Pyromusical Controller for

OXYDIUM

User's manual

(firmware 2.C) october 2026

This manual is only valid for products corresponding to the version described in this manual. Before use, carefully read these instructions and you'll be fully satisfied with your new hardware. Always follow the safety instructions. FAQ on www.genetec.fr

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Pyromusical Controller for Oxydium

1st part : hardware *(with firmware **2.C**)*

PRESENTATION……..……..…....……..3

BATTERY RECHARGE……..……....4

PROJECTS MANAGEMENT……..……..……....4
Import and delete pyromusical project

MISCELLANEOUS SETTINGS..……..……6
Language, audio outputs, volume, contrast, backup Ways, synchronization, USB

FIRING……..……..……7
Connections, starting, firing screen, pause, stop,
firing stop, backup Ways firing.

SIMULATION OF A PROJECT……...……..……11

UPDATE……...……..……...……..……...…...11

MISCELLANEOUS……..…..……...…….……12
USB reconnexion, Information screen, Shutting down the device, Advices.

CHARACTERISTICS……..……...…..…..…13

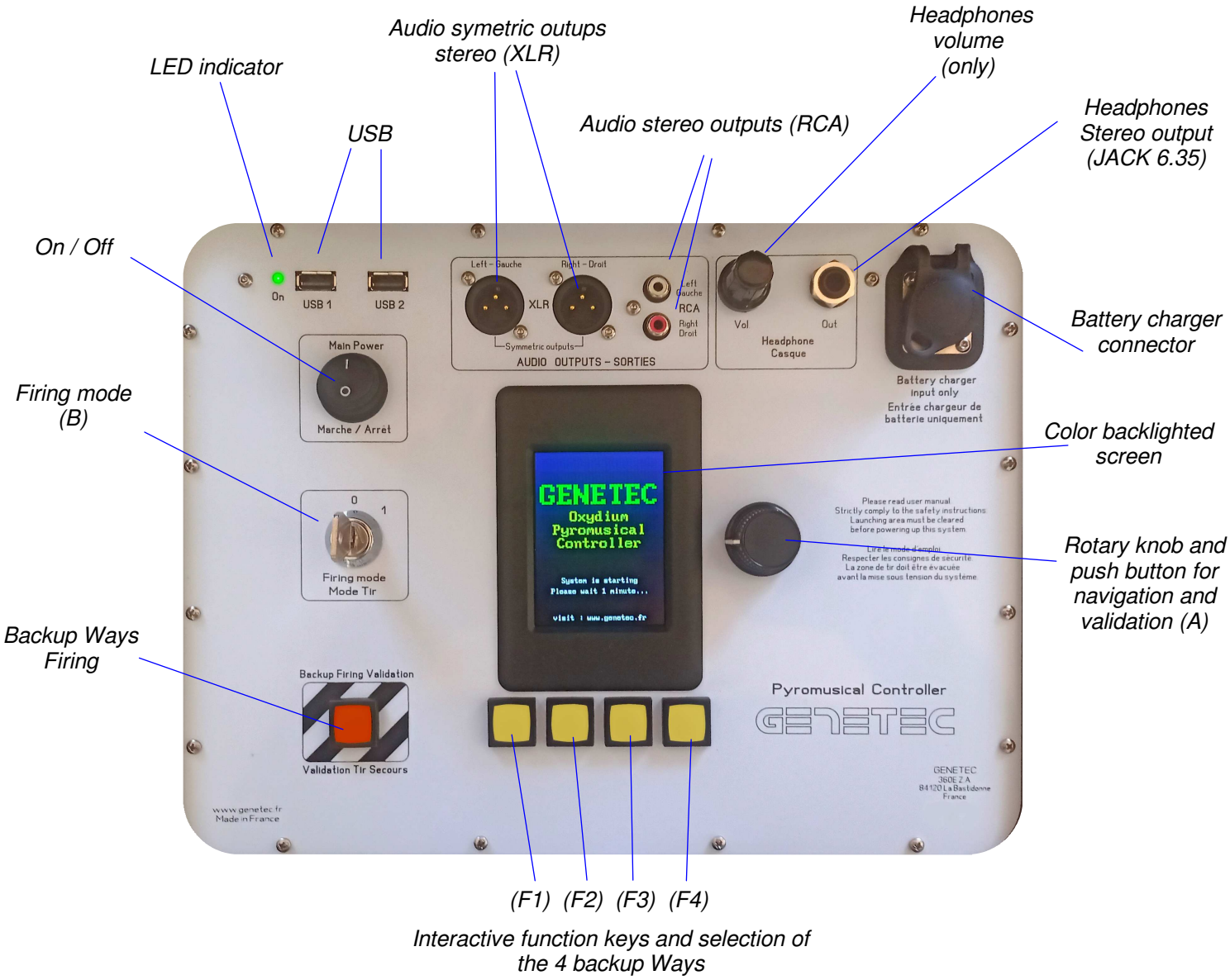
The PyroMusical Controller was developed to control the Oxydium console while playing the audio file thanks to its integrated sound card, without using a PC and thus avoiding the disadvantages associated with the latter (Windows sounds, unexpected antivirus scans, screen saver, USB standby, etc.).

It works with files created with the Oxydium PyroMusical Creator (OPMC) software. Files created with OPMC intended for PC firing are compatible with the Pyromusical Controller.

This manual has been divided into two distinct parts:

- How the PyroMusical Controller itself works (pages 3 to 14 of Part 1)
- Oxydium PyroMusical Creator (OPMC) PC programming software. (pages 1 to 14 of Part 2)

Anything related to the direct operation of Oxydium is not covered in this document. Refer to the standard instructions for use of Oxydium.



Before use, recharge the internal battery.

The controller is powered by a 12V 3.4Ah lead-acid battery, giving it a works of approximately 10 hours.

The device must be turned off. Remove the cap from the battery charging port (top right) and connect the female XLR connector of your Oxydium charger (or that of a MAF60 satellite). Charging time can range from a few dozen minutes to several hours depending on the battery's discharge level. As soon as the charger is plugged into the mains, the charger's LED will light up continuously. This LED will gradually turn off when charging is complete. Disconnect the XLR connector and replace the protective cap.

To ensure your battery lasts a long time: The battery should never be deeply discharged. When not in use, recharge it every 2 months. For information, the average battery life is 4 to 5 years.

PROJECTS MANAGEMENT

IMPORTATION OF A PYROMUSICAL PROJECT :

To be able to use your project, it must be present in the internal memory of the device. To do this, copy your project(s) previously created with the OPMC software onto the USB key provided.
Only files of the type "myproject.zip_opc" should be present on the USB drive (no .bak files or others...).

Important : Your project must not contain any error messages reported by OPMC during the final check.

Boot screen

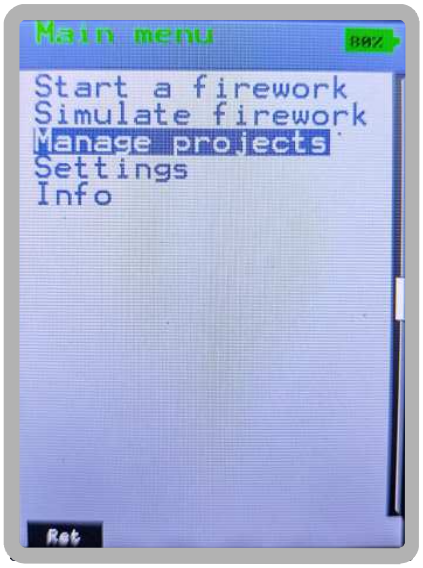
Turn on the device using the Main Power switch without the USB key.

The boot screen appears.
Wait about 40 seconds for the device to finish booting.

Once this is done, the LED at the top left lights up and the boot screen is replaced by the home screen (indicates the firmware version and at the top right the battery level).

Home screen

Press the knob (A) once to access the main menu. Insert the USB key, and wait a few seconds.



Turn this knob to “Manage projects” and then press the knob once.

The system automatically lists the projects present on the USB key as a priority.
(The colored orange top band indicates that what is present on the USB key is displayed).

Select the project to import with the knob and confirm by pressing the knob.

Note : the name of the projects must not exceed 15 characters, not contain special characters (only unaccented letters and numbers)

orange top band : USB key mode

Confirm the import of the selected project by turning the knob one notch so that YES is green and press the dial once.

The project transfer from the USB drive to the device's internal memory starts "Import in progress..."

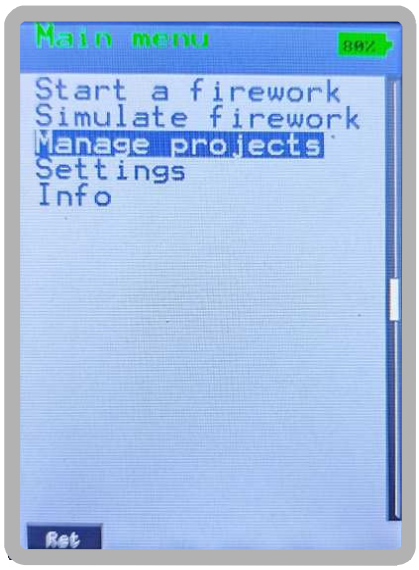
Note : If the project was initially created with an MP3 file, a progress bar is visible (because the device must convert the MP3 to WAVE). If the project was created directly from a WAVE file the device does not have to convert it, this bar will not appear.
The import time is related to the size of your project (approximately 2MB/sec).

A message indicates the import is complete. Press the knob once to exit this page and return to the page for importing projects from the key.

If you have another project to import, repeat the same procedure. *Nota : There is no need to turn off the device if you need to remove and replace the USB key (however, it may take a few seconds for the key to be detected).*

If you have no other projects to import, you can exit USB mode by pressing the F1 function key "Ret".

The project is now fully in the device's memory: audio and shots (you can remove the USB key if you want).



You must check the presence of projects in internal memory by selecting "Manage Projects". If the USB key has been removed, the device will indicate that it cannot find it. Confirm « Ok » by pressing on the knob. If the USB key is still present, press on F2 push button « Mng ».
The **orange** top band (USB key mode reading) is replaced by a **blue** top band (Internal memory reading mode), and the list of projects present in the memory of the **P**yromusical **C**ontroller appears.

blue top band : internal memory

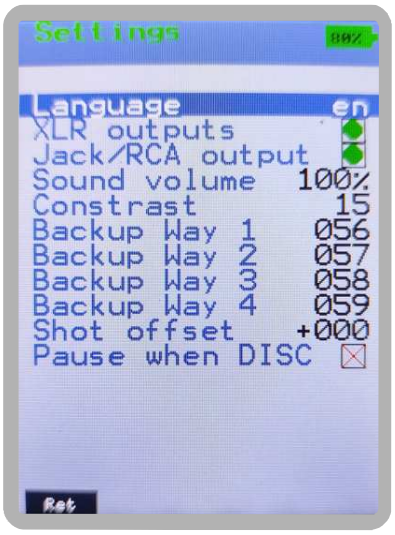
If you want to delete one, select it, and press the knob once, the system asks you if you want to remove the project, select "Yes" and confirm by pressing the knob.

In order not to unnecessarily overload the device's internal memory, we recommend that you only keep current projects and delete old ones.

Press the push button F1 « Ret » to return to the main menu

SETTINGS :

From the main menu, select “Settings”. Confirm by pressing the knob once.



Use the knob to select the parameter to be modified.

- Language : By default language is French. Pressing the knob once to switch the system to English.

- XLR outputs : By default the audio XLR outputs are enabled (green circle in the check box).

  To deativate them, press the knob once (red cross in the check box).

- Jack/RCA outputs : By default the audio outputs headphone and RCA are enabled (green circle). To deactivate them press the knob once (a red cross replace the green circle).

- Sound Volume : Set to 70% by default. To adjust it, press the dial once and set the desired level, and confirm by pressing the knob once. This setting affects all audio outputs.

- Contrast : To adjust it, press the knob once and set the level, and confirm by pressing the knob once.

- Backup Ways : The system allows for 4 direct-access Backup Ways. Just like on the Oxydium, they can take any value between 000 and 599. To set them, select the desired backup Way, press the knob once, and turn the knob until the desired backup is displayed. When the F2 "X10" key is held down, the knob allows rapid movement (10 by 10) of the Ways. Confirm by pressing the knob once.

- Shot offset : Allows you to add or remove delay to the firing order in relation to the audio to compensate for possible phase shifts linked to different equipments (mixing table, amplifier, etc.) and communication delays. Time in millisecondes (from 0 to 999ms) Example : A setting of +500 will delay the firing orders by 0.5 seconds compared to the audio. Conversely, a setting of –100 will make the firing orders anticipate the audio by 0.1 seconds. Leave at 000 if the firing and audio are perfectly synchronized. Confirm by pressing the knob once.

- Pause when DISC. : Adjustment of the device reaction in case of accidental disconnection of the USB connection during project execution (for example, tearing of the cord between the Oxydium and the controller).

If « Pause when DISC » deactivated (red cross), the system does not completely pause the project execution as soon as the first undone shot is detected due to a USB disconnection. The sound will continue normally, and as soon as the USB reconnection is restored, the shots will restart.

If « Pause when DISC » is enabled (green circle), the system pauses* the execution of the project (with audio pause) as soon as the first shot cannot be made due to the disconnection. *(*see page 9 « pause »)*. By default this setting is deactivated (recommended).

FIRING

This section does not cover the connection between the Oxydium and the MAF60 satellites or their use. For this, refer to their respective user manuals.

