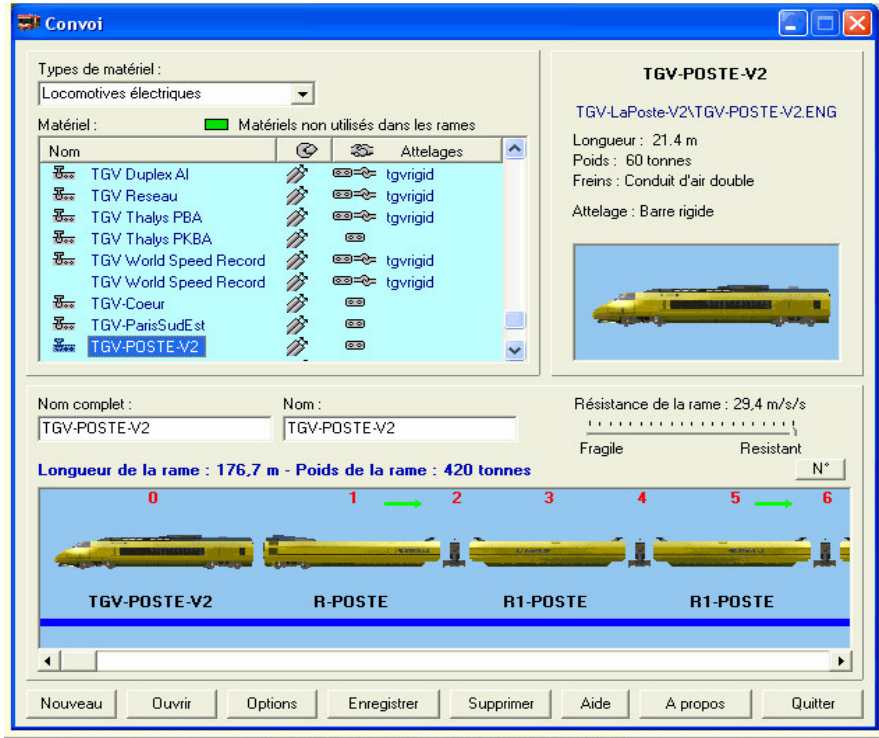# Convoi
A Consist Editor for the Microsoft Train Simulator
By Patrick DELAVENT – V1.30 5 Nov 2004
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Main Window

1. The visual interface of the program is virtually identical to that of the editor of Train Simulator. I intentionally did not want to modify the latter too much for the simple reason that I am accustomed to the use of the Train Simulator editor (like numbers of other users), it's use is easy and fast, furthermore various controls were gathered within groups according to their use.

2. Information which I considered to be significant has been added to the top of the preview of the consist, they are the length in meters and the weight in tons of the complete consist.

Principal characteristics of Convoi:

• checking of the integrity of the consist files, Locomotives and Wagons.
• the possibility of repairing the consist files damaged using an integrated editor.
• the possibility of repairing damaged Locomotive and Wagon files.
• the possibility of creating a backup copy of any modified files.
• the possibility of creating a backup copy of any files deleted.
• the possibility of carrying out the automatic repair of the sound configuration files (files sms)
  if lines of these files would point towards erroneous files (that happened to me!).
• the possibility of associating the consist files to the program.
• the posting of a photograph and the description of the vehicle selected (under condition that
  these data are present in the file of the vehicle)
• the possibility of changing the name, the weight or the power and the type of coupling of the

vehicle selected from the principal window.
- the possibility of adding a description for the Locomotives which has not got one.
- the possibility of remaking the classification of the vehicles of the consist.
- In the case of the files of Locomotives and Wagons, Convoi uses a particular editor making it possible to modify certain lines of the files with, in the case of faulty keys, giving possible lists of replacement values.
- the possibility of using two work folders for Convoi, the MSTS folder and the storage folder of Train Store for those having this program.
- Choice of the language used by the program from the options. Future addition envisaged by simple change of a DLL without needing to download or reinstall the program.
- Possibility of changing the consist used in the services of the activities.
- Checking of the rolling-stock used by the activities and possibility of changing this rolling-stock (loose consists).
- Report according to various criteria:
    1. Search for rolling-stock per key word
    2. List of all the consists using a selected rolling-stock item
    3. List of all the rolling-stock called by consists but not found
    4. List of all the activities in which rolling-stock was not found
    5. List consist files absent in activities
   6. List rolling-stock missing from activities.

Conditions of use:

Convoi is released as freeware. It is thus free, but remains the property of its author. You can distribute it to who you want with the proviso of doing it free, within a noncommercial framework and without modifying anything.

Convoi version 1.30 was entirely written in Visual BASIC version 6.0 and the graphics carried out using Paint Shop Pro 7.0 - Help file written and carried out by Patrick DELAVENT - November 2004

Creation of a new consist

To create a new consist click on the New button of the principal window
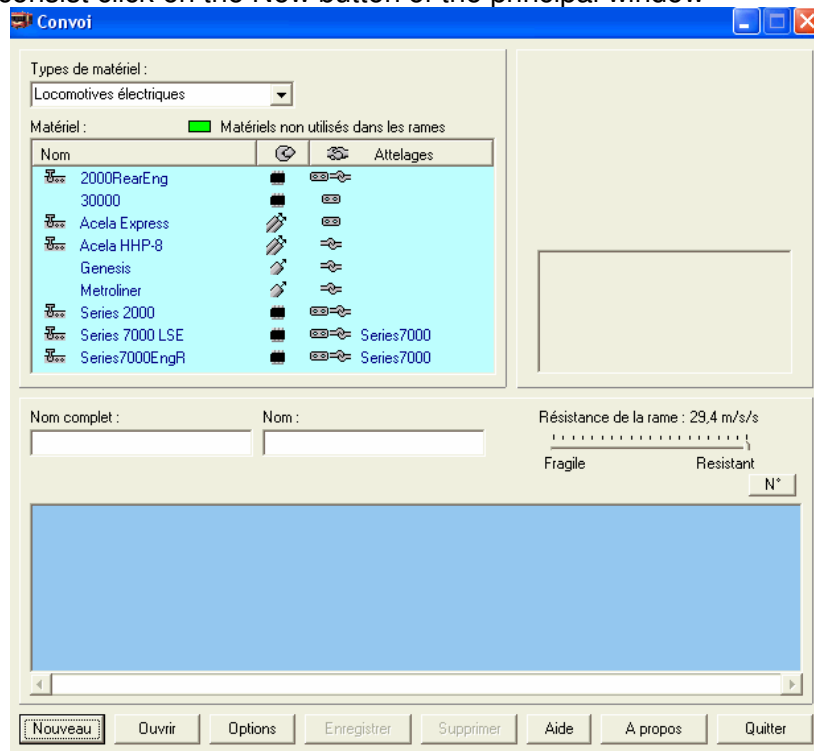
Name the new consist:
   NAME: It is the name which will be given to the consist file (40 characters maximum).
   COMPLETE NAME: It is the name of the consist which will appear in Microsoft Train Simulator (40 characters maximum).
   You can indicate only the complete name, the program undertaking to create the name of the file automatically (this last can however be modified as required).

To add a car to the consist:
To add a car to the consist, you initially select the type (Electric, Diesel, Passenger, Freight etc...) in Types of rolling-stock then:

First method: - Double-click on the model required in the Rolling-Stock list to add it directly at the end of the consist in the preview of the bottom of the window.

Second method: - Click on the model in the Rolling-Stock list in order to have a preview of the car in the small control of right-hand side, then using the mouse drag and drop the model from the small control towards the large control of bottom in order to place the car at the desired place (this may be between two other cars), a red vertical line in the preview picture of the consist indicates the position where the car will be inserted.

