

User Manual 用户手册

SAM 5

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DETAIL OF EVOLUTIONS 研发进程

Rev.修订 版本	Detail of modifications 修订内容
A	Creation of the document 编制该文件。
B	Compatibility with windows Seven 实现与Windows 7的兼容性。 Changes of the zero reference and of the search functions 修订零基准和搜索功能。
C	A development in the printing function 研发打印功能。 Addition of Dutch添加荷兰语。
D	Additional informations on the cursor in the graphical view 添加图形化视图内光标信息。 Uniform print-outs of all the views 统一所有视图的打印输出功能。
E	New file explorer view 新建文件管理器视图。 Fast filter selection via right click 右键快速筛选。 Additional descriptions for existing functions 添加现有功能的其他说明。
F	Compatibility with Windows 10 and Chinese language added. 增加了与 Windows 10 和中文语言的兼容性。 Several folders can now be added in the journey file explorer view at top level. 现在可以在“路径文件管理器”视图中添加多个一级文件夹。 New column added in the tabular and list views for the accumulated distance. 表格和列表视图中可添加新列，用于累计距离。
G	Addition of the multimedia view to play audio files. 添加了多媒体视图以播放音频文件
H	Corrections to the format used for exported files and various updates。 关于不同文件导出和格式更新的更正。

(Table height excluding the column name 520 pts) 表高度不包括列名520pts.

DOCUMENT MANAGEMENT文件管理

This document was created using the Word 6.0 word processing software. It uses the following character fonts: Arial, Times New Roman, Courier New Wingdings, and Symbol. It is intended to be printed in A4 portrait format on a printer providing 300 dpi resolution at least.

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User Manual 用户手册

1. Purpose of the document 文件目的

This document describes the functions of the SAM 5 software.

该文件旨在说明SAM5软件的各项功能。

2. Scope of application 应用范围

This manual applies to the SAM 5 software and journey files recorded on the Faiveley event recorders.

该手册应用于软件SAM5和Faiveley事件记录仪上所记录的日志文件。

2.1 Operating systems supported 可支持的操作系统

SAM 5 only supports the following Operating Systems:

SAM5软件仅支持如下操作系统：

- Windows 10
- Windows Seven 32 and 64 bits
- Windows XP Pro

No guarantee is made that this software will run on Operating Systems other than the ones listed above.

不保证该软件可在以上列举的系统之外的系统上可以运行。

2.2 Hardware configuration required 硬件配置需求

The minimum configuration of the computer used to run SAM 5 is:

运行SAM软件的电脑的最低配置应为：

- Pentium 4 Processor at 1.4 Ghz or equivalent, 1GB RAM, 15' monitor.
- 奔腾4处理器，1.4Ghz或者相等，1GB RAM，15'的显示屏。

3. BRIEF DESCRIPTION OF THE PRODUCT SAM简介

The SAM software is a multilingual software application displayed in English when first opened. The language can be changed using the "File – Preferences" menu. SAM软件为多语种应用软件，首次打开时显示语种为英语，使用文件首选项可选择语种。

After opening a journey file, the data recorded can be viewed using the "List", "Graphic", "Tabular" and "Binary" views. 打开日志文件之后，可通过“列表视图”、“图形化视图”、“表格式视图”和“二进制视图”进行查看。

The "List" view displays events in the chronological order in which they were recorded by the appliance (one event per row with the name of the event followed by the context variables). 列表视图按照时间顺序显示记录仪所记录事件（每排一个事件，每个事件名称后含有事件变量）

The "Graphic" view is used to draw curves for analog variables such as braking pressure or speed. 通过图形化视图，勾画模拟变量曲线，如制动压力或速度。

The "Tabular" view is used to view how one or several variables evolve in the form of a data table (one variable per column). 通过表格式视图查看一个或者多个变量按照数据表格的形式发生变化的过程（每列一个变量）。

The "Binary" view displays the data recorded in hexadecimal form (raw data format). 通过二进制视图查看记录地十六制式数据（原数据格式）。

In order to limit the display to the useful data, it is possible to create a large number of filters on the events or on the data. In the latter case it is possible to add a condition value to the data. 为限制有用数据被泄露，可创建多个关于事件和数据的筛选器。在数据筛选功能中，可添加条件值到该数据中。

The "Multimedia" view is a specific view which is used to display a list of audio files which corresponds to a given journey file and to start playing an audio file. “多媒体”视图是一个专用视图，可以查看与给定路径文件相对应的音频文件列表并开始播放音频文件。

The various views proposed can be displayed simultaneously and a synchronization option allows you to identify the position of certain items of data in all of the views. 各类型视图可同时显示，且同步选项可定位所有视图中的任一数据。

The user can also add annotations to the recorded data and browse between data.¹

用户亦可添加注解到所记录的数据中，浏览数据。

¹ N.B.: this action does not modify the original data 该动作不会修改原始数据。

4. USING SAM: 使用SAM软件

4.1 Application presentation 软件应用介绍

4.1.1 Main application window 主应用窗口

On opening, the SAM application displays a single window grouping together all of the software's functions and used to view the data of a single journey file at once² (SDI – Single Document Interface Windows application). 打开SAM软件时，其应用显示单一窗口，窗口中集有该软件的各种功能。每次仅能查看一个日志的数据（SDI – Single Document Interface Windows application 单一文件界面窗口应用）



Figure 1 : Main SAM screen 图 1：SAM 主显示屏

The name of the application SAM5 appears at the top of the screen, followed, depending on the case, by the name of the open file, followed by the start and end dates and times of the journey file between square brackets. SAM软件的名称出现在显示区顶部，按照具体情况，文件名应紧跟其后，且使用方括号，其中含有日志文件的起始时间和终止时间。

The row directly below is used to access the main menu. The list of functions of this menu is provided in sub-section. 下列一排用于登录主菜单，菜单功能列表见4.1.2章节。

The toolbar is used to quickly run a function or a view without using the main menu. The meaning of each icon is provided in sub-section. 在不使用主菜单情况下，该工具栏用于快速启动一个功能或者视图，各标志说明见4.1.3章节。

² It is possible, however, to run several SAM sessions on the same workstation.但是，可以在同一工作站运行几个SAM会话窗口。

Use of the perspectives is explained in sub-section 4.22. 透视图的应用见4.22章节。

On opening the application, the display area shows the recorder file explorer view (see sub-section 4.2). 启动应用程序时，显示区域被录音机文件管理器视图占用（请参阅第4.2条）。

4.1.2 List of main menu functions 主菜单功能列表

All functions of the SAM main menu are listed in the table below with reference to the sub-section herein explaining how to use each function. SAM软件主菜单的各大功能列于下表，关于各功能运行说明见本文件相关章节。

File 文件	Edition 编辑	View 视图	Help 帮助
Open ➔ see § 4.3 打开见4.3章节	Time corrections ➔ see § 4.14.1 时间校准见4.14.1	Binary view ➔ see § 4.8 二进制视图见4.8章节	About SAM5 关于SAM
Close ➔ see § 4.3 关闭见4.3章节	Distance corrections ➔ see § 4.14.2 里程校准见4.14.2	List view ➔ see § 4.7 列表式视图见4.7章节	Help 帮助
Import a profile ➔ see § 导入文档见4.20.2	Virtual boolean variables ➔ see § 4.11 虚拟布尔变量见4.11	Tabular view ➔ see § 4.6 表格式视图见4.6章节	
Save the annotations ➔ see § 4.9 保存注释见4.9章节	Search in files ➔ see § 4.15.2 文件搜索见4.15.2	Graphic view ➔ see § 4.5 图形化视图见4.5章节	
Export in a file ➔ see § 导出一个文件见 4.15.5.1章节		Multimedia view ➔ see § 4.16 多媒体视图见4.16章节	
Multiple exports ➔ see § 多项导出见4.15.5.3		Recorder file explorer ➔ see § 4.2 录音机文件管理器见4.2章节	
Print ➔ see § 4.17 打印见4.17章节		Annotations ➔ see § 4.9 注释见4.9章节	
Preferences ➔ see § 4.23 首选项见4.23章节		Journey information ➔ see § 4.4 日志信息见4.4章节	
Exit 退出		Fault report ➔ see § 4.21 故障报告见4.21章节	

The "Help → About SAM5" menu is used to view the SAM version that is running. 菜单“帮助→关于SAM5”用于查看正在使用的SAM软件的版本。

The "Help → Help" menu opens this user manual in the default PDF editor selected in Windows. 菜单“帮助→帮助”用于打开Windows默认所选PDF编辑器中的用户手册。

The "File → Exit" menu closes the application. 菜单“文件→退出”用于关闭该应用。

4.1.3 Application toolbar 应用工具栏

The application toolbar is used to quickly run the following functions also available in the main menu: 应用工具栏用于快速在主菜单栏中启用下列有效功能。

 Open a file 打开一个文件

 Save the annotations 保存该注释

 Print 打印

 Recorder file explorer 录音机文件管理器

 Binary view 二进制视图

 List view 列表式视图

 Tabular view 表格式视图

 Graphic view 图形化视图

 Multimedia view 多媒体视图

 Journey information 日志信息

Opening a journey file makes it possible to open Binary, List, Tabular, Graphic and Journey Info views. 打开路径文件有可能会打开二进制、列表、表格、图表和路径信息视图。

Opening an audio file on its own opens the Multimedia view automatically. 打开单个音频文件会自动打开多媒体视图。

Opening a journey file with which one or more audio files are associated enables all the views to be opened. 打开与一个或多个视频文件相关的一个路径文件时，会打开所有视图。

4.2 Recorder file explorer view 录音机文件管理器视图

The explorer window is used to view all journey files and audio files contained in a directory selected by the user. This directory may be located on the PC's hard drive, on a network drive or on a USB stick. 管理器窗口用于查看用户所选目录下包含的所有路径文件或音频文件，该目录可能位于电脑硬盘上、可能位于网络驱动上或者位于USB盘上。

