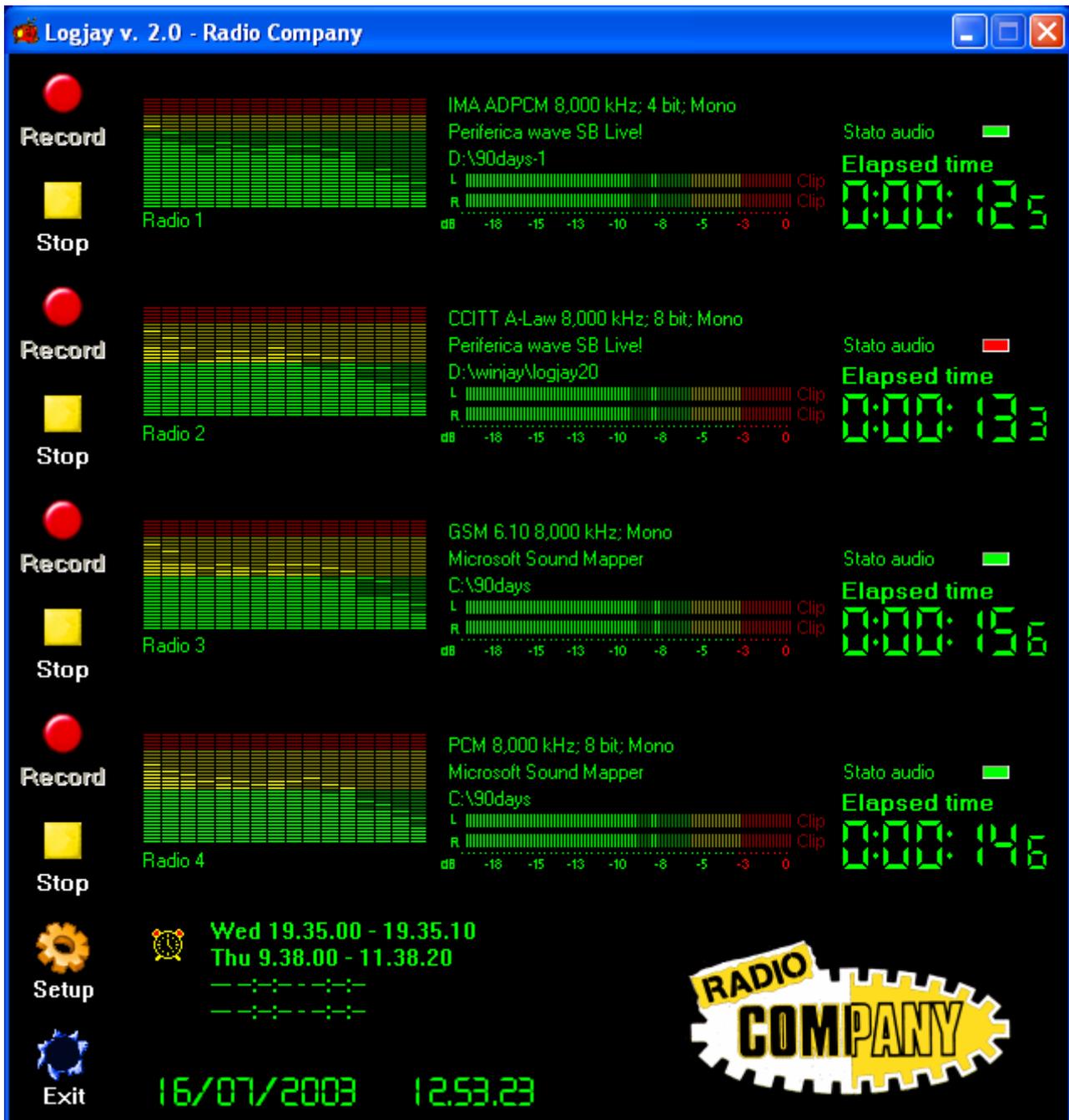
1. Start Logjay Player, then open its setup window: you'll have to edit the database path where the player module should search for informations concerning the logged audio: just browse for the path to the database on the recording workstation (for example \\logger\c\program files\logjay).
2. When setting the storage path in the recording module, change any local path with the corresponding network path (for example \\LOGGER\C instead of C:\).
3. Remember to share drives on the recording workstation with full read/write access!