To move a car within the consist:
The movement of the cars within the consist is also possible by dragging thus making it possible to modify the site of your cars from the beginning towards the middle or the end of the consist and

vice versa. A red vertical line in the preview picture of the consist indicates the site where the car will be inserted.

To reverse the direction of travel of a car within the consist, click above with the right mouse button and the image of the car will be reversed and, if this one is positioned in the opposite direction with its normal direction, a small green arrow will be shown above the car.
Another right-click will return the latter to its initial position.

To remove a car from the consist:
To remove a car from the consist, also proceed by dragging the car to be removed in the consist, then dragging it from the preview control.

Recalculation of the classification of the rolling-stock composing a consist:
The addition to, the modification of , or even the removal of one or several Wagons within the consist inevitably modifies the order of the classification of the rolling-stock. This is why two options were envisaged in order to remake a logical continuation with the numbers allotted to each vehicle.

The first option intended for specific updates, is on the principal window in the form of a small button marked N° and located at the top and on the right of the view of your consist. A click on this button and your consist has its classification entirely rewritten from the left towards the end starting at zero.
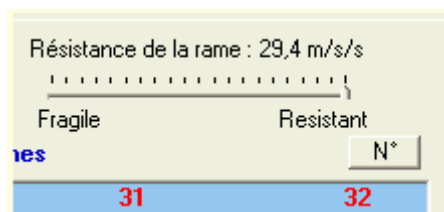
The second option, is rather intended for automatic updates of classification. As soon as a consist is changed, the smallest modification made to the consist generates the complete re-classification of the consist. To activate this option, simply go to the Options page and click the Recount automatically etc… box in the Consist Preview window.

Significances of the various symbols of the principal window:
Various small symbols appear in the list of the rolling-stock and the consist preview window of the principal window.
List rolling-stock:

 Indicates the presence of a cabview file

Brake types in the list of the rolling-stock:
Air Single piped
Air Twin piped
Air piped?
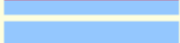
EP (Electropneumatic)
Vacuum Single piped
Vacuum Twin piped
Vacuum piped?
ECP

Coupling Types - rolling-stock:
Rigid bar
Chain
Automatic
Hydraulic

Brake types in the preview of the consist:
Air Single piped

Air Twin piped

Air piped?

EP (Electropneumatic)

Vacuum Single piped

Vacuum Twin piped

Vacuum piped?

ECP

Resistance of the consist:

You can, just like in the editor of Microsoft, regulate the resistance of your consist using the Résistance cursor of the consist.

Résistance de la rame :29,4 m/s/s

Fragile   Resistant

Opening an existing consist.

If you wish to modify an existing consist, or more simply to look at its make up, it could be useful for you to open a consist file in Convoi.

To open an existing consist, click on the Open button in order to display the selection window of the consist files found in the Train Simulator directory (or Train Store if you selected this option as priority).

SELECTION WINDOW OF CONSIST FILES

The names of consist preceded by this icon indicates that the consist is used by a route.

When whole or part of the rolling-stock composing a consist was not found, Convoi indicates it by showing the line of the consist concerned in red.

After having made your choice, click on OPEN to display the consist in Convoi.

Validity of the previously recorded files of consist:

Convoi has the ability of working with two different folders, those installed in Microsoft Train Simulator and the files stored by Train Store for those who have this program, the validity at the time of the opening of a consist file is different according to the file which has the priority.

If the MSTS folder has priority:

At the time of the opening of a consist file (thus a consist from MSTS), whole or part of the rolling-stock is located in the Train Store storage folder, Convoi will always regard the consist as invalid and the rolling-stock in question declared as not found, which I find normal because during the launching of Train Simulator it will not find the rolling-stock in question and it will announce an error, it will be necessary for that to move this rolling-stock into MSTS.

If the Train Store storage folder has priority:

At the time of the opening of a consist file (thus a consist from the Train Store storage folder), whole or part of the rolling-stock is located in MSTS folders, Convoi regards the consist as valid, the rolling-stock is displayed but by carrying out one drag/drop from the consist towards the preview control, this rolling-stock is not selected in the the rolling-stock list and and the preview control does not show it.
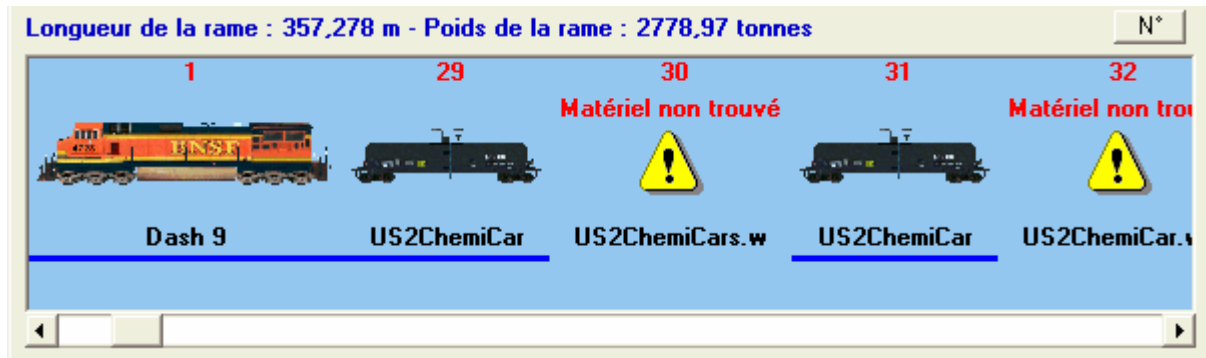
Outline of the posting of the consist in principal window when rolling-stock was not found.

If you selected the option to Associate the consist files with the program (see Other options), a simple double-click on a consist file will enable you to open it in Convoi, these files carry the extension * con and are located in directory TRAINS\CONSISTS of Microsoft Train Simulator.

Pictures and descriptions of Rolling-Stock

The posting of an image and the description of the rolling-stock are carried out while clicking with the right mouse button on the list of the rolling-stock of the principal window. It is not necessary to click on the name of the vehicle, a right-click anywhere in this zone will make open a window posting the characteristics of the rolling-stock selected at this moment (it should be noted that the posting of a description relates only to Locomotives)

The image of the rolling-stock is produced directly starting from the shape-file thanks to sfCanvas, a superb control created by Paul GAUSDEN (the creator of Shape Viewer). Thank you Paul to have allowed us to use this excellent tool in Convoi.

However if you to prefer to display an image of your choice, then create an image of the same name as the eng file or wag with the format bmp, gif or jpg and place the latter in the same file as the rolling-stock, under these conditions this one will be displayed. On the other hand, if your rolling-stock folders contain images, removing them will allow the rolling-stock to be displayed using the sfCanvas control.