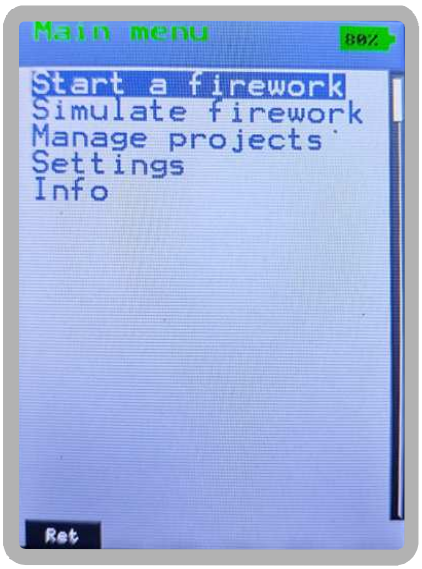
CONNECTIONS :

Turn on the Pyromusical Controller, wait about forty seconds for it to finish booting and for the home screen to appear (as explained on page 4), then connect it to the Oxydium using your Oxydium's USB cable. You can plug it into either USB port 1 or 2. You can connect only one Oxydium to the device at a time.

Connect your amplifier to the audio outputs of your choice (either standard analog RCA or XLR symetric audio outputs).

If you have headphones, connect them to the headphone output (6.35 jack stereo. Do not plug jack mono).

Switch on the Oxydium console, put the Oxydium in firing mode, and select the mode number 6 « PC Automatic Firing», press twice OK, the Oxydium displays « WAIT FOR PC CONNECTION »



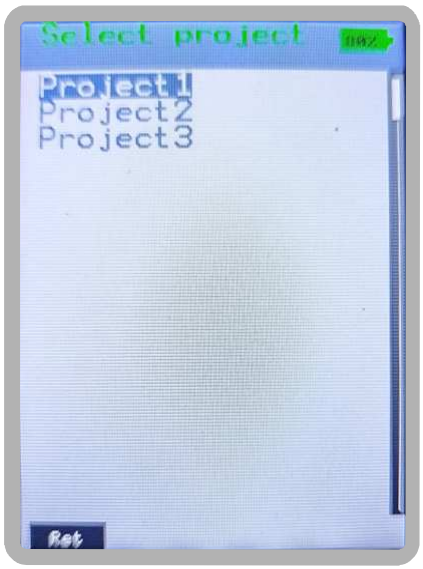
Switch on the **P**yromusical **C**ontroller, and from the main menu select "Start a firework".

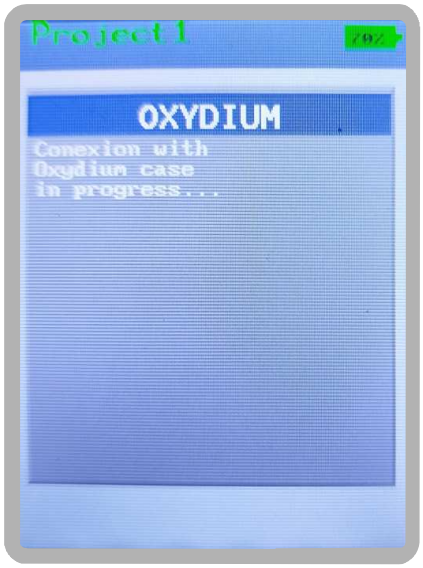
Confirm by pressing the knob once.

Turn the key to the "Firing Mode" position

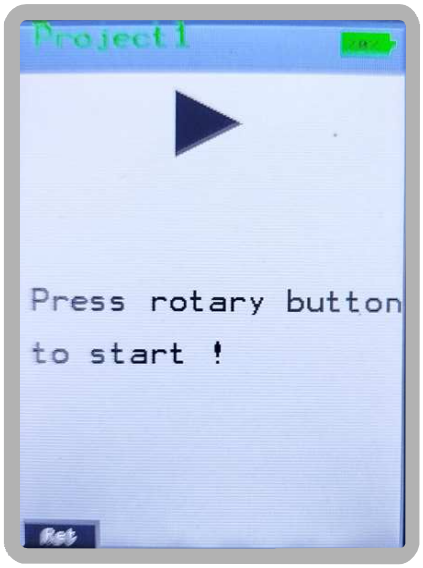
Choose the project and confirm by pressing the knob.

To cancel a selection, press the F1 "Ret" push button to return to the previous screen.

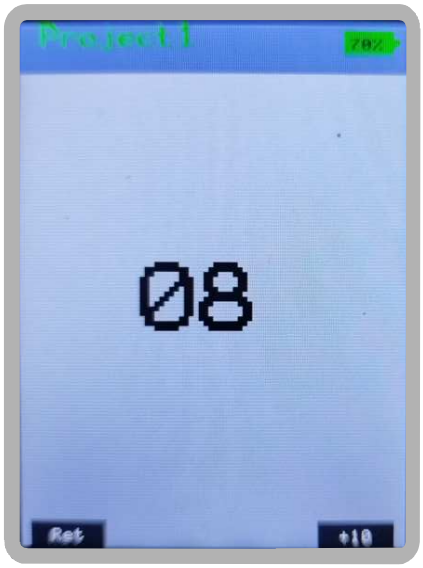




The **P**yromusical **C**ontroller connects to the Oxydium.



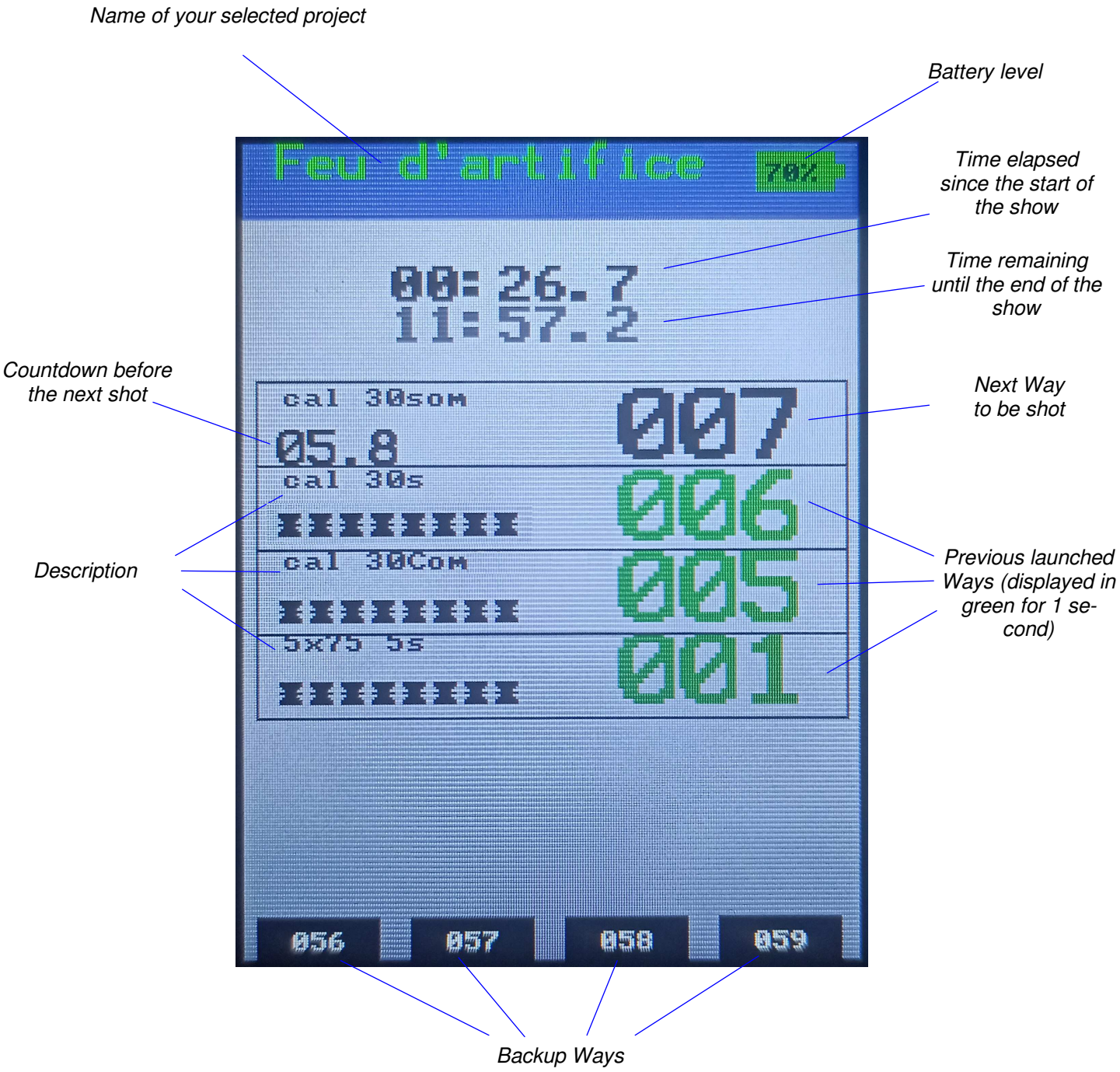
Once connected, press the knob to start. Be sure you have selected the good project : the name of the selected project appears in the blue banner at the top (in the example "Project1").



A 10-second countdown begins before the project starts.

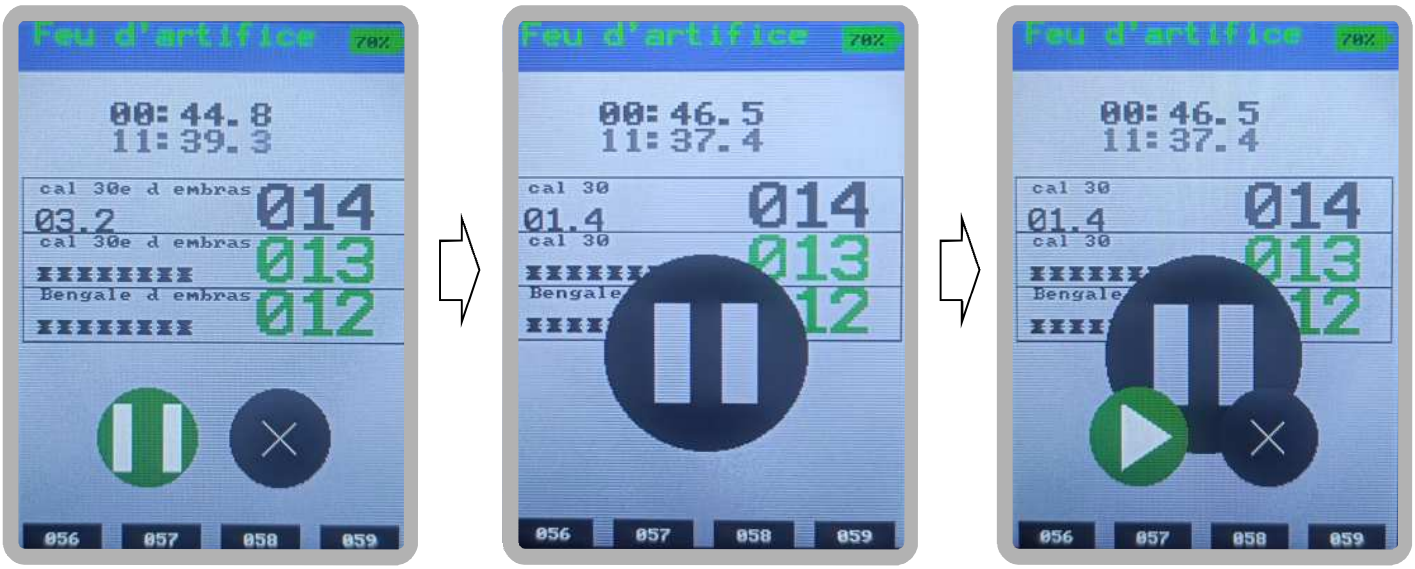
You can extend the countdown with the F4 push button "+10" (+10 sec each time you press it). You can go back and exit the countdown by pressing the F1 push button "Ret".

Screen during execution of a firing program :



PAUSE OR INTERRUPT WHILE PROGRAM RUN :

Pause while a program is running :



It is possible to pause the show (simultaneous pause of the shots and the audio). To do this, press the knob once, an icon Pause **(II)** circled in green appears (left screen above).

If you really want to pause, confirm by pressing the knob a second time. The center screen above will then be displayed.

If you don't want to pause, don't confirm, the left screen will automatically disappear after 5 seconds to return to the normal shooting screen.

If you have really confirmed a pause, to restart the normal course of the show press the knob again, the right screen above appears with the restart icon circled in green **(►)** . Confirm the restart by pressing the knob a second time.

<u>Definitive</u> stop during program execution :

It is possible to stop definitively a show in progress.
Press once on the knob, the icon « Pause » (**II**) is selected by default. Turn a notch to select the stop icon **(X)** so that it appears in green *(without additional action from you this screen automatically disappears after 5 seconds to return to the normal shooting screen).* Within 5 seconds press the knob once again to access the final stop screen :

- If you really want to interrupt the show, select **Yes** in green with the knob (screen above right), and confirm by pressing the knob. The program stops and the system returns to the home page.
- If you don't want to interrupt the show, select **No** green and press the knob to return to the normal shooting screen.

In order to avoid any handling error, you will note that to make a final stop of the show it is necessary to make <u>five</u> successive operations (press > turn > press > turn > press).

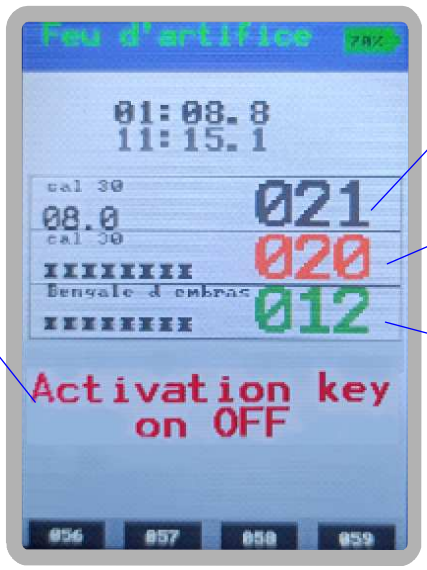
Stop firing only, with audio is still playing, while a program is running :

It is possible to stop the firing while continuing to play the audio.

