



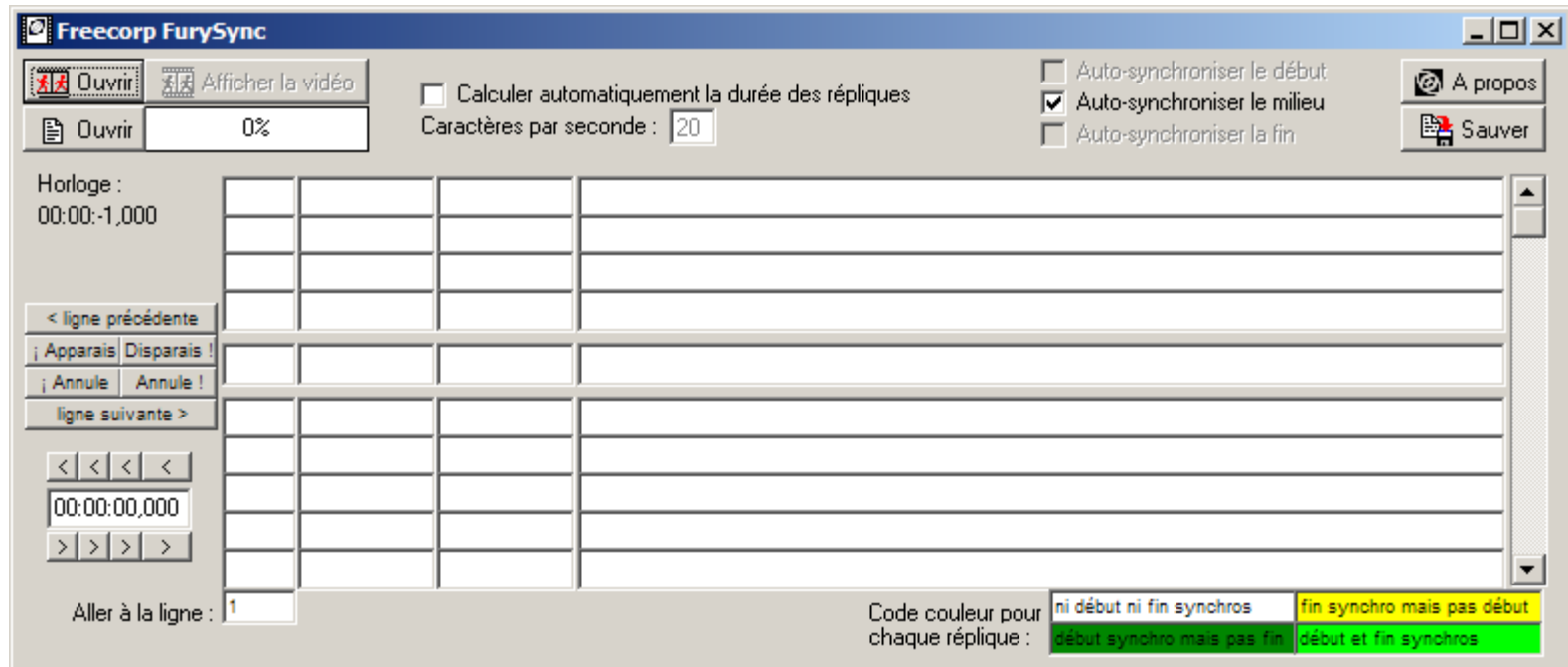
*To synchronize subtitles in linear time!*

Screenshots of FurySync 2.0 et FurySync 2.9, French version  
English tutorial version 2.0, 15/02/2008

<http://freecorp.org/furysync>

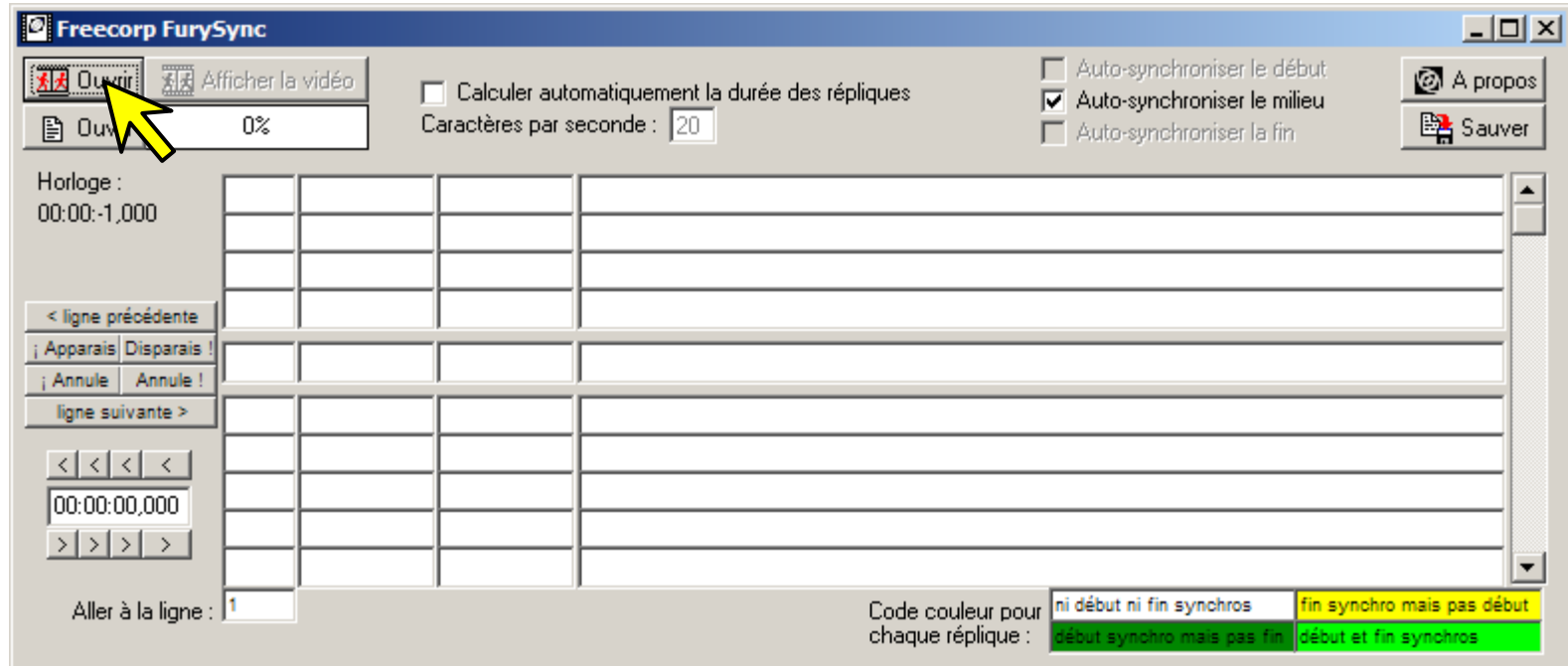
**Welcome to this tutorial,  
which explains you how to use  
Freecorp FurySync with  
screenshots!**

# FurySync, the main window



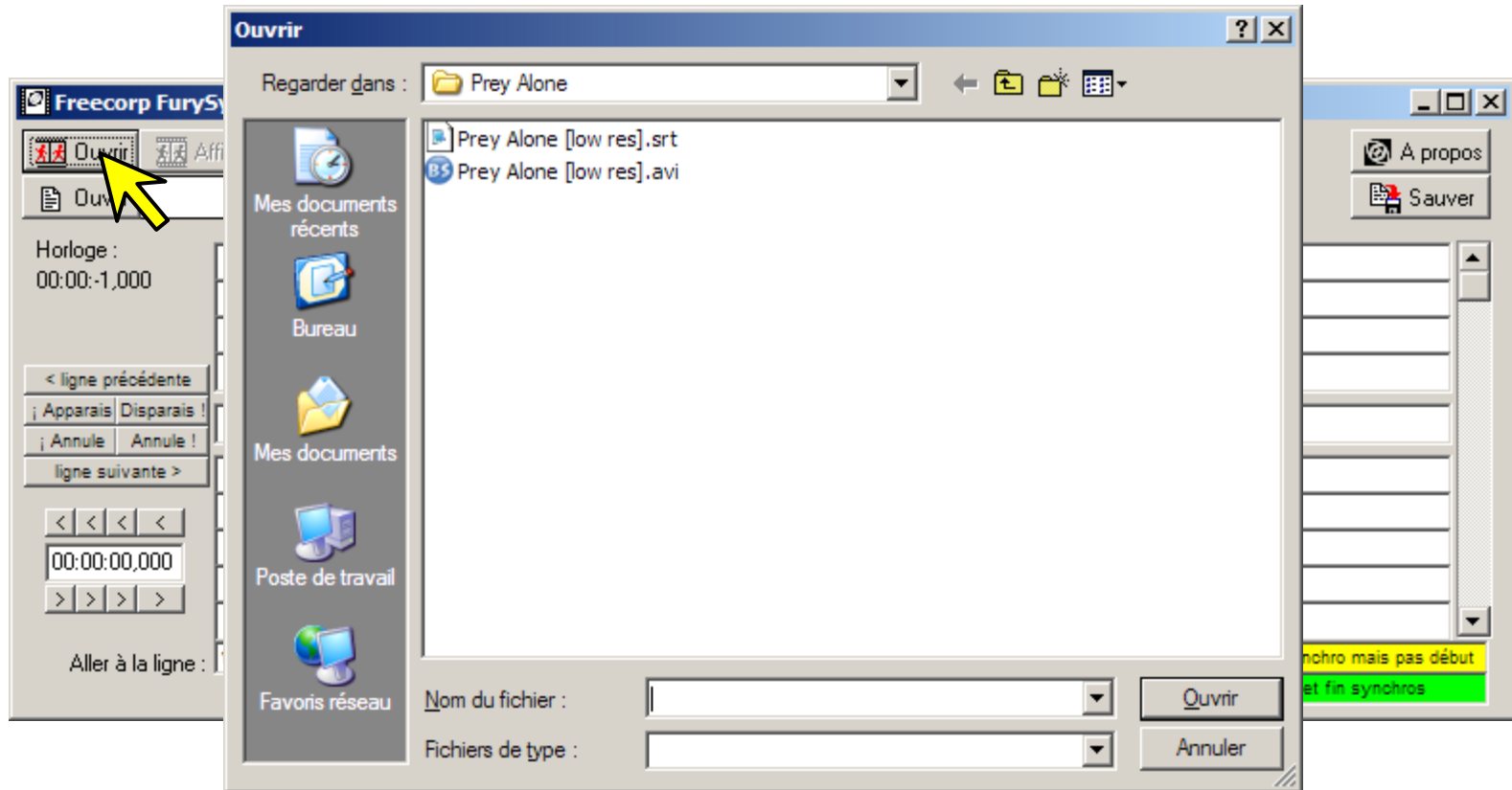
# FurySync, open the video

Open a video by clicking on the first *Open* button.