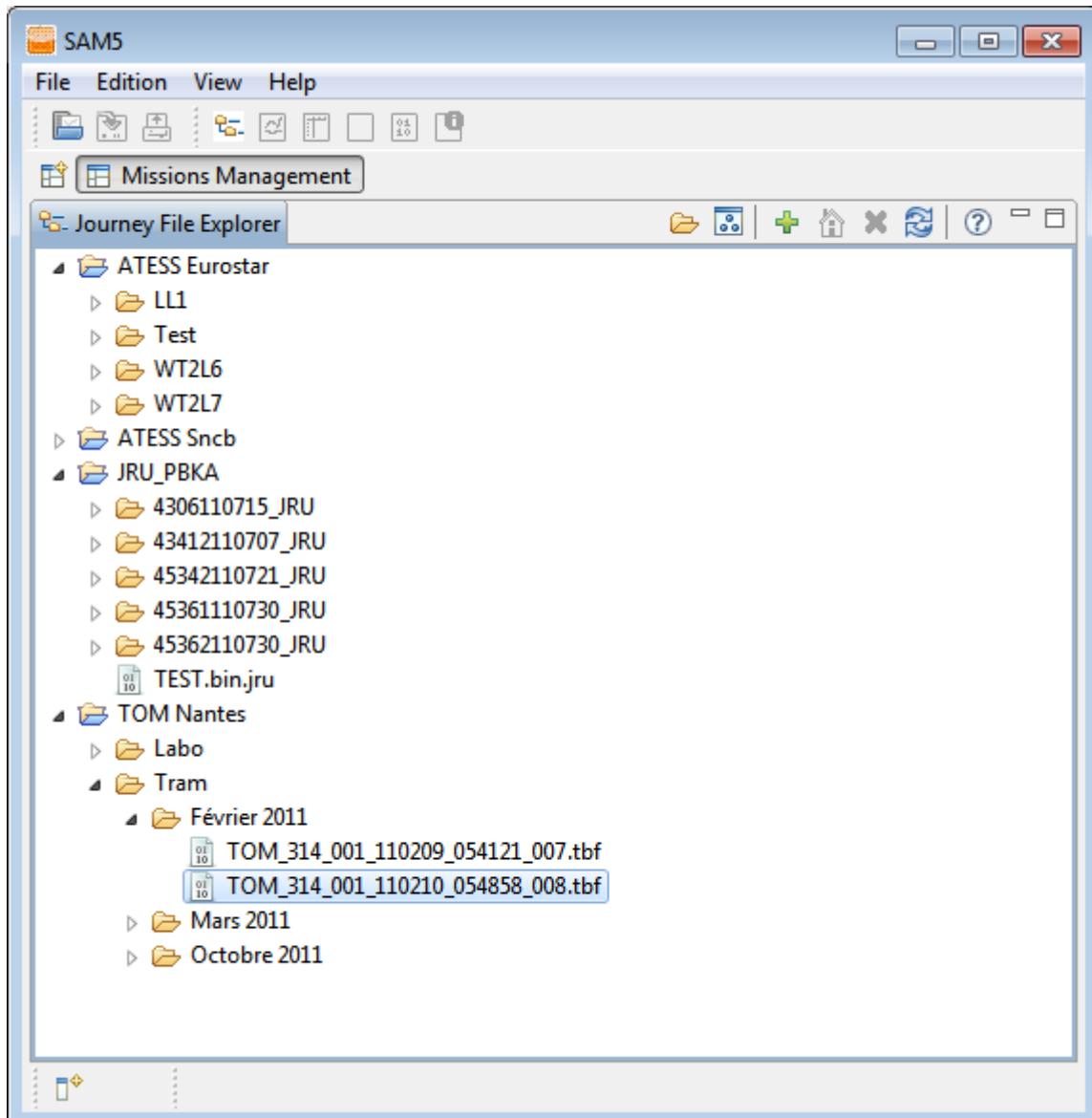


Figure 2 : Recorder file explorer view 图 2：录音机文件管理器视图

When first starting the software, the file explorer opens at the user's "Document" folder by default. Use the  icon to select another work folder. SAM filters the contents of the selected folder so that only the sub-directories and files supported by SAM are visible on the user interface. The following file extensions are recognized by the SAM tool: .jru, .bru, .lpb, .ftb, .fkb, .fpb, .lkb, .ltb, .lwb, .tbf, .cbf and .opus. The GZ archives (.gz files) are also visible from the Browser View. 当软件首次启动时，文件管理器默认为用户的“文档”文件

夹。图标¹可选择另外一个文件夹。SAM可对所选文件夹进行筛选，以便在用户界面中只显示 SAM 支持的子目录和文件。SAM 工具可识别的文件扩展名包括：.jru, .bru, .lpb, .ftb, .fkb, .fpb, .lkb, .ltb, .lwb, .tbf, .cbf 和 .opus。在资源管理器视图中也可以看到GZ存档 (.gz文件)。

Additional files may be added to the workspace using the  icon. 可以用图标²将其他文件夹添加到视图的工作区中。

The  icon allows removing a folder from the workspace. 标志³可从工作区中删除一个文件夹。

If journey files are added to a folder by another application, the file explorer view can be refreshed by using the  icon. 如果路径文件被另一个应用程序添加到文件夹中，则可以使用图标⁴刷新文件管理器。

All actions associated with the File Explorer view can be accessed either via the icons in the top right of the screen, or via a drop-down menu after right clicking on the selection. The following actions are available:

与文件管理器视图相关的所有动作均可通过屏幕右上角标志登录运行或者通过选择右键下拉菜单登录运行，下列动作均可有效运行：

-  Open 打开
-  Explore 浏览
-  Add a new folder to the workspace 向工作区添加一个新文件夹
-  Change folder 更改文件夹
-  Remove a folder from the workspace 从工作区删除一个文件夹
-  Refresh the view 刷新视图
-  Properties 属性

4.2.1 Exploring a journey file 浏览日志文件

A journey file can be explored in order to create time slices within a journey file and thus enable the file to be partially opened. This function is particularly useful for large journey files (several MB). 打开一个日志文件，在日志文件内部创建时间段，然后打开该文件的部分时间段。该功能对大型日志文件（几个MB大小的文件）尤为有用。

After running the Explorer command, the journey data is displayed in the form of groups that may represent either a whole month () icon), one day () icon) or a segment of

time³ (⌚ icon). 运行浏览器命令之后，日志数据按照分组格式显示，可能代表一个整月（标志📅）、一整天（标志🕒）或者一个时间段（标志⌚）。

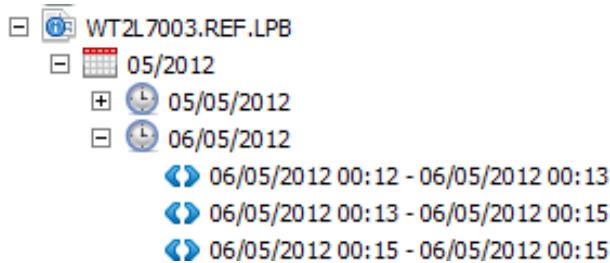


Figure 3 : View of a journey file after exploration

图 3：浏览日志文件之后的视图

After using the Open command in sub-section 4.2.2, a journey file can then be partially opened (a whole month, one day of operation or a segment of time). Each group can be opened individually, or the user can open several consecutive groups (for example two consecutive days) via multiple selection (Shift+Click or Ctrl+Click). 使用4.2.2章节的打开命令之后，可以打开一个日志文件的部分文件（运行中的一个整月或一整天或者一个时间段的文件）。可单独打开每组数据。或者用户可以通过多重选择（Shift+Click 或者 Ctrl+Click）打开多个群组（如连续的两天的数据）。

The exploration action is performed only once for a journey file. The outcome of this action is stored in memory in the journey file folder. 一个日志文件仅能浏览一次，该浏览结果将储存于该日志文件夹。

After exploration, the journey file icon changes shape (from 📁 to ⌚), which enables the files that have not yet been explored to be easily identified. 浏览之后，日志文件图标形状发生变化（由📁变为⌚），便于用户直观地找到尚未浏览的文件。

The Explorer function can also be run on a directory, which results in the successive exploration of all journey files contained in this directory and its sub-directories (N.B.: this action may take some time, depending on the size and number of files to be explored). 浏览器功能可在目录上运行，便于该目录及其子目录下所包含的所有日志文件依次被浏览。（注：该动作可能需要花费一定时间，具体时间取决于待浏览文件的数量和大小）。

Exploring a GZ archive causes the path file contained in the archive to be decompressed onto the disk and it automatically starts browsing this file as described previously. 查看GZ存档会导致存档中包含的路径文件在磁盘上被解压，并自动锁定该文件，如前所述。

³ A time segment is the result of multiple appliance start-ups during the day or of a clock update. 一个时间段是由一个应用在一天内或一个时间段多次启动所产生的。

4.2.2 Open function 打开功能

This action is only possible for the following elements: Audio files, Journey files, Monthly groupings, Days and Time segments. It is greyed over when a directory has been selected. Opening a GZ file will decompress this file to a temporary directory and automatically open it in SAM if the decompressed file uses a supported format. 此操作仅适用于以下项目：音频文件、路径文件、每月分组、天和时间段。当选中一个目录时，其颜色将变为灰色。打开GZ文件会导致此文件被解压缩到临时目录中，如果未压缩文件是支持格式，则会在SAM中自动打开。

In the case of a Journey file, after selecting the Open command, the software automatically switches to the Reception perspective. The Reception perspective groups together all views opened by the user during his/her last session. 对于路径文件，在选择打开命令后，软件会自动切换到主页界面。接收视图会集合用户于上一项目打开的所有视图。

In the Reception perspective or in the other perspectives, the File Explorer view can be re-opened using the "View – File Explorer" menu or via the icon on the toolbar.

在接收视图或者其他试图中，文件管理器视图可通过“视图—文件管理器”菜单或者通过工具栏上的该图标重新打开。

4.2.3 Properties function 属性功能

For a journey file, the "Properties" function displays the full drive path and the size of the file selected in a pop-up window. 对于一个日志文件，属性功能显示弹出窗口所选文件的大小和驱动路径。

For a directory, the "Properties" function displays the full drive path of the directory selected in a pop-up window. 对于一个目录，属性功能显示弹出窗口所选文件的大小和驱动路径。

For a GZ archive, the "Properties" action uses a pop-up window to display the entire path on the disk and the size of the selected archive as well as the name of the file contained in the archive and the size of this file once decompressed.

GZ存档中的“属性”操作将在弹出窗口中显示磁盘的完整路径、所选存档的大小以及文件解压之后存档中包含文件的名称和大小。

4.3 Opening a file 打开一个文件

In addition to the partial opening mechanism described in 4.2.1 and 4.2.2, a journey file or an audio file can also be opened using the "**File -> Open**" menu in the main menu or from the  icon on the toolbar. 除了 4.2.1 和 4.2.2 中所述的打开方式外，也可以使用主菜单中的“**文件-打开**”菜单或使用工具栏中的图标  打开路径文件或音频文件。

This will open a browser (see **Figure 4**). This window lets you browse the PC's file tree structure and select the file you are looking for. 这样会打开一个资源管理器（见图4）。该窗口可浏览电脑文件树状结构图和选择你所查询的文件。

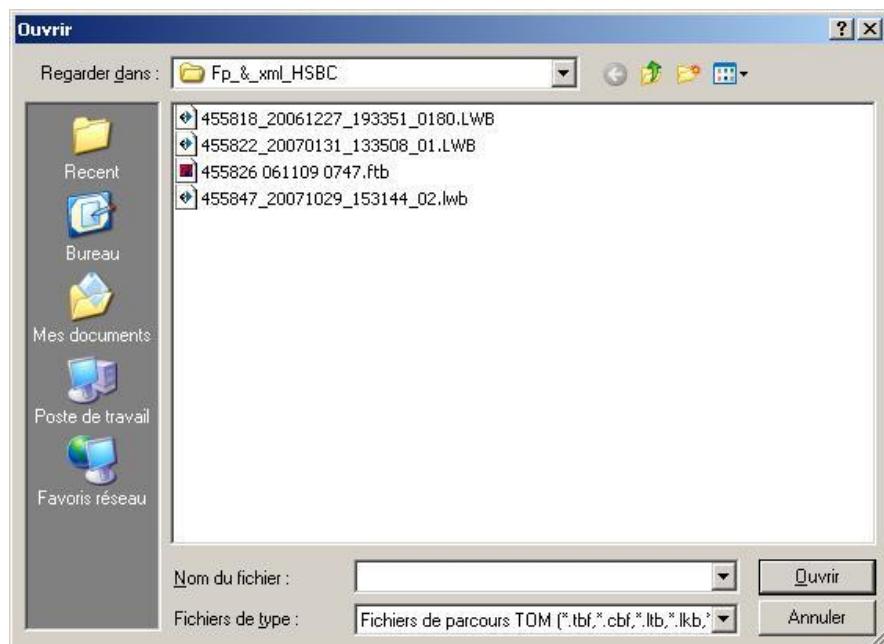


Figure 4 图4

N.B.: It is not possible to open several journey files at the same time, which explains why it is necessary to first close the current journey file in the software. A file can also be forced to close using the "File -> Close" menu from the main menu. The month, day and time segment groups are not visible and cannot be opened using the "File -> Open" menu. To open these groups, use the Open command in the recorder file Explorer view.