To do this, simply set the "Firing mode" key switch to position 0. The firing stops instantly, and the audio continues as normal.

Except for stopping the shots, this action does not change the program sequence. A message appears on the screen indicating that the key is OFF, and the skipped channels appear in red.

To reactivate the following firings, simply return the firing Mode key to position 1. The show will proceed its normal course.



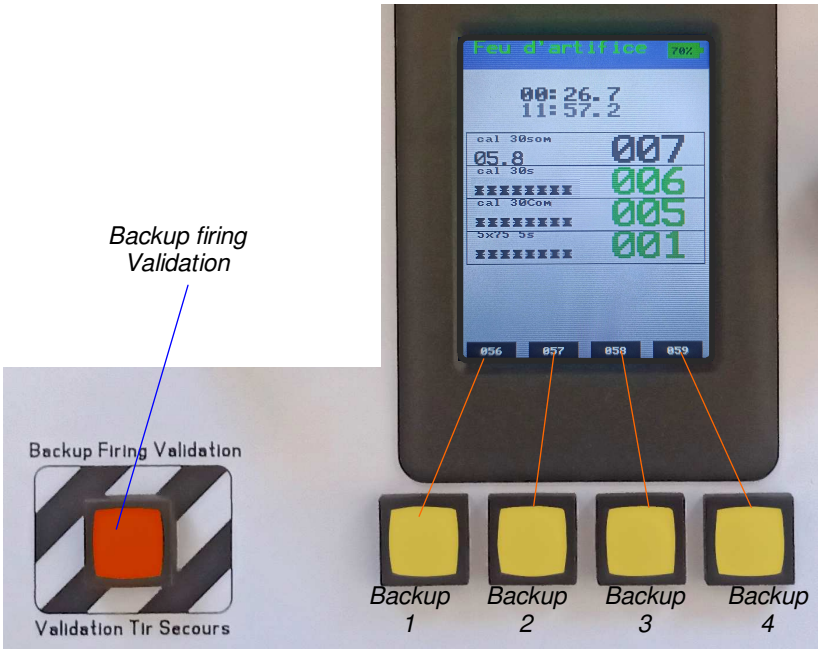
Way coming in 8 seconds (will not be fired if the key remains in this position).

Way not fired.

Way correctly fired (because before the key is turned OFF).

BACKUP WAYS :

The **P**yromusical **C**ontroller has 4 backup Ways that can be activated at any time with complete transparency during the show.
These ways must be set in advance in the parameters (see page 6).
They are completely independent of the show program because they are inherent in the parameters of the device itself (Note: depending on your settings, these backup channels may also already be present in your program).



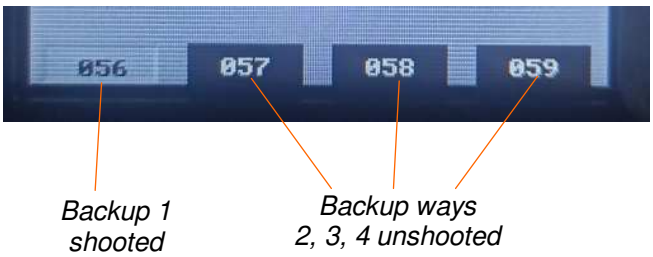
Activating a backup Way while the program is running:
First press and hold the button corresponding to the desired backup Way, then confirm by pressing the red "Backup Firing Validation" push button.

Release both buttons once the backup is fired.

Nota :
It is possible to shot the same backup Way multiple times.
It is not possible to shot a backup Way exactly simultaneously with a programmed shot, nor multiple backup Ways at the same time.

In order to easily know the status of the backup Ways, that is to say whether they have been activated or not, their displays on the screen change:

As like on the Oxydium console, an unused backup Way is displayed in plain text on a black background, and when it has been used it is displayed in black text on a plain background *(This display memory is automatically reset with each new show).*



SIMULATION OF A PROJECT

You should always run a simulation after importing your project. This allows you to test the music and shots, and check that your projects have been imported correctly or configure the audio, without having to connect the Oxydium console.

The Firing Mode key must be set to 0. Simulation mode is not accessible if this key is in position 1.

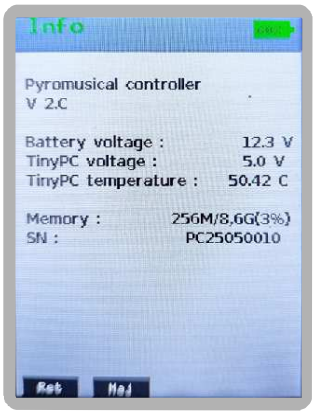
In the main menu select « Simulate firework ».

The operation is identical to running a real firing project.

Note: It is also possible to use this mode to play only the audio during a show without having an Oxydium connected in firing PC mode (an Oxydium, or another system, can, for example, be in automatic and independent firing mode. The Pyromusical Controller's countdown then serves as a guide when it reaches zero to manually launch the firing program).
On this same principle, it is also possible to launch all the firings manually (for example, with a simple MAF60 wired remote control) and rely on the Pyromusical Controller's screen to know at what precise moments to fire the shots.

FIRMWARE UPDATE

When you purchase the **P**yromusical **C**ontroller, the latest firmware (internal operating program) is installed. If you already have devices from the Oxydium/MAF60 range in your possession, make sure they are up to date so they are compatible.
Free updates to optimize your devices may be available for download on our website. To do this, visit our website www.genetec.fr regularly (under "updates"). The same applies to the Oxydium PyroMusical Creator software and all devices in the range.



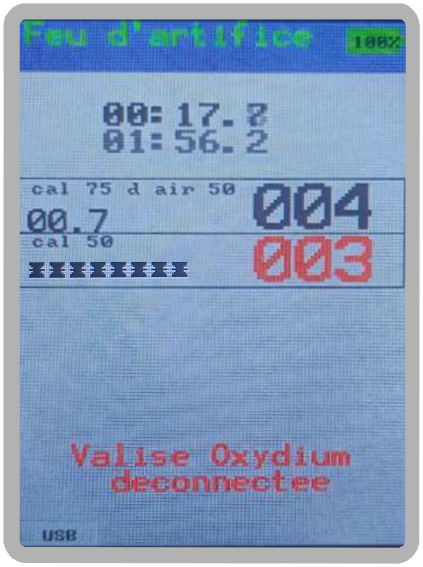
Download the update from our website www.genetec.fr, and copy it onto a blank USB key (there must be no previous updates on the USB key, or other files and folders). Ifirs, plug this USB key into the **P**yromusical **C**ontroller.

- Switch On the **P**yromusical **C**ontroller.
- From the main menu select « Info ». The firmware version is displayed (here in the example V 2.C).
- Then press the button « Maj » (F2). The update will start, this may take a few dozen seconds, please wait for the message “Update done”.

Turn Off the device, remove the USB key with the update, wait 3 or 4 seconds, turn the device back On to ensure that the update has been carried out (the new firmware version number should replace the old one).

Note: If you use the same USB key for the update and your projects, remember that except for the update file it must first be emptied and blank, and then this update must be deleted from the key to be able to put your projects on it again.

MISCELLANEOUS

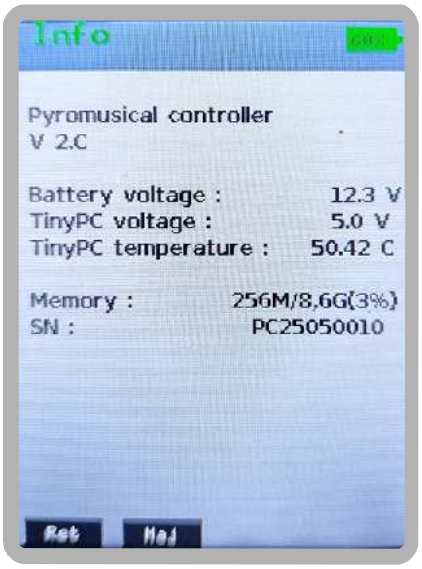


USB connection lost and reconnection

In principle, you should no longer touch the USB connection between the Pyromusical Controller and the Oxydium once a project is running. However, if this USB connection is accidentally lost while running a program, for example if the cable is unplugged, as soon as the first shot is detected as not being executed (it appears in red and not green as usual), the red message « Oxydium case disconnected » will inform you. If you reconnect the USB cable, the system will automatically reconnect the two devices as soon as the next shot is fired and the message will disappear.

However, if you do not want to wait for the next shot to be sure that the USB reconnection is effective, you can press the USB push button (F1) at the bottom left for manual reconnection. Once the connection is established again, the red message and the USB tab disappear and return to the normal shooting screen.

If the connection loss occurs between two shots (for example for a USB cable replacement), this remains transparent to the user and system.



Info screen

On this screen we have the following informations :
Top right the battery level icon (in %)
The name of the device : Pyromusical controller
Firmware version (in the example opposite V 2.C)
Battery voltage (V)
Voltage supply of internal microPC (nominal 5V)
Temperature (°C) of internal microPC
Used memory / Total memory / Proportion of used memory
Serial number (SN) of device.

Shutting down the device

Just like a computer, do not shut down the device while it is performing a task (running a program, transferring data via USB, updating, etc.). Always return to the main menu screen first, then shut down using the 0/1 button.

Important additional information :

- The **P**yromusical **C**ontroller can only manage one Oxydium at a time. Do not connect two Oxydiums to it at the same time. The **P**yromusical **C**ontroller can only manage one USB key at a time. Do not connect two USB keys to it at the same time.
- Never turn on the Pyromusical Controller with a USB key already inserted.
- The **P**yromusical **C**ontroller can manage an Oxydium and a USB key at the same time (it is not necessary to remove it if you plug in your Oxydium).
- Do not connect anything other than an Oxydium or a USB key to the USB ports (no phone, no HDD, no powerbank… this list isn't exhaustive)
- The USB key should be dedicated to your projects, and contain nothing else. Projects should be placed directly at the root of the drive (not in a folder).
- No event (shot, etc.) should be placed outside the soundtrack. If this is the case, you must add a silence at the beginning or end of your audio file.
- After turning off the device, always wait 3 to 4 seconds if you need to turn it back on.
- In addition to the battery level accurately displayed in the top right corner of the screen, the power indicator (indicator of the internal processor starting) is also linked to the battery level (changes from green to red when the battery drops below the 20% threshold).
- If you need to use a USB key other than the one provided, choose a low-profile USB key, lightweight, plastic body, maximum total length 35mm, to avoid damaging the USB port (for example, if the cover is accidentally closed). For the same reason, do not close the cover if the USB cable that connects the Pyromusical Controller to the Oxydium is present. The USB key must initially be formatted in ntfs.
- The function « Audio lag » of OPMC software (page 3 of the 2nd part of this manual) is incompatible with PyroMusical Controller device (leave this time to 00:00:00.00).
- Symetric XLR outputs are only compatible with devices that have symetric XLR inputs themselves.

OBSERVATIONS AND ADVICE :

- Before use, you must familiarise you with your device. Make sure you're able to control all functions.

- If you use the case in very cold area (such in the mountains or snow), install the control unit at the last moment so as to preserve the battery, otherwise you risk a loss of power.

- In case of rain, protect the system from water. Pay attention to seawater because it is relatively conductive. Leave lid open to dry the devices having got wet.

- Only use water with a soft cloth to clean your case, do not use solvents.

- No powerfull radio transmitter should be used in proximity of the control unit.

- Avoid strong electrostatic discharges which can, for example, disrupt the operation of the LCD screen and require a restart. To perform a reset, turn off the console with the 0/1 button and wait a few seconds before switch on again. To perform a hard RESET (only for maintenance operation), open the top panel (16 Phillips screws) and unplug a terminal from the battery 1 min, and reconnect.

- Recharge the battery regularly, do not allow it to discharge deeply. The battery should be replaced at the latest every five years.

- Always replace the protective covers on the XLR sockets (battery charging & audio outputs) after use.

- **Storage, battery recharge, transport : The systems must be turned off and away from pyrotechnic products.**

MAIN CHARACTERISTICS

- Fully automatic fire (except backup Ways).
- Minimum time between two shots 1/10th of a second
- Stopwatches elapsed time & remaining time
- Free allocation of the 4 backup Ways
- 4 interactive function keys
- Manages up to 600 different Ways
- Secure validation of firing mode by mechanical key
- Color screen LED TFT backlit, 3.2 inches (8.1cm) , adjustable contrast
- Audio stereo, outputs : RCA, XLR symétrics, headphones (jack 6.35)
- 2 x USB ports
- USB key supported up to 32GB
- Self-contained internal memory
- Battery level indicator
- Consumption : 250mA
- Powed supply by lead battery 12V 3.4Ah. Operating time : 10 hours around.
- Dimensions 330x295x150mm, weight 3.8kg, IP65 case (when closed)
- Warranty : 2 years

DECLARATION U.E.
DE CONFORMITE

Nous, Genetec, déclarons sous notre propre responsabilité que l'appareil suivant :

Console marque GENETEC, modèle Pyromusical Controller

Est conforme aux exigences essentielles listées ci-dessous :

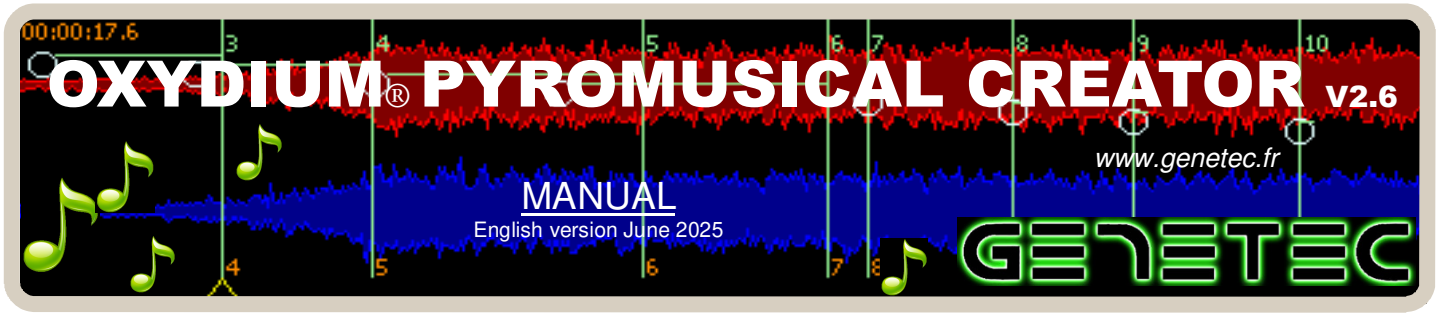
EN61000-4-3, EN61000-4-2, EN61000-4-4, EN61000-4-6

Information supplémentaire :
Ce produit est conforme à la CEM directive 2014/30/UE concernant le rapprochement des législations des états membres relatives à Compatibilité ElectroMagnétique, ainsi qu'à la directive européenne RoHS 2011/65/UE.