# FurySync, open the video

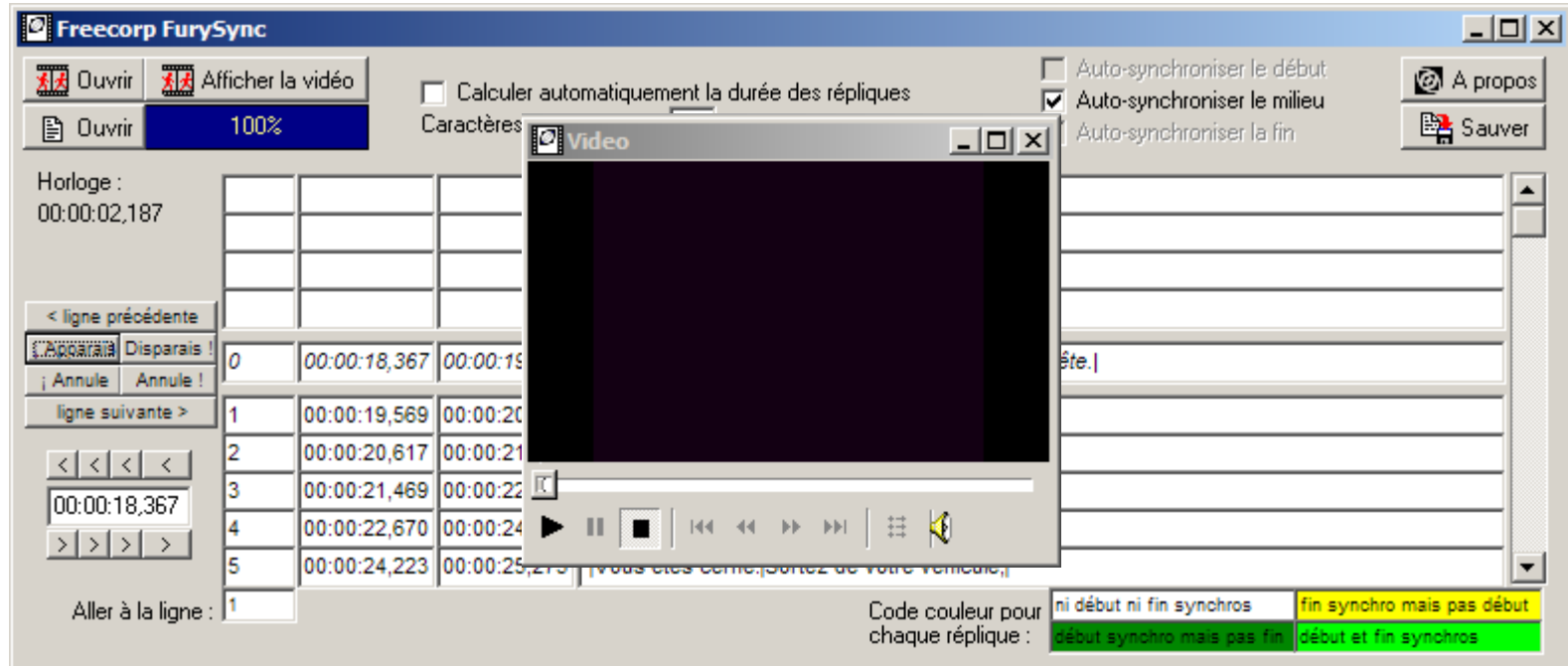
Choose the video. For example here, the short movie *Prey Alone*.



*Prey Alone* by Stephen St. Leger and James Mather, is available at:  
[http://www.jonny3d.com/html/frames/\\_dn\\_prey\\_alone\\_frame\\_at4v.htm](http://www.jonny3d.com/html/frames/_dn_prey_alone_frame_at4v.htm)

# FurySync, open the video

The video starts, and as the subtitle had the same name as the video, it is also opened. Only subtitles at the *Subrip* format can be launched. Time Adjuster can be used for conversions.



The subtitle used here was made by the French TeAm. Synchronization was obviously perfect, but we inserted some errors for this tutorial.



# FurySync, open the video

If the subtitle has a different name than the video, you can open it by clicking on the second *Open* button.

The screenshot shows the Freecorp FurySync application window. The interface includes a menu bar with 'Ouvrir' and 'Afficher la vidéo' buttons. The 'Ouvrir' button is circled in red. Below the menu bar, there are checkboxes for 'Calculer automatiquement la durée des répliques', 'Auto-synchroniser le début', 'Auto-synchroniser le milieu', and 'Auto-synchroniser la fin'. A 'Caractères' field is also present. On the right side, there are buttons for 'A propos' and 'Sauver'. The main area contains a subtitle list with columns for line number, start time, and end time. A video player window is open over the subtitle list, showing a dark video frame and a playback control bar. The subtitle list is partially obscured by the video player.

Line	Start Time	End Time
0	00:00:18,367	00:00:19,367
1	00:00:19,569	00:00:20,569
2	00:00:20,617	00:00:21,617
3	00:00:21,469	00:00:22,469
4	00:00:22,670	00:00:23,670
5	00:00:24,223	00:00:25,223

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros

# FurySync, the global structure

You can move the media player window, it remains in the foreground. You can also change its size. If you close it and then want to reopen it, use the button *View video*.

The screenshot shows the Freecorp FurySync application window. The menu bar contains 'Ouvrir' and 'Afficher la vidéo' (circled in red). The main area displays a subtitle table with columns for line number, start time, end time, and text. A video player window titled 'Video' is open in the foreground, with a yellow arrow pointing to its title bar. A legend at the bottom right explains the color coding for synchronization codes.

Horloge :				
00:00:02,187				
< ligne précédente				
Disparais !	0	00:00:18,367	00:00:19,568	Sortez de votre véhicule, les mains derrière la tête.
Annule !				
ligne suivante >				
	1	00:00:19,569	00:00:20,616	Allongez-vous par terre !
	2	00:00:20,617	00:00:21,468	N'essayez pas de fuir
	3	00:00:21,469	00:00:22,669	ou nous ouvrons le feu.
	4	00:00:22,670	00:00:24,070	Vous n'avez aucune issue.
	5	00:00:24,223	00:00:25,275	Vous êtes cerné. Sortez de votre véhicule,

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros



# FurySync, the global structure

Note that as soon as the subtitle is open, the *Appear* button is set as default.

The screenshot displays the Freecorp FurySync application interface. The main window contains a subtitle list with the following data:

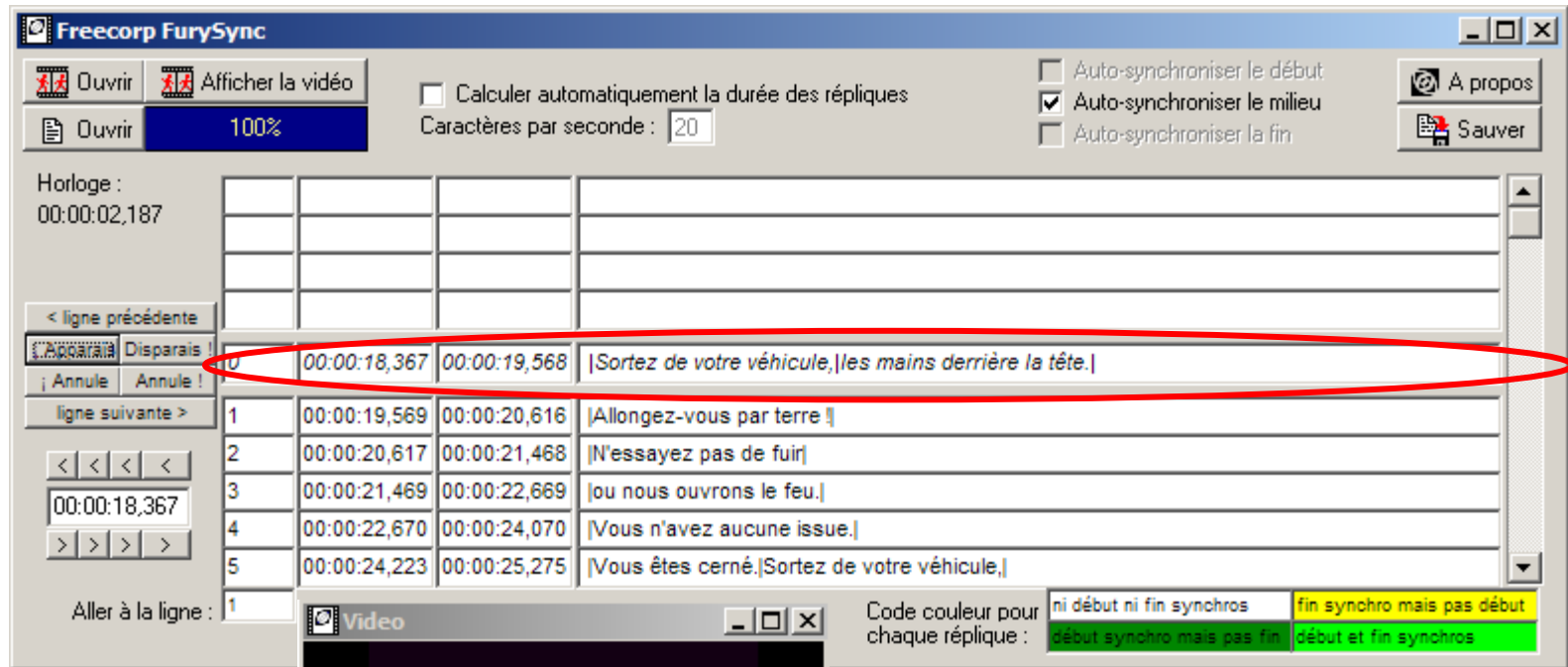
Line	Start Time	End Time	Text
0	00:00:18,367	00:00:19,568	Sortez de votre véhicule, les mains derrière la tête.
1	00:00:19,569	00:00:20,616	Allongez-vous par terre !
2	00:00:20,617	00:00:21,468	N'essayez pas de fuir
3	00:00:21,469	00:00:22,669	ou nous ouvrons le feu.
4	00:00:22,670	00:00:24,070	Vous n'avez aucune issue.
5	00:00:24,223	00:00:25,275	Vous êtes cerné. Sortez de votre véhicule,

The 'Appear' button is circled in red. A video player window titled 'Video' is open in the foreground, with a yellow arrow pointing to its title bar. A legend for subtitle colors is visible in the bottom right:

Code couleur pour chaque réplique :	ni début ni fin synchros	fin synchro mais pas début
	début synchro mais pas fin	début et fin synchros

# FurySync, the global structure

Now let's see what you want to do. If you just want to do a global shifting of the subtitle, it's as simple as in *Time Adjuster* or *Subtitle Workshop*...



This line is currently being treated.

# FurySync, simple synchronization

You go to the first line, search it in the movie, play the movie one or two seconds before, and as soon as you hear it, click on *Appear!*

Freecorp FurySync

Ouvrir Afficher la vidéo

Ouvrir 100%

Calculer automatiquement la durée des répliques

Caractères par seconde : 20

Auto-synchroniser le début

Auto-synchroniser le milieu

Auto-synchroniser la fin

A propos

Sauver

Horloge : 00:00:03,443

0	00:00:18,367	00:00:19,568	Sortez de votre véhicule, les mains derrière la tête.
1	00:00:19,569	00:00:20,616	Allongez-vous par terre !
2	00:00:20,617	00:00:21,468	N'essayez pas de fuir
3	00:00:21,469	00:00:22,669	ou nous ouvrons le feu.
4	00:00:22,670	00:00:24,070	Vous n'avez aucune issue.
5	00:00:24,223	00:00:25,275	Vous êtes cerné. Sortez de votre véhicule,

Apparait !

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros

# FurySync, simple synchronization

The line is then colored in dark green:  
the beginning of the sentence is synchronized!

**Freecorp FurySync**

Ouvrir Afficher la vidéo

Ouvrir 100%

Calculer automatiquement la durée des répliques

Caractères par seconde : 20

Auto-synchroniser le début

Auto-synchroniser le milieu

Auto-synchroniser la fin

A propos

Sauver

Horloge : 00:00:26,195

0	00:00:25,142	00:00:19,568	[Sortez de votre véhicule,]les mains derrière la tête ]
1	00:00:19,569	00:00:20,616	[Allongez-vous par terre !]
2	00:00:20,617	00:00:21,468	[N'essayez pas de fuir]
3	00:00:21,469	00:00:22,669	[ou nous ouvrons le feu.]
4	00:00:22,670	00:00:24,070	[Vous n'avez aucune issue.]
5	00:00:24,223	00:00:25,275	[Vous êtes cerné.]Sortez de votre véhicule,]

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros

# FurySync, simple synchronization

Go to the end of the movie and do the same with the last line!