When the rolling-stock is displayed with the sfCanvas control, you can make it swivel with the mouse by pressing the left button and change the fill color with the right button. The adjustment of the distance is carried out with the slider bar located below the picture.
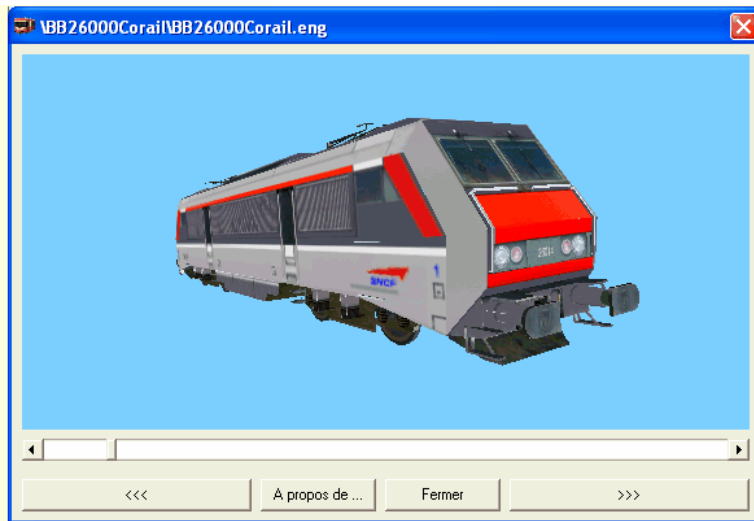
A picture created with sfCanvas
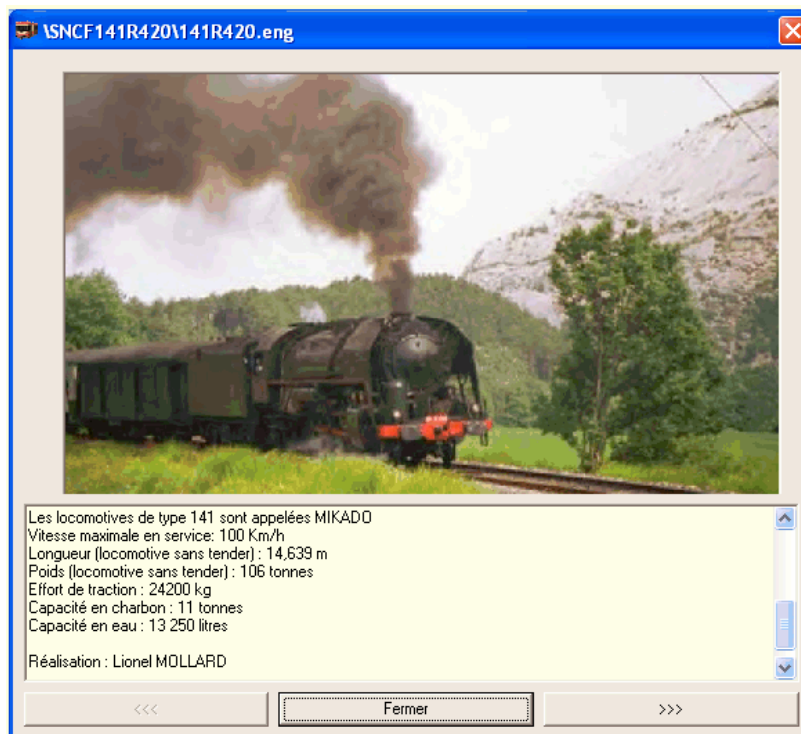
A picture from a Screen print in MSTS.

Modifying Rolling-Stock characteristics

A double-right-click on the preview picture of the principal window will open one dialogue box, making it possible to modify some of the characteristics of the selected rolling-stock. These characteristics are: the name, types of couplings (in the multiple case of couplings), the weight for the Wagons and finally power and the text of description for the engines.

Windows of modifications of the characteristics of the Locomotives

On the two windows above you can see that first motor coach (040DE426 the SNCF) has one type of coupling, whereas second (Atlantic TGV) has two types of couplings. Here each motor coach has their own description which can also be modified in this window, but it can happen that there is no description with the selected rolling-stock (Locomotives only), it is then here that one can add the desired text.

Window modification of the characteristics of the Wagons

A click on the Options button of the main window opens the Options window of Convoi.
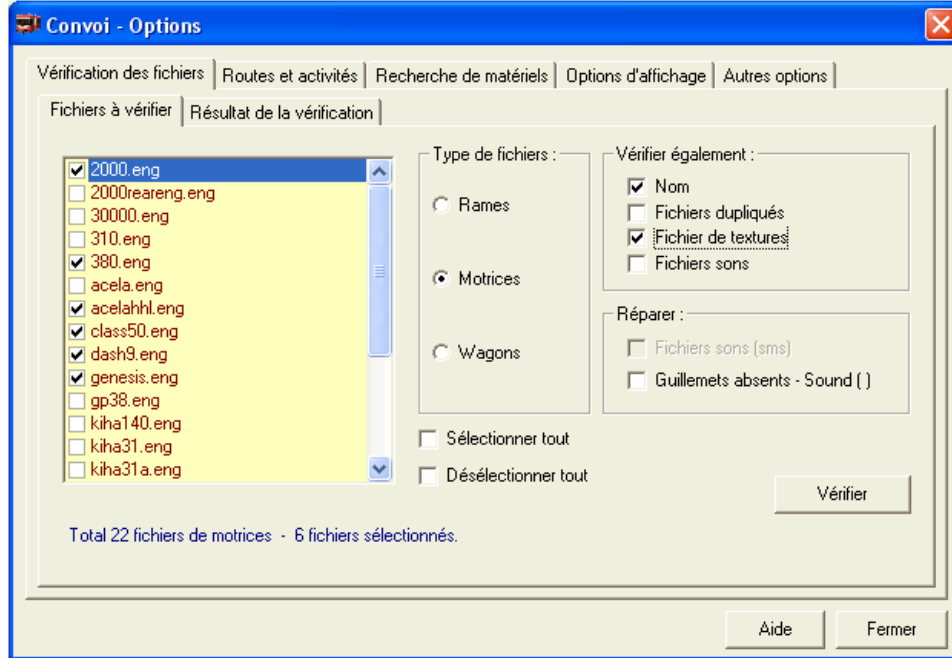
Window showing options

This window presents five tabs in its higher part:
Checking of the files
Routes and activities
Search for rolling-stock
Options of posting
Other options

Verification of Files

The Verication of Files tab also presents two tabs, Files to be checked and Result of the checking.
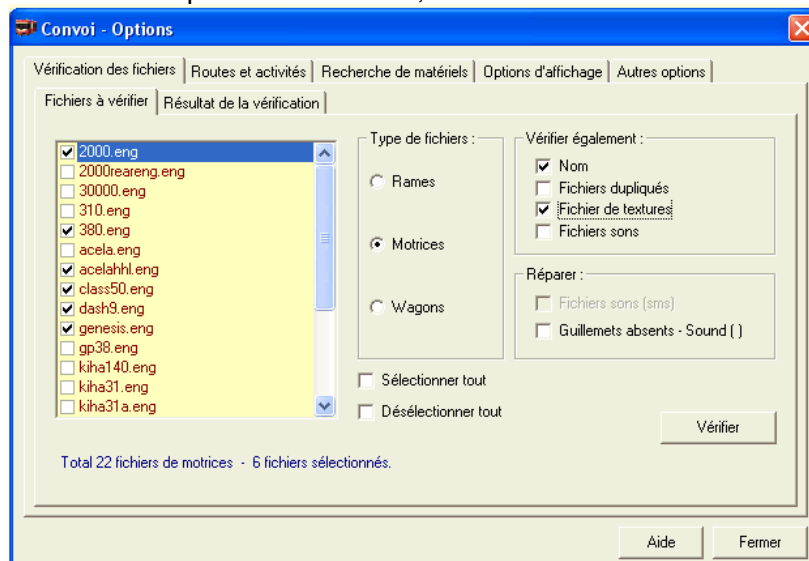
The check boxes to select all and de-select all allow the user to select or not all of the list. If these two boxes are not ticked, one can then select one or more files of the list by ticking the corresponding box opposite the name of the file using the mouse.

Type of files:

The option buttons for Consists, Locomotives and Wagons make it possible to select the type of files to be checked, the list is displayed in the control on the left.

Also Verify:

The check box Name makes it possible to also check if the name of the file corresponds to the descriptive name of the file.

The Duplicated Files box makes it possible to see whether files of Locomotives or Wagons do not have duplicate entries (as is the case with additional installations of vehicles).