Once you're done with setup and initial testing, we strongly suggest you to fine tune your system setup for best performance:

- Disable screen savers and power saving modes: from the Windows desktop, click the mouse right button, select "properties", click on "screen saver" tab, and from the drop-down menu select "none". In the "Screen power saving setup" section, click on "setting" and from the drop down menus "turn down monitor" and "disable hard disks" select "Never".
- Add Logjay recording module to Windows autostart group, so the software will automatically restart after a power failure.
- In your PC BIOS setup screen, set the "AC Power Loss Restart" (or similar) feature so that your PC turns on again automatically after a power failure.

## The recording module

Here is a screen shot of Logjay recording module, which performs audio logging and signal monitor features. This is the main window, which appears when the recording module is started; it is made of 5 sections: the first 4 correspond to each recording and audio monitoring channels, the last one includes misc features and indications. Of course, details may slightly differ depending on your setup and/or enabled channel and features.



### Detailed description :

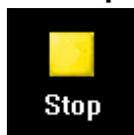


- **Record buttons**



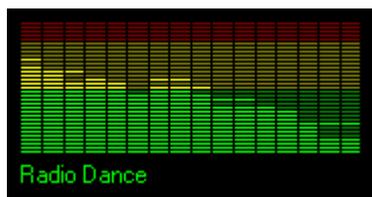
Click the Record button corresponding to the desired channel to manually start audio recording.

- **Stop buttons**



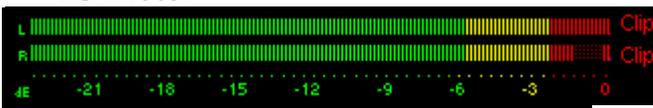
Click the Stop button corresponding to the desired channel to manually stop recording.

- **Spectrum analyzer**



For each recording channel, the spectrum analyzers show in real-time the spectrum of the input audio (audio level at different frequencies depending on recording sampling rate). Left-clicking on the analyzer, the exact frequency corresponding to each bar will be shown. The analyzer also features a peak-hold feature: the peak level segments are temporarily left visible before resetting themselves. When recording in stereo, the signal shown is the sum of Left + Right channels. Just below the spectrum analyzer, you'll see the channel name as set in the related settings page.

- **VU-meter**



For each recording channel, VU-meters show in real-time the input audio level. Signal is represented as peak level in dBs,

where the 0 dB is the absolute maximum before a clipping occurs: in this latter case the "Clip" indicators on the right of each bar will lit. The VU-meters also include a peak-hold feature: the peak level segments are temporarily left visible before resetting themselves. When recording in stereo, the upper meter shows level for Left channel, the lower one the level for the Right channel.

- **Recording settings display**

DivX WMA Audio V2 5 kbps, 8 kHz, mono  
Registrazione onda DS-XG  
D:\winjay\logjay20

On the left of the spectrum analyzer you will find details about the selected ACM driver and audio card for each recording channel. Logjay implements a full support for Microsoft ACM (Audio Compression Manager) that comes with Windows. Thus, you may so choose your favourite codec according to your needs (quality vs. hard disk space) as well as the sound card used for recording, should there's more that one card installed.

- **File elapsed time**



Shows in minutes:seconds.tenths the length of the audio file being recorded. The counter is updated in real-time.