Freecorp FurySync

Ouvrir Afficher la vidéo

Ouvrir 100%

Calculer automatiquement la durée des répliques

Caractères par seconde : 20

Auto-synchroniser le début

Auto-synchroniser le milieu

Auto-synchroniser la fin

A propos

Sauver

Horloge : 00:13:52,771

146	00:13:13,237	00:13:13,685	[Vous voulez que je répète ?[Tout n'est qu'un jeu.]
147	00:13:13,686	00:13:14,236	[Jackpot.]
148	00:13:14,237	00:13:14,887	[Attendez !]
149	00:13:14,939	00:13:15,440	[Ça recommence.]
150	00:13:50,170	00:13:17,691	[Avez-vous un détenu]du nom de Dean Ellis ?]
151	00:13:18,245	00:13:20,045	[UnderZero & Ottawakan]French TeAm]

Ligne précédente

Ligne suivante

00:13:50,170

Aller à la ligne : 151

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros

Hint: double-click on the current line to reach the line timing in the movie.

# FurySync, simple synchronization

You can add multiple synchronization points inside the subtitle in the same way.

The screenshot shows the Freecorp FurySync application window. The interface includes a menu bar with 'Ouvrir', 'Afficher la vidéo', and 'Sauver'. A table of subtitle lines is displayed, with line 150 highlighted in green. A yellow arrow points to a synchronization point added inside the subtitle text. A video player window is visible at the bottom, showing a scene from a movie.

Line	Start	End	Text
146	00:13:13,237	00:13:13,685	[Vous voulez que je répète ?[Tout n'est qu'un jeu.]
147	00:13:13,686	00:13:14,236	[Jackpot.]
148	00:13:14,237	00:13:14,887	[Attendez !]
149	00:13:14,939	00:13:15,440	[Ça recommence.]
150	00:13:50,170	00:13:17,691	[Avez-vous un détenu]du nom de Dean Ellis ?]
151	00:13:18,245	00:13:20,045	[UnderZero & Ottawakan]French TeAm]

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros

# FurySync, simple synchronization

You can also manually adjust the timings, for example the credits.  
Stop or pause the movie.

Then choose the line you want to synchronize as the current one, here...

The screenshot shows the Freecorp FurySync application window. At the top, there are buttons for 'Ouvrir' (Open) and 'Afficher la vidéo' (Show video), along with a progress indicator at 100%. Below this, there are checkboxes for 'Calculer automatiquement la durée des répliques' (Calculate subtitle duration automatically) and 'Auto-synchroniser' (Auto-synchronize) options for start, middle, and end. A 'Caractères par seconde' (Characters per second) field is set to 20. A clock shows the current time as 00:13:18,245. The main area is a table of subtitle lines:

Line	Start Time	End Time	Text
147	00:13:13,686	00:13:14,236	Jackpot.
148	00:13:14,237	00:13:14,887	Attendez !
149	00:13:14,939	00:13:15,440	Ça recommence.
150	00:13:50,170	00:13:17,691	Avez-vous un détenu du nom de Dean Ellis ?
151	00:13:18,245	00:13:20,045	UnderZero & Ottawakan French TeAm

Line 150 is highlighted in green. A red arrow points to this line. Below the table, there are navigation buttons for 'ligne précédente' (previous line) and 'ligne suivante' (next line), and a 'Disparais !' (Disappear!) button. A 'Code couleur pour chaque réplique' (Color code for each line) section shows four color-coded boxes: 'ni début ni fin synchros' (white), 'fin synchro mais pas début' (yellow), 'début synchro mais pas fin' (green), and 'début et fin synchros' (red). At the bottom, there is a video player window showing a black screen with the text 'Produced by John McInerney' and a standard video control bar.

# FurySync, simple synchronization

... then set the desired timing in this box, either by writing it, or by using the buttons over and below, then click on *Appear*.

**Freecorp FurySync**

Ouvrir Afficher la vidéo

Ouvrir 100%

Calculer automatiquement la durée des répliques

Caractères par seconde : 20

Auto-synchroniser le début

Auto-synchroniser le milieu

Auto-synchroniser la fin

A propos

Sauver

Horloge : 00:13:18,245

147	00:13:13,686	00:13:14,236	[Jackpot.]
148	00:13:14,237	00:13:14,887	[Attendez !]
149	00:13:14,939	00:13:15,440	[Ça recommence.]
150	00:13:50,170	00:13:17,691	[Avez-vous un détenu du nom de Dean Ellis ?]
151	00:13:18,245	00:13:20,045	[UnderZero & Ottawakan]French TeAm

< ligne précédente

Disparais !

Annule Annule !

ligne suivante >

00:13:18,245

Aller à la ligne : 152

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros

Video

Produced by John McInerney

Freecorp



# FurySync, simple synchronization

... then set the desired timing in this box, either by writing it, or by using the buttons over and below, then click on *Appear*.

**Freecorp FurySync**

Ouvrir Afficher la vidéo

Ouvrir 100%

Calculer automatiquement la durée des répliques

Caractères par seconde : 20

Auto-synchroniser le début

Auto-synchroniser le milieu

Auto-synchroniser la fin

A propos

Sauver

Horloge : 00:13:55,000

147	00:13:13,686	00:13:14,236	[Jackpot.]
148	00:13:14,237	00:13:14,887	[Attendez !]
149	00:13:14,939	00:13:15,440	[Ça recommence.]
150	00:13:50,170	00:13:17,691	[Avez-vous un détenu du nom de Dean Ellis ?]
151	00:13:18,245	00:13:20,045	[UnderZero & Ottawakan]French TeAm]

< ligne précédente

Apparais Disparais !

Annule !

ligne suivante >

00:13:55,000

Allez à la ligne : 152

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros

Video

Produced by John McInerney

# FurySync, simple synchronization

... then set the desired timing in this box, either by writing it, or by using the buttons over and below, then click on *Appear*.

The screenshot displays the Freecorp FurySync application window. The main area contains a subtitle list with the following data:

Line	Start Time	End Time	Text
147	00:13:13,686	00:13:14,236	[Jackpot.]
148	00:13:14,237	00:13:14,887	[Attendez !]
149	00:13:14,939	00:13:15,440	[Ça recommence.]
150	00:13:50,170	00:13:17,691	[Avez-vous un détenu du nom de Dean Ellis ?]
151	00:13:55,000	00:13:20,045	[UnderZero & Ottawakan]French TeAm]

The start time '00:13:55,000' for line 151 is circled in red. The interface also features a 'Horloge' (clock) showing '00:13:55,000', a 'Code couleur pour chaque réplique' (color code for each line) section with four color-coded options, and a video player window at the bottom showing a black screen with the text 'Produced by John McInerney'.

# FurySync, simple synchronization

**You can now save: check that *Auto-synchronize middle* is checked (then click on *Apply synchronizations in versions 2.9 and later*), then click on *Save* and save the subtitle.**

**Freecorp FurySync**

Ouvrir Afficher la vidéo

Calculer automatiquement la durée des répliques

Caractères par seconde : 20

Auto-synchroniser le début

Auto-synchroniser le milieu

Auto-synchroniser la fin

A propos

Sauver

Horloge : 00:13:55,000

147	00:13:13,686	00:13:14,236	[Jackpot.]
148	00:13:14,237	00:13:14,887	[Attendez !]
149	00:13:14,939	00:13:15,440	[Ça recommence.]
150	00:13:50,170	00:13:17,691	[Avez-vous un détenu du nom de Dean Ellis ?]
151	00:13:55,000	00:13:20,045	[UnderZero & Ottawakan]French TeAm]

< ligne précédente

Disparais !

Annule ! Annule !

ligne suivante >

00:13:55,000

Aller à la ligne : 152

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros

Video

Produced by John McInerney

# FurySync, linear synchronization

Now let's talk some serious business, what this program is about: you can watch an entire movie and synchronize all its subtitles in the same time.

You can choose two methods.

The first one consists in letting the computer compute line durations. It is useful if the sentences of the subtitles are ready and only the timing is empty. Or if the timings are really bad. With the second method you will click twice as much on the synchronization button, but you will be able to choose the durations manually.

The second method consists in clicking when a line starts, and when it stops. It will be more accurate but requires some more attention.

In both cases, you can do it while watching the movie once: the click frequency is not too fast, and if you made some mistakes you can correct them easily afterwards.

# FurySync, linear synchronization

To choose the first method (automatic duration) or the second one (click when the line is finished), you have to check *Automatically compute durations* or not.

Freecorp FurySync

Ouvrir Afficher la vidéo

Ouvrir 100%

Calculer automatiquement la durée des répliques

Caractères par seconde : 20

Auto-synchroniser le début

Auto-synchroniser le milieu

Auto-synchroniser la fin

A propos

Sauver

Horloge : 00:00:06,770

< ligne précédente			
0	00:00:18,367	00:00:19,568	Sortez de votre véhicule, les mains derrière la tête.
1	00:00:19,569	00:00:20,616	Allongez-vous par terre !
2	00:00:20,617	00:00:21,468	N'essayez pas de fuir
3	00:00:21,469	00:00:22,669	ou nous ouvrons le feu.
4	00:00:22,670	00:00:24,070	Vous n'avez aucune issue.
5	00:00:24,223	00:00:25,275	Vous êtes cerné. Sortez de votre véhicule,

00:00:18,367

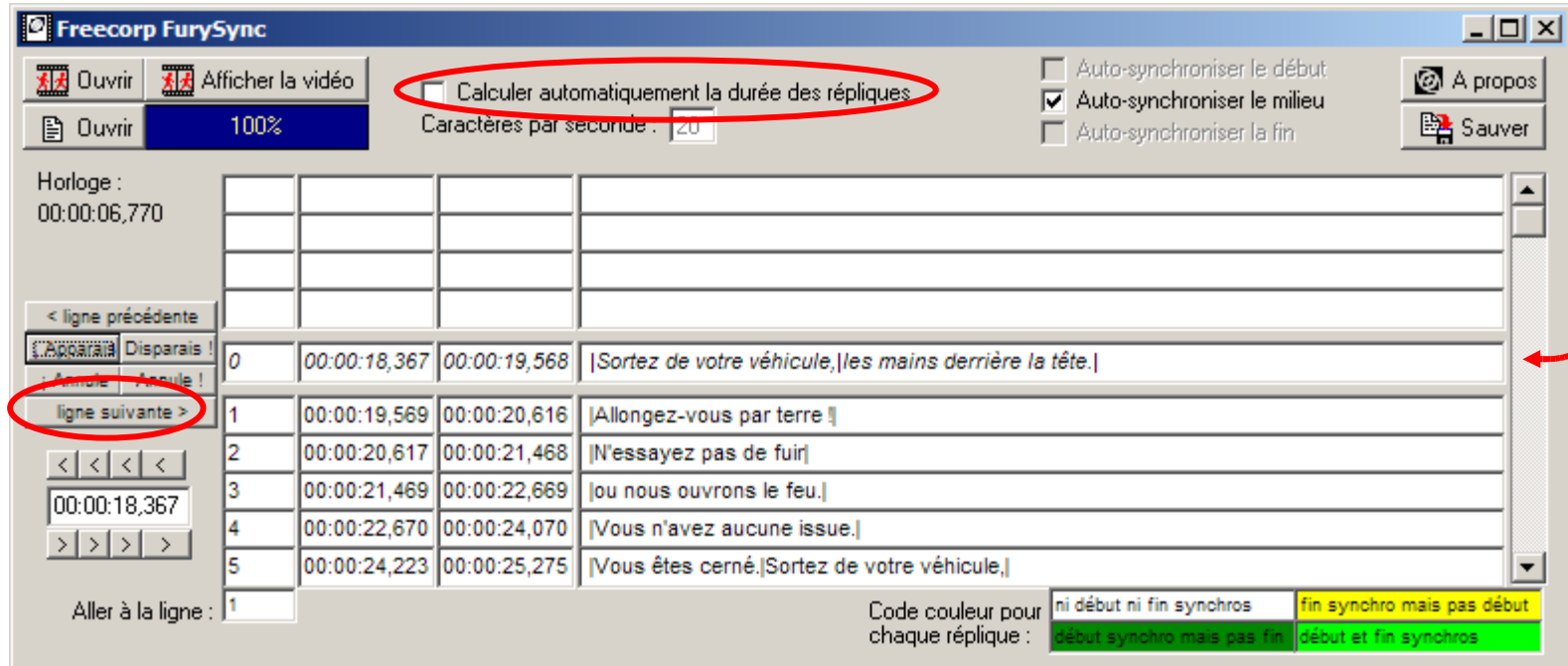
Aller à la ligne : 1

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros

# FurySync, linear synchronization

If the box is checked, as soon as you click on *Appear* or *Disappear*, the next line is set as current line.