注：不能同时打开几个日志文件，因此需在软件上关闭当前日志文件。通过主菜单中“文件——关闭”强制关闭一个文件。通过“文件——打开”无法打开月、日和时间段群组，且时间为不可见信息。为此，请使用录音机文件管理器视图中的打开命令。

4.4 Viewing the main information on the journey 浏览日志文件主要信息

When a journey file is open, you can display the generic information linked to that file with the "**View -> Information on the journey**" command (see **Figure 5**). 打开一个路径文件时，可以通过“**查看-路径信息**”菜单显示与此文件相关的一般信息，请参阅图 5。

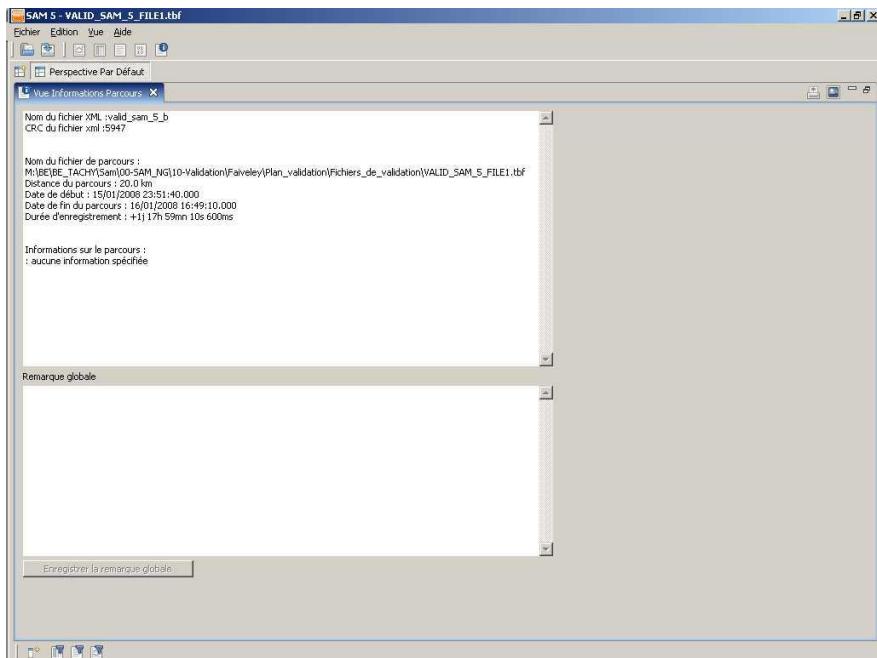


Figure 5 图 5

The information displayed in this view comprises: 浏览页面信息包括:

- **"Start recording time"**: The time at the beginning of the journey record file. 起始记录时间：开始记录工作的时间。
- **"End recording time"**: The time at the end of the journey record file. 终止记录时间：结束记录工作的时间。
- **"Recording duration"**: The time during which the recorder was running over the entire journey (the image of the recording capacity on the cassette). 记录时段：整个记录过程所用时间（记录盒的记录内存图片）
- **"Covered distance"**: The total distance covered by the train over the entire journey. 行驶里程：整个行驶过程的总里程。
- ***Other information (if available) such as:*** 其他（有效）信息，如：
 - "Train-Number"**: The train number. 列车车次
 - "Vehicle-Number"**: As shown. 车辆序列号
 - "Driver-Number"**: The driver number. 司机编号

4.5 View the journey in the graphic form 浏览图形化日志文件

You can open a graphic view with the  icon or the "Views -> Graphic view" menu command. 打开带有  标志的图形化视图或者通过菜单命令“视图-图形化视图”打开。

The graphic view is shown in **Figure 6.** 图形化视图见图 6

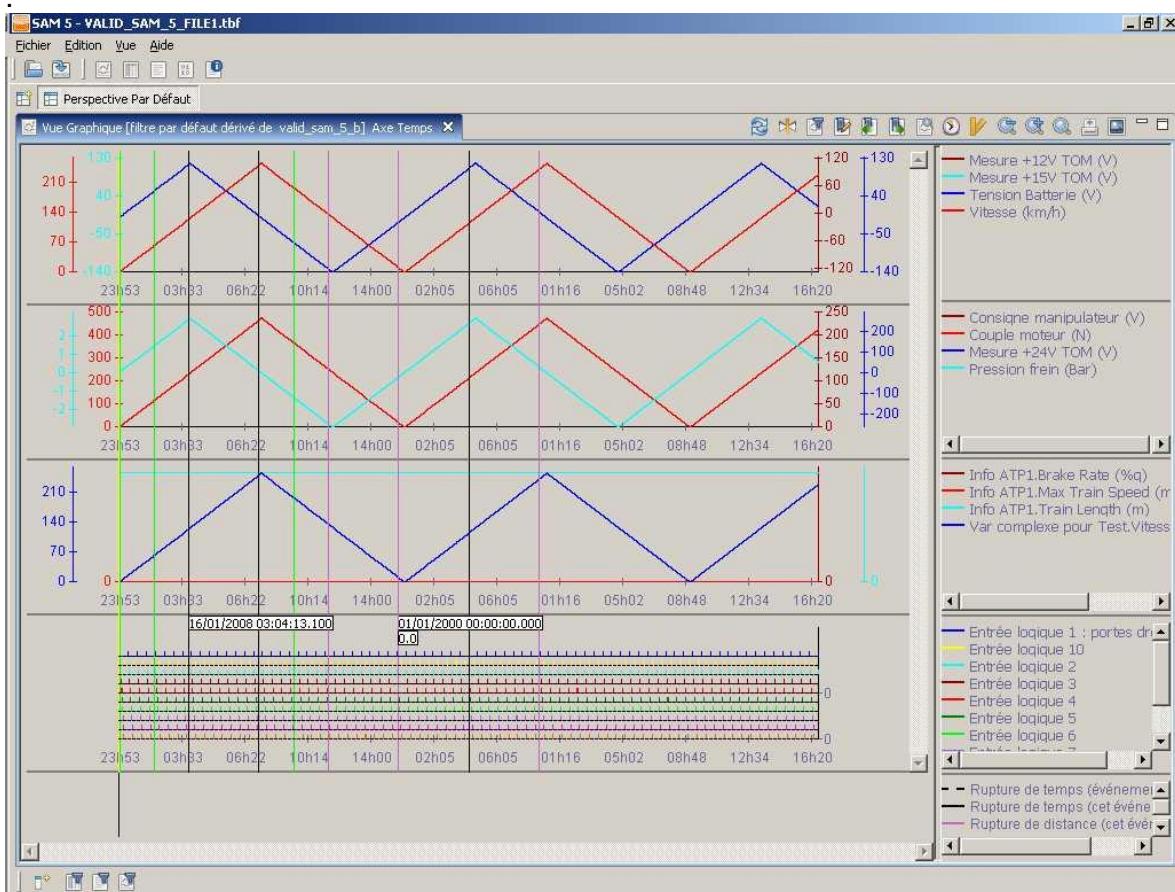


Figure 6 图 6

The Boolean variables are all represented on the bottom axis and are offset to make them easier to read. 底端横轴显示全部布尔变量，且已打印清晰，便于读取。

The maximum number of continuous or discrete non-Boolean variables for an axis system is "**4**". 在一个坐标系中，持续或者非持续非布尔变量最大数值为4。

The sequencing of the graphs and variables can be done using the filters (see 4.12). 图形和变量排序可通过筛选功能实现。

By default, SAM creates a basic filter that is not configurable. It contains the speed and the first 10 simple Boolean variables (i.e., one Boolean axis). 默认情况下，SAM创建一个不可配置的筛选功能，它包含速度和前十个简单布尔变量（如：一个布尔轴）

There are a certain number of options, accessible via the contextual menu (right click on the mouse), used to optimize the display or navigation in the graphic view. Some of these options are also active for other views. 通过右键菜单可进入许多选项（鼠标右击），优化图形化视图的显示区或者导航栏。部分选项也对其他试图有效。

Axis graduation: 轴刻度

The graphic view represents variables according to a single reference frame for all the axis systems in the view. The possible reference frames are time and distance. This choice can be made using the contextual menu in the graphic view.

根据视图中所有坐标系的单个参考坐标系，图形化视图代表变量。参考坐标系也可能是时间和里程。通过在图形化视图中使用右键菜单即可实现该选项。

"Stepped graph" mode: 阶梯式曲线模式

This mode is intended to display analog variables as they are recorded; the lines are not drawn straight from one point to the next. 该模式旨在显示其所记录的模拟变量。点与点之间的线条处于非直线状态。

By default this mode is enabled. 默认情况，可使用该模式。

Viewing the "time breaks": 浏览时间间隔

It is possible to select the "**Display label for time breaks**" option: the time breaks will be represented in such a way that the time during which the variables do not have a value (recorder stopped) are deleted from the x-axis. This will be indicated by means of a vertical bar with the associated time information. A check box in the contextual menu allows you to choose this option. 可以选择“时间间隔显示标签”选项：时间间隔是根据变量无数值（记录器停止工作）时将X坐标轴的时间移除的方式来表示的。这可以通过与时间信息相关的垂直竖线来显示。可通过右键菜单的复选框选择该选项。

Display mode: 显示模式

You can choose a "line" or "points" display mode by means of the check box in the contextual "options" menu in the graphic view. 通过图形化视图中的右键菜单的复选框选择点与线的显示模式。

Zoom X: 缩放X轴

You can zoom in on a portion of the graph to carry out a finer analysis. Just slide the mouse horizontally while pressing the left button to select the area where you want the zoom; this area is then blacked out. The zoom area is then displayed on the full screen along with a horizontal scroll bar. You can choose the type of reference frame, distance or time, in this window as shown in Figure 6. 您可以放大图的一部分来进行更精细的分析。只需在按下左键时水平滑动鼠标，即可选择要缩放的区域。这个区域然后变黑。然后，缩放区域将与水平滚动条一起显示在全屏屏幕上。您可以在如图 6 所示的窗口中选择参照框架、距离或时间等信息。

The system memorizes the last Zooms used. To browse through the zoom history, use the contextual menu or the keyboard shortcuts given in this menu. 系统记忆上次使用的缩放。若要浏览缩放历史记录，请使用此菜单中提供的右键菜单或键盘快捷键。

Zoom Y 缩放Y轴:

This option allows you to perform a ZOOM on Y to increase the sensitivity on the Y axis. Proceed in the same way as for Zoom X, moving the mouse vertically. 此选项允许您对 y 轴进行缩放，以提高 y 轴的灵敏度。按照与缩放 X 相同的方式进行缩放，将鼠标垂直移动。

Reference point 基准点: (a function which can be used in the other views) 可在其他视图中使用的功能。

The reference point lets you set a new origin used to calculate the relative time and distance values. 基准点允许您设置用于计算相对时间和距离值的新起点。

The reference point is displayed by a yellow line which is called "Ref". The value of the relative distance of the "Reference Point" is displayed in the tab where the title of the view is displayed (next to the name of the applied filter). An information bubble containing this same information appears when the mouse pointer passes over the yellow line. 基准点由黄线显示，称为 "Ref"。"基准点" 的相对距离值位于显示视图标题的选项卡中 (在所应用的筛选器名称旁边)。当鼠标指针越过黄线时，会出现包含此信息的信息文本框。

Refer to sub-section 4.15.1 for further information.