- **Audio monitoring status**



Shows the status of the blank detector:

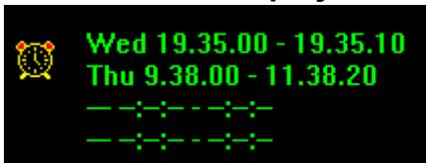
- Green LED: everything is OK, the incoming audio level is well over the minimum threshold.
- Yellow LED: warning status, the incoming audio level is temporarily below the minimum threshold, it may be just an orchestral pauses or speech, for example.
- Red LED: alarm status, the incoming audio level has been below the minimum threshold over the maximum tolerance time. Logjay has triggered the parallel port and has alerted your tech personnel via SMS, if you've enabled these features.

- **Date and time display**



Shows current date and time.

- **Next event display**



For each of the available channels, this display shows start and end time for the next scheduled recording. You may temporarily disable the scheduling features by double-clicking on the line corresponding to the desired channel, which will turn red and underlined. To turn on the scheduler, just double-click again.

**Setup button:**



Shows the setup window, which allows to set Logjay operating defaults and scheduling options. All channels must be in stop mode, otherwise the window will not be opened.

**Exit button:**



Terminates program execution. You'll see a dialog box asking for confirmation.

- **Your radio station logo**

Logjay is customized with your station logo. Clicking on the logo a secret panel appears showing some scrolling informations about the software and the current version and "build" number. At the end, your logo appears again automatically.

## Recording profiles

Press the setup button from the main Logjay screen to enter the setup window shown below. As always, details may slightly differ depending on your setup.

For each of the available channels, a bunch of operating switches may be set according to your specific requirements. A profile is just a record which contains these settings in a format which can be easily recalled manually or automatically.

The first group of 4 profiles are the default ones, which are automatically assigned to the corresponding channels. Of course, you may add a virtually unlimited number of profiles, so you can manually recall, schedule or trigger your recording settings with no limitations.

The screenshot shows the 'LogJay Setup' window with the 'Profili' tab selected. It features a table for profile management and a detailed configuration section for the selected profile.

Denominazione profilo	Scheda audio	Canale	Modalità registrazione
▶ Channel 1	Periferica wave SB Live!	Left	Data/ora (specifica cartella)
Channel 2	Periferica wave SB Live!	Stereo	Data/ora (specifica cartella)
Channel 3	Microsoft Sound Mapper	Stereo	Data/ora (specifica cartella)
Channel 4	Microsoft Sound Mapper	Left	Data/ora (specifica cartella)

Configuration details for Channel 1:

- Denominazione profilo: Channel 1
- Scheda audio registrazione: Periferica wave SB Live!
- Canale registrazione: Left
- Dimensione file (minuti): 2
- Giorni registrazione: 92
- Formato registrazione: MA ADPCM 8,000 kHz; 4 bit; Mono
- Modalità registrazione: Data/ora (specifica cartella)
- Cartella/File audio: D:\90days-1
- Ritardo allarme (min) e soglia: 1
- Invio allarme: LPT
- Recapito SMS: 3397116986
- Autostart:

At the bottom, there is a 'RICERCA' display showing '1:4' and a set of control buttons: Nuovo, Modifica, Cancella, Annulla, and Chiudi.



### Quickstart (adding a recording profile):

1. Press the "New" button to switch the database to insert mode.
2. Insert a name for your profile, then customize your settings.
3. Press the OK button to post updates.



### Detailed description:

- **Profiles grid**

Contains the list of profiles in the database. You can navigate the list with the arrows on the right. Left-clicking on each item on the grid, related details are shown in the corresponding controls below in the window.

- **Profile name box**

Contains a name for the current profile for faster recalling. For example, "CD quality time shifting" or "Low quality for logging purposes".

- **Recording sound card box**

Select here the audio card you will use for recording among the available ones.



- **Recording channel box**

Sets the input channel which will be used for recording:

1. Stereo: both channels will be used for stereo recording
2. Left: only the Left channel will be used, for a mono recording
3. Right: only the Right channel will be used, for a mono recording

This way, if you wish to record in modo, you may just use the Left and Right channels of the same sound card separately, saving money on hardware purchase.