The box Texture files checks if all the rolling-stock texture files are present in the folders indicated.

The box Sound files checks if all the sound files (wav) for the rolling-stock are present in the folders indicated.

Repair:

The box Sound Files (sms) makes it possible to try to carry out an automatic repair of the sound configuration files (*.sms). This option is very useful because it came to me after having installed Locomotives and Wagons of various sources, that often lines of sms files are erroneous or indicate missing files (certain lines indicating a file of the rolling-stock sometimes whereas the required file is located in the Train Simulator\SOUND folder, in this case Train Simulator finds the file, in other cases they indicate another rolling-stock folder and then Train Simulator cannot find where the file is).

The box Quotation marks absent - Sound() when it is ticked, adds quotation marks on both sides of the value of the Sound parameter () when these quotation marks are missing.

After having selected your files and your options, click on the Verify button to begin the checking.

Result of the checking:

When the checking is finished, if errors were found, the Result tab of the checking is displayed.

According to the result, the option buttons of List Erroneous files, Duplicated or Missing may be disabled.
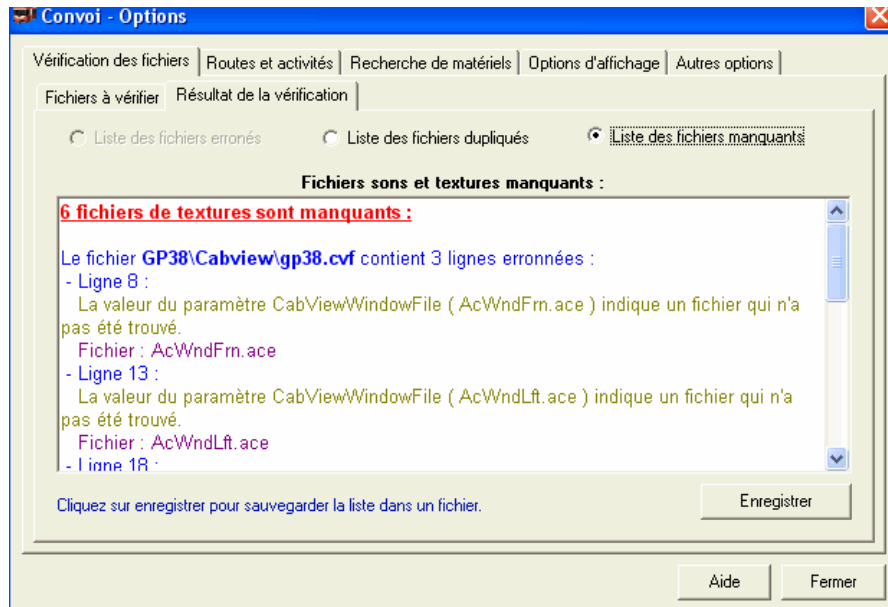
List missing files
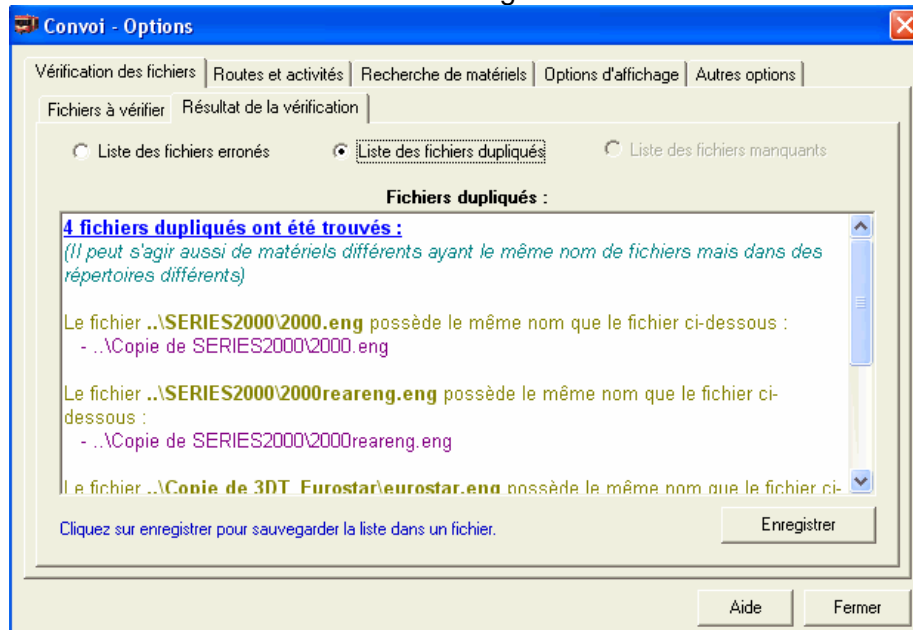
List files duplicated

For these two windows the Save button allows you to save the result of the checking in a file with format rtf or TEXT according to choice's and in the desired directory.
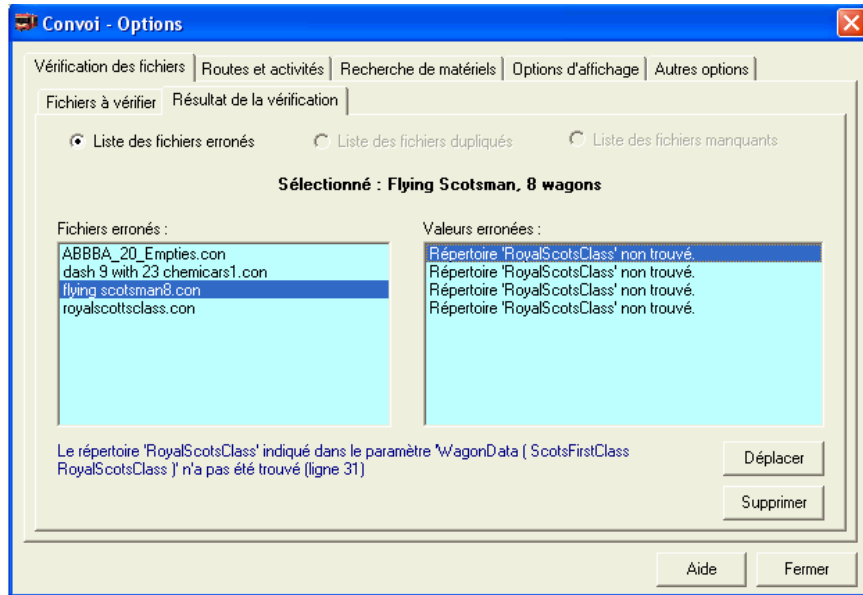
List erroneous files

This window presents two buttons, Move and Delete.
Pressing the Move button moves the file selected in the Backup directory of the program.
Pressing the Delete button removes the file selected WITHOUT carrying out of safeguard.

According to whether the checking relates to consist files or files of Locomotives or Wagons, the editing of the files is different.

1) For the consist files:
A double click on the name of the erroneous file, opens this one in the text editor of the consist files.