更多信息参见4.15.1部分。

Cursor: 光标

This option is used to display a vertical line with the X reference located at the place where you click. This allows you to look at the synchronism of the variables on different axes. In order to use the cursor, click briefly (less than 300ms) on the desired point on the graph. 此选项用于显示一条垂直于您所点击的X 轴位置的线。这使您可以同步查看不同坐标轴上的变量。要使用光标，请在图上所需点位单击 (小于 300ms)。

This cursor line is assigned the following data:

- time (current date),
- relative time (elapsed time since reference zero),
- distance (the distance covered in relation to the reference zero)
- certain optional information, such as the train number, the name of a station, etc. This information is specific to each project and takes the form of variables in the <infos-parcours> of the XML file (maximum of three variables).

光标线可显示下列数据：

时间（当前日期），

相对时间（从基准零起的运行时间）

距离（从基准零起的所走距离）

部分选项信息，如列车编号、车站名称等，这些信息具体到每一个项目，采用 XML 文件格式的变量形式（最大三个变量）。

Annotations: (this function can be used in the other views).

You can insert annotations on certain messages in order to document the file.

Refer to sub-section 4.9 for further information.

注释：(此功能可在其他视图中使用)。

您可以在某些邮件上插入注释以记录文件。

有关详细信息, 请参阅第4.9 节。

Captions:

Using a right click option, it is possible to display or hide the captions field comprising the name of the variables displayed in the graphic view.

Another option also lets you display the name of some of the variables using a short format. In this case, the variables that have a full name in "xxx.yyy" format will simply be displayed in "yyy" format. For example, if the "Use short names" option is selected, then using the example shown in **Figure 6 图6**

, "Info ATP1.Brake Rate" will be displayed simply as "Brake Rate".

This function is also available in the table view.

图例:

通过右键单击选项, 可以显示或隐藏包含图形视图中显示的变量名称的图例字段。

另一个选项是以短格式显示某些变量的名称。在这种情况下, 全名为“xxx.yyy”形式的变量将简单地显示为“yyy”。例如**Figure 6 图6**

, 如果选择“使用短名称”选项, 则在“Info ATP1.Brake Rate”的示例中显示“Brake Rate”。表格视图也有此项功能。

Note:

The reference point and time breaks assigned to various events are shifted to the next event when there is no event during the view. In this case, the lines that represent the reference zero and the time breaks are displayed in dotted lines in the same color.

As for the other marks (annotations, markers, etc.), they disappear when the assigned event cannot be displayed in the view.

注意:

当视图中没有事件时, 分配给各种事件的基准点和时间间隔将转移到下一个事件。在这种情况下, 表示基准零和时间间隔的线将以相同颜色的虚线显示。

至于其他标记 (注释、标记等), 当视图中无法显示指定的事件时, 它们将消失。

4.6 View the journey in the tabular form 浏览表格式的日志文件

You can open a tabular or array view with the  icon or the "**Views -> Tabular**" menu.

The tabular view allows you to visualize a variable by column and follow variable evolution with a time scale, as shown in **Figure 7 图7**

您可以使用图标或 “视图->> 表格” 菜单打开表格或阵列视图。

表格视图允许您按列进行可视化变量, 并按照时间刻度进行变量演化, 如图7所示。

This view comprises two types of column:

- Data columns calculated by SAM (gray background), that provide information on flags (markers assigned to some of the journey file events), the time (current date), the relative time (elapsed time in relation to reference zero), the distance (accumulated distance from the beginning of the journey file) and the relative distance (distance in relation to reference zero),
- Variable display columns (white background).

此视图包含两种类型的列:

- 由 SAM ((灰色背景) 计算的数据列, 提供关于标志 (与路径文件的某些事件相关联的标记)、时间 (当前日期)、相对时间 (与零基准相比经过的时间)、距离 (与路径文件起点的累积距离) 和相对距离 (与零基准的距离) 的信息,
- 变量显示列 (白色背景)。

The various flags available comprise:

- "A", to identify the annotations,
- "{", to identify the event following a power on (flag assigned to the "Power-on" event, when no filter is applied to this type of event),
- "}", to identify the event preceding a power on (flag preceding the "Power-on" event, when no filter is applied to this type of event),
- ">", to identify the reference point.
- "T", to identify a time break.
- "D", to identify a distance break.

各种有效标志包括:

- "A", 以识别注释,
- "{", 用于标识通电后的事件 (当没有对此类事件应用筛选器时, 分配给 "通电" 事件的标志,),
- "}", 用于标识在通电之前的事件 (当没有对此类事件应用筛选器时, 分配给 "通电" 事件之前的标志),
- ">>", 确定基准点。
- "T", 确定时间间隔。
- "D", 确定距离间隔。

When a line does not have one of the flags listed above, the column Flag contains the number of the corresponding event in the list view.

当一条线没有上面列出的标志之一时, 列标志将包含列表视图中相应事件的编号。

The "###" symbol in a cell shows that the value of a variable cannot be displayed in this location of the journey as it has not yet been recorded by the recorder (for example the identity of the driver at the beginning of the mission before input).

单元格中的 "###" 符号表示变量值不能在日志文件的这个位置上显示, 因为记录器尚未记录 (例如, 在输入前, 任务开始时驱动程序的标识)。

Default view (with no filter applied): 默认视图 (尚未使用筛选功能)

SAM5 - WT2L7003.REF.LPB [05/05/2012 22:25 ... 21/05/2012 23:02]

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Vue Tabulaire [filtré par défaut dérivé de ATESS.xml] E3

Flag	Temps Absolu	Temps Relatif	Distance Cumulée (km)	Distance Relative (km)	Vitesse (km/h)	EL8 : Déclenche...	EL9 : Déclenche...	EL10 : Déclenche...	EL11 : Déclenche...	EL15 : BP JURG ...	EL1
2184	06/05/2012 19:22:52	-0h 2mn 32s	503,360	-0,940	30	faux	faux	faux	faux	faux	VRAI
2185	06/05/2012 19:22:52	-0h 2mn 32s	503,360	-0,940	30	faux	faux	faux	faux	faux	VRAI
2186	06/05/2012 19:22:52	-0h 2mn 32s	503,360	-0,940	30	faux	faux	faux	faux	faux	VRAI
2187	06/05/2012 19:22:52	-0h 2mn 32s	503,360	-0,940	30	faux	faux	faux	faux	faux	VRAI
2188	06/05/2012 19:23:02	-0h 2mn 22s	503,440	-0,860	28	faux	faux	faux	faux	faux	VRAI
2189	06/05/2012 19:23:04	-0h 2mn 20s	503,450	-0,850	28	faux	faux	faux	faux	faux	VRAI
2190	06/05/2012 19:23:04	-0h 2mn 20s	503,460	-0,840	28	faux	faux	faux	faux	faux	VRAI
2191	06/05/2012 19:23:04	-0h 2mn 20s	503,460	-0,840	27	faux	faux	faux	faux	faux	VRAI
2192	06/05/2012 19:23:06	-0h 2mn 18s	503,470	-0,830	27	faux	faux	faux	faux	faux	VRAI
2193	06/05/2012 19:23:06	-0h 2mn 18s	503,580	-0,720	25	faux	faux	faux	faux	faux	VRAI
2194	06/05/2012 19:23:06	-0h 2mn 18s	503,760	-0,540	24	faux	faux	faux	faux	faux	VRAI
2195	06/05/2012 19:24:08	-0h 1mn 16s	503,900	-0,400	25	faux	faux	faux	faux	faux	VRAI
2196	06/05/2012 19:24:10	-0h 1mn 14s	503,920	-0,380	24	faux	faux	faux	faux	faux	VRAI
2197	06/05/2012 19:24:16	-0h 1mn 8s	503,950	-0,350	23	faux	faux	faux	faux	faux	VRAI
2198	06/05/2012 19:24:16	-0h 1mn 8s	503,960	-0,340	22	faux	faux	faux	faux	faux	VRAI
2199	06/05/2012 19:24:16	-0h 1mn 8s	503,960	-0,340	22	faux	faux	faux	faux	faux	VRAI
2200	06/05/2012 19:24:24	-0h 1mn 0s	504,000	-0,300	24	faux	faux	faux	faux	faux	VRAI
2201	06/05/2012 19:24:26	-0h 0mn 58s	504,020	-0,280	24	faux	faux	faux	faux	faux	VRAI
2202	06/05/2012 19:25:00	-0h 0mn 24s	504,230	-0,070	22	faux	faux	faux	faux	faux	VRAI
2203	06/05/2012 19:25:00	-0h 0mn 24s	504,240	-0,060	20	faux	faux	faux	faux	faux	VRAI
2204	06/05/2012 19:25:00	-0h 0mn 24s	504,250	-0,050	17	faux	faux	faux	faux	faux	VRAI
2205	06/05/2012 19:25:06	-0h 0mn 24s	504,260	-0,040	15	faux	faux	faux	faux	faux	VRAI
2206	06/05/2012 19:25:06	-0h 0mn 16s	504,270	-0,030	13	faux	faux	faux	faux	faux	VRAI
2207	06/05/2012 19:25:06	-0h 0mn 16s	504,270	-0,030	12	faux	faux	faux	faux	faux	VRAI
2208	06/05/2012 19:25:06	-0h 0mn 16s	504,280	-0,020	10	faux	faux	faux	faux	faux	VRAI
2209	06/05/2012 19:25:06	-0h 0mn 16s	504,290	-0,010	7	faux	faux	faux	faux	faux	VRAI
2210	06/05/2012 19:25:06	-0h 0mn 16s	504,290	-0,010	5	faux	faux	faux	faux	faux	VRAI
2211	06/05/2012 19:25:06	-0h 0mn 16s	504,290	-0,010	2	faux	faux	faux	faux	faux	VRAI
>	06/05/2012 19:25:24	+0h 0mn 0s	504,300	+0,000	0	faux	faux	faux	faux	faux	VRAI
2214	06/05/2012 19:25:26	+0h 0mn 2s	504,300	+0,000	0	faux	faux	faux	faux	faux	VRAI
2215	06/05/2012 19:25:26	+0h 0mn 2s	504,300	+0,000	0	faux	faux	faux	faux	faux	VRAI
2218	06/05/2012 19:26:34	+0h 1mn 10s	504,300	+0,000	0	faux	faux	faux	faux	faux	VRAI
2219	06/05/2012 19:26:34	+0h 1mn 10s	504,300	+0,000	0	faux	faux	faux	faux	faux	VRAI
2220	06/05/2012 19:26:36	+0h 1mn 12s	504,300	+0,000	0	faux	faux	faux	faux	faux	VRAI
2221	06/05/2012 19:26:38	+0h 1mn 14s	504,300	+0,000	0	faux	faux	faux	faux	faux	VRAI
2223	06/05/2012 19:26:44	+0h 1mn 20s	504,300	+0,000	3	faux	faux	faux	faux	faux	VRAI
2224	06/05/2012 19:26:44	+0h 1mn 20s	504,300	+0,000	5	faux	faux	faux	faux	faux	VRAI
2225	06/05/2012 19:26:44	+0h 1mn 20s	504,310	+0,010	8	faux	faux	faux	faux	faux	VRAI
2226	06/05/2012 19:26:44	+0h 1mn 20s	504,310	+0,010	10	faux	faux	faux	faux	faux	VRAI
2227	06/05/2012 19:26:44	+0h 1mn 20s	504,320	+0,020	13	faux	faux	faux	faux	faux	VRAI
2228	06/05/2012 19:26:44	+0h 1mn 20s	504,330	+0,030	15	faux	faux	faux	faux	faux	VRAI
2229	06/05/2012 19:26:44	+0h 1mn 20s	504,350	+0,050	18	faux	faux	faux	faux	faux	VRAI
2230	06/05/2012 19:26:44	+0h 1mn 20s	504,360	+0,060	20	faux	faux	faux	faux	faux	VRAI
2231	06/05/2012 19:26:44	+0h 1mn 20s	504,380	+0,080	23	faux	faux	faux	faux	faux	VRAI
2232	06/05/2012 19:27:10	+0h 1mn 46s	504,390	+0,090	23	faux	faux	faux	faux	faux	VRAI
2233	06/05/2012 19:27:12	+0h 1mn 48s	504,400	+0,100	24	faux	faux	faux	faux	faux	VRAI
2234	06/05/2012 19:27:30	+0h 2mn 6s	504,510	+0,210	23	faux	faux	faux	faux	faux	VRAI
2235	06/05/2012 19:27:30	+0h 2mn 6s	504,520	+0,220	20	faux	faux	faux	faux	faux	VRAI
2236	06/05/2012 19:27:30	+0h 2mn 6s	504,530	+0,230	17	faux	faux	faux	faux	faux	VRAI
2237	06/05/2012 19:27:30	+0h 2mn 6s	504,540	+0,240	15	faux	faux	faux	faux	faux	VRAI
2238	06/05/2012 19:27:30	+0h 2mn 6s	504,550	+0,250	12	faux	faux	faux	faux	faux	VRAI
2239	06/05/2012 19:27:30	+0h 2mn 6s	504,550	+0,250	10	faux	faux	faux	faux	faux	VRAI
2240	06/05/2012 19:27:30	+0h 2mn 6s	504,560	+0,260	7	faux	faux	faux	faux	faux	VRAI
2241	06/05/2012 19:27:30	+0h 2mn 6s	504,560	+0,260	5	faux	faux	faux	faux	faux	VRAI
2242	06/05/2012 19:27:42	+0h 2mn 18s	504,560	+0,260	4	faux	faux	faux	faux	faux	VRAI
2243	06/05/2012 19:27:46	+0h 2mn 22s	504,560	+0,260	3	faux	faux	faux	faux	faux	VRAI
2244	06/05/2012 19:27:48	+0h 2mn 24s	504,560	+0,260	3	faux	faux	faux	faux	faux	VRAI