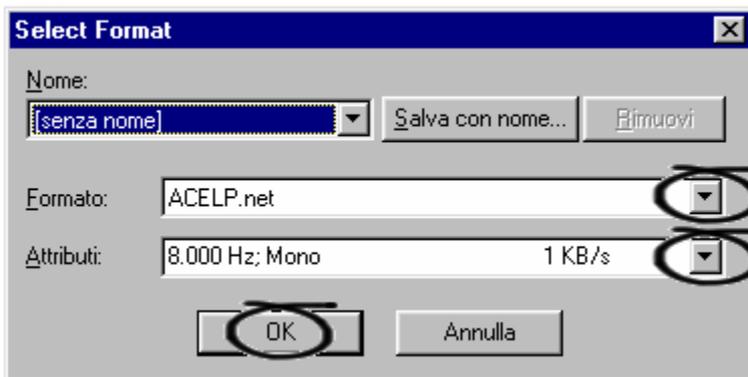
- **File size box**

Allows to set the file size in minutes for each recorded audio file. Taking into account that you may not listen to a file until recording audio ends (or you stop recording manually), and that there's a small time gap between closing a file and starting the next one, this is clearly a compromise between file size and time you'll have to wait before it is possible to play the logged audio. Except for specific circumstances, we usually suggest a value of 60 minutes (1 hour) for each file.

- **Days on log**

Logjay can be set to automatically rotate logged files to keep track of a desired number of days and if you wish, can automatically erase older days to make room for the new ones. Type here how many days you wish to store before the oldest day of recording is erased to make room for the new ones (usually 90, 30, 42, depending on your local regulations or your needs).

- **Recording format**



Allows to set the audio codec and related attributes for audio recording (sampling rate, bitrate, etc). Click on the button on the right of the textbox, make your choice, then press the OK button to confirm.



### Hint

For further infos and hints on choosing an ACM codec, take a look to the appendix.

- **Recording mode**

Two recording modes are available:

1. Date/time: files with the logged audio will be named according to recording start date and time: this mode should be used for long-time logging purposes, since each recording will be assigned a different file.
2. Specify file name: the audio file will be always named the same way, according to your settings. Each new recording will overwrite the previous ones, which will be lost, of course.

### Storage folder / filename

If recording mode has been set on date/time, just click on the icon and browse your hard disk to select the folder (local or LAN) where the logged audio will be stored.

Otherwise, if recording mode has been set on a specific file name, this box will allow browsing for your desired path and file name which will be overwritten for each new recording.

### Hint



If you wish to use the player module from another workstation in the LAN to listen to logged audio, in the “audio directory”, box you should specify a network path instead of the local path, for example `\\logger\c\90days` instead of `c:\90days`

- **Alarm delay and threshold**

If you wish to enable the blank detector, here you’ll have to set the time in minutes before an incoming audio under the threshold is considered as blank. The associated cursor sets the threshold value under which the input signal is considered as “blank”, while above the same threshold is considered valid. Setting the slider at about 1/10 of its run has proved appropriate.

- **Send alarm mode box**

Sets the alarm mode when a blank is detected:

1. Disabled: no action will be undertaken.
2. LPT: the bit on the parallel port corresponding to the blank channel will be triggered. This is a TTL signal available on the parallel port determined by the user settings. Channel 1 triggers pin 2, Channel 2 triggers pin 3, Channel 3 triggers pin 4, Channel 4 triggers pin 5. Common ground is pin 18.
3. SMS: Logjay will send an SMS to the specified numbers.
4. LPT + SMS: both actions will be undertaken.