A double click on the erroneous parameter, then selects the value of this last after having opened the file in the text editor for the consist files.
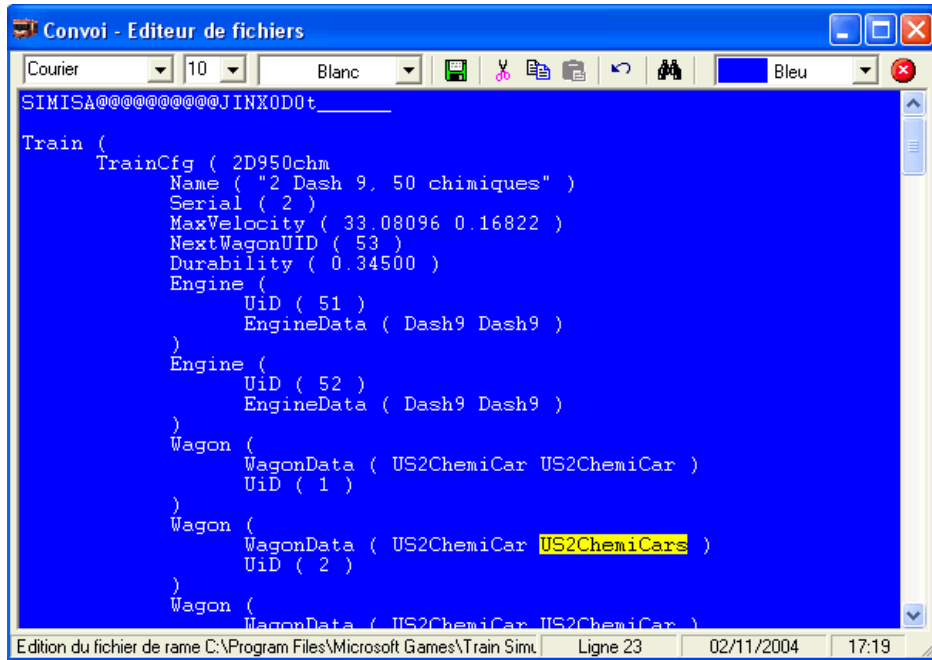
Window of the text editor of the consist files

This editor allows you to modify and correct the consist files assuming you know what to enter.

Example:
Above, the error found by the program is selected in yellow and indicates "US2ChemiCars".
Knowing that I have a directory named US2ChemiCar in directory TRAINSET of MSTS and that a file of wagon named US2ChemiCar.wag exists in this directory, it is very probable that it is only one error on the name of the directory (an S in excess). Thus it may be corrected and saved from this screen.

2) For the files of Locomotives or Wagons:
A double click on the name of the file or the erroneous parameter, opens the window of repair of the erroneous lines of the file.
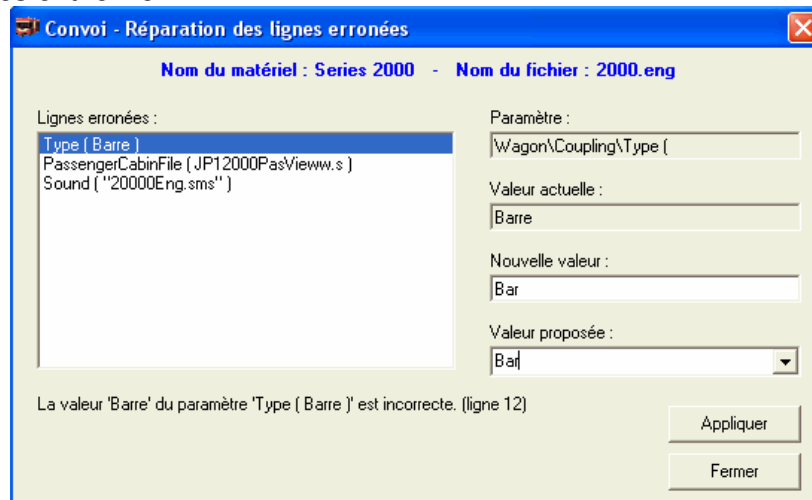
Window for the repair of the erroneous lines

For the files of Locomotives and of Wagons I did not consider it safe to open those in a text editor in order to limit the risks of errors while wanting to modify a line, unlike the consist files where it is simply enough to create a new consist using Convoi after having removed that which posed a problem. Here the erroneous lines are indicated on the left, while on the right one finds from top to bottom, the name of the parameter then the value of this parameter in certain cases, the program proposes value of replacements. It will then rest with to you to choose the most suitable while clicking above in the proposed Value list. This new value will then come to fit in the field New value (the new value can also be entered manually if you know the syntax). Then click on the Apply button to record the new value in the file and, if the value is correct, the erroneous line will disappear from the list of left.

Example:
In the window above, the Wagon\Coupling\Type parameter (standard of coupling) indicates for value "Bars". In the value of replacements we find Bar which is the correct value corresponding to this type of coupling. It is enough to select and apply this value. Let us note however that it is perfectly possible to choose another type of coupling in the list (for example Chain), however that can pose problems between cars on an existing consist using this rolling-stock.

Routes and Activities

The tab Routes and activities also present two tabs, Services and Loose Consists.

The tab Services:
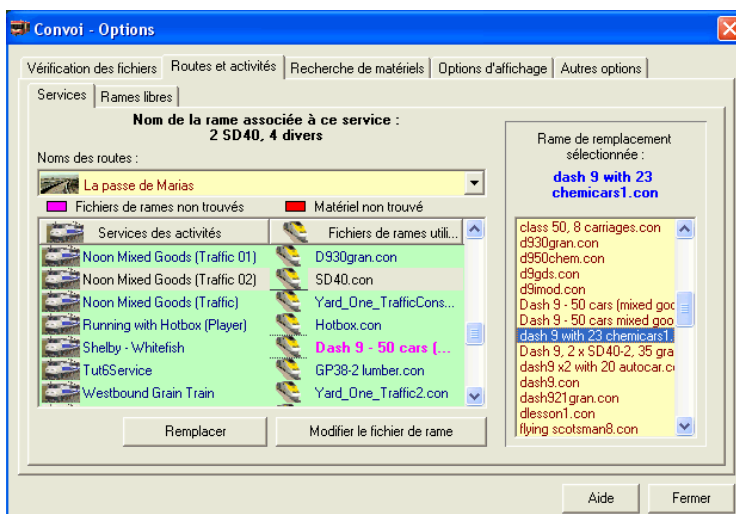
On the top, a control lists the name of all the Routes installed in your Train Simulator directory (or in your Train Store storage folder if you have this program and that this option is selected as priority). Below, a list of all the services related to the activities used with this route are displayed, as well as the name of the consist file associated with each service.

The consist files which were not found are displayed in magenta and those which were found but whose rolling-stock was not found are displayed in red.

On the right, a control lists all the consists found in the folder in use (Train Simulator or Train Store).

This list will allow the replacement of any missing consist files (or of any existing consist), for that select a consist in the list of right-hand side then after having selected the file to be replaced click on the Replace button.

The Modify the consist file button makes it possible to open the consist selected in Convoi and, if you carry out modifications on this consist and then save it, the program brings back for you again on this page.

The tab free consists:
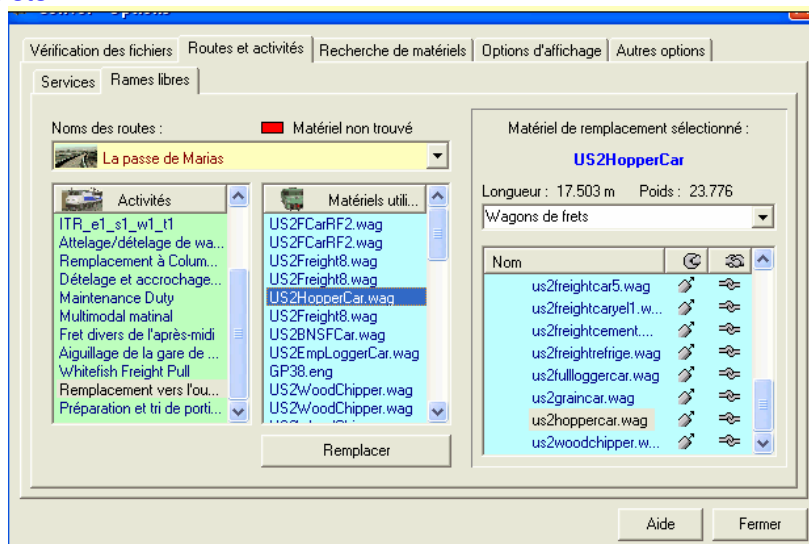
Free Consists tab.