Figure 7 图 7

By default, SAM creates a basic filter. This basic filter contains the speed and the first 16 simple or complex Boolean variables of the XML file. 默认情况下, SAM 创建一个基本筛选器。此基本筛选器包含 XML 文件的速度和前16个简单或复杂的布尔变量。

It is also possible to select a specific filter in order to view a reduced number of variables (for information on how to use a filter, refer to §4.11). In this case, lines containing none of the variables selected will not be displayed. 还可以选择特定的筛选器, 以便查看减少的变量数 (有关如何使用筛选器的信息, 请参阅§4.11)。在这种情况下, 将不会显示包含所选变量的所有行。

To reduce the number of columns, the column manager can also be used (cf. § 4.15.3) in the context-sensitive menu (right-click). 要减少列数, 还可以在右键菜单 (右键单击) 中使用列管理器 (cf 4.15.3)。

View with a filter applied: 使用筛选器浏览

SAM 5 - VALID_SAM_5_FILE1.tbf														
Flag	Temps Absolu	Temps Relatif	Distance Relative...	Mes...	Mes...	Press...	Tensio...	Vitesse (km/h)	Con...	Coup...	Var complexe ...			
{	15/01/2008 23:53:40.10	+0h 2mn 0s 10	+0.003	###	###	###	###	1.1	1.1	###	###			
7	15/01/2008 23:53:40.20	+0h 2mn 0s 20	+0.004	###	###	###	###	1.1	1.1	###	###			
A	15/01/2008 23:53:40.30	+0h 2mn 0s 30	+0.005	###	###	###	###	1.1	1.1	###	###			
9	15/01/2008 23:53:40.40	+0h 2mn 0s 40	+0.006	1	1.1	###	###	1.1	1.1	###	###			
10	15/01/2008 23:53:40.50	+0h 2mn 0s 50	+0.007	1	1.1	2	###	1.1	1.1	###	###			
11	15/01/2008 23:53:40.60	+0h 2mn 0s 60	+0.008	1	1.1	2	0.022	1.1	1.1	###	###			
12	15/01/2008 23:53:40.70	+0h 2mn 0s 70	+0.009	1	1.1	2	0.022	1.1	1.1	1	###			
13	15/01/2008 23:53:40.80	+0h 2mn 0s 80	+0.010	1	1.1	2	0.022	1.1	1.1	1	16384			
14	15/01/2008 23:53:40.90	+0h 2mn 0s 90	+0.011	1	1.1	2	0.022	1.1	1.1	1	16384	1.1		
22	15/01/2008 23:55:41.20	+0h 4mn 1s 20	+0.019	1	1.1	2	0.022	1.1	2.2	1	16384	1.1		
23	15/01/2008 23:55:41.30	+0h 4mn 1s 30	+0.020	1	1.1	2	0.022	2.2	2.2	1	16384	1.1		
24	15/01/2008 23:55:41.40	+0h 4mn 1s 40	+0.021	1	2.2	2	0.022	2.2	2.2	1	16384	1.1		
25	15/01/2008 23:55:41.50	+0h 4mn 1s 50	+0.022	2	2.2	2	0.022	2.2	2.2	1	16384	1.1		
26	15/01/2008 23:55:41.60	+0h 4mn 1s 60	+0.023	2	2.2	4	0.022	2.2	2.2	1	16384	1.1		
27	15/01/2008 23:55:41.70	+0h 4mn 1s 70	+0.024	2	2.2	4	0.044	2.2	2.2	1	16384	1.1		
28	15/01/2008 23:55:41.80	+0h 4mn 1s 80	+0.025	2	2.2	4	0.044	2.2	2.2	2	16384	1.1		
29	15/01/2008 23:55:41.90	+0h 4mn 1s 90	+0.026	2	2.2	4	0.044	2.2	2.2	2	8192	1.1		
30	15/01/2008 23:55:42.00	+0h 4mn 2s 00	+0.027	2	2.2	4	0.044	2.2	2.2	2	8192	2.2		
38	15/01/2008 23:57:42.30	+0h 6mn 2s 30	+0.035	2	2.2	4	0.044	2.2	3.3	2	8192	2.2		
39	15/01/2008 23:57:42.40	+0h 6mn 2s 40	+0.036	2	2.2	4	0.044	3.3	3.3	2	8192	2.2		
40	15/01/2008 23:57:42.50	+0h 6mn 2s 50	+0.037	2	3.3	4	0.044	3.3	3.3	2	8192	2.2		
41	15/01/2008 23:57:42.60	+0h 6mn 2s 60	+0.038	3	3.3	4	0.044	3.3	3.3	2	8192	2.2		
42	15/01/2008 23:57:42.70	+0h 6mn 2s 70	+0.039	3	3.3	4	0.044	3.3	3.3	2	8192	2.2		
43	15/01/2008 23:57:42.80	+0h 6mn 2s 80	+0.040	3	3.3	6	0.066	3.3	3.3	2	8192	2.2		
44	15/01/2008 23:57:42.90	+0h 6mn 2s 90	+0.041	3	3.3	6	0.066	3.3	3.3	3	8192	2.2		
45	15/01/2008 23:57:43.00	+0h 6mn 3s 00	+0.042	3	3.3	6	0.066	3.3	3.3	3	24576	2.2		
46	15/01/2008 23:57:43.10	+0h 6mn 3s 10	+0.043	3	3.3	6	0.066	3.3	3.3	3	24576	3.3		
54	15/01/2008 23:59:43.40	+0h 8mn 3s 40	+0.051	3	3.3	6	0.066	3.3	4.4	3	24576	3.3		
55	15/01/2008 23:59:43.50	+0h 8mn 3s 50	+0.052	3	3.3	6	0.066	4.4	4.4	3	24576	3.3		
56	15/01/2008 23:59:43.60	+0h 8mn 3s 60	+0.053	3	4.4	6	0.066	4.4	4.4	3	24576	3.3		
57	15/01/2008 23:59:43.70	+0h 8mn 3s 70	+0.054	4	4.4	6	0.066	4.4	4.4	3	24576	3.3		
58	15/01/2008 23:59:43.80	+0h 8mn 3s 80	+0.055	4	4.4	8	0.066	4.4	4.4	3	24576	3.3		
59	15/01/2008 23:59:43.90	+0h 8mn 3s 90	+0.056	4	4.4	8	0.088	4.4	4.4	3	24576	3.3		
60	15/01/2008 23:59:44.00	+0h 8mn 4s 00	+0.057	4	4.4	8	0.088	4.4	4.4	4	24576	3.3		
61	15/01/2008 23:59:44.10	+0h 8mn 4s 10	+0.058	4	4.4	8	0.088	4.4	4.4	4	4096	3.3		
62	15/01/2008 23:59:44.20	+0h 8mn 4s 20	+0.059	4	4.4	8	0.088	4.4	4.4	4	4096	4.4		
71	16/01/2008 00:00:00.10	+0h 8mn 20s 10	+0.060	4	4.4	8	0.088	4.4	5.5	4	4096	4.4		
72	16/01/2008 00:00:00.20	+0h 8mn 20s 20	+0.060	4	4.4	8	0.088	5.5	5.5	4	4096	4.4		
73	16/01/2008 00:00:00.30	+0h 8mn 20s 30	+0.070	4	5.5	8	0.088	5.5	5.5	4	4096	4.4		
74	16/01/2008 00:00:00.40	+0h 8mn 20s 40	+0.071	5	5.5	8	0.088	5.5	5.5	4	4096	4.4		
75	16/01/2008 00:00:00.50	+0h 8mn 20s 50	+0.072	5	5.5	10	0.088	5.5	5.5	4	4096	4.4		
76	16/01/2008 00:00:00.60	+0h 8mn 20s 60	+0.073	5	5.5	10	0.111	5.5	5.5	4	4096	4.4		
77	16/01/2008 00:00:00.70	+0h 8mn 20s 70	+0.074	5	5.5	10	0.111	5.5	5.5	5	20480	4.4		
78	16/01/2008 00:00:00.80	+0h 8mn 20s 80	+0.075	5	5.5	10	0.111	5.5	5.5	5	20480	4.4		
79	16/01/2008 00:00:00.90	+0h 8mn 20s 90	+0.076	5	5.5	10	0.111	5.5	5.5	5	20480	5.5		
87	16/01/2008 00:00:02.01	+0h 10mn 2s 20	+0.084	5	5.5	10	0.111	5.5	6.6	5	20480	5.5		
88	16/01/2008 00:00:02.01	+0h 10mn 2s 30	+0.085	5	5.5	10	0.111	6.6	6.6	5	20480	5.5		
89	16/01/2008 00:00:02.14	+0h 10mn 2s 40	+0.086	5	6.6	10	0.111	6.6	6.6	5	20480	5.5		
90	16/01/2008 00:00:02.15	+0h 10mn 2s 50	+0.087	6	6.6	10	0.111	6.6	6.6	5	20480	5.5		
91	16/01/2008 00:00:02.16	+0h 10mn 2s 60	+0.088	6	6.6	12	0.111	6.6	6.6	5	20480	5.5		
92	16/01/2008 00:00:02.17	+0h 10mn 2s 70	+0.089	6	6.6	12	0.132	6.6	6.6	5	20480	5.5		
93	16/01/2008 00:00:02.18	+0h 10mn 2s 80	+0.090	6	6.6	12	0.132	6.6	6.6	6	20480	5.5		
94	16/01/2008 00:00:02.19	+0h 10mn 2s 90	+0.091	6	6.6	12	0.132	6.6	6.6	6	12288	5.5		
95	16/01/2008 00:00:02.20	+0h 12mn 2s 20	+0.102	6	6.6	12	0.132	6.6	6.6	6	12288	6.6		
102	16/01/2008 00:00:02.20	+0h 12mn 2s 30	+0.100	6	6.6	12	0.132	7.7	7.7	6	12288	6.6		
104	16/01/2008 00:00:02.20	+0h 12mn 2s 40	+0.101	6	6.6	12	0.132	7.7	7.7	6	12288	6.6		
105	16/01/2008 00:00:02.20	+0h 12mn 2s 50	+0.102	6	7.7	12	0.132	7.7	7.7	6	12288	6.6		
106	16/01/2008 00:00:02.20	+0h 12mn 2s 60	+0.103	7	7.7	12	0.132	7.7	7.7	6	12288	6.6		
107	16/01/2008 00:00:02.20	+0h 12mn 2s 70	+0.104	7	7.7	14	0.132	7.7	7.7	6	12288	6.6		
108	16/01/2008 00:00:02.20	+0h 12mn 2s 80	+0.105	7	7.7	14	0.154	7.7	7.7	6	12288	6.6		