- **SMS numbers box**

If you have set Logjay to alert your tech personnel via SMS in case of blank, just add their SMS numbers in this box. More than one number may be added, separated by a semicolon, for example: 3391234546;348123456

- **Autostart checkbox**

If checked, recording is started automatically at Logjay startup. Otherwise, once Logjay is started, you’ll have to press the record button to start recording manually. Except for specific circumstances, we usually suggest to enable the autostart feature, so recording will be restarted automatically at each startup (for example, after a power failure has occurred).

- **New button**



Switches the database to insert mode to add a new profile.

- **Edit button**



Switches the database to edit mode to edit details of the current schedule.

- **Delete button**



Deletes the current profile. You'll see a dialog box asking for confirmation.

- **Cancel button**



Cancels updates and switches to browse mode. You'll see a dialog box asking for confirmation.

- **OK button**



Confirms updates and switches to browse mode. If the database is already in browse mode, closes the setup window.

## Chapter 2.2

Press the “schedule” tab to enter the scheduling page, which allows to schedule recordings according to time and day of the week, or via external triggering.

**LogJay Setup**

Profili | Pianificazione | Generali

Impostazioni trigger

Denominazione profilo	Canale	Start	Stop
Prova 1fdgfd	2	9.38.00	11.38.20
Prova 2	1	19.35.00	19.35.10
F	1		23.00.00

Denominazione profilo: Prova 1fdgfd

Ora inizio: 9.38.00    Ora fine: 11.38.20

Trigger: Clock driven

Azione: Start

Canale: 2

Profilo: Channel 2

Modalità registrazione: Specifica denominazione file

Nome file / Cartella:

**RICERCA**  
13

Nuovo    Modifica    Cancella    Annulla    OK

Trigger 1  
Trigger 2  
Trigger 3  
Trigger 4

Domenica   
Lunedì   
Martedì   
Mercoledì   
Giovedì   
Venerdì   
Sabato



### **Quickstart (scheduling a clock driven recording):**

In the following example we're going to schedule a recording each Monday, Wednesday and Friday, starting at 10.00.00 AM up to 10.30.00 AM. Each time, the existing file (if any) will be overwritten by the new recording.

1. Press the "New" button to switch the database to insert mode.
2. Insert a name for your new scheduling, set 10.00.00 as start time and 10.30.00 as ending time, then check the Mon, Wed and Fry boxes.
3. In the "trigger" box, select the "clock driven" item to schedule your recording according to your start and ending time.
4. In the "channel" box, select the channel where you want to schedule your recording, for example channel number 1.
5. The "action" box will have no effect, since it is only used to associate an action to a trigger. In the "recording mode" box, select the "file name" item, browse your Hard Disk to set your storage folder, then type the file name which will be used for your recording.
6. Finally, press the OK button to confirm when done.

### **Quickstart (scheduling a triggered recording):**

In the following example we're going to schedule a recording each Tuesday and Thursday, starting will be triggered by the closure of Trigger 1 but only between 10.00.00 AM up to 10.05.00 AM. This time, files will be named each with its own timestamp according to the recording start time, and put in the specified folder. To stop recording according to another trigger, you'll just have to add a similar scheduling.

1. Press the "New" button to switch the database to insert mode.
2. Insert a name for your new scheduling, set 10.00.00 as start time and 10.05.00 as ending time, then check the Tue and Thu boxes.
3. In the "trigger" box, select the "Trigger 1 close" item.
4. In the "channel" box, select the channel where you want to schedule your recording, for example channel number 1.
5. In the "action" box, select the "start" item. In the "recording mode" box, select the "folder name" item, then browse your Hard Disk to set your storage folder.
6. Finally, press the OK button to confirm when done.



### Detailed description

- **Schedules grid**

Contains the list of schedules in the database. You can navigate the list with the arrows on the right. Left-clicking on each item on the grid, related details are shown in the corresponding controls below in the window.

- **Schedule name box**

Contains a name for the current schedule, for faster recalling. For example, “morning news”.