If the box is not checked, as soon as you click on *Disappear*, the next line is set as current line. If you click on *Appear* and want to treat the next line without synchronizing the end of the line, just use *Next line*.

# FurySync, linear synchronization

A color code shows for each line what kind of synchronization was done. Timings not colored in bright green will be treated by FurySync.

The screenshot shows the Freecorp FurySync application window. The interface includes a menu bar with options like 'Ouvrir', 'Afficher la vidéo', and 'Sauver'. A central table displays a list of video lines with their respective synchronization status, indicated by color coding. A red circle highlights a legend at the bottom right of the window.

Line	Start Time	End Time	Text	Synchronization Status
146	00:13:30,953	00:13:32,458	[Vous voulez que je répète ?][Tout n'est qu'un jeu.]	Bright Green
147	00:13:13,686	00:13:37,255	[Jackpot.]	Yellow
148	00:13:38,508	00:13:14,887	[Attendez !]	Dark Green
149	00:13:14,939	00:13:15,440	[Ça recommence.]	White
150	00:13:15,441	00:13:17,691	[Avez-vous un détenu]du nom de Dean Ellis ?]	White
151	00:13:18,245	00:13:20,045	[UnderZero & Ottawakan]French TeAm]	White

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros

# FurySync, linear synchronization

If you click too fast, make a mistake, and do not want to go back to the mistaken line (which will be automatically synchronized) you can click on *Cancel*. This cancels the lowest synchronization above the current line, either the beginning timing or the end timing, depending on the button you use.

The screenshot shows the Freecorp FurySync interface with a list of video lines. The interface includes a toolbar with buttons like 'Ouvrir', 'Afficher la vidéo', and 'Sauver'. A table displays line numbers, start and end times, and text. Two 'Annule' buttons are circled in red, with arrows pointing to them from the text above. A blue arrow labeled 'supprime' points to line 148. A legend at the bottom right explains the color coding for synchronization.

Line	Start Time	End Time	Text
146	00:13:30,953	00:13:32,458	[Vous voulez que je répète ? Tout n'est qu'un jeu.]
147	00:13:13,686	00:13:37,255	[Jackpot.]
148	00:13:38,508	00:13:14,887	[Attendez !]
149	00:13:14,939	00:13:15,440	[Ca recommence.]
150	00:13:15,441	00:13:17,691	[Avez-vous un détenu du nom de Dean Ellis ?]
151	00:13:18,245	00:13:20,045	[UnderZero & Ottawakan]French TeAm]

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros



# FurySync, linear synchronization

If you click too fast, make a mistake, and want to go back to the mistaken line, you can use the *-5 seconds* button since version 2.9.

The screenshot shows the Freecorp FurySync application window. The interface includes a menu bar with options like 'Ouvrir', 'Afficher la vidéo', and 'Sauver'. A central table displays subtitle lines with their start and end times and the text of the subtitles. A red circle highlights the '5 secondes avant' button, which is used to navigate back to a previous line. The table shows subtitle lines with their start and end times and the text of the subtitles.

Line	Start Time	End Time	Text
146	00:13:30,953	00:13:32,458	[Vous voulez que je répète ?][Tout n'est qu'un jeu.]
147	00:13:13,686	00:13:37,255	[Jackpot.]
148	00:13:38,508	00:13:14,887	[Attendez !]
149	00:13:14,939	00:13:15,440	[Ça recommence.]
150	00:13:15,441	00:13:17,691	[Avez-vous un détenu]du nom de Dean Ellis ?]
151	00:13:18,245	00:13:20,045	[UnderZero & Ottawakan]French TeAm]

Code couleur pour chaque réplique :

ni début ni fin synchros	fin synchro mais pas début
début synchro mais pas fin	début et fin synchros

# FurySync, visual help to synchronization

FurySync provides a **dotplot** method inspired by bioinformatics to **visually detect some irregularities in the subtitle to synchronize.**

Such regularities are for example: **missing parts in the subtitle or in the video** (for example the subtitle of the director's cut for the normal version video) or **cuts to black lasting for some seconds in the video** (for example to replace ads).

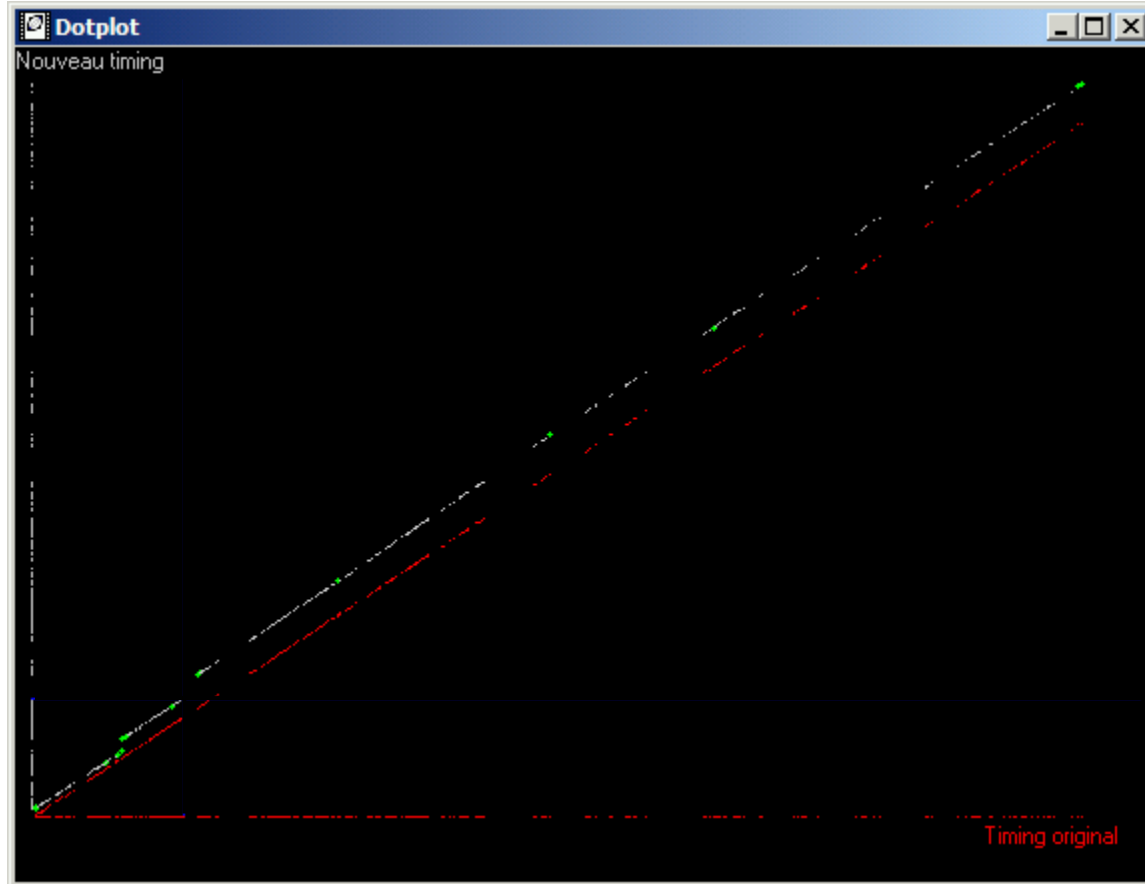
Hence, **2 synchronization points won't be enough** and a pair of synchronization points for each unchanged block (I mean, without these regularities) between the video and the subtitle.

Managing to identify the limits of those blocks with classical methods is quite difficult. If you try to synchronize with two points only, you realize that the subtitle is sometimes too early, sometimes too late, but it's difficult to locate the cut.

**This is why the dotplot tool will be useful.**

# FurySync, visual help to synchronization

Let's describe the tool on an example: the video contains some added scenes, so the subtitle is too short: some blocks are missing.

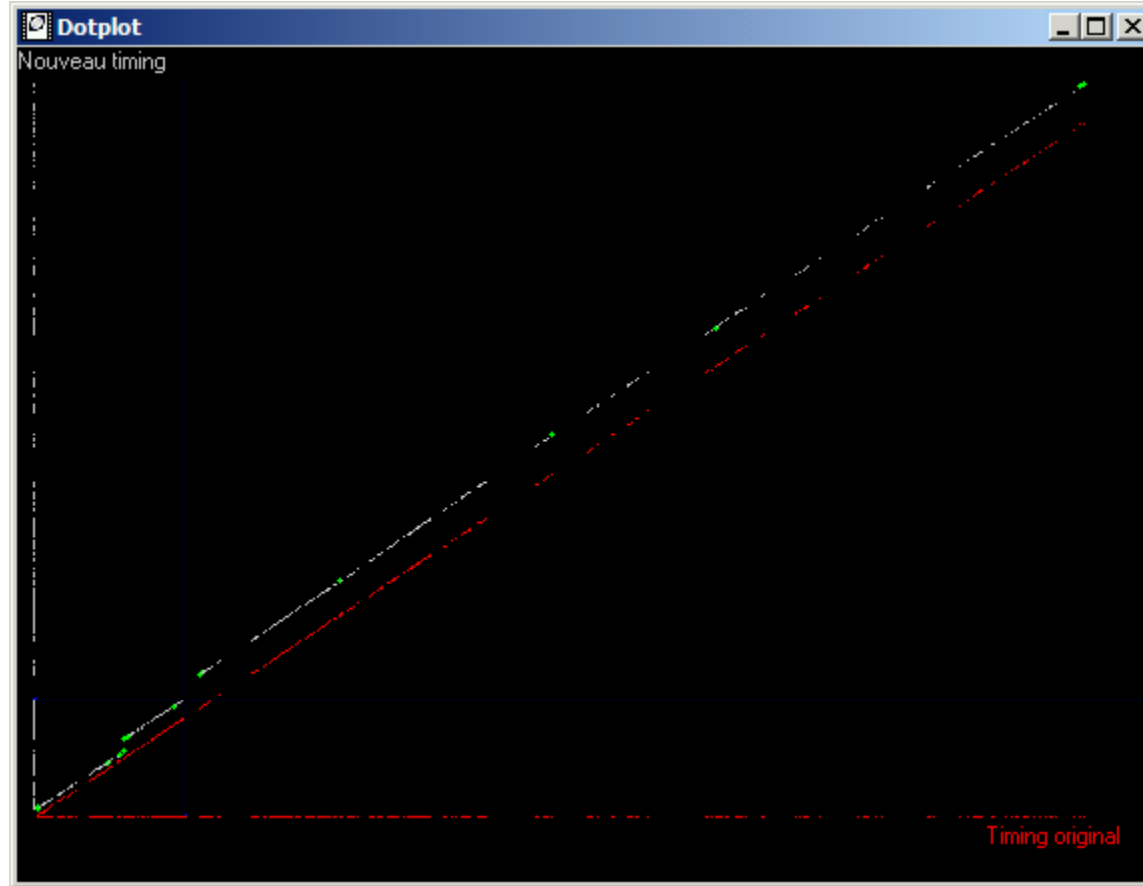


# FurySync, visual help to synchronization

Let's describe the tool on an example: the video contains some added scenes, so the subtitle is too short: some blocks are missing.