Les produits ont été testés dans une configuration normale.

La Bastidonne, le 21/11/2024.

Pour Genetec, J-L Vincent
co-gérant

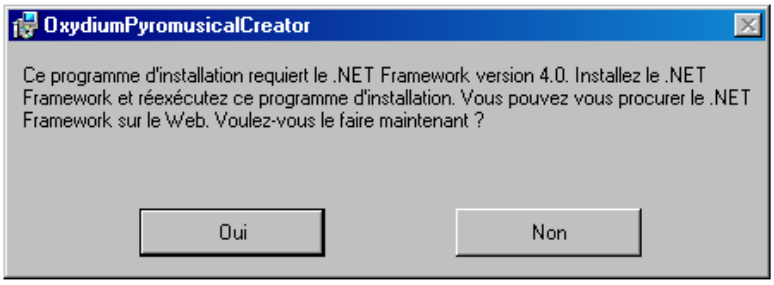


Oxydium Pyromusical Creator allows to easily create fireworks synchronized to a sound file. The use of this tool is simple, and it's an intuitive software to get started easily and fast.

1/ Installation :

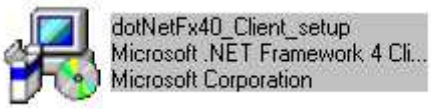
Insert the cd rom Oxydium PyroMusical Creator (abbreviated OPMC) in your computer* player. Double-click SetupOxydium.msi. The software installation starts, follow the instructions given by the computer.
Note : in case of replacing the OPMC, by a newer version for example, save your database products to a new file in order to retrieve it, then uninstall the old version before installing the new OPMC (see page 13) .

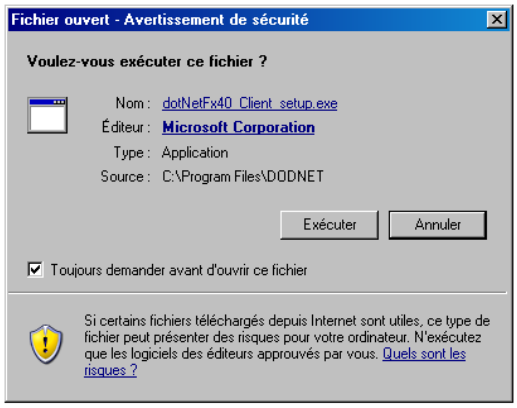
This software requires the presence of Dotnet application of Microsoft. If the latter is not present on your computer, a message will ask you to download it, choose a destination folder (eg "My Downloads") and follow the instructions.



*Oxydium Pyromusical Creator requires a PC under Windows (XP up to 11), Vista or Seven). It must be efficient (double-heart), with at least 4 GB of RAM, 8 GB (and more) is recommended.

At the end of the download of dotNet, open your destination folder and click twice on the dotNet and click Run icon. Wait until the installation of dotNet before continuing the installation of Oxydium Pyro-Musical Creator.

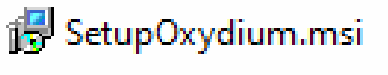




If your PC is not equipped with a CD-ROM drive, the OPMC program is available for download from our website www.genetec.fr (Oxydium page).

When the DotNet installation is finished, the OPMC installation will be able to restart. Note : if you have not already done so, also install the Oxydium driver (provided on the CD or available on our site).

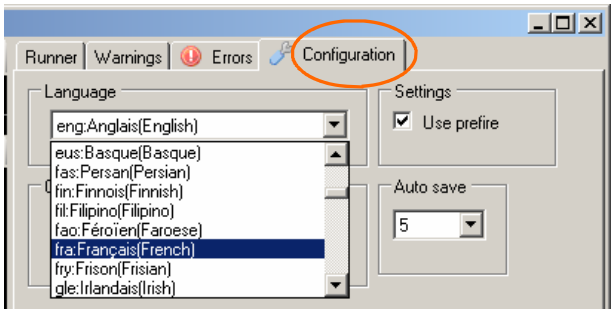
Double-click SetupOxydium.msi, the software installation starts, follow the instructions progressively.

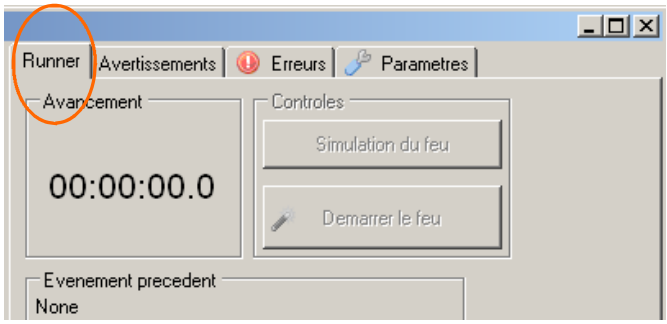


When installation is complete, the following icon appears on the desktop. Click on it to launch OPMC.

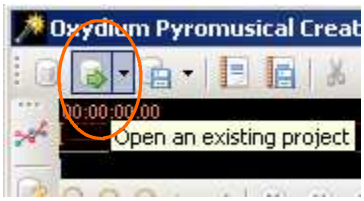
2/ Beginning and Creation :

- Language Selection: Default language is English, if you want French click the Configuration menu and select French. Then select Runner tab.





To see what may look like an existing project, a demonstration project is provided as an example: you can open it by clicking the icon in the top left "Open an existing project."



Creation of a new project :

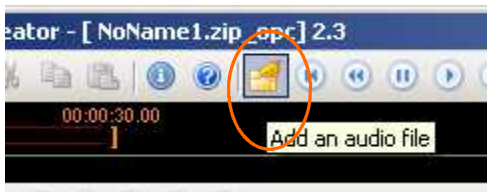
Start OPMC (or click New Project if another project is already open).
We must load a sound file in mp3 (or wave*) format to insert "markers" in it. Make sure the file is compatible or is not corrupted. We recommend that you create yourself from your own mp3 from a recognized application (example Audacity, excellent free software to work the audio files).

**Note: OPMC accepts files in wave format, but a wave file quickly considerably larger and requires more memory and resources than a mp3. If you have the slightest doubt about the performance of your PC (slowness, lack of responsiveness, long to start up, etc.), opt for a good mp3 file.*

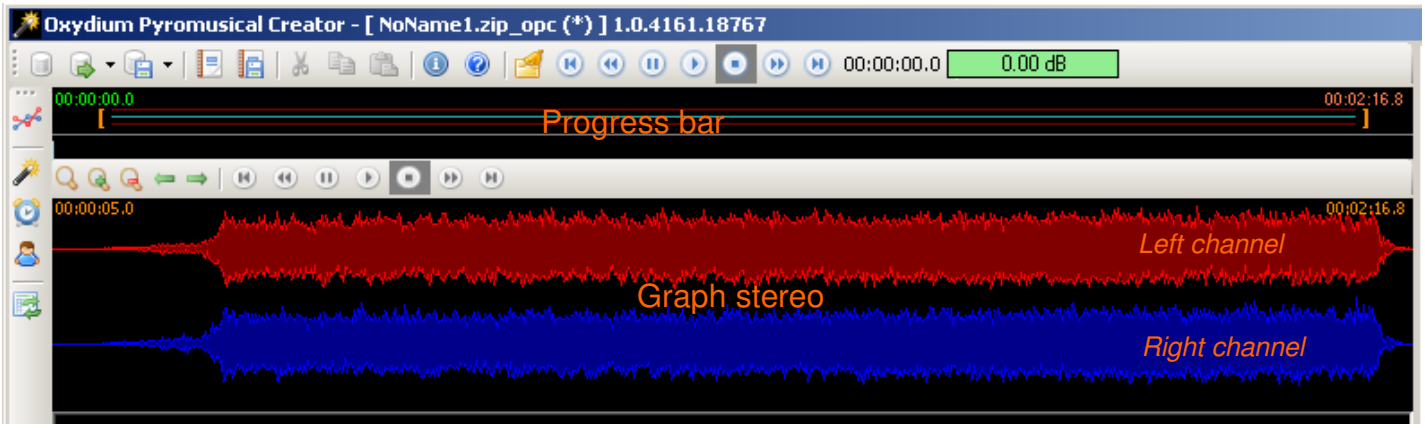
The files used must be present on the hard drive of your computer (and not used as such from an external storage device (USB stick, SD card, CD-ROM ...).

Tip: When creating the soundtrack with your software, be sure to insert a gap (or silence) at the very beginning of a few seconds before the music starts. You can insert a brief beep into this silence (audible but nevertheless discreet, unless you have headphones) thus allowing you to preventively validate that the audio is working correctly when the program is actually launched.

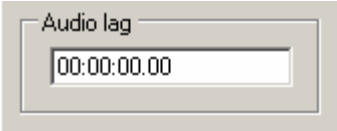
To load a sound file, click on the icon and choose your audio file, import begins and may take several minutes depending on the size of this file.



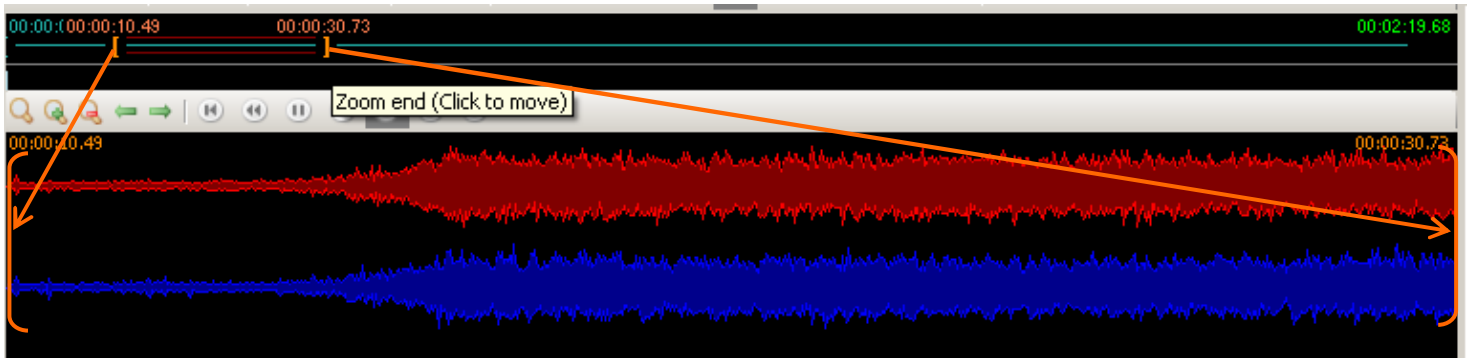
Once the import is complete, the graph of the sound of the entire file appears on the screen. For greater precision, zoom in on the selected area by dragging the two sliders in the orange window above the graph.



In the "Settings" tab, select the audio lag 00: 00: 00.0. Otherwise this Audio lag allows to eventually start the audio file with a delay with respect to time 0.
Note : This function is incompatible with the PyroMusical Controller console (firmware 2.C and earlier), leave this time at 00:00:00.00

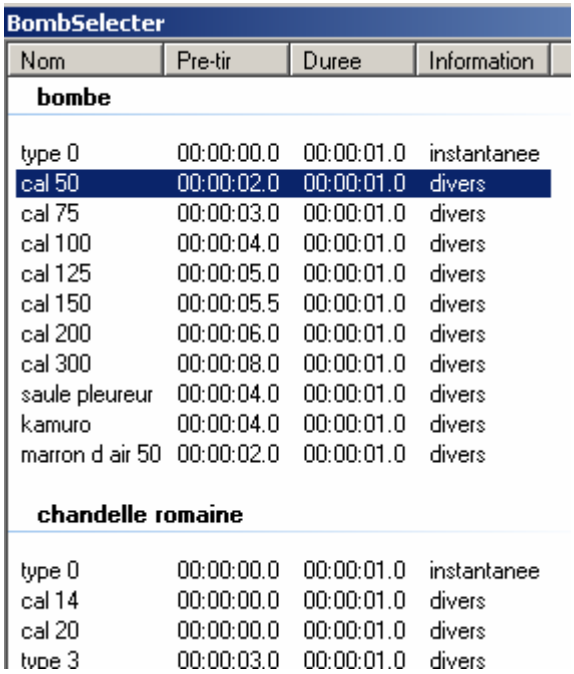


We will zoom in on the beginning of the song to insert the first events on that area. The graph shows only the zone defined by the two sliders in the orange progress bar.