- **Trigger box**

Sets the trigger which will activate the current schedule. For example: “Trigger 1 Close” will activate the schedule when trigger 1 closes, “Trigger 2 Open” will do the same when trigger 2 opens, and so on. Setting the “clock driven” item, recording will start and stop according to scheduled start and stop time, triggers will be ignored.

- **Action box**

Sets the action which a trigger will undertake:

1. Start: recording will start with the previously loaded profile.
  2. Stop: recording will stop.
  3. Load Profile: Logjay will load the specified recording profile and start recording.
- If the current schedule is clock drive, this setting is ignored.

- **Channel box**

Sets the channel (from channel 1 to channel 4, depending on your purchase) where you want to schedule your recording.

- **Profile box**

Allows to set the recording profile to use for the current schedule, if “load profile” has been selected in the action box.

- **Recording mode**

Two recording modes are available:

1. Date/time: files with the logged audio will be named according to recording start date and time: this mode should be used for long-time logging purposes, since each recording will be assigned a different file.
2. Specify file name: the audio file will be always named the same way, according to your settings. Each new recording will overwrite the previous ones, which will be lost, of course.

- **Storage folder / filename**

If recording mode has been set on date/time, just click on the icon and browse your hard disk to select the folder (local or LAN) where the logged audio will be stored.

Otherwise, if recording mode has been set on a specific file name, this box will allow browsing for your desired path and file name which will be overwritten for each new recording.

- **Start time**

If the current schedule is “clock driven” type, you’ll have to type here the start time of your recording. Otherwise, when external triggering is used, the start time is considered as trigger enable start time, meaning that the trigger event is taken into account only if between the start and end time specified. This way, you may restrict your recording just to your desired schedule, ignoring unwanted triggering.

- **End time**

As above, this is the end time for your recording in the case of “clock driver” events, or trigger enable end time when external triggering is used.

- **Days enabled**

This group of checkboxes from Sunday to Saturday allow to enable the current schedule for each day of the week. This way, you may also add totally different schedules for each day of the week.

- **New button**



Switches the database to insert mode to add a new schedule.

- **Edit button**



Switches the database to edit mode, to edit settings for the current schedule.

- **Cancel button**



Deletes the current scheduling. You’ll see a dialog box asking for confirmation.

- **Cancel button**

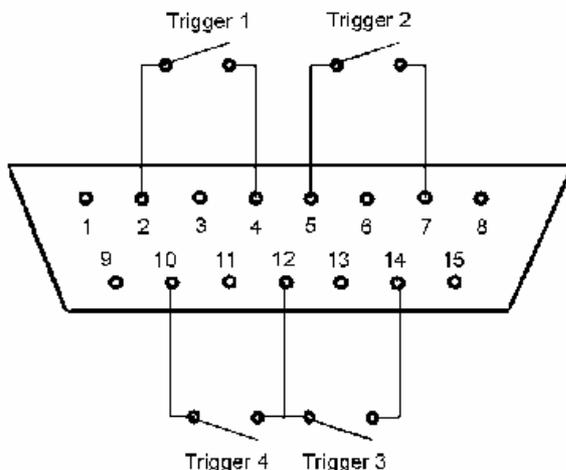


Cancels updates and switches to browse mode. You'll see a dialog box asking for confirmation.

- **OK button**



Confirms updates and switches to browse mode. If the database is already in browse mode, closes the setup window.



For the trigger feature to work correctly, first of all you should connect to the joystick port using the diagram on the left (for the preliminary checks you may also wish to use an ordinary joystick). You also have to add some 100 K-Ohm resistors between pins 1-3, 1-6, 9-11, 9-13: otherwise Window will report the joystick as “not connected” and triggers won’t work. You should also jump together pin 12 with pin 4 (or 5).