As ordinate, the new subtitle timing

Each point  $M(x,y)$  corresponds to a line of the subtitle such that  $x$  is the original timing and  $y$  the new timing.



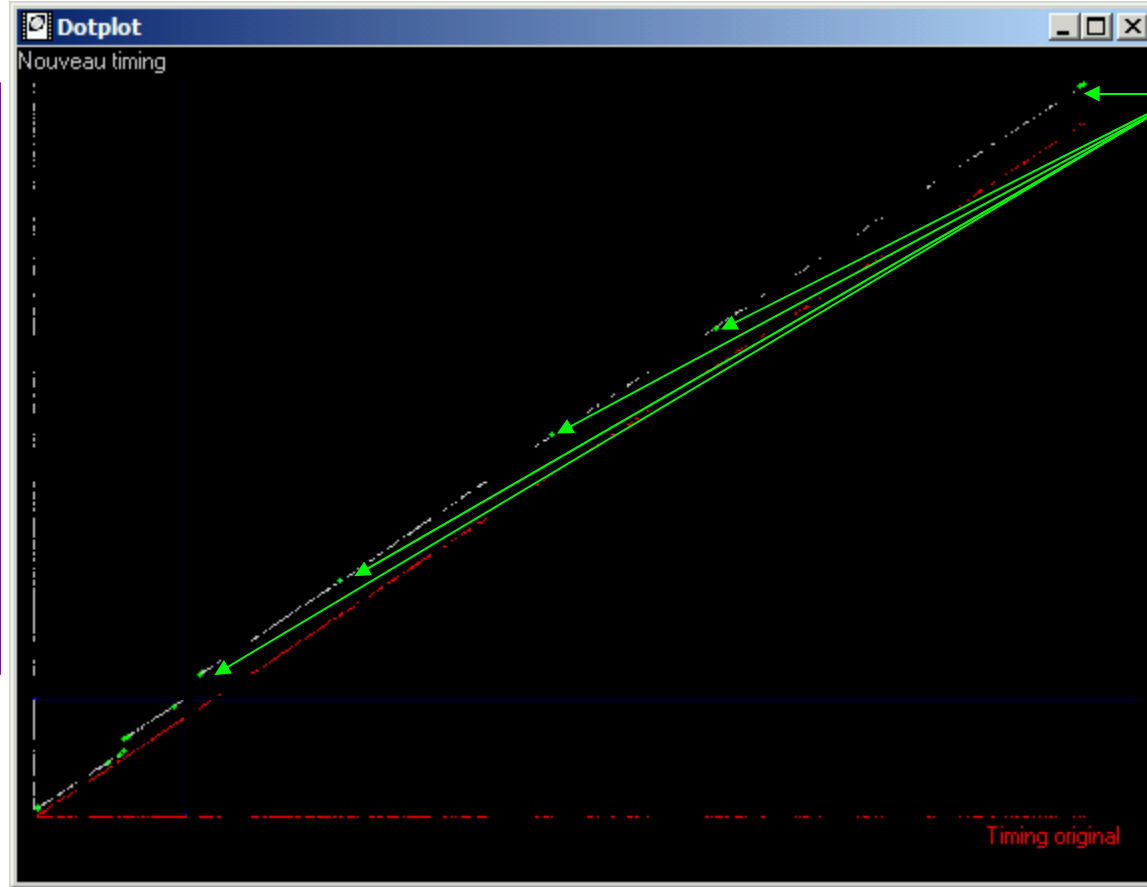
As abscissa, the old subtitle timing

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Each point  $M(x,y)$  corresponds to a line of the subtitle such that  $x$  is the original timing and  $y$  the new timing.



Aligned synchronization points => they belong to one same block  $c$ , which has approximately the same timing as the original.

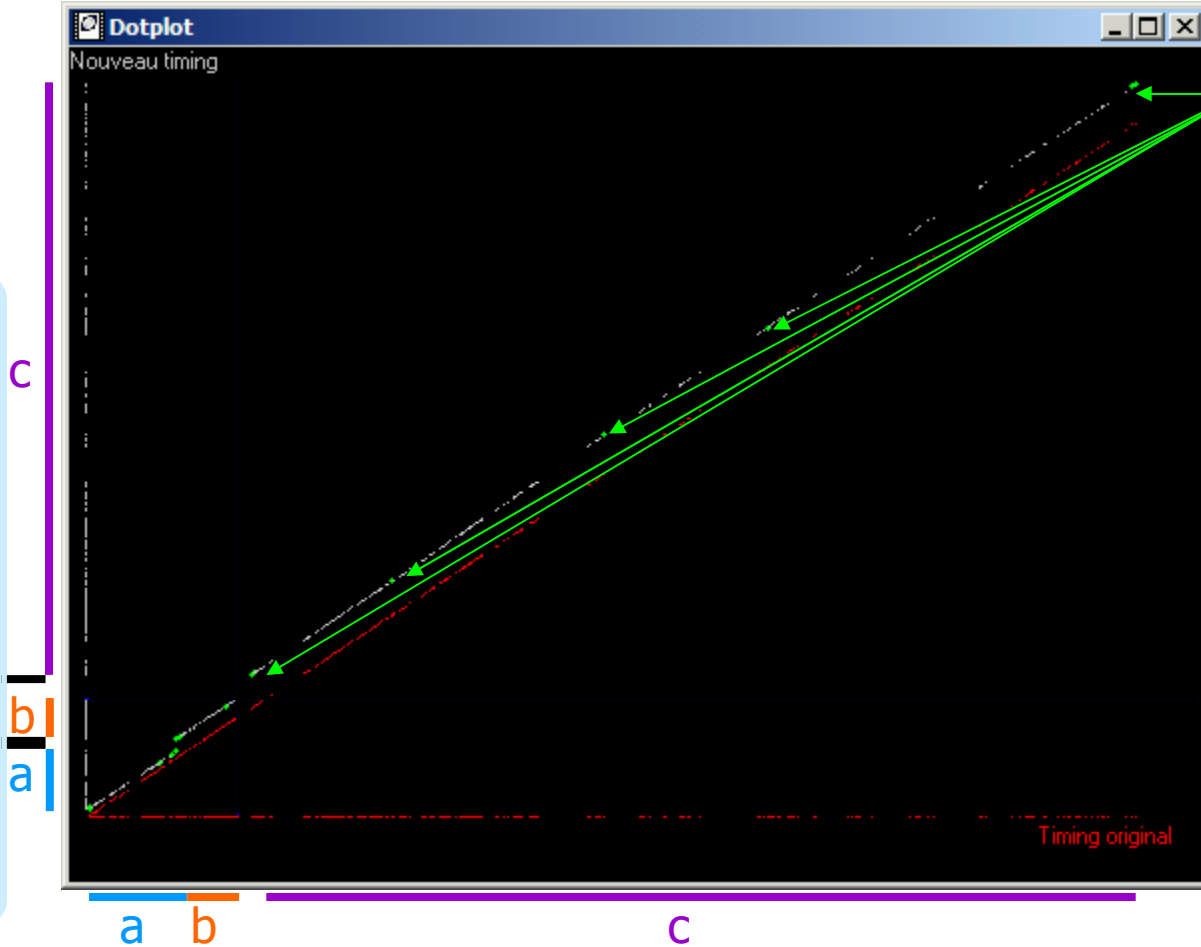
As abscissa, the old subtitle timing

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Let's describe the tool on an example: the video contains some added scenes, so the subtitle is too short: some blocks are missing.

As ordinate, the new subtitle timing

Each point  $M(x,y)$  corresponds to a line of the subtitle such that  $x$  is the original timing and  $y$  the new timing.



Aligned synchronization points => they belong to one same block **c**, which has approximately the same timing as the original.

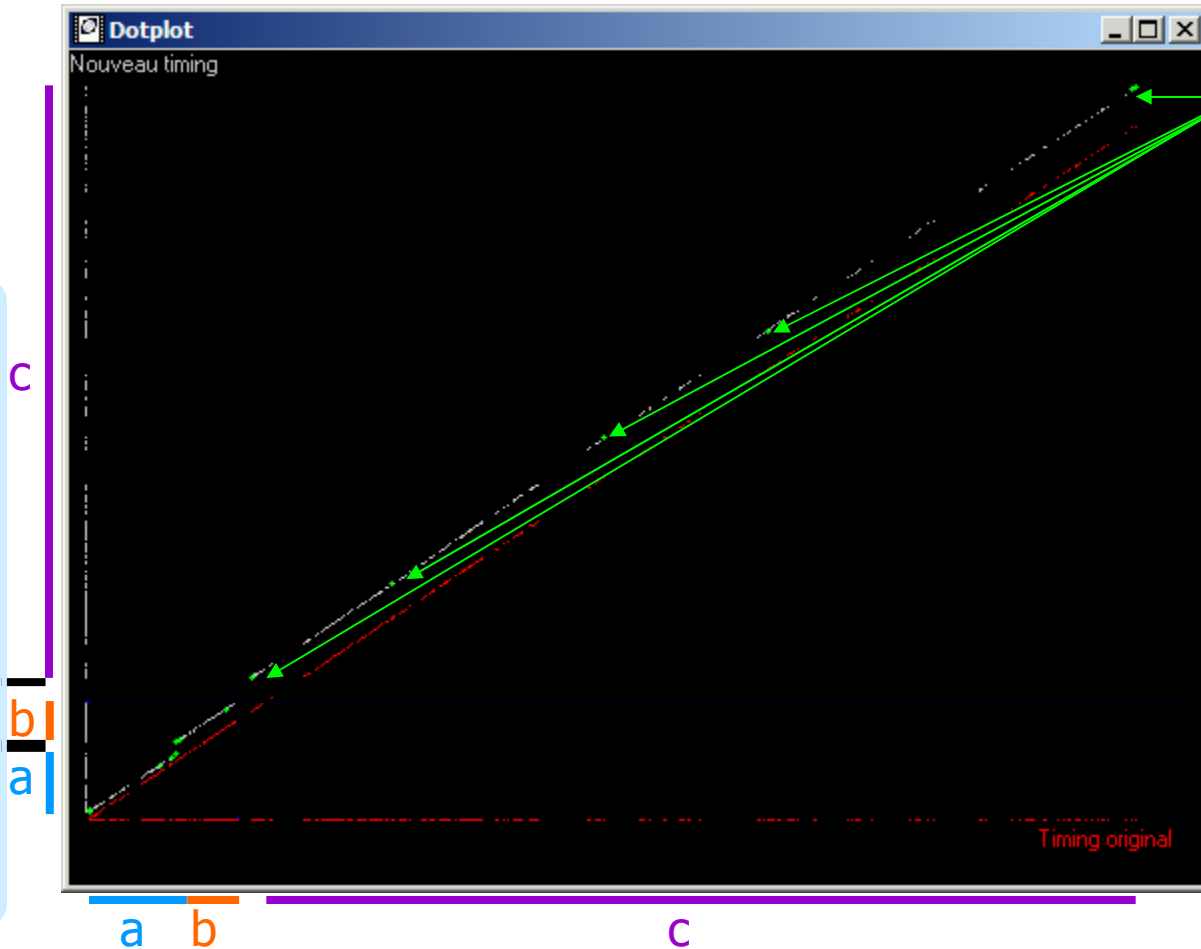
As abscissa, the old subtitle timing

# FurySync, visual help to synchronization

Let's describe the tool on an example: the video contains some added scenes, so the subtitle is too short: some blocks are missing.