To insert the first event (pyrotechnic products in general), click the magic wand to the left of the screen. The « BomSelecter » window opens, double-click on the desired product. This database is provided as examples and has only a few effects, you will need to complete depending on the products you use (see "Product Database").

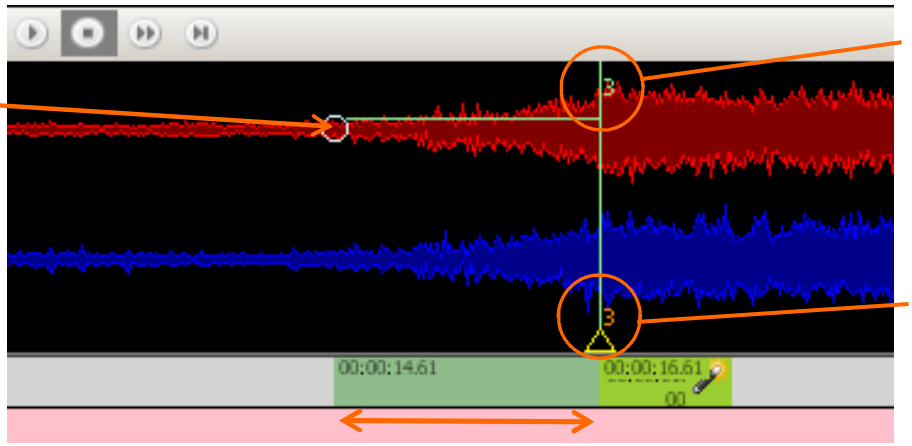
Warning : You must not place the 1st event at the immediate start of the soundtrack: "Début/Start 00:00:00.00", it must be slightly offset with for example "Début/Start 00:00:00.01".



BombSelecter

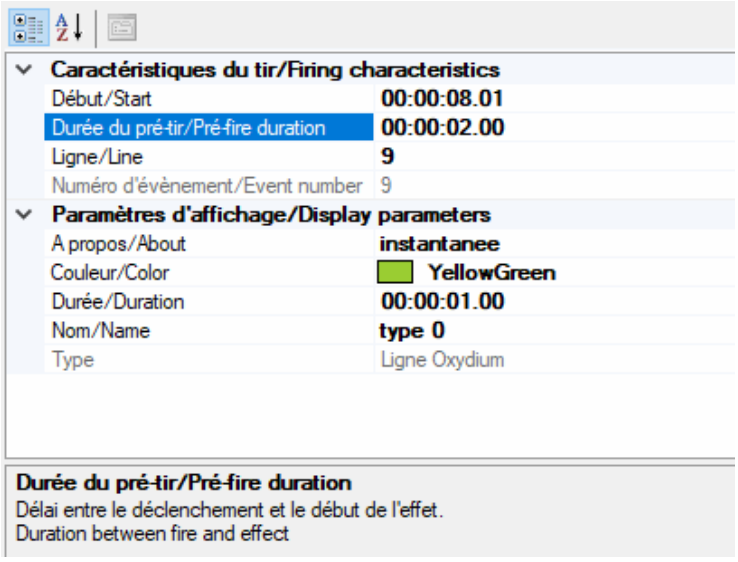
Nom	Pre-tir	Duree	Information
bombe			
type 0	00:00:00.0	00:00:01.0	instantanee
cal 50	00:00:02.0	00:00:01.0	divers
cal 75	00:00:03.0	00:00:01.0	divers
cal 100	00:00:04.0	00:00:01.0	divers
cal 125	00:00:05.0	00:00:01.0	divers
cal 150	00:00:05.5	00:00:01.0	divers
cal 200	00:00:06.0	00:00:01.0	divers
cal 300	00:00:08.0	00:00:01.0	divers
saule pleureur	00:00:04.0	00:00:01.0	divers
kamuro	00:00:04.0	00:00:01.0	divers
marron d air 50	00:00:02.0	00:00:01.0	divers
chandelle romaine			
type 0	00:00:00.0	00:00:01.0	instantanee
cal 14	00:00:00.0	00:00:01.0	divers
cal 20	00:00:00.0	00:00:01.0	divers
type 3	00:00:03.0	00:00:01.0	divers

The selected effect then appears on the graph, you can drag with the mouse by clicking on the magic wand of light green area for a best position (you can also manually enter the position by typing in "Start" cell) . An effect is composed of several parameters including the pre-firing (or prefire, or PreTime) which corresponds to the time between the moment of firing order and the pyrotechnic effect itself (time of reactions, time of rising ...)

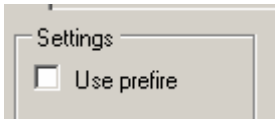


Prefire area (here 2 sec : the firing order is given at 14.61sec from the beginning of the song, and the pyrotechnic effect itself is at 16.61sec from the beginning of the soundtrack).

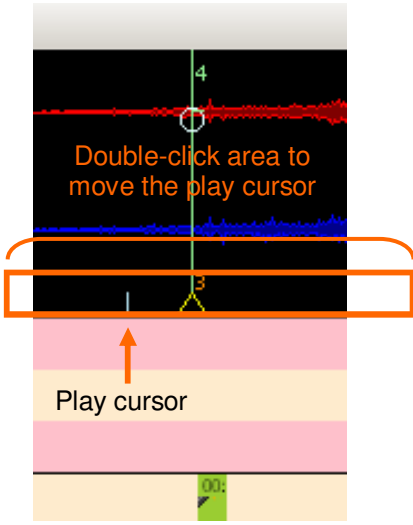
You can change the duration of this pre-firing zone directly in the product database. You can also amend elements in the right window with the desired time. In this case, the change is valid only for this shot. If you reuse the same effect, it will again be at the prefire time stored in the database.
In this window you can adjust several other parameters such as the duration of the display area of the effect on the graph, color, the Way number to shoot, or the beginning of the shot with the keyboard for more precision (hundredth of a second).



Depending on your preference, you can work regardless of Prefire. For it, in the Settings tab, uncheck the "Use Prefire." From there, all effects will be installed without prefire (the previous effects placed with the active prefire keep it).

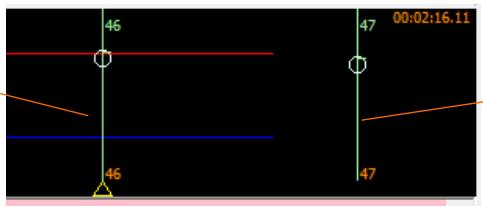


In order to accurately position your events on the graph, it is possible to activate the playing of the song (double-click to move the graphs of reading cursor), to pause, to go back and also to zoom in on a specific area using the magnifying glasses.



Note: do not place two fire orders with an interval less than 0.10 seconds. In case of shots with an interval of 0.10, we advise you to enter the fractions of a second on the keyboard (indeed by just dragging the effects you can end up with shorter intervals given the fact that the display is not only on two digits after the decimal point: for example with two successive shots displayed at 02.00 and 02.10 you can actually have 02.001 and 02.100, which means that the intermediate time is only 0.099 and therefore an error message).
<u>Do not force events to be placed outside the audio file (e.g. after the end of the song) :</u>

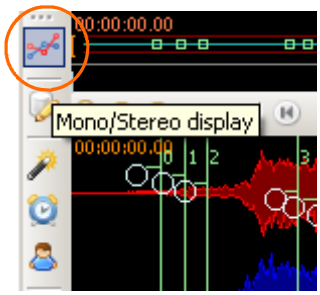
Good

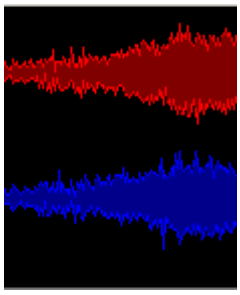


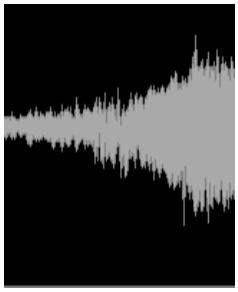
Bad

Functions and other events :

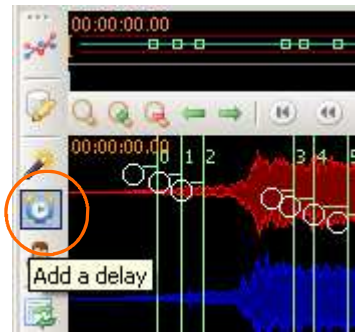
Selecting the display mode mono or stereo (only affects the display of the graph, the sound remains still a stereo file).
The mono mode displays a synthesis of the two stereo channels.

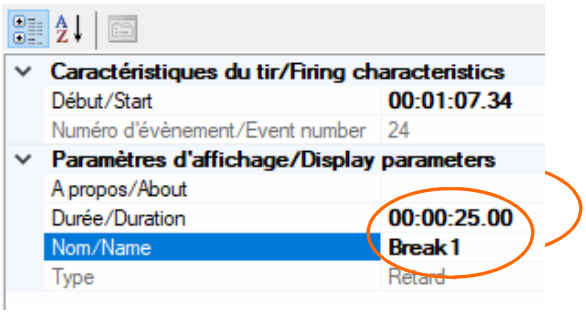




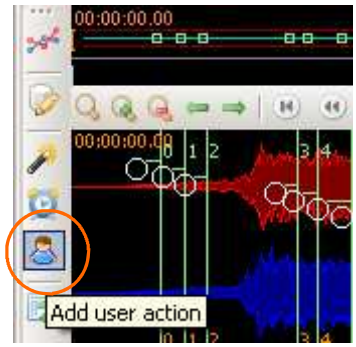


- Inserting an event like a "Break" (stop shots and music). Its duration is set in the parameters of the runner, shooting characteristics. You can give it a name (example here « break 1 », duration 25sec.)

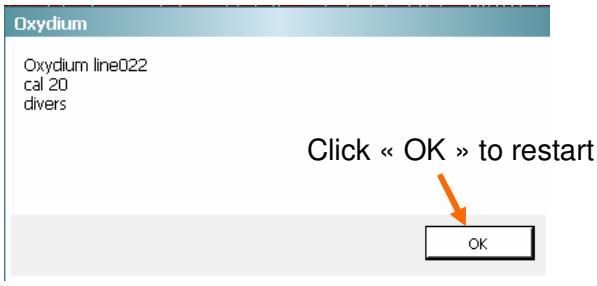




- Inserting a "User action" event (it stops the shots and music until the order to restart is given manually by the operator by clicking on "OK"). This can be considered as a scheduled break with manual restart sequence.

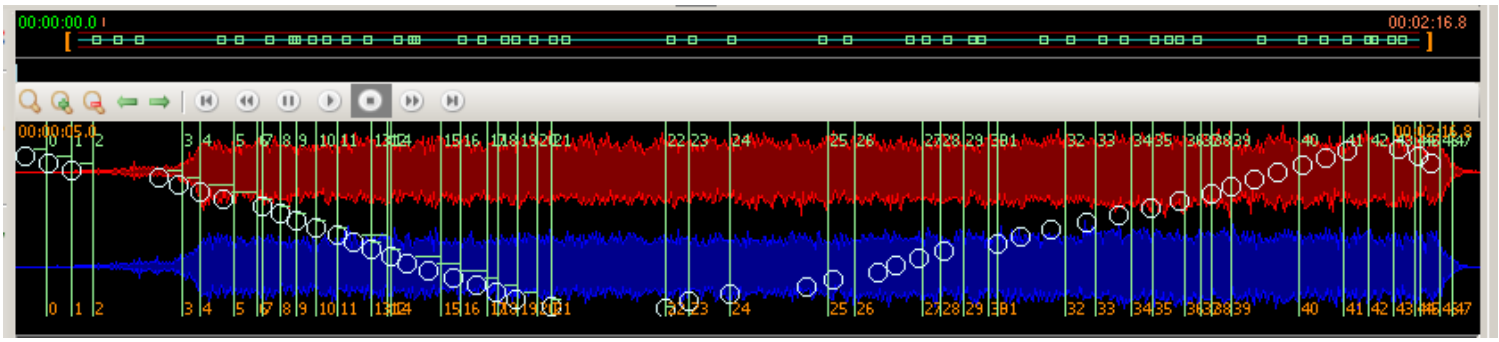


The event will follow this break is displayed :



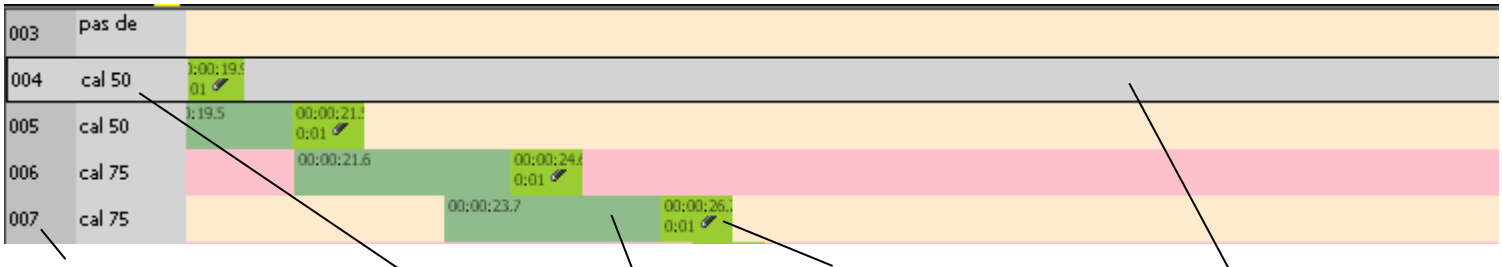
- Set the output volume by adjusting the green cursor.

- Fill the graph of the timeline as with all events by selecting your products and positioning them at the desired times. During and at the end of project creation, do regular backups by clicking « Save ».



Gradually as you add events, lines appear. You can select one (turns gray) to edit, move, or delete the corresponding event.