In order to complete your setup, you should install joystick drivers:

- From Windows control panel, double click on the “joysticks” icon.
- For Windows98, click on “Add”, select “2 axis-2 buttons joystick”, then click “OK”. Repeat the last step to add the second joystick.
- For Windows2000/XP, click on “Add”, select “2 Joysticks 2-axis 2-buttons on the same port”, then click “OK”.
- In the “Joysticks” window you should now see the list of the ones you’ve just added. If everything is working fine, in the “Status” column you should see “OK”.

## Chapter 2.3

Pressing the Misc tab, you'll access the misc setup page which allows to edit software default settings:

The screenshot shows the 'LogJay Setup' application window. The title bar is blue and contains the text 'LogJay Setup'. Below the title bar, there are three tabs: 'Profili', 'Pianificazione', and 'Generali'. The 'Generali' tab is selected. The main area is titled 'Impostazioni generali' and contains several configuration fields:

Denominazione Input 1	Radio 1
Denominazione Input 2	Radio 2
Denominazione Input 3	Radio 3
Denominazione Input 4	Radio 4
Lingua	italiano
Indirizzo Porta LPT	378
Porta seriale	2
Tipo interfaccia	DLR-3
Host	time.nist.gov
Differenza UTC	2

Below the 'Differenza UTC' field, there is a button labeled 'Aggiorna ora' and the text 'UTC difference:'. At the bottom left of the window, the word 'RICERCA' is displayed in a stylized font. At the bottom right, there are three buttons: 'Modifica' (with a green circular arrow icon), 'Annulla' (with a red 'X' icon), and 'OK' (with a green checkmark icon).



### Detailed description

- **Input channel name 1-2-3-4**

Sets the channel name for each recording module, which is shown under the spectrum analyzer on the main window and it is added by the blank detector in the SMS messages to identify the faulty channel.

- **Language**

Logjay is multilingual and any caption used in the software is read from a text file you can easily tailor to your needs, or copy-and-paste to create new languages. The software comes with English and Italian LNG language files. To edit your default language, just select your favourite one from the available languages in the drop-down box.

- **LPT address**

If you wish the blank detector triggers an external audio source via the parallel port, just type the hex address of the parallel port used for this purpose. For example, \$378 for the LPT1, \$278 for the LPT2.

- **Box Phone COM port**

If you wish the blank detector warns your tech personell via SMS, here you'll have to specify the COM port where your phone is conncted. Logjay currently supports the following Nokia phones: 3210, 3310, 3330, 3390, 3350, 3410, 3510, 5110, 5130, 5190, 5210, 6110, 6130, 6150, 6190, 6210, 6250, 6310, 6310i, 6360, 6510, 7110, 7190, 8210, 8290, 8250, 8310, 8390, 8810, 8850, 8855, 8890, 8910.

- **Interface type**

Allows to select the interface type used to connect the phone.

- **Server / host**

Logjay features a built-in time synchronizer which allows to keep your system clock always updated thanks to time servers on the Internet. Here, you'll have to spceify the server to use. An "always-on" connection to the Internet is required, Logjay will not attempt to make a conection itself (you may share your Internet connection on your LAN, for example).

- **UTC difference**

Time servers on the Internet always work on the UTC time, so here you'll have to specify the time shift between UTC and your local time.

- **Get time button**

Press the button to attempt a connection to the specified time server: if this is successfull, in a matter of seconds the system time will be automatically updated according to the server time.

- **Edit button**



Switches to edit mode to edit fields in the current window.

- **Cancel button**



Cancels updates and switches to browse mode. You'll see a dialog box asking for confirmation.

- **OK button**



Confirms updates and switches to browse mode. If the database is already in browse mode, closes the setup window.

## The player module

Each time you need to listen to the logged audio, running the Logjay player will ease the task of locating the desired passage; the player module can be run from any workstation in your LAN. When Logjay Player is started, you'll see its main window.



### Quickstart (playing the logged audio):

1. Using the drop-down boxes, select the channel and date and time from which you wish to start playing the logged audio.