As ordinate, the new subtitle timing

Each point  $M(x,y)$  corresponds to a line of the subtitle such that  $x$  is the original timing and  $y$  the new timing.



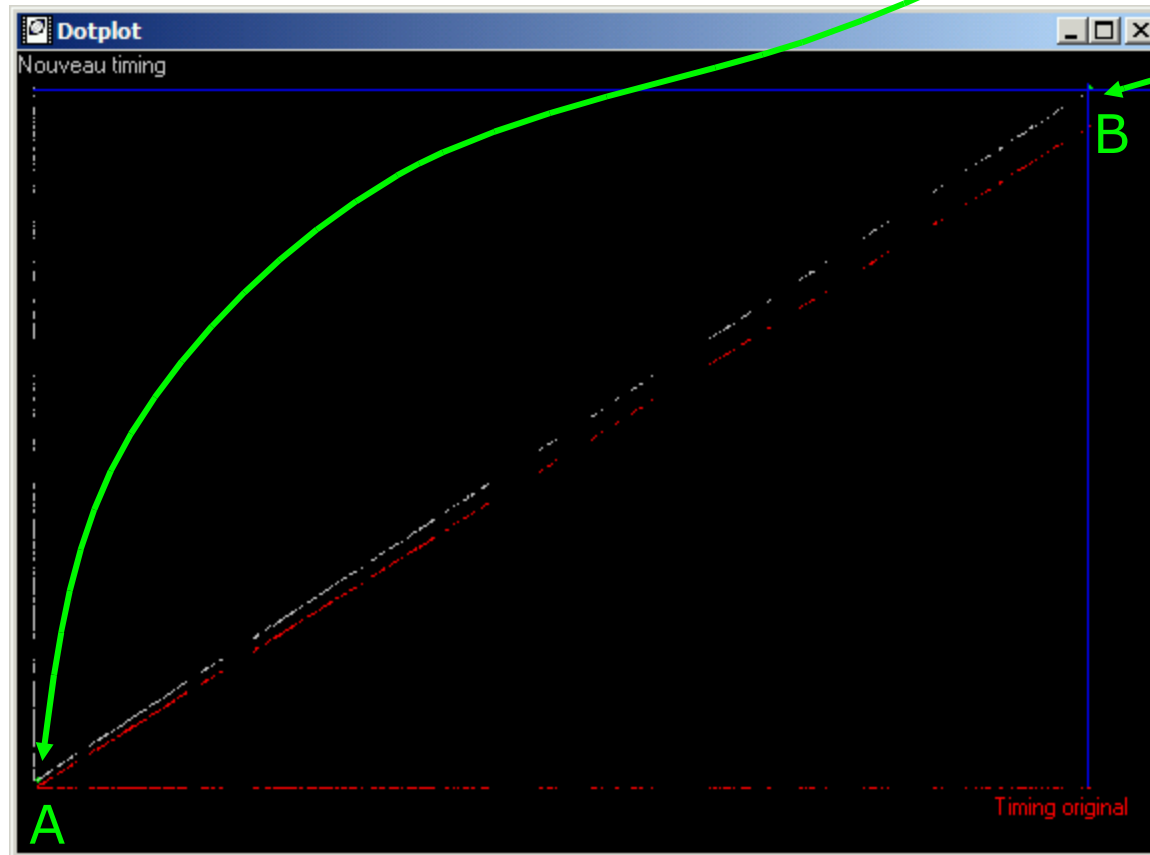
Aligned synchronization points => they belong to one same block **c**, which has approximately the same timing as the original.

As abscissa, the old subtitle timing

In the original subtitle, block **b** immediately follows **a**, but in the video (and the new timing), there are a few seconds between **a** and **b**. We will identify the limits of blocks **a**, **b**, **c**, before synchronizing them.

# FurySync, visual help to synchronization

The visualization was described, now let's see how to use it.  
As a start, we just synchronize the beginning A and the end B.

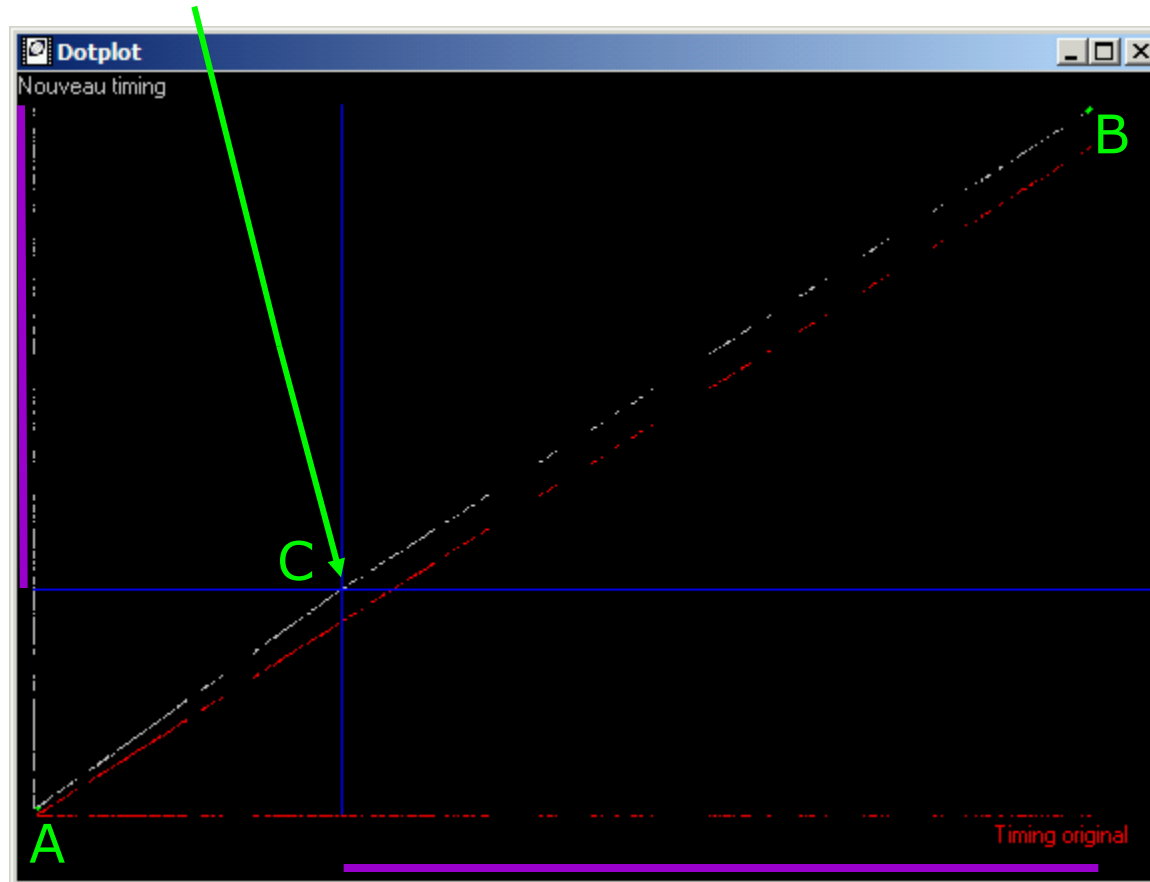


The blue lines represent the line currently treated by FurySync. They help locating this line on the dotplot (here the current line is the last one).



# FurySync, visual help to synchronization

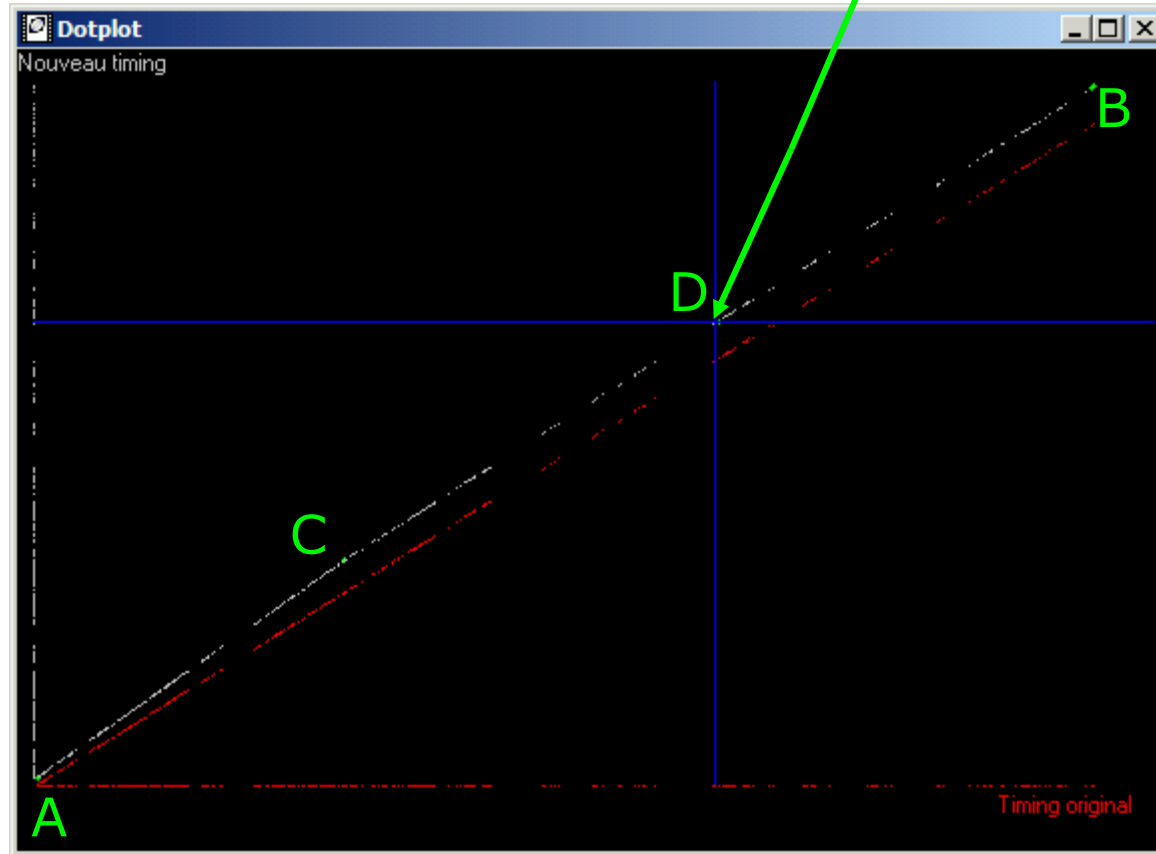
We can see that a line between A and B is not synchronized. We will thus add a synchronization point C between these two synchronized points.



The three points are not aligned: there is a problem. However, the last block seems parallel in the old and new subtitle: this shows that the end is well synchronized.