Caution: If an intermediate event is deleted, the following Way numbers remain unchanged and are not automatically renumbered. In this case, in order not to skip Way, remember to correct them if necessary.



Event number (from 000 to 599). Always in chronological order.

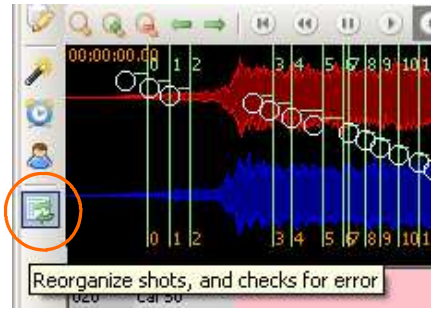
Name of the event

Prefire area

Viewing Area (can be set on the duration of the pyrotechnic effect).

Selected line (in grey)

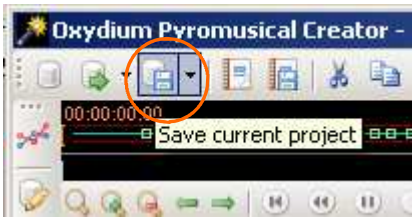
WARNING : At the end of project creation it's obligatory to make a check that will automatically detect possible errors. To do this click on the icon on the left « Reorganize shots, and checks for error ». A refresh of the order of events is then carried out (if you have moved some events before or after existing events, the Way numbers do not change), and a checking for errors (a message warning or error is given and you must open the tab of the dialog box in order to know it and to correct).

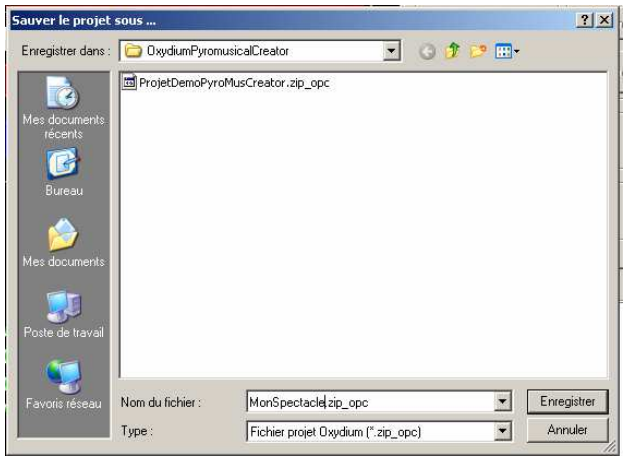


- A warning message is an information message about a possible anomaly, such as the firing of two times the same Way, but do not require an obligatory correction.

- An error message requires an obligatory correction (examples : a time between two shots less than 0.10 second, one shot at 00:00:00.0, a Way number upper than 599...), otherwise the project may not work.

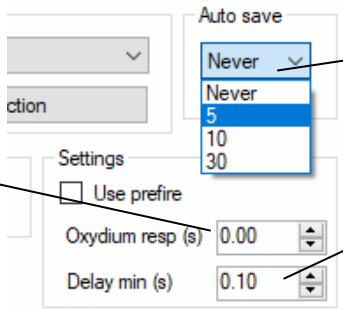
Once the control is completed, save your project by clicking on the icon "Save the current project". A window opens, give a name (here in the example "MonSpectacle." Be careful not to erase the file extension during this operation (.zip_opc).
Click save. Your project is saved.





Miscellaneous settings :

Fine adjustment of the reaction time: allows the real firing order to be transparently anticipated in relation to the graph, to compensate for any delays linked to the technical response times of the devices. Given that these are negligible, we advise you to leave this value at 0.00 seconds by default. However, in the case of firing by HF, it is possible to adjust to 0.05 seconds to compensate for the slight communication delay.

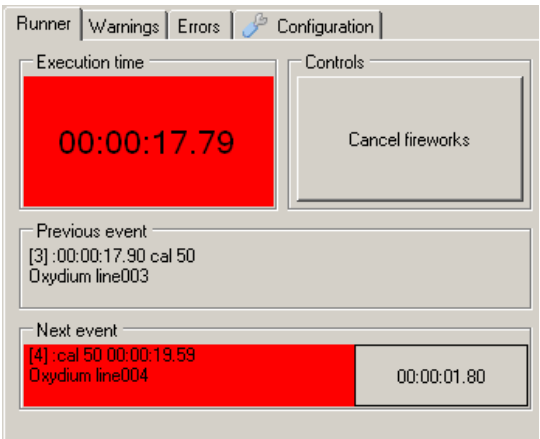


Adjustment of the periodicity of automatic saving of the project during its creation.

Adjustment of the minimum delay between two shots. Do not set under 0.10 second for the transistorised satellites (products from 2011 to today), do not set under 0.20 second for satellites with relays (products from 2007 to 2011).

Note: If you wish to keep your project but change the soundtrack, it's possible. For this, do not close your project and just do "Import an audio file". At this time your previous audio file is simply replaced by the new while keeping all your events in the same place (if the duration of your new audio file is less than the position of some events, they will exist still but "overflow " the soundtrack).

Now you can try your project with the function « Simulated firework » (icon on the right, in the Runner tab). By clicking on this icon, the project will start from the beginning and plays all the events (shots, breaks, user actions) of the show. At each event the fields "Execution time" appears in red.
It is possible, just like on a real show, to stop the firings by clicking the "Cancel fireworks" (this corresponds to an emergency stop) : At this stage the fire and music are paused, and a window opens asking shutdown confirmation « Yes » or « No », by selecting "No" the show restarts where it was stopped.



*Note: In this simulation, the presence of the Oxydium console or of the **P**yroMusical **C**ontroller console is not necessary.*

3/ Real use of a project :

There are 3 possibilities of using the project created with Oxydium Pyromusical Créator :

- Direct firing by **P**yromusical **C**ontroller console
- Direct firing by PC
- Indirect firing with « Oxydium suite » standard software (provided with Oxydium)

Direct firing by Pyromusical Controller console

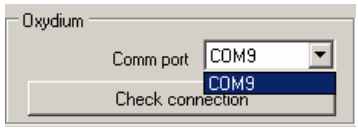
The **P**yroMusical **C**ontroller was designed to conveniently control the Oxydium console while playing audio files through its integrated high-quality sound card, without requiring a PC, thus avoiding the drawbacks associated with the latter (less suitable, Windows sounds, random antivirus scans, screen saver, USB sleep mode, etc.).
This device also provides additional functions (4 backup Ways, automatic USB reconnection, fine adjustment of audio/pyro synchronization (+/-1000ms)...).

The PyroMusical Controller is connected by USB cable to the Oxydium console and it is the PyroMusical Controller that manages both the music and the orders transmitted to the Oxydium console.

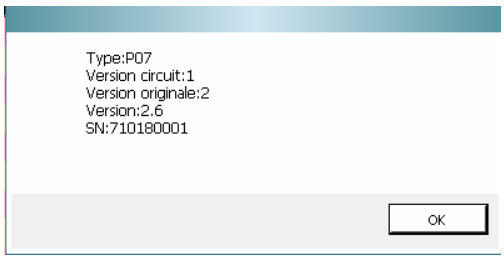
Direct firing by PC

The computer is connected via the USB cable to the Oxydium console and it's the OPMC software that manages both the music and the orders sent to the Oxydium console. The sound is in the same time transmitted by the PC sound card to your amplifier.

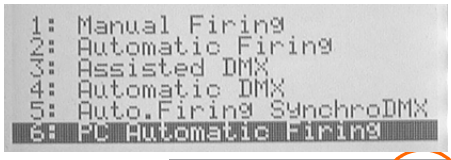
- Step 1 : Connect the computer to the Oxydium console with the USB cable provided.
- Step 2 : Start the OPMC software and open your project. The files used must be present on the hard drive of your computer (and not used from a external storage device (USB key ...).
- Step 3 : Click on the icon on the left « Reorganize shots, and checks for error ».
- Step 4 : Switch on the Oxydium console (everything related to the Satellite/Oxydium wiring is not addressed in this document. Refer to the manual of the Oxydium and MAF60 serie II). The classic Window sound for a USB connection is then heard.



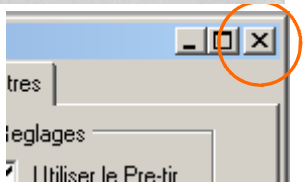
- Step 5 : Valid the port com by clicking the tab « Configuration », then in the cell « Comm port » select the port com proposed (it is usually always the same, here in the example 9). If no com port is offered, click on the black triangle to refresh the display of ports).



Once the com port selected, click «Check connection». This window appears. Click OK.
Otherwise, check the following : the presence of the USB connection, the Oxydium is switched on, select another com port. If this is not your usual PC, be sure to install the driver of the Oxydium.



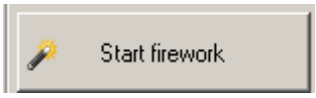
- Step 6 : Put the console Oxydium in firing mode and select the mode 6 "PC automatic Firing", do twice OK until the screen displays the window of the step 7.



Nota : never unplug the PC data cable to the USB Oxydium (nor turn off the Oxydium) when OPMC is running. First, always close OPMC software cleanly with the upper right cross before disconnecting the USB cable.

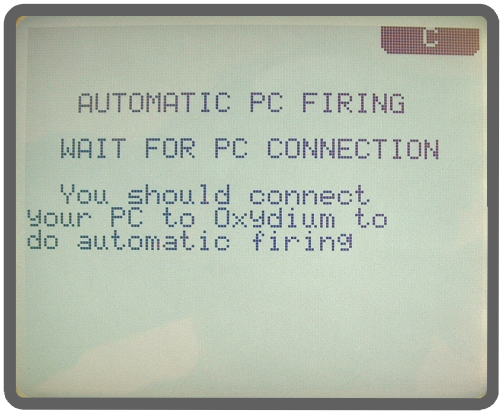
On your PC consider disabling : the screen saver, automatic standby, automatic shutdown, automatic scanning by anti-virus, automatic standby of USB ports (advanced power settings), and everything that may use the PC resources. Once the show started, the PC should focus only OPMC and avoid to connect or disconnect external devices (USB ...).

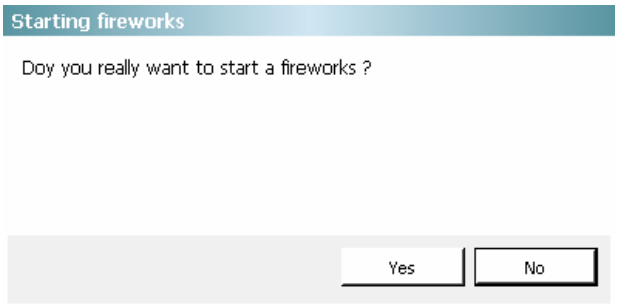
- Step 7 : Start the firework.
Set the display of the progress bar on « Zoom all ».
Click on the tab Runner, then click on « Start firework ».
The software asks if you want to save the modified project. Click No (unless you modified it and want to keep this change).



At this point the screen of Oxydium console should display the message :

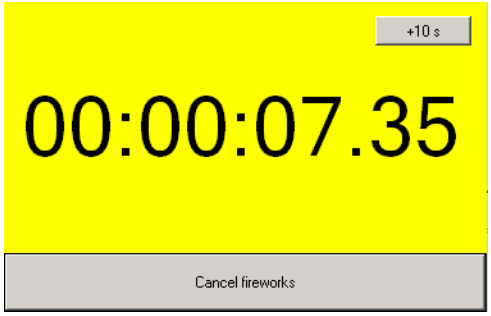
« PC is connected to the Oxydium,
you should firing from your PC. »





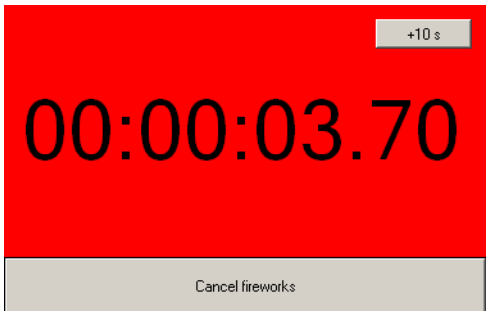
A confirmation window will ask you if you really want to start the fire. Click Yes.

A 10-second countdown begins: the first 5 seconds are displayed in a yellow window and the last 5 in a red window. If this countdown is too short, you can add more time (10 seconds by 10 seconds) by clicking on tab « + 10s » on the top right.



If you want to interrupt the process of the countdown, click "Cancel fireworks" Otherwise, at the time 00:00 the reading of the soundtrack and the events begin (firings, breaks ...) according to your project.

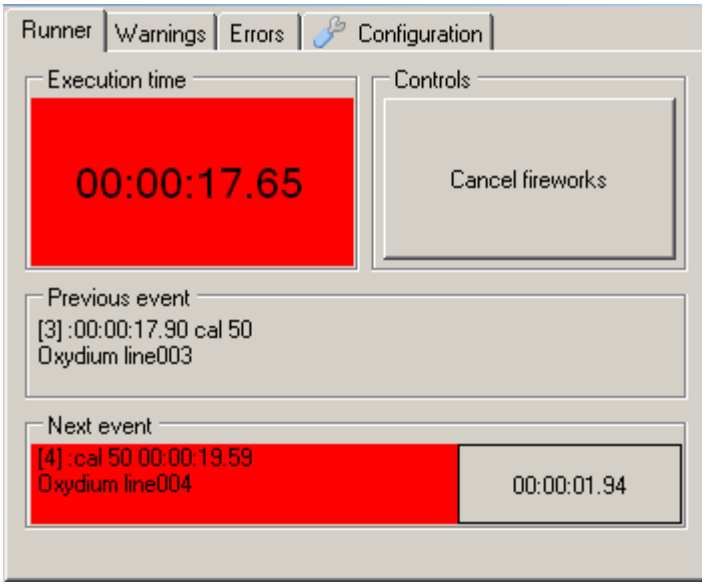
The playback cursor moves simultaneously on the graph.