Figure 8 图 8

Notes:

All of the marks like the reference point, annotations, markers, etc. disappear when the assigned event cannot be displayed in the view (e.g. when applying a filter).

注意:

当指定的事件无法在视图中显示时 (例如应用筛选器时), 所有标记 (如基准点、注释、标记等) 都会消失。

The name of the filter applied appears in square brackets next to the name of the view.

应用的筛选器的名称显示在视图名称旁边的方括号中。

4.7 View the journey in the form of a list of events 按照事件列表形式浏览日志文件

You can open a list view with the  icon or the "Views -> List" menu. 您可以使用图标  或 "视图-> 列表" 菜单打开列表视图。

The list view, as shown in *Figure 9*, presents a succession of messages in sequential command such as they are recorded in the journey files. 列表视图 (如图9所示) 显示连续命令中的一系列消息, 如记录在日志文件中。

A message consists of an event identifier and a number of variables assigned to it. 消息由事件标识符和分配给它的多个变量组成。

This view comprises two types of column: 此视图包含两种类型的列:

- Data columns calculated by SAM (gray background), that provide information on flags (markers assigned to some of the journey file events), the time (current date), the relative time (elapsed time in relation to reference zero), the distance (accumulated distance from the beginning of the journey file) and the relative distance (distance traveled in relation to reference zero).
- 由 SAM (灰色背景) 计算的数据列, 提供关于标志 (与路径文件的某些事件相关联的标记)、时间 (当前日期)、相对时间 (与参考点相比经过的时间)、距离 (与路径文件起点的累积距离) 和相对距离 (与参考点的距离) 的信息,
- Variable display columns (white background). 变量显示列 (白色背景)。

The various flags available comprise:

- "A", to identify the annotations,
- "{", to identify the event following a power on (flag assigned to the "Power-on" event, when no filter is applied to this type of event),
- "}", to identify the event preceding a power on (flag preceding the "Power-on" event, when no filter is applied to this type of event),
- ">", to identify the reference zero.
- "T", to identify a time break.
- "D", to identify a distance break.
- 有效变量标志包括:
- "A", 识别注释,
- "{", 用于标识通电后的事件 (当没有对此类事件应用筛选器时, 分配给 "通电" 事件的标志),
- "}", 用于标识在通电之前的事件 (当没有对此类事件应用筛选器时, 在 "通电" 事件之前的标志),
- ">", 确定基准零。
- "T", 确定时间间隔。
- "D", 确定距离间隔。

Default view (with no filter applied) : 默认视图 (未使用筛选功能)

Screenshot of the "SAFS - JRU_568907_0017.jru [26/06/2015 20:22 ... 27/06/2015 02:00]" log viewer interface. The main window displays a list of recorded events with their details. A blue bracket at the bottom highlights three specific columns: "Message number + Date and Time", "Event name and event variables", and "Value of variables for the event selected".

Flag	Temps Absolu	Temps Relatif	Nom d'événement	Var0	Var1	Variable	Valeur Brute	Valeur Décodée
4022	26/06/2015 22:10:36,000	+0h 6mn 35s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda	L_MESSAGE_JRU	0x0047	71
4023	26/06/2015 22:10:40,000	+0h 6mn 39s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda	Date		
4024	26/06/2015 23:33:50,000	+1h 29mn 49s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda	YEAR	0x0f	15
4025	26/06/2015 23:33:50,000	+1h 29mn 49s 0ms	PERMITTED SPEED	L_MESSAGE_JRU:71	Date : 0x1eda	MONTH	0x06	6
4026	26/06/2015 23:33:50,000	+1h 29mn 49s 0ms	CURRENT VALUE OF MOST REST...	L_MESSAGE_JRU:71	Date : 0x1eda	DAY	0x1a	26
4027	26/06/2015 23:33:50,000	+1h 29mn 49s 0ms	RELEASE SPEED	L_MESSAGE_JRU:71	Date : 0x1eda	Time		
4028	26/06/2015 23:33:50,000	+1h 29mn 49s 0ms	TARGET SPEED	L_MESSAGE_JRU:71	Date : 0x1eda	Y_TRAIN	0x00	0 km/h
4029	26/06/2015 23:33:50,000	+1h 29mn 49s 0ms	TARGET DISTANCE	L_MESSAGE_JRU:72	Date : 0x1eda	NID_DRIVER	0x3238373132...	2871286
4030	26/06/2015 23:33:50,000	+1h 29mn 49s 0ms	CURRENT VALUE OF MOST REST...	L_MESSAGE_JRU:71	Date : 0x1eda	NID_ENGINE	0x0004fd	1277
4031	26/06/2015 23:33:51,000	+1h 29mn 50s 0ms	PERMITTED SPEED	L_MESSAGE_JRU:71	Date : 0x1eda	M_LEVEL	0x03	Level 2
4032	26/06/2015 23:33:51,000	+1h 29mn 50s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda	M_MODE	0x06	Stand By
4033	26/06/2015 23:33:51,000	+1h 29mn 50s 0ms	START DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda	M_DRIVER ACTIONS	0x26	Level STM selected
4034	26/06/2015 23:33:51,000	+1h 29mn 50s 0ms	PERMITTED SPEED	L_MESSAGE_JRU:71	Date : 0x1eda			
4035	26/06/2015 23:33:53,000	+1h 29mn 52s 0ms	START DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4036	26/06/2015 23:33:53,000	+1h 29mn 52s 0ms	START DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4037	26/06/2015 23:33:57,000	+1h 29mn 56s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4038	26/06/2015 23:34:02,000	+1h 30mn 1s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4039	26/06/2015 23:34:05,000	+1h 30mn 4s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4040	26/06/2015 23:34:10,000	+1h 30mn 9s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4041	26/06/2015 23:34:11,000	+1h 30mn 10s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda			
4042	26/06/2015 23:34:11,000	+1h 30mn 10s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4043	26/06/2015 23:34:14,000	+1h 30mn 13s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4044	26/06/2015 23:34:15,000	+1h 30mn 14s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda			
4045	26/06/2015 23:34:15,000	+1h 30mn 14s 0ms	STM SELECTED	L_MESSAGE_JRU:71	Date : 0x1eda			
4046	26/06/2015 23:34:15,000	+1h 30mn 14s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4047	26/06/2015 23:34:15,000	+1h 30mn 14s 0ms	START DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4048	26/06/2015 23:34:17,000	+1h 30mn 16s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda			
4049	26/06/2015 23:34:20,000	+1h 30mn 19s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4050	26/06/2015 23:34:24,000	+1h 30mn 23s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4051	26/06/2015 23:34:28,000	+1h 30mn 27s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4052	26/06/2015 23:34:32,000	+1h 30mn 31s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4053	26/06/2015 23:34:34,000	+1h 30mn 33s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda			
4054	26/06/2015 23:34:36,000	+1h 30mn 35s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4055	26/06/2015 23:34:41,000	+1h 30mn 40s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4056	26/06/2015 23:34:45,000	+1h 30mn 44s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4057	26/06/2015 23:34:46,000	+1h 30mn 45s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda			
4058	26/06/2015 23:34:46,000	+1h 30mn 45s 0ms	DATA ENTRY COMPLETED	L_MESSAGE_JRU:107	Date : 0x1eda			
4059	26/06/2015 23:34:46,000	+1h 30mn 45s 0ms	START DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4060	26/06/2015 23:34:46,000	+1h 30mn 45s 0ms	STOP DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4061	26/06/2015 23:34:46,000	+1h 30mn 45s 0ms	CURRENT VALUE OF MOST REST...	L_MESSAGE_JRU:71	Date : 0x1eda			
4062	26/06/2015 23:34:47,000	+1h 30mn 46s 0ms	PERMITTED SPEED	L_MESSAGE_JRU:71	Date : 0x1eda			
4063	26/06/2015 23:34:49,000	+1h 30mn 48s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda			
4064	26/06/2015 23:34:49,000	+1h 30mn 48s 0ms	STOP DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4065	26/06/2015 23:34:50,000	+1h 30mn 49s 0ms	START DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4066	26/06/2015 23:34:53,000	+1h 30mn 52s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda			
4067	26/06/2015 23:34:53,000	+1h 30mn 52s 0ms	STOP DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4068	26/06/2015 23:34:53,000	+1h 30mn 52s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4069	26/06/2015 23:34:57,000	+1h 30mn 56s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			

Figure 9 图 9

By default, all of the variables handled by the recorder are shown in this view. It is however possible to choose a specific filter in order to display a reduced number of variables (for information on how to use a filter, refer to sub-section 4.112).