As for the preceding tab a control lists the name of the Routes, then below two juxtaposed lists on the left all the activities found for the selected route are shown and on the right-hand side all the rolling-stock used by the selected activity and composing the consists known as "free".

Here just as for the consists, the rolling-stock not found is displayed in red as well as the corresponding activity.

On the far right is listed all the rolling-stock present on the principal page and organized in the same manner, namely the Electric, diesel and steam locos, then the wagons for passengers, freight etc...

If you select a rolling-stock item to be replaced on the left, the right-hand side list will be placed automatically to the same type of rolling-stock, Locomotives or Wagons and it is not possible to replace a locomotive with a wagon and vice versa.

When you click on the Replace button, the rolling-stock selected on the left is automatically replaced by that selected on the right and this without request for confirmation, Therefore take care....

Look for Rolling-Stock

The Search for rolling-stock tab allows searching according to several criteria in your files Train Simulator and Train Store. These various criteria are:
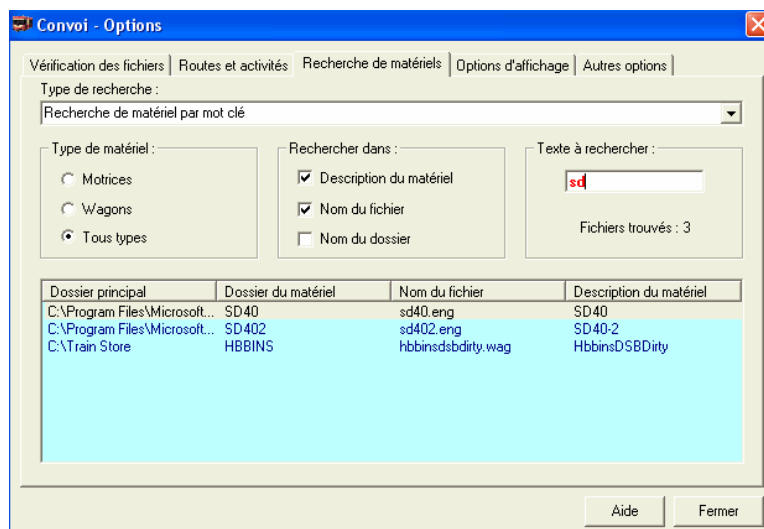• Search for rolling-stock per key word
• List of all the consists using a given rolling-stock item
• List of all the rolling-stock called by consists but not found
• List of all the activities in which rolling-stock was not found
• List of the consist files missing from the activities
• List of the rolling-stock missing from the activities

For all searches above, when a result is displayed in the list, a right-click button reveals a contextual menu offering several options like the recording of the result in a file.

Search for rolling-stock per key word:

This criterion allows the search for rolling-stock in your Train Simulator files but also in your Train Store files if you answered Yes to the message asking you whether you wish to change the list of the rolling-stock of your second file. Searches can relate to a file or file name, a description and can concern the files of Locomotives, the files of Wagons or both.

As soon as the letters composing the part to be sought are entered in the search box, the result of the search is displayed immediately and selecting an option button or the check boxes modifies the consequently result.

Search for rolling-stock per key word

Lists of all the consists using selected rolling-stock:

This criterion makes it possible to display a list of all the consists using the rolling-stock selected in the list displayed on the top of the page. The name of the principal file where these consists were found is indicated as well as the description of these.
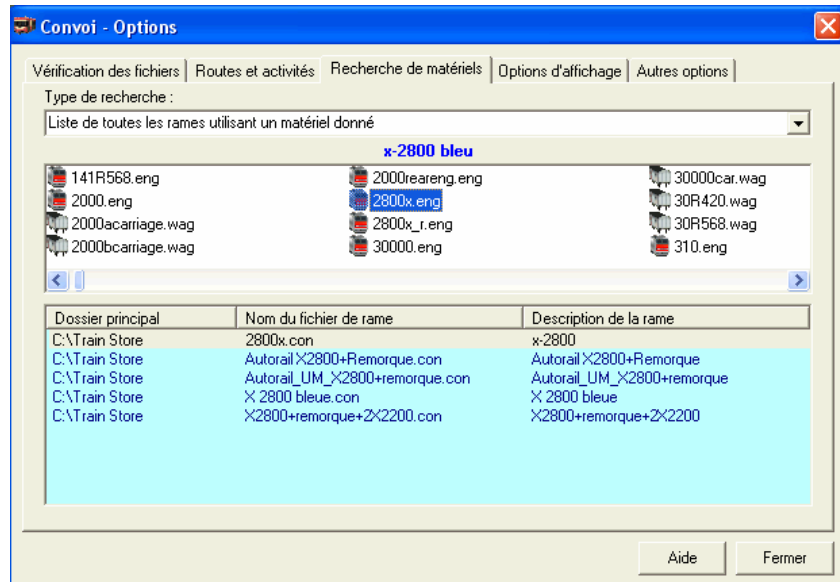
List of all the consists using a selected rolling-stock item.

List of all the rolling-stock called by consists but not found:

Here one can list all the rolling-stock included in consist files but which were not found in the files of Train Simulator or Train Store. For each rolling-stock item not found is indicated the filename of this rolling-stock item and the applicable consist file.
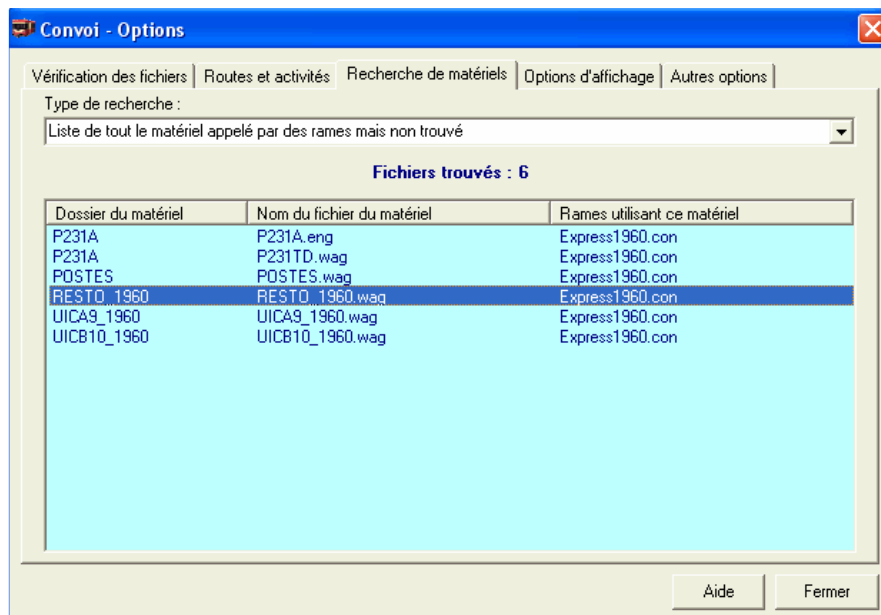

List of all the rolling-stock called by consists but not found

List of all the activities in which rolling-stock was not found:

This criterion created a list of all the activities in which rolling-stock was not found, the name of the route using this activity is indicated as well as the description of the latter.
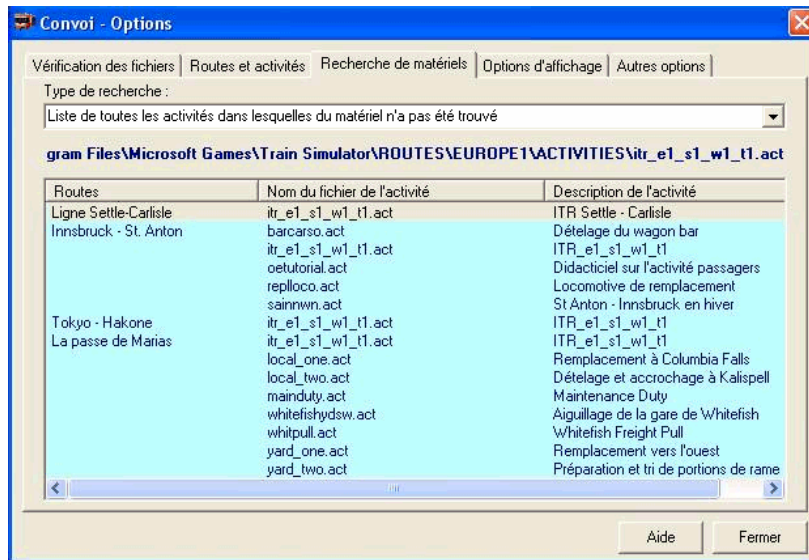
List of all the activities in which rolling-stock was not found

List of the consist files absent in the activities:

If consist files (consists) called by activities were not found, they will be listed here. Also indicated the name of the route and the activity for each missing consist.
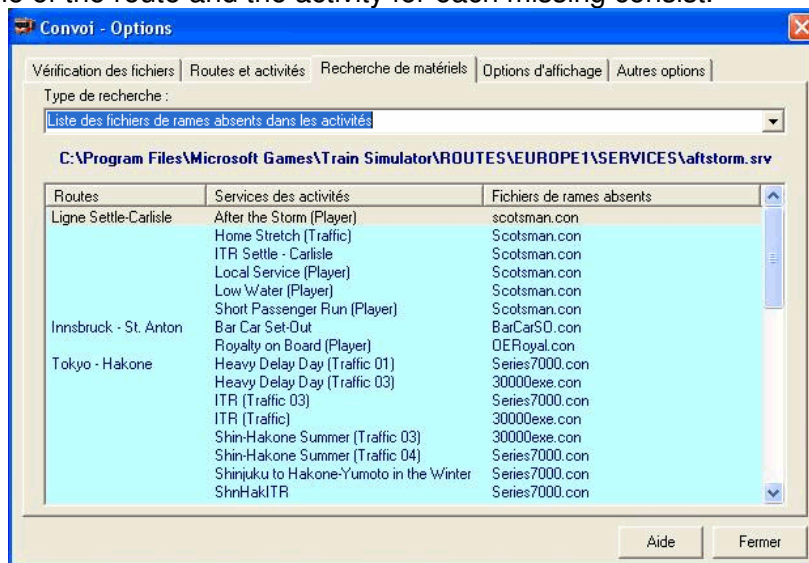
List consist files absent in the activities

List rolling-stock absent in the activities:

After having created a list of all the activities in which rolling-stock was not found, here a list of all this rolling-stock with once again the name of the route and the description of the activity of the rolling-stock concerned.
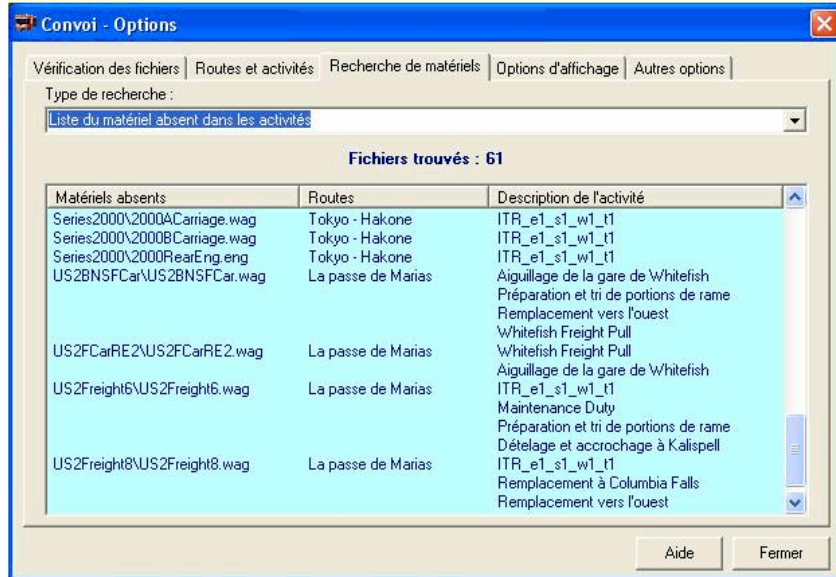
List rolling-stock absent in the Activities.

Display Options
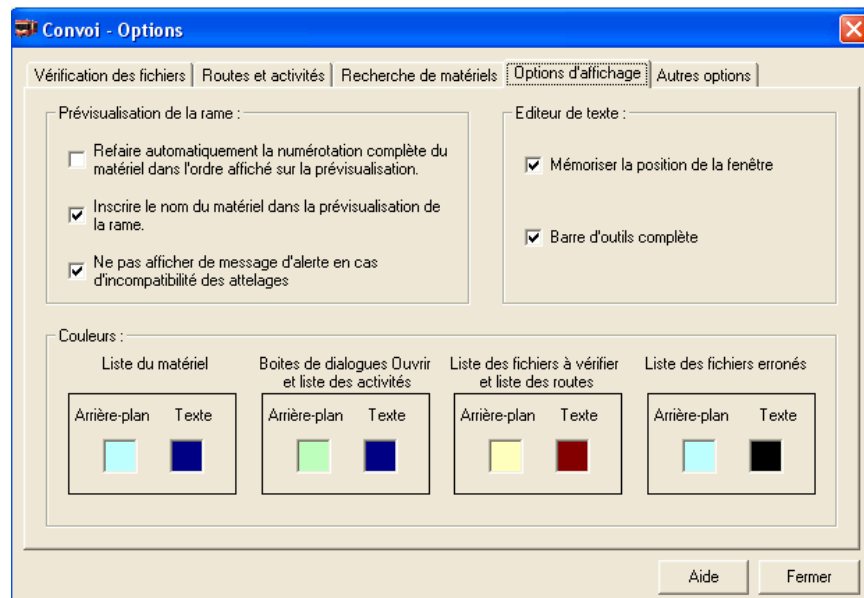
Preview of the consist:

This view relates to the preview display in the principal window of the program.

It makes it possible to automatically rebuild the classification of the rolling-stock from the left towards the right in the order the wagons are displayed. When this option is ticked classification is carried out each time a modification is made to the consist open in Convoi, for specific classifications, leave this un-ticked and use the small button marked N° located above and on the right of the display of your consist on the main page.

The option in the center of this window makes it possible when the box is ticked, to display the names of the Locomotives or the Wagons below their respective images.

The bottom option relates to the alarm message which is displayed when the couplings of two vehicles are not compatible between them. In the preceding versions Convoi prohibited the addition of equipment with different couplings. On request of the users, this function was removed and a simple message of alarm is displayed to warn the user, just as a small symbol is registered between the two vehicles to point out this anomaly. This check box if it is activated, prevents the posting of the message of alarm and only the small symbol of incompatibility announces the defect of coupling.

Text editor: This Window relates to the text editor for the consist files, with the possibility of memorizing its position and of showing its toolbar entirely or partially.

Colours: This part makes it possible to personalize the prime colour and the background colour of controls which display the data in the forms of lists, double-click on the color box makes it possible to open a dialogue box with a choice of the colors.