In the right part of the screen, in the Runner, display the previous event and the next event (with their characteristics, here "cal 50") in accordance with the playing.

A countdown shows the time remaining until the next event.

Nota : Never unplug the PC data cable to the USB Oxydium (nor turn off the Oxydium) when OPMC is running. First, always close OPMC software cleanly with the upper right cross before disconnecting the USB cable.



Interruption during a show:

Once the show starts you always have the option to interrupt the running.

At any time you can instantly stop the show (sound and firing) by clicking on "Cancel the fire", a confirmation is then requested (Fig. 1):

- if you click "No", the fire continues from where you stopped. This operation can be likened to a pause.
- If you click "Yes", the fire stops completely.

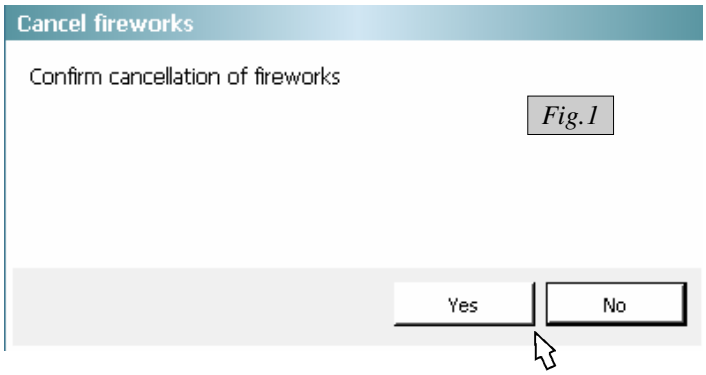


Fig.1

Restarting the same show after a sudden interruption *:

OPMC (version 2.3 and above) does every second a memory layout of the current playback position of the project (for a duration of 15 minutes). So with this function you can choose the position of the restart.

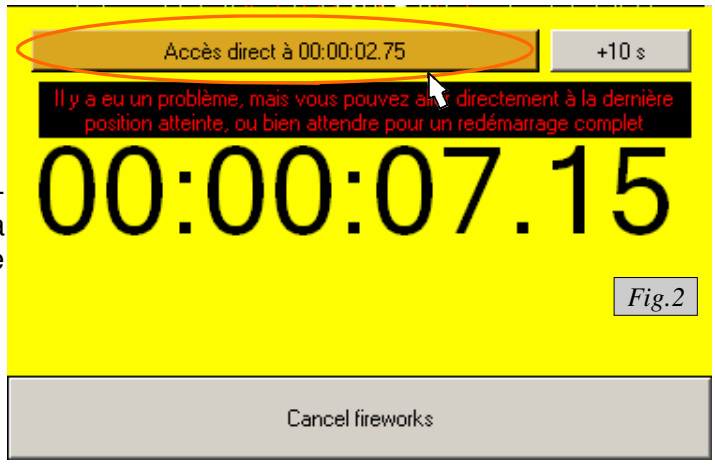


Fig.2

There are several possibilities :

- You can either take the show from the beginning, following the normal procedure described on page 8.
- For a period of 15 minutes after the interruption, you can restart directly and automatically the show where took place the sudden interruption during the countdown by clicking on the orange window « Acces direct a ... » (*Fig 2*).
- For a period of 15 minutes after the interruption, you can restart directly and automatically the show where you want. In order to do that, you must do Ctrl/Shift (simultaneously pressing the Ctrl key and the arrow just above, *Fig. 3*) and in the same time by clicking on « Start firework » (*Figure 4*) . At this step appears a cursor (*Figure 5*), you can move it with the arrow to the desired place (the time positioning is displayed in same time in the orange window), and by clicking in the same time as the countdown on the orange window « Acces direct a ... ».

Fig.3

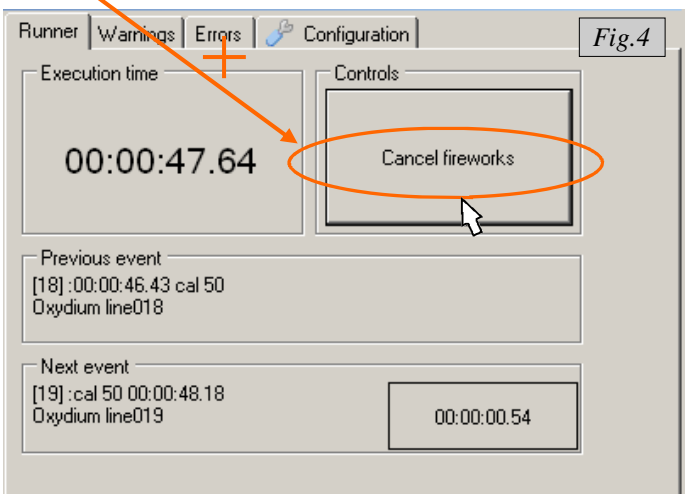


Fig.4

Fig.5

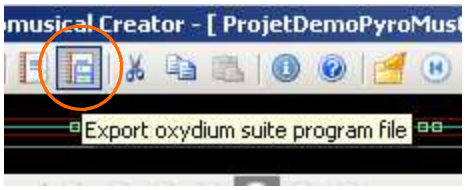
** "Sudden interruption" means not only interrupting the program by the user, but also for example a possible crash of the PC (in this case, open the same project again). If the period of 15 minutes after the interruption is exceeded, or if it's a different project that is open, the current recovery option is not available. If you do not click "Acces direct a ..." during the countdown, the show starts again from the beginning.*

Indirect firing via Oxydium suite (standard software provided with the Oxydium console)

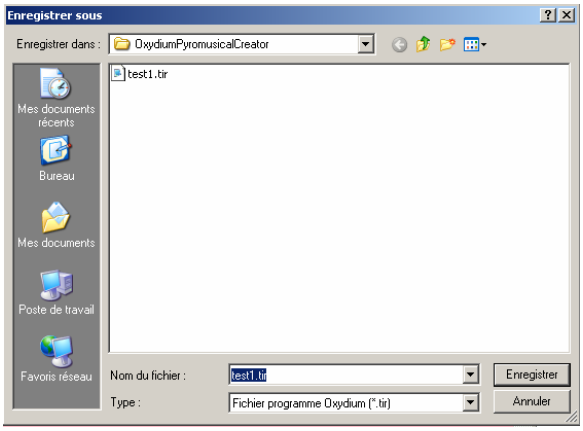
This time, there is no need of PC for shooting. The project created with OPMC is converted to "Oxydium Suite" format and is then transferred as a normal program in the completely autonomous memory of the Oxydium console.
Refer also to the instruction manual of Oxydium suite software.

Step 1 : Launch Oxydium PyroMusical Creator software and open your project.

Step 2 : Click on « Reorganize shots, and checks for error »

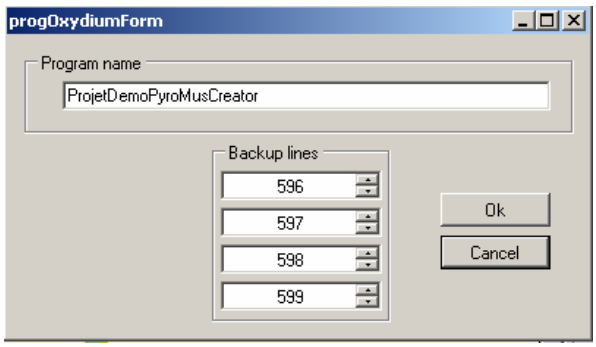


Step 3 : Click icon « Export Oxydium suite program file ».
The software offers you to save your project, click "No" (unless you want to save any changes).
Then an export window in format Oxydium suite (.tir) opens and asks for a name for the project (in the example test1).
Select the directory of your choice where this file « .tir » will be ceated (if you do not create a specific directory, your file will be placed in Program files, which is not always convenient to find).
Click Save.



A window asks you to choose the four backup Ways (usually do not assign a Way already used in your project).
Click OK. Your project has been converted and saved in format Oxydium suite (.tir).
For open it, launch Oxydium suite and click on icon «Open file ».

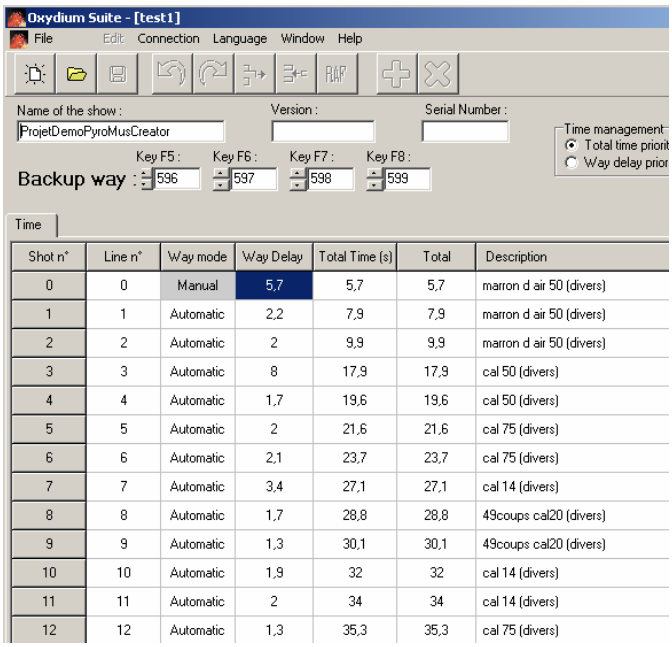
Nota : You possibly can make changes to the project.



Then use the normal procedure for a transfer .tir file described in the manual of Oxydium.

Nota : - In case of an « User action », the next Way is changed to manual mode, and a delay of remaining time since the user action is added to this Way.
- The feature « Add a delay » is no compatible with Oxydium suite.
- The first shot with Oxydium Suite is always on the Way 0. Therefore you must have the first shot in OPMC also assigned to the Way 0.

The start of the show program must be manually synchronized with the soundtrack, or so use the assistance function for synchronization DMX present on the Oxydium console. Make testing to perfect synchronization.



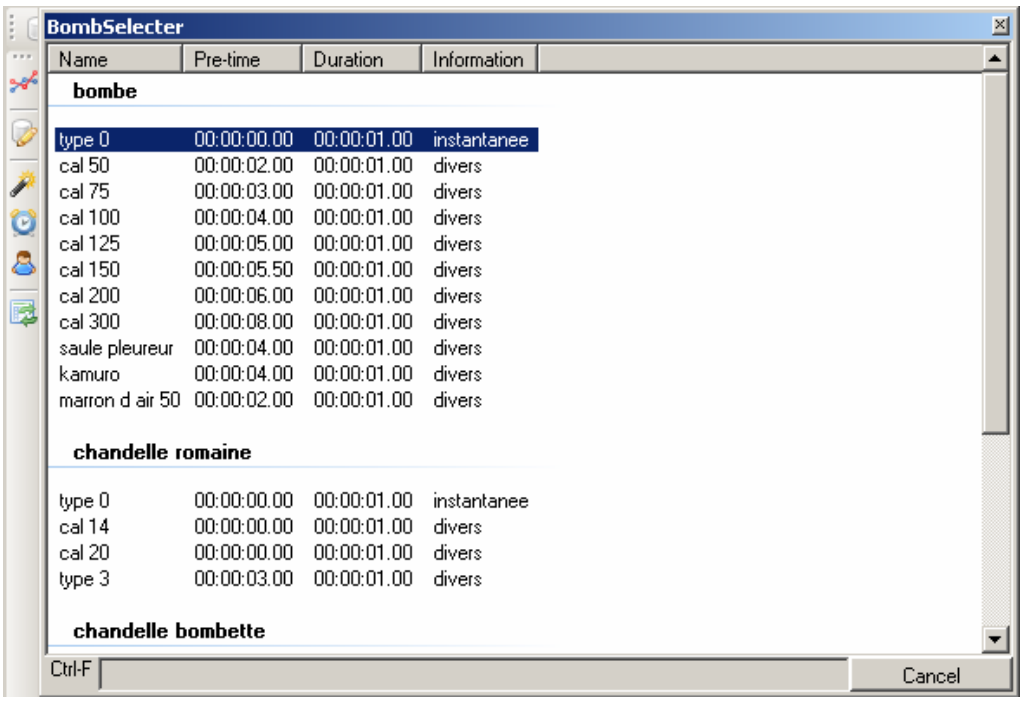
Shot n°	Line n°	Way mode	Way Delay	Total Time (s)	Total	Description
0	0	Manual	5,7	5,7	5,7	marron d air 50 (divers)
1	1	Automatic	2,2	7,9	7,9	marron d air 50 (divers)
2	2	Automatic	2	9,9	9,9	marron d air 50 (divers)
3	3	Automatic	8	17,9	17,9	cal 50 (divers)
4	4	Automatic	1,7	19,6	19,6	cal 50 (divers)
5	5	Automatic	2	21,6	21,6	cal 75 (divers)
6	6	Automatic	2,1	23,7	23,7	cal 75 (divers)
7	7	Automatic	3,4	27,1	27,1	cal 14 (divers)
8	8	Automatic	1,7	28,8	28,8	49coups cal20 (divers)
9	9	Automatic	1,3	30,1	30,1	49coups cal20 (divers)
10	10	Automatic	1,9	32	32	cal 14 (divers)
11	11	Automatic	2	34	34	cal 14 (divers)
12	12	Automatic	1,3	35,3	35,3	cal 75 (divers)

Pyrotechnic products database

Oxydium Pyromusical Creator integrates a minimalist database of fifteen effects, it is supplied as an example.
You can change and complete depending on the products you use.
Nota : OPMC uses a database in text file formats like csv (which can be opened with notepad windows), but in order to rework it easier you can use the Excel spreadsheet. However, retain the csv format during the save :

It is this product database that opens when you add an effect to your project.