# FurySync, visual help to synchronization

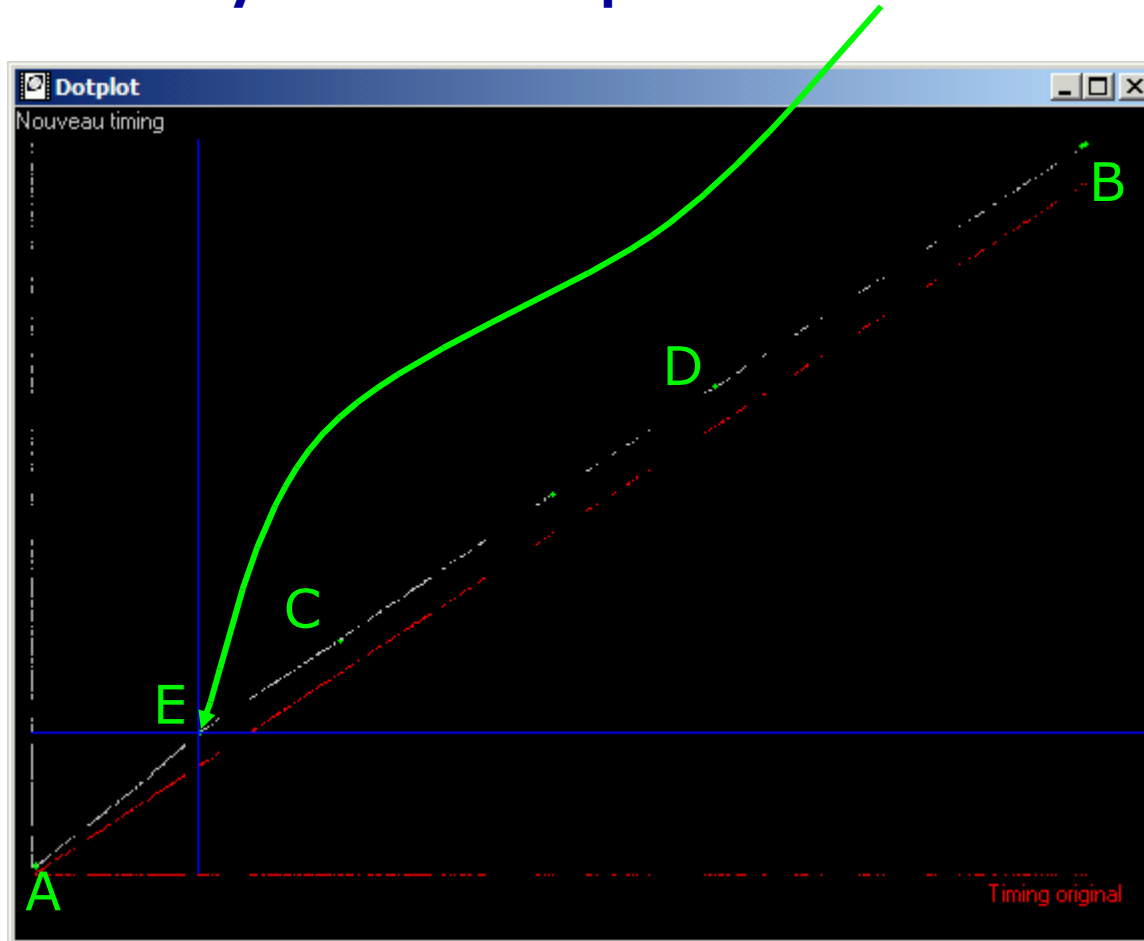
Indeed, if we add a synchronization point D in this block in the end, it is aligned with points B et C



The annoying block is the one in the beginning, between A and C.

# FurySync, visual help to synchronization

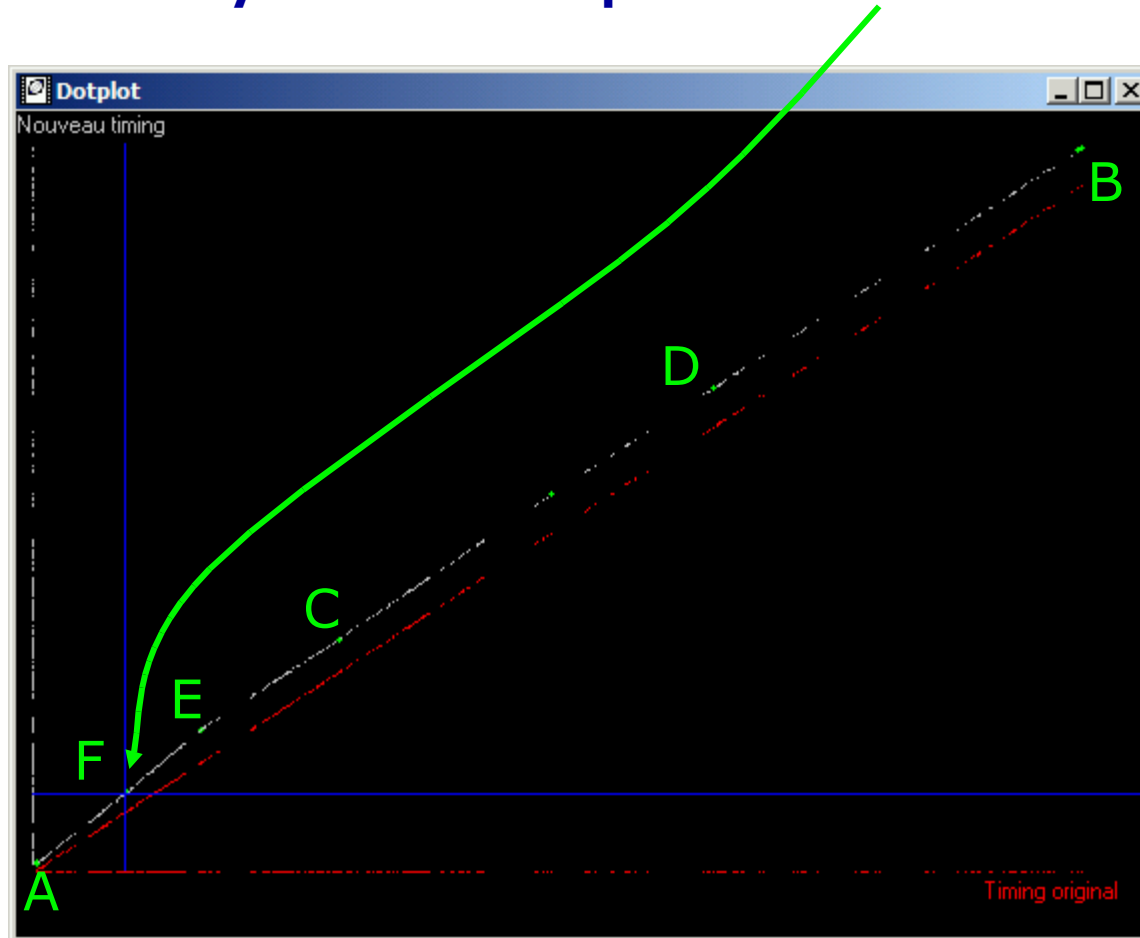
We add a synchronization point E between A and C.



Well, well, E is aligned with B, D, and C,  
so the block to synchronize is between A and E

# FurySync, visual help to synchronization

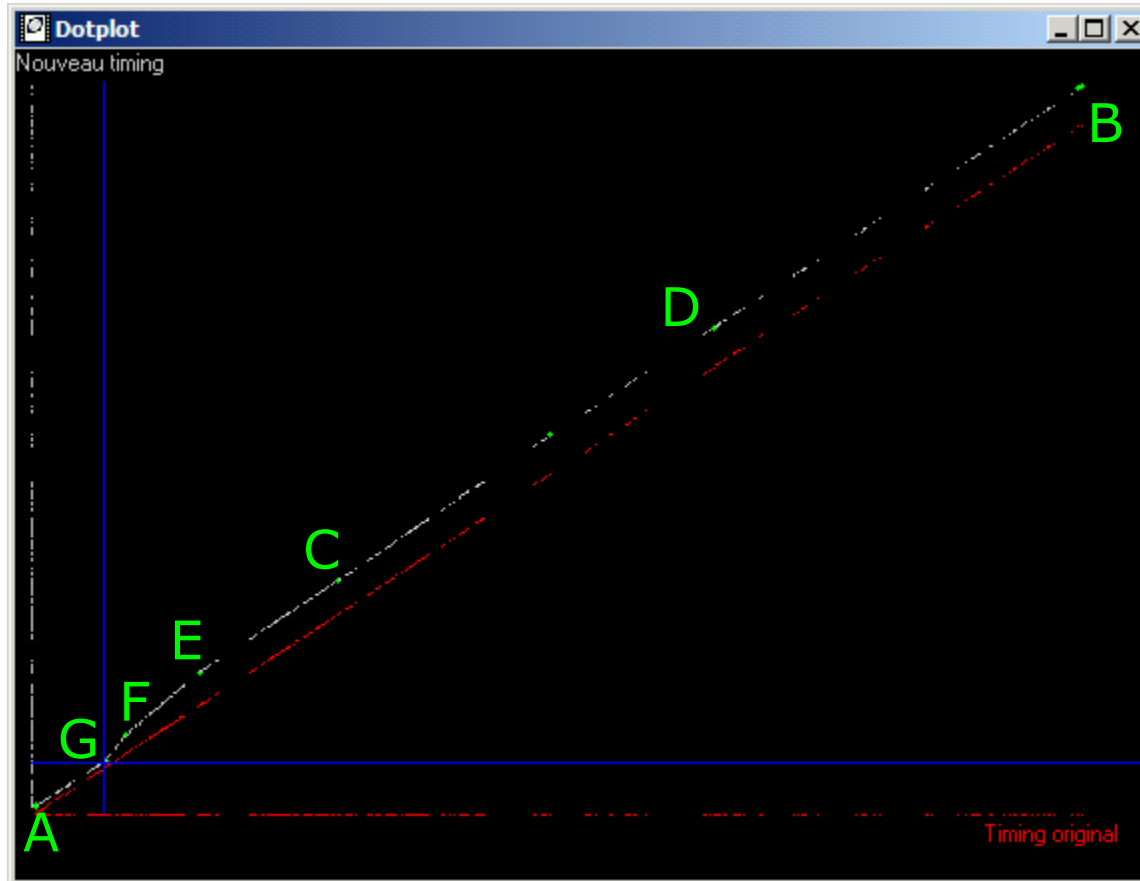
We add a synchronization point F between A and E.



F is aligned neither with A and E, nor with E and C, so there seems to be a problem between A and F, and between F and E.