默认情况下，记录器处理的所有变量都显示在此视图中。但是，为了显示减少的变量数（有关如何使用筛选器的信息，请参阅第4.112节），可以选择特定的筛选器。

View with a filter applied: 使用筛选功能浏览

SAHS - JRU_568907_0017.jru [26/06/2015 20:22 ... 27/06/2015 02:00]

Fichier Edition Vue Aide

Accueil Gestion des missions

Vue Liste [Filtre (6)]

Flag	Temps Absolu	Temps Relatif	Nom d'événement	Var0	Va	Variable	Valeur Brute	Valeur Décodée
4010	26/06/2015 22:09:55,000	+0h 5mn 54s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da	L_MESSAGE_JRU	0x0046	70
4011	26/06/2015 22:09:59,000	+0h 5mn 58s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da	Date		
4012	26/06/2015 22:10:03,000	+0h 6mn 2s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da	Time		
4013	26/06/2015 22:10:08,000	+0h 6mn 7s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da	Train Position		
4014	26/06/2015 22:10:12,000	+0h 6mn 11s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da	V_TRAIN	0x00	0 km/h
4015	26/06/2015 22:10:16,000	+0h 6mn 15s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da	NID_DRIVER	0x3238373132...	2871286
4016	26/06/2015 22:10:20,000	+0h 6mn 19s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da	NID_ENGINE	0x0004fd	1277
4018	26/06/2015 22:10:23,000	+0h 6mn 22s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da	M_LEVEL	0x03	Level 2
4019	26/06/2015 22:10:24,000	+0h 6mn 23s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da	M_MODE	0x06	Stand By
4020	26/06/2015 22:10:28,000	+0h 6mn 27s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4021	26/06/2015 22:10:32,000	+0h 6mn 31s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4022	26/06/2015 22:10:36,000	+0h 6mn 35s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4023	26/06/2015 22:10:40,000	+0h 6mn 39s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4024	26/06/2015 23:33:50,000	+1h 29mn 49s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4037	26/06/2015 23:33:57,000	+1h 29mn 56s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4038	26/06/2015 23:34:02,000	+1h 30mn 1s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4039	26/06/2015 23:34:05,000	+1h 30mn 4s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4040	26/06/2015 23:34:10,000	+1h 30mn 9s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4042	26/06/2015 23:34:11,000	+1h 30mn 10s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4043	26/06/2015 23:34:14,000	+1h 30mn 13s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4046	26/06/2015 23:34:15,000	+1h 30mn 14s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4049	26/06/2015 23:34:20,000	+1h 30mn 19s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4050	26/06/2015 23:34:24,000	+1h 30mn 23s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4051	26/06/2015 23:34:28,000	+1h 30mn 27s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4052	26/06/2015 23:34:32,000	+1h 30mn 31s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4054	26/06/2015 23:34:36,000	+1h 30mn 35s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4055	26/06/2015 23:34:41,000	+1h 30mn 40s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4056	26/06/2015 23:34:45,000	+1h 30mn 44s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4068	26/06/2015 23:34:53,000	+1h 30mn 52s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4069	26/06/2015 23:34:57,000	+1h 30mn 56s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4070	26/06/2015 23:35:02,000	+1h 31mn 1s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4071	26/06/2015 23:35:06,000	+1h 31mn 5s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4072	26/06/2015 23:35:10,000	+1h 31mn 9s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4073	26/06/2015 23:35:13,000	+1h 31mn 12s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4074	26/06/2015 23:35:17,000	+1h 31mn 16s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4075	26/06/2015 23:35:21,000	+1h 31mn 20s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4076	26/06/2015 23:35:26,000	+1h 31mn 25s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4077	26/06/2015 23:35:30,000	+1h 31mn 29s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4078	26/06/2015 23:35:34,000	+1h 31mn 33s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4079	26/06/2015 23:35:38,000	+1h 31mn 37s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4080	26/06/2015 23:35:42,000	+1h 31mn 41s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			
4081	26/06/2015 23:35:47,000	+1h 31mn 46s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Da			

Figure 10 图 10

Notes:

All of the marks like the reference point, annotations, markers, etc. disappear when the assigned event cannot be displayed in the view (e.g. when applying a filter).

The name of the filter applied appears in square brackets next to the name of the view



注意:

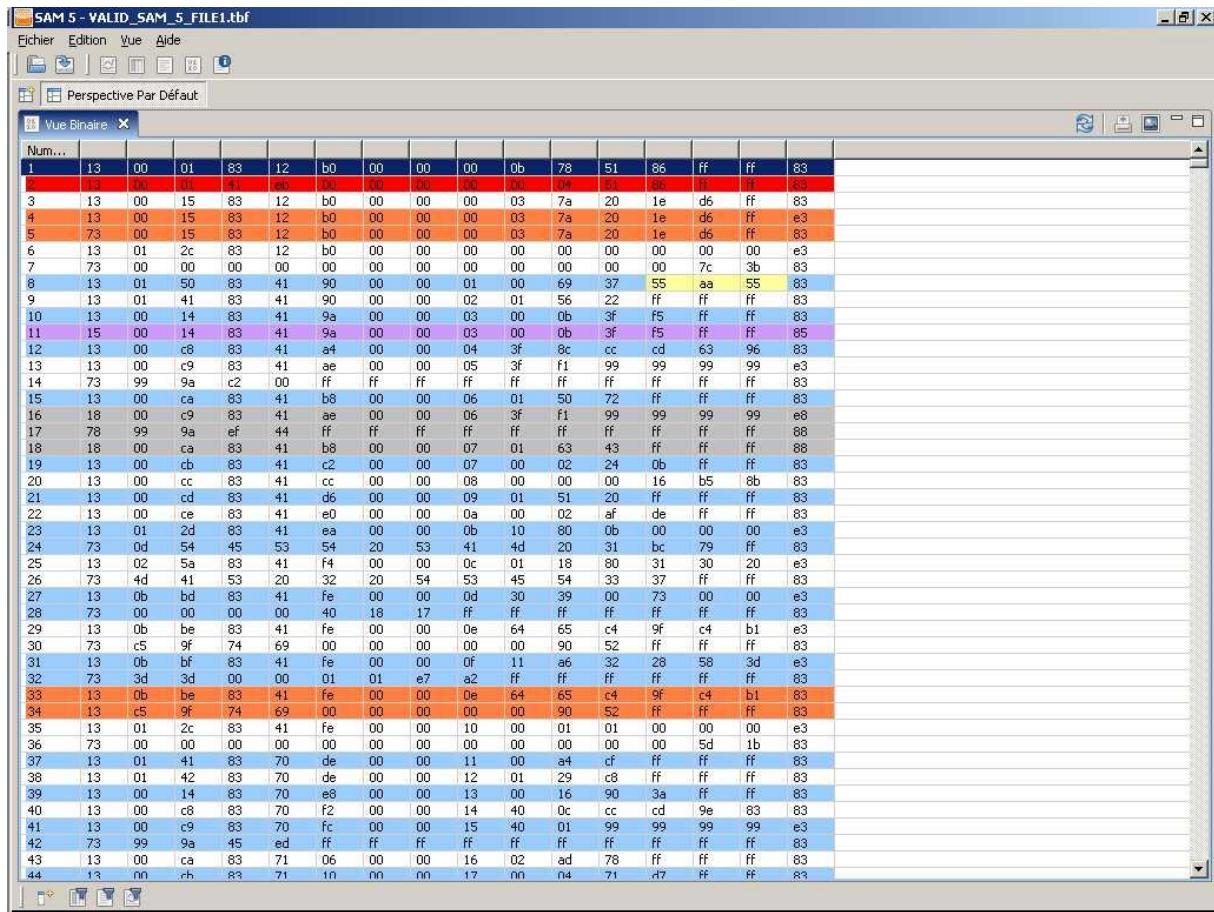
当指定的事件无法在视图中显示时 (例如应用筛选器时), 所有标记 (如基准点、注释、标记等) 都会消失。

应用的筛选器的名称显示在视图名称旁边的方括号中。

4.8 View the journey in the binary form 浏览二进制式日志文件

You can open a Binary view with the  icon or the "Views -> Binary" menu. 您可以使用图标  或 "视图->> 二进制" 菜单打开二进制视图。

The binary view, as shown in **Figure 11**, is a raw binary representation of the recordings in the journey file. 二进制视图 (如图11所示) 是日志文件中记录的原始二进制表示形式。



Num...	1	13	00	01	83	12	b0	00	00	00	0b	78	51	86	ff	ff	83
2	13	00	00	01	41	60	00	00	00	00	00	09	54	66	ff	ff	83
3	13	00	15	83	12	b0	00	00	00	03	7a	20	1e	d6	ff	83	
4	13	00	15	83	12	b0	00	00	00	03	7a	20	1e	d6	ff	e3	
5	73	00	15	83	12	b0	00	00	00	03	7a	20	1e	d6	ff	83	
6	13	01	2c	83	12	b0	00	00	00	00	00	00	00	00	00	00	e3
7	73	00	00	00	00	00	00	00	00	00	00	00	00	00	7c	3b	83
8	13	01	50	83	41	90	00	00	01	00	69	37	55	aa	55	83	
9	13	01	41	83	41	90	00	00	02	01	56	22	ff	ff	ff	83	
10	13	00	14	83	41	9a	00	00	03	00	0b	3f	f5	ff	ff	83	
11	15	00	14	83	41	9a	00	00	03	00	0b	3f	f5	ff	ff	85	
12	13	00	c6	83	41	a4	00	00	04	3f	8c	cc	cd	63	96	83	
13	13	00	c9	83	41	ae	00	00	05	3f	f1	99	99	99	99	e3	
14	73	99	9a	c2	00	ff	83										
15	13	00	ca	83	41	b8	00	00	06	01	50	72	ff	ff	ff	83	
16	18	00	c9	83	41	ae	00	00	06	3f	f1	99	99	99	99	e8	
17	78	99	9a	ef	44	ff	88										
18	18	00	ca	83	41	b8	00	00	07	01	63	43	ff	ff	ff	88	
19	13	00	cb	83	41	c2	00	00	07	00	02	24	0b	ff	ff	83	
20	13	00	cc	83	41	cc	00	00	08	00	00	00	16	b5	8b	83	
21	13	00	cd	83	41	d6	00	00	09	01	51	20	ff	ff	ff	83	
22	13	00	ce	83	41	e0	00	00	0a	00	02	af	de	ff	ff	83	
23	13	01	2d	83	41	ea	00	00	0b	10	80	0b	00	00	00	e3	
24	73	0d	54	45	53	54	20	53	41	4d	20	31	bc	79	ff	83	
25	13	02	5a	83	41	f4	00	00	0e	01	18	80	31	30	20	e3	
26	73	4d	41	53	20	32	20	54	53	45	54	33	37	ff	ff	83	
27	13	0b	bd	83	41	fe	00	00	0d	30	39	00	73	00	00	e3	
28	73	00	00	00	00	00	40	18	17	ff	ff	ff	ff	ff	ff	83	
29	13	0b	be	83	41	fe	00	00	0e	64	65	c4	9f	c4	b1	e3	
30	73	c5	9f	74	69	00	00	00	00	90	52	ff	ff	ff	ff	83	
31	13	0b	bf	83	41	fe	00	00	0f	11	a6	32	28	58	3d	e3	
32	73	3d	3d	00	00	01	01	e7	a2	ff	ff	ff	ff	ff	ff	83	
33	13	0b	be	83	41	fe	00	00	0e	64	65	c4	9f	c4	b1	83	
34	13	c5	9f	74	69	00	00	00	00	90	52	ff	ff	ff	ff	83	
35	13	01	2c	83	41	fe	00	00	10	00	01	01	00	00	00	e3	
36	73	00	00	00	00	00	00	00	00	00	00	00	00	5d	1b	83	
37	13	01	41	83	70	de	00	00	11	00	a4	cf	ff	ff	ff	83	
38	13	01	42	83	70	de	00	00	12	01	29	c8	ff	ff	ff	83	
39	13	00	14	83	70	e8	00	00	13	00	16	90	3a	ff	ff	83	
40	13	00	c8	83	70	f2	00	00	14	40	0c	cc	cd	9e	03	83	
41	13	00	c9	83	70	fc	00	00	15	40	01	99	99	99	99	e3	
42	73	99	9a	45	ed	ff	83										
43	13	00	ca	83	71	06	00	00	16	02	ad	78	ff	ff	ff	83	
44	13	00	cb	83	71	10	nn	nn	17	nn	n4	71	d7	ff	ff	83	