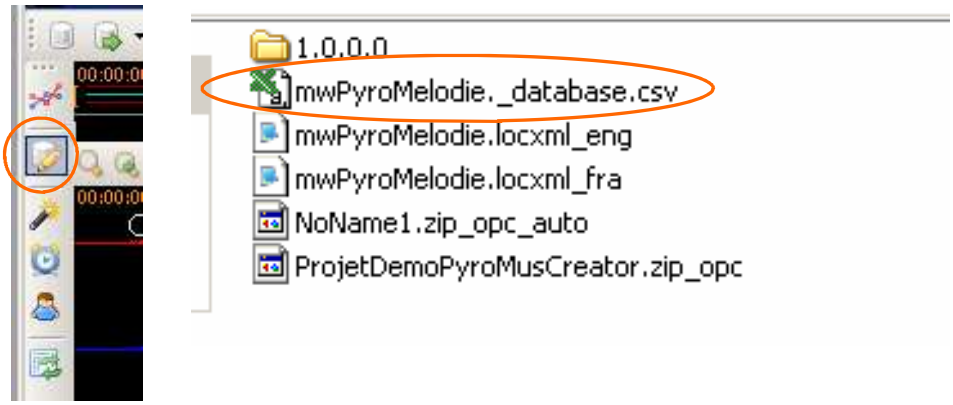
The products are classified by categories, and each category by type.

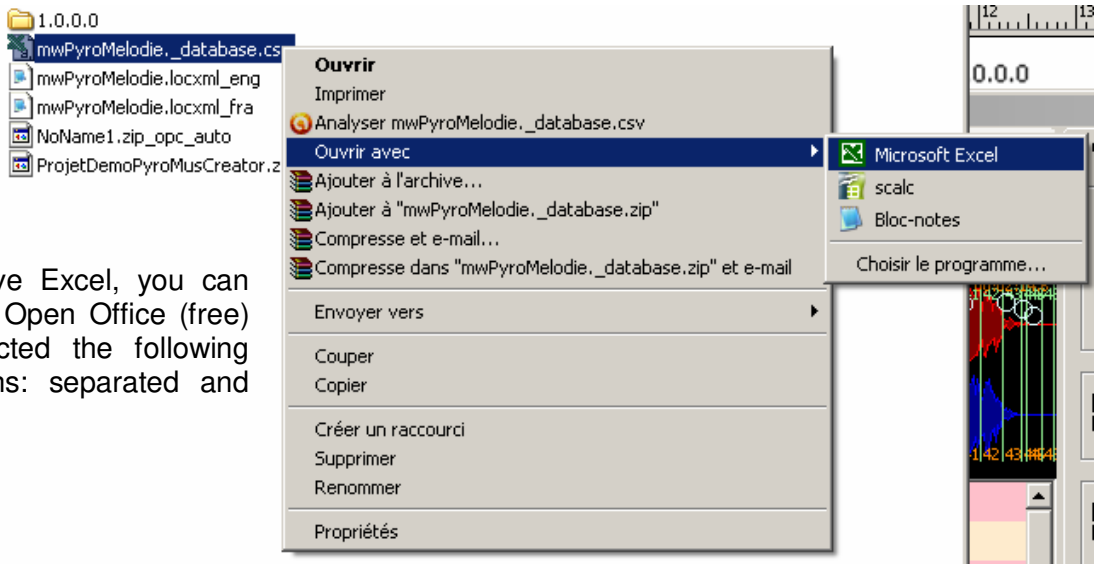


To open the folder where it is placed, you must click the "pencil" icon (under the mono-stereo icon).
A window opens, locate the file :

mwPyroMelodie._database.csv

and right click on it and select Open with Excel.

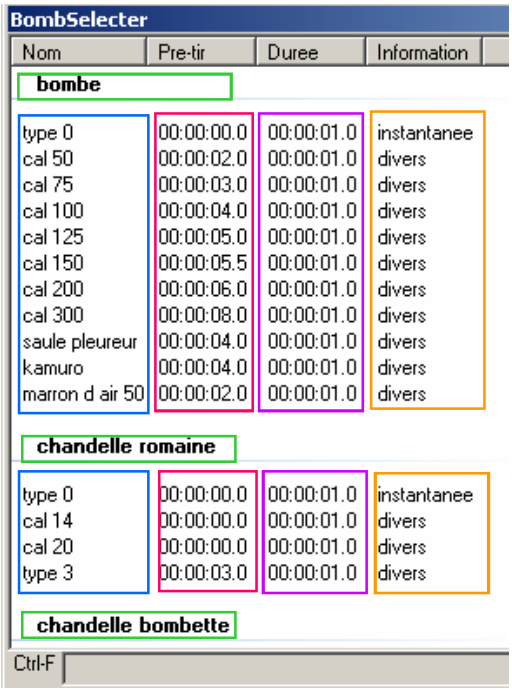




If you do not have Excel, you can open it with scalc Open Office (free) after having selected the following separations options: separated and semicolon.

The Excel file below opens :

	A	B	C	D	E
1	bombe	type 0	00:00:00.0	00:00:01.0	instantanee
2	bombe	cal 50	00:00:02.0	00:00:01.0	divers
3	bombe	cal 75	00:00:03.0	00:00:01.0	divers
4	bombe	cal 100	00:00:04.0	00:00:01.0	divers
5	bombe	cal 125	00:00:05.0	00:00:01.0	divers
6	bombe	cal 150	00:00:05.5	00:00:01.0	divers
7	bombe	cal 200	00:00:06.0	00:00:01.0	divers
8	bombe	cal 300	00:00:08.0	00:00:01.0	divers
9	bombe	saule pleureur	00:00:04.0	00:00:01.0	divers
10	bombe	kamuro	00:00:04.0	00:00:01.0	divers
11	bombe	marron d air 50	00:00:02.0	00:00:01.0	divers
12					
13	chandelle romaine	type 0	00:00:00.0	00:00:01.0	instantanee
14	chandelle romaine	cal 14	00:00:00.0	00:00:01.0	divers
15	chandelle romaine	cal 20	00:00:00.0	00:00:01.0	divers
16	chandelle romaine	type 3	00:00:03.0	00:00:01.0	divers
17					
18	chandelle bombette	type 0	00:00:00.0	00:00:01.0	divers
19					



Above, correspondence with the database as it appears in OPMC when calling a product.

This Excel spreadsheet contains the columns in which are listed the characteristics of each product.

Column A : The product category (you can create new ones, with no skipping line).

Column B : The type of product (you can name according to your habits or your internal references).

Column C : The Prefire duration on format Hours:Minutes:Seconds.tenths of second. Corresponds to the time between the moment of firing order and the pyrotechnic effect itself (time of reactions, time of rising ...).

Column D : Viewing Area (can be set on the duration of the pyrotechnic effect). It is not recommended to set a time less than one second because otherwise the display in OPMC would be reduced accordingly and impractical to handle.

Column E : An additional comment (Additional information on the product).

Any changes or additions that you will do must be depending on the template (lower case, do not use commas, semicolons, quotation marks, accents, special characters ...). You can select a line and copy in order to have always the correct format. To work in this database, it must not be in use in OPMC.

Once completed your database, you must save the changes.

In Excel, click Save as..., then select the file type :

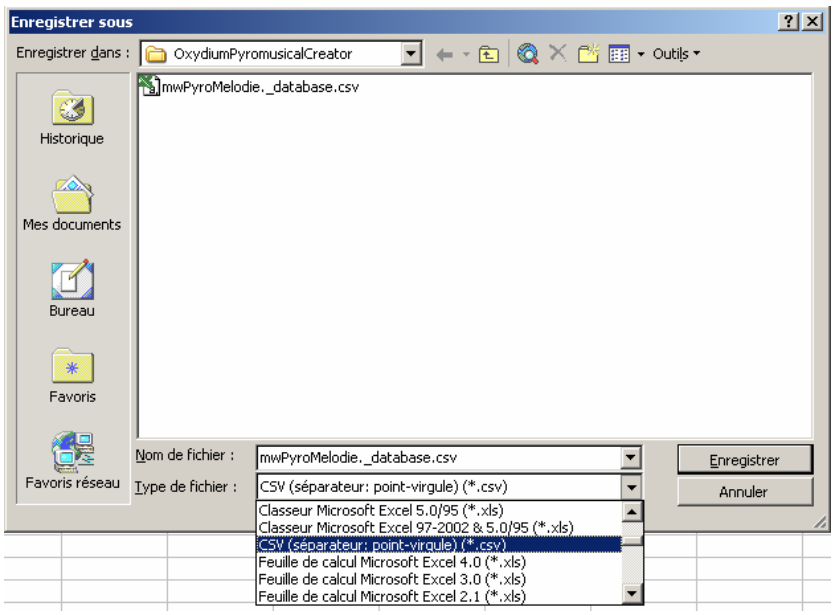
CSV(separator: semicolon)(*.csv)

Click Save (your database is not to be renamed, and must be saved to its original location so that OPMC can find it).

Note: If a message appears click "yes" to keep the same format.

Your updated database is now saved.

We strongly recommend that you also backup your database in another directory so that you can recover if mishandled (you can also make a backup on external media as like USB key, CD-ROM ...) because otherwise in case of reinstalling the software on your PC, it would be the initial basic database would be reinstalled.



Creation of a project report :

It is possible to generate project reports in order to have them in EXCEL format (or compatible).
This function will generate two reports :
- One by lines (Ways) classification
- One by shots classification

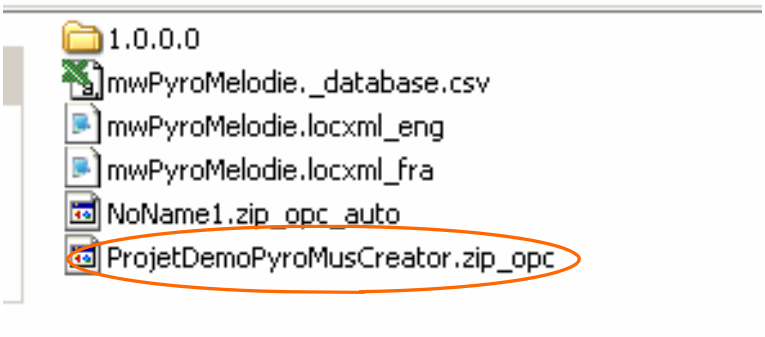
	A	B	C	D	E
1	##################################				
2	## mardi 31 mai 2011 11:18:26				
3	## Fichier projet:C:\Program Files\Genetec\OxydiumPyromusicalCreator\				
4	## Duree du projet:00:02:24.6				
5	## Fichier audio : Riding With The Wind A Conde.mp3				
6	## Debut audio:00:00:05.0				
7	## Compteur de tirs:48				
8	##################################				
9					
10	################				
11	Ligne Oxydium : 000				
12		[0]	00:00:05.7	00:00:01.0	marron d air 5 (dive
13	################				
14	Ligne Oxydium : 001				
15		[1]	00:00:07.9	00:00:01.0	marron d air 5 (dive
16	################				
17	Ligne Oxydium : 002				
18		[2]	00:00:09.9	00:00:01.0	marron d air 5 (dive
19	################				
20	Ligne Oxydium : 003				

	A	B	C	D	E	F	G
1	##################################						
2	## mardi 31 mai 2011 11:18:26						
3	## Fichier projet:C:\Program Files\Genetec\OxydiumPyromusicalCreator\ProjetDemoPyroMusCre						
4	## Duree du projet:00:02:24.6						
5	## Fichier audio : Riding With The Wind A Conde.mp3						
6	## Debut audio:00:00:05.0						
7	## Compteur de tirs:48						
8	##################################						
9							
10	Shot	Start	Difference	Name	Type	oxydium line	duration
11	[0]	00:00:05.7	00:00:00.0	marron d air 5	Ligne Oxydiu	0	00:00:01.0
12	[1]	00:00:07.9	00:00:02.1	marron d air 5	Ligne Oxydiu	1	00:00:01.0
13	[2]	00:00:09.9	00:00:02.0	marron d air 5	Ligne Oxydiu	2	00:00:01.0
14	[3]	00:00:17.9	00:00:07.9	cal 50	Ligne Oxydiu	3	00:00:01.0
15	[4]	00:00:19.5	00:00:01.6	cal 50	Ligne Oxydiu	4	00:00:01.0
16	[5]	00:00:21.6	00:00:02.0	cal 75	Ligne Oxydiu	5	00:00:01.0
17	[6]	00:00:23.7	00:00:02.0	cal 75	Ligne Oxydiu	6	00:00:01.0
18	[7]	00:00:27.1	00:00:03.4	cal 14	Ligne Oxydiu	7	00:00:01.0
19	[8]	00:00:28.7	00:00:01.6	49coups cal2	Ligne Oxydiu	8	00:00:01.0
20	[9]	00:00:30.1	00:00:01.3	49coups cal2	Ligne Oxydiu	9	00:00:01.0

Importing a Project

If you installed OPMC on multiple computers, you may need to transfer a project (or possibly the database) from one PC to another.

1/ Retrieving a project file in OPMC:
In OPMC, click on the « pencil » icon.
The folder with the OPMC files opens.
Locate the project to transfer and right-click on it and press "copy". Then, for example, you can paste it in a USB key or send it by email.



2/ Insert an external projet in OPMC :
Open the folder (for example on your USB key) in which the project is located.
Locate the project to insert, and right-click on it and press "copy"
Then in OPMC, click the "pencil" icon, the folder of OPMC files opens.
Click right in this folden, then press « paste ». Your project is transferred.
.

The transfer procedure is the same for the database (it must always retain its original name). It is also the same if you want to simply copy or save your projects and your database in another file.