Other Options
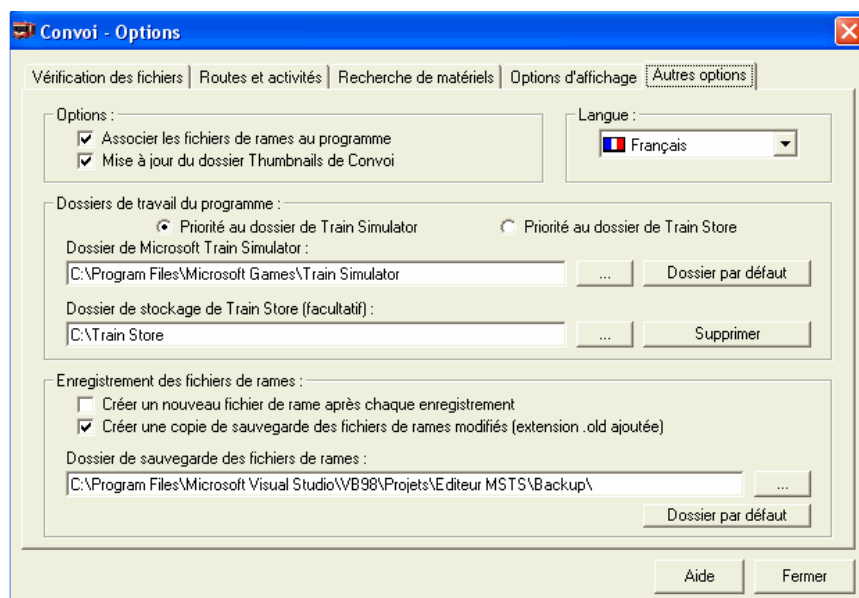
Association of the consist files:
The box Associate the consist files to this program is useful in my opinion, because a simple double click on a consist file (* con) makes it possible to immediately open it in the Consist editor.

The Update box for the folder Thumbnails in Convoi if it is activated, makes it possible to update the list of the pictures in the Thumbnails folder located in the Convoi folder in connection with all the rolling-stock present in your Train Simulator and Train Store files each time the program is started. Any pictures with no corresponding stock and thus not used are automatically placed in a Convoi\Unusable_Thumbnails folder and, if the rolling-stock is added Convoi will automatically seek the pictures which it needs provided that this option is activated. If you wish to regain space on your disc you can remove all these unutilised pictures.

You may select the language of your choice among those available.

Convoi can work starting from two different folders. The installation folder of Microsoft Train Simulator and, for those which have Train Store, the storage folder used by this program. Each one of these two files may have priority by selecting the corresponding option, only the rolling-stock corresponding to this file will be then displayed in Convoi.

This option is especially useful for the users wishing to carry out checks on the validity of their files.

When the storage folder of Train Store is selected as priority, the opening of a consist file recorded previously, and of which whole or part of the rolling-stock is located in the MSTS folder, will be regarded as valid by Convoi, the rolling-stock will be displayed in the consist but trying to drag-drop models to the consist will not select this rolling-stock in the list and the preview control will remain empty.

On the other hand when the file of MSTS is selected as priority, the opening of a consist file (thus a consist of file MSTS), where all or part of the rolling-stock is located in the file of storage of Train Store, will be regarded as invalid by Convoi and the rolling-stock in question declared as not found. I find that completely normal as during the launching of the game, Train Simulator will not find the rolling-stock in question and it will announce an error, it will be necessary for you to return this rolling-stock to the MSTS folder.

Saving of the consist files:
The box Create a new consist file after each save makes it possible, when one saves the consist which one has created or just modified, to close this one and to create a new file, without which the backup file remains open.

The box, Create a copy... relates to the creation of a backup copy during the modification of a consist file. The path of the Backup file can be defined also on this level.

Creation of Thumbnails

The outline of the rolling-stock in the preview control is produced starting from 'thumbnails' which are reduced images of the selected locomotive or wagon.

The thumbnails of all the rolling-stock provided as standard with Microsoft Train Simulator are included in the executable Convoi program. You may also download the auto-extractable file cvthumbs.exe (459 KB), from the Convoi Web site. I wish to thank all the creators for Routes, Locomotives and Wagons for the remarkable work which they provide for our greater pleasure.

If the thumbnail corresponding to the type of rolling-stock installed on your computer is not found, then the program will use a standard thumbnail representing the type of selected rolling-stock. If that is OK for you, and not a problem, the program will still function perfectly. (You can even remove all of the thumbnails contained in the Thumbnails sub-folder to gain disk space if you wish but acknowledge that it is much more pleasant to see a reduced representation of the rolling-stock during the creation of consists).

If you wish to create and install additional thumbnails, here is how to proceed:
(This method is only one suggestion and will depend partly on the rolling-stock one has)
- Start by looking at the thumbnails included in the Thumbnails sub-folder by opening them in Paint to give you an idea of their realism.
- With the Microsoft consist editor, create a consist comprising the car of which you wish to create the thumbnail.
- Include in this consist a coach having a 26 m length this so that all your thumbnails are on the same scale (I used a passenger car ACELA while juggling with the couplings).
- Now if you have Paint Shop Pro, make a partial screen print of the consist including the car you wish to make the thumbnail of. Alternatively, make a screen print of the complete window while pressing the combination of Alt keys + Print screen in order to copy these data to the Clip-Board.
- With your paint package create a new file with format BMP and being for dimensions 96 pixels height (SIGNIFICANT) and whose width will depend on your image, this may be from 60 pixels to nearly 200 (if you give it maximum width to start you will be able to then reduce it if necessary)
- Paste in this new image the data which you placed in the clip-board without changing it's dimensions, it is very probable that these are much larger than the image, especially if you made a screen print of all the window, in this case positioning in the new image will be more delicate, place your car at 4 or 5 pixels from the left edge then reduce the width of your image in order to keep only 4 or 5 pixels also on the right.
- Colour all the bottom in blue either by copying the color in an existing thumbnail, or by defining the color as this Red=148 Green=198 Blue=239.
- Reduce the number total of colors to 256, it is not necessary but saves space.
- Save this image with format BMP by giving him the name of the file * eng of your loco or of the file * wag of your wagon but without the extension and place them in the Convoi\Thumbnails sub-folder.

- Here, your car now has its own thumbnail which will be displayed when you select this one in Convoi.
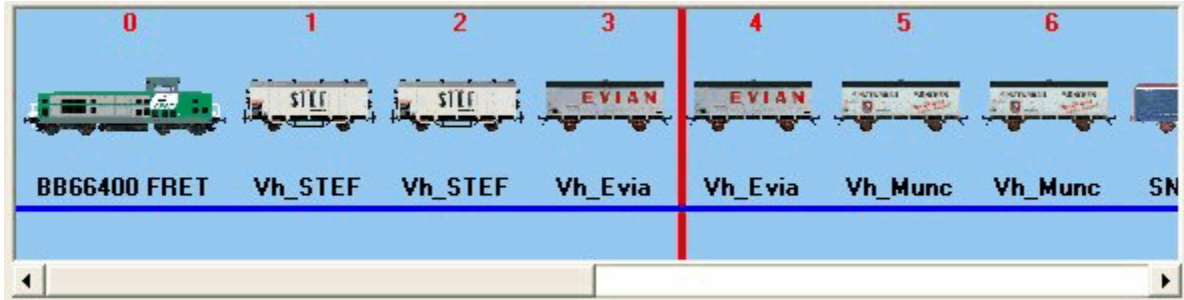
English Translation by Mike Simpson (and Google), 18 Dec 2005.