# FurySync, visual help to synchronization

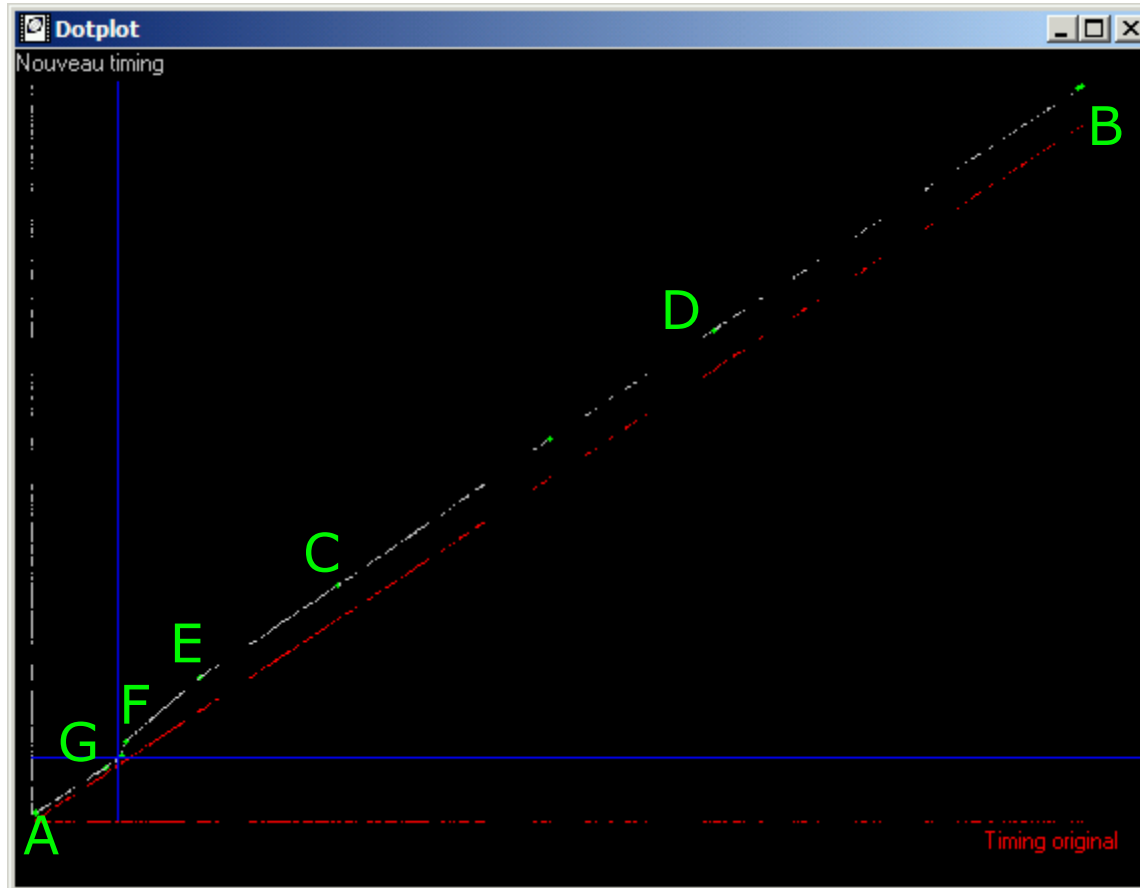
We add a synchronization point G between A and F.



**AG is parallel to the dotplot of the old timing, which seems to show that block AG has a correct timing. Indeed, if we add a point between A and G it is already perfectly synchronized (aligned with A and G).**

# FurySync, visual help to synchronization

We add synchronization points between G and F to solve the problem here.

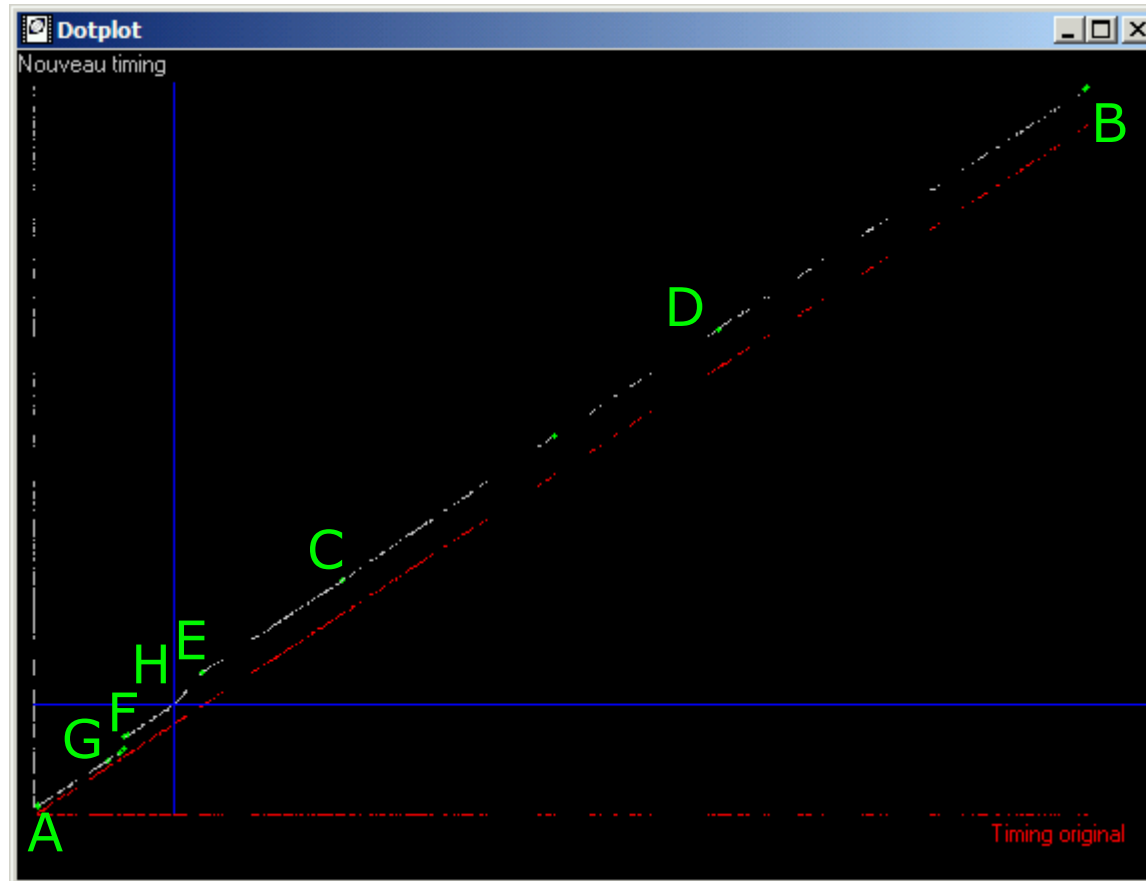


**Done! There were few lines (7, for approximately 1 minute) between G and F, so this was quickly synchronized.**

**A problem remains between F and E.**

# FurySync, visual help to synchronization

We add a synchronization point H between F and E to solve the problem here.

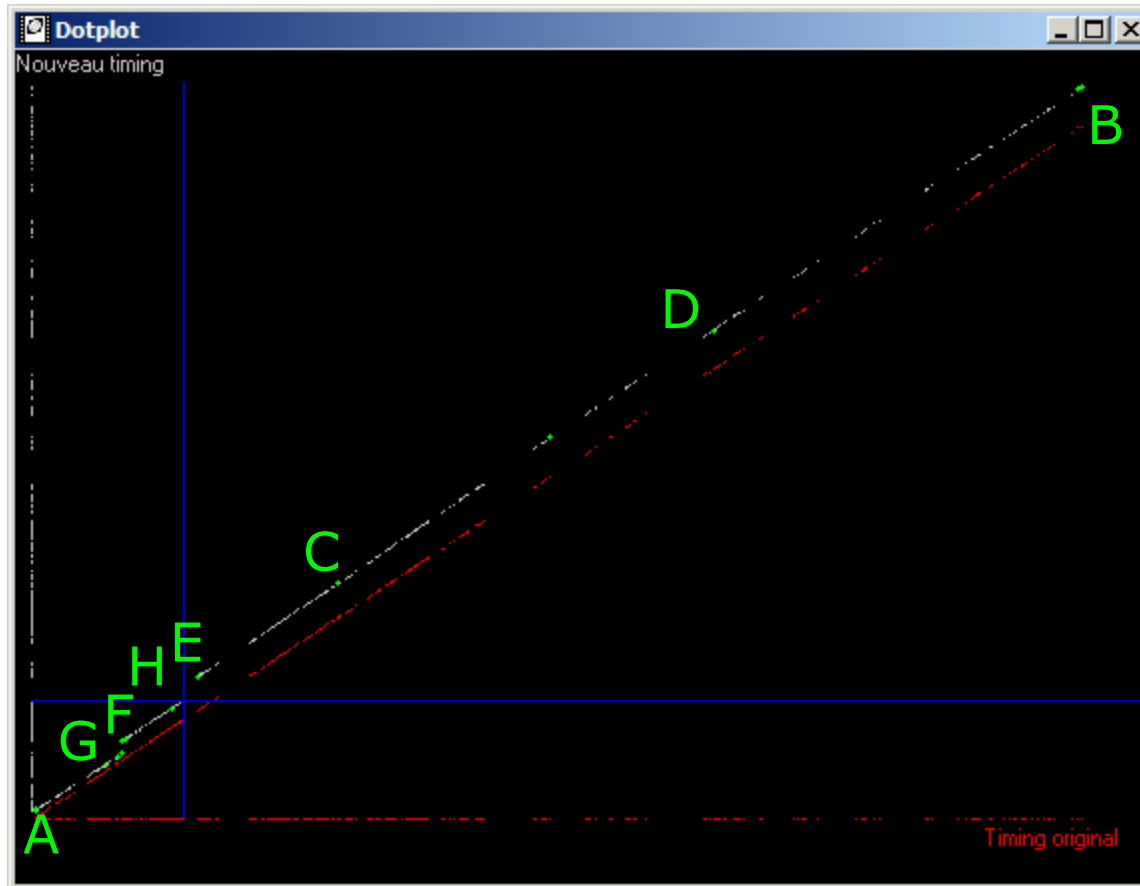


**FH is parallel to the old timing.  
There seems to be no problem between F and H.**

**Now we just have to synchronize carefully between H and E.**

# FurySync, visual help to synchronization

We finally synchronize the lines between H and E.



We check with FurySync that the lines appear at the right time, and by choosing one at random in each block (that is one between each pair of lines colored in green in FurySync):  
**that's it!**



# FurySync, visual help to synchronization

The subtitle contained **two** « cuts », and three blocks (well synchronized with the previous timing: a, b, and c). At least, 6 **synchronization points** (one in the beginning and in the end of each block) were needed. We used **14**.

In fact we use a ***dichotomy method*** to detect the « cuts », by cutting in half the unsynchronized interval each time we add a new synchronization point (as we try to add it in the middle of the unsynchronized interval). This gives a number of synchronization points in « log of the number of lines » times the number of cuts. Therefore, this is a very fast method.

Here are some results for videos of about 40 minutes, with missing blocks in the original subtitle:

- 0 cut: 5 synchronization points, 2 minutes (the subtitle had an irregular timing which was adjusted)
- 1 cut: 39 synchronization points, 15 minutes
- 3 cuts: 18 synchronization points, 11 minutes
- 4 cuts: 33 synchronization points, 14 minutes
- 4 cuts: 39 synchronization points, 15 minutes
- 5 cuts: 23 synchronization points, 15 minutes

# FurySync, latest changes in the 2.9 version

Very useful: use up, down, page up, page down, to move in the subtitle

Apply synchronization (of the white lines). Use this before a dotplot for example

dotplot

Horloge :	77	00:08:40,320	00:08:43,043
00:00:00,000	78	00:08:43,043	00:08:45,344
79	00:08:45,344	00:08:47,170	
80	00:08:47,170	00:09:16,045	
81	00:10:18,104	00:10:19,566	
82	00:10:19,566	00:09:38,916	
83	00:10:23,671	00:10:25,233	
84	00:10:25,233	00:10:27,315	
85	00:10:27,315	00:10:29,994	
86	00:10:29,994	00:10:33,905	

Very useful: go back 5 seconds, if you missed a line, for example, or if you are looking for one in the video

Very useful: search in the subtitle

Time spent on the subtitle synchronization.

# FurySync, a free software

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**Freecorp FurySync can be downloaded freely as well as its source code, which can be modified with Delphi according to the BSD licence below:**

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