2. Press the Play button to start playing.
3. In play mode, the time display shows in real time the timestamp of the logged audio, and the slider the relative position in the audio file containing the desired segment. Click and drag the slider to move back and forward.



- **Frew button**



In play mode, switches to fast rew seek mode.

- **Rew button**



In play mode, switches to rew seek mode.

- **Play button**



Starts playing the desired logged segment according to selected channel and date/time.

- **Pause button**



In play mode, switches to pause mode.

- **Stop button**



Stops playing the logged audio.

- **Fwd button**



In play mode, switches to forward seek mode.

- **FFwd button**



In play mode, switches to fast forward seek mode.

- **Setup button**



Shows Logjay Player setup window: from here, you can just select the audio card which will be used to play the logged audio among the available ones, and the database path where each player module should read search for informations concerning the logged audio. If the player module runs on the same workstation as the recording module, just leave the default setting, otherwise please specify the path to the database on the recording workstation (for example \\logger\c\program files\logjay).

- **Cancel button**



Cancels updates and closes the setup window.

- **OK button**



Confirms updates and closes the setup window.

## Choosing the ACM codec

It would be quite far from feasible building a long-time logging system without using any form of audio compression: the space needed to store 90 days of audio will overcome the space available on the biggest Hard Disk now on the market. Luckily, Windows comes with a quite large number of audio codecs (codec = coder-decoder) which compress and uncompress audio data in real time, minimizing hard disk space needed to store the audio data while maintaining at the same time a quite fine audio quality. Logjay can handle most of Windows preinstalled codecs, or other ones which can be user installed later: so, you may set recording quality according to desired quality and available disk space. To summarize, in the following table we have computed the hard disk space needed for logging 90 days, depending on the codec and audio quality:

ACM codec	Attributes	Hard Disk space for 90 days
Lernout & Hauspie CELP	8000Hz mono 4,8 Kbits/sec	~ 4,7 GBytes
DivX Audio	8000Hz mono 5 Kbits/sec	~ 4,9 GBytes
DivX Audio	11 KHz mono 8 Kbits/sec	~ 5,7 GBytes
MPEG Layer-3	8000Hz mono 8 Kbits/sec	~ 7,8 GBytes
DivX Audio	16 KHz mono 12 Kbits/sec	~ 11,7 GBytes
GSM 6.10	8000Hz mono 16 Kbits/sec	~ 12,7 GBytes
ADPCM	8000Hz 8bit mono 32 Kbits/sec	~ 32 Gbytes
ADPCM	44,1KHz 16bit stereo 344Kbits/sec	~ 334 Gbytes !
PCM (uncompressed)	44,1KHz 16bit stereo	~ 1372 Gbytes !

As you may notice, also using the common 8 bit ADPCM at the lowest possible sampling rate and recording in mono, 90 days of recording will almost fill up the biggest Hard Disks currently on the market. Using so simple codecs at even higher sampling rates is clearly unproposable for long-time recording systems!

The CELP codec is absolutely the most compact one, and besides can be played on the different Windows based systems without needing to convert to other formats.

The DivX / WMA codec gives indeed the best result in terms of disk space/quality ratio, and works really fine also on slower PCs; as the only drawback, you have to install the codec also on listening workstations, since it doesn't comes with your Windows setup.

Also the MPEG-1 Layer-3 (mp3) codec offers a nice quality vs. HD space, but you'll usually need a somehow faster PC comparing to the basic system requirements for Logjay (Pentium 100 MHz) because of the much more complex coding. Also, you may wish to install the Lame mp3 ACM codec found in the "utility" folder on the Logjay setup CD, since this surely more reliable for real-time coding comparing to the Windows default codec.

Both with DivX and MPEG-3 codecs you can also log in higher quality should you wish to reuse your recordings for other purposes. Of course, disk space needed will be quite higher. After all, the definitive choice is yours, depending on your needs in terms of audio quality, available PC and Hard Disk space!

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