Figure 11 图 11

4.9 Managing Annotations 注释管理

You can place annotations in the various journey file messages. These annotations are saved in a file linked to the journey file that is open. 您可以将注释放在各种日志文件的消息中。这些注释保存在可链接到已打开的日志文件。

To add an annotation to a message, select the message, then click on the  icon in the current view. 若要向邮件添加注释, 请选择该邮件, 然后单击当前视图中的图标。

The "**File -> Save annotations**" command in the main menu or the  icon on the toolbar can be used to save the annotations added by the user. 主菜单中的 "文件-保存注释" 命令或工具栏上的图标可用于保存用户添加的注释。

An annotation is identified by a green highlighted line in the "List", "Tabular" and "Graphic" views. 注释由 "列表"、"表格" 和 "图形" 视图中的绿色突出显示行标识。

You can see the "Annotations" view by means of the "**View -> Annotations**" menu. Each annotation comprises the following information: 您可以通过 "视图->> 注释" 菜单查看 "注释" 视图。每个注释都包括以下信息:

- time (current date), 时间 (当前时间) ,
- distance (distance between the annotation and the beginning of the journey file), 距离 (注释与路径文件起点之间的距离) ,
- the name assigned to this mark. 该标记的名字

when they are calculated (refer to **Figure 12**). 以上信息的计算时间参见图12.

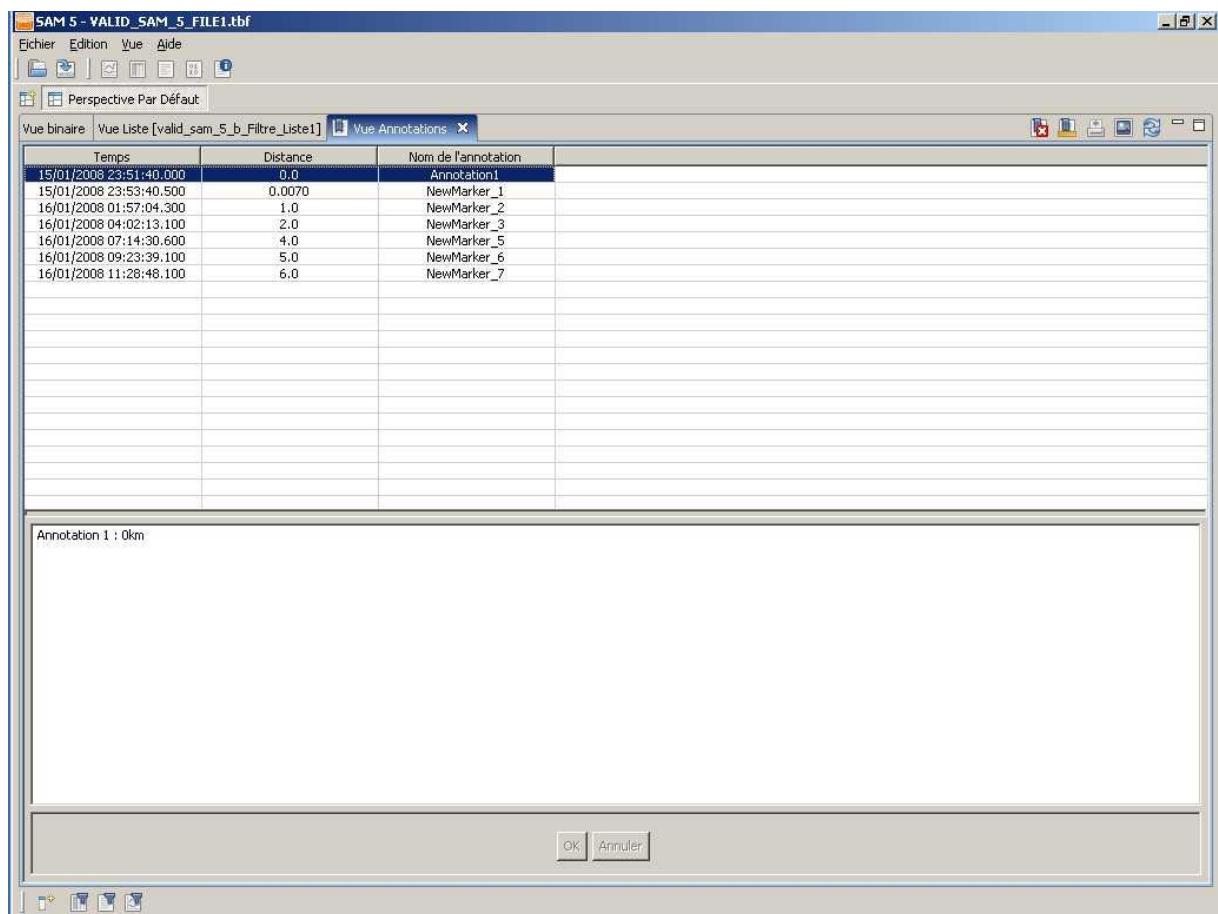


Figure 12 图12

Browsing annotations: 浏览注释

The system allows to browse annotations in a view in both directions by using the  or  icons in the main HMI, according to the direction required. 根据所需的方向，系统允许使用主人机界面中的图标  或  在两个方向上浏览视图中的注释。

All the views can be synchronized (refer to § 4.10) and consequently you can follow this browsing from annotation to annotation. 所有视图都可以同步(请参阅§ 4.10)，因此您可以按此逐一浏览注释。

Measuring between annotations: 注释测量

From the "Delta annotations" window (see **Figure 13**), you can see the differences in the values of data that is common to events designated between two annotations. 从 "增量注释" 窗口 (见图 13)，您可以看到在两个注释之间指定的事件所共有的数据值的差异。

Just open the "Annotations" view and select two annotations while holding the "Ctrl" key pressed, then open the "Delta annotations" view using the  icon. 只需打开 "批注" 视图，然后在按住 "Ctrl" 键的同时选择两个注释，然后使用该图标  打开 "增量注释" 视图。

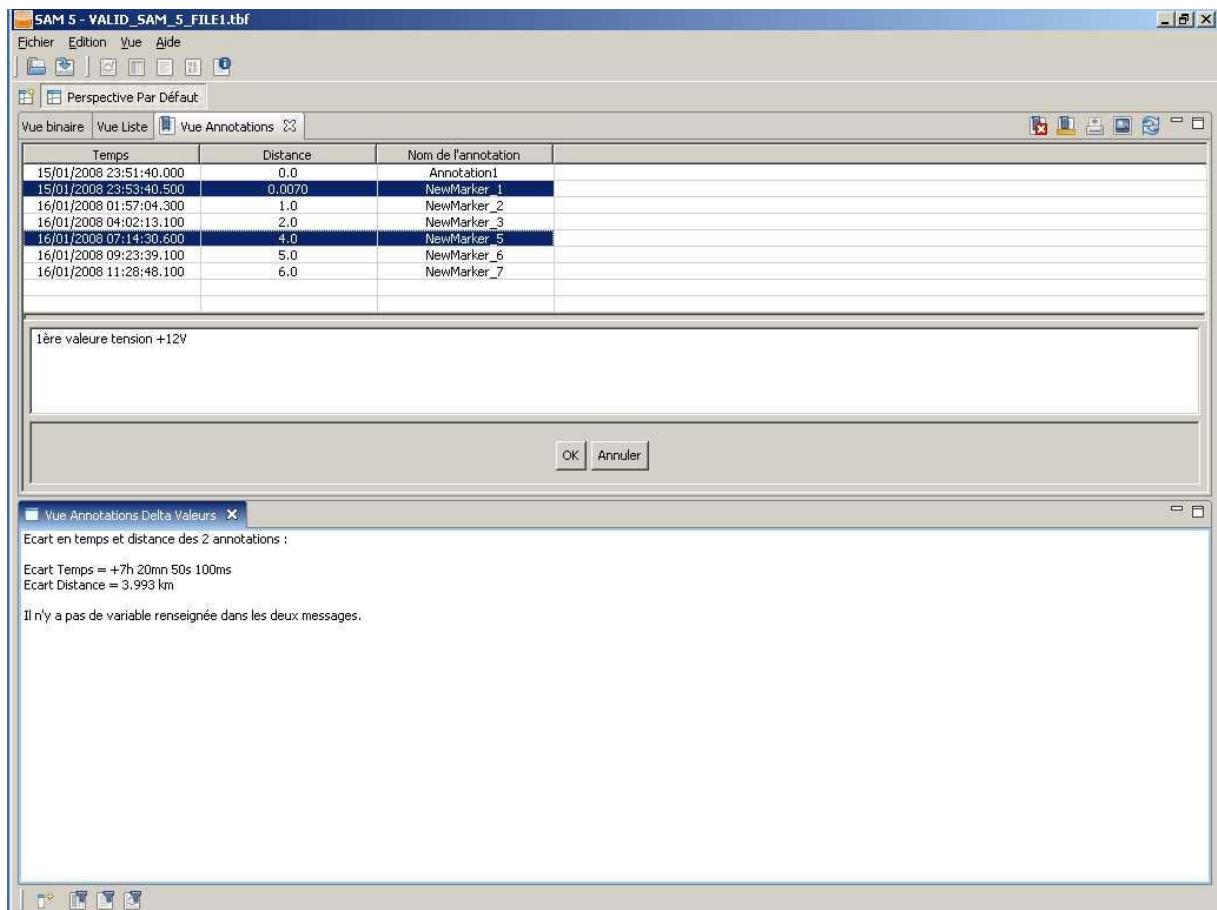


Figure 13 图13

4.10 Synchronizing the views 同步视图

In order to place the cursor, click on a message in one of the views, the cursor will then be displayed: it consists of a black line in the graphic view and the line is blue in the other views.

To synchronize views, double click a message in the current view, or press the « Enter » key after positioning the cursor on the message required in the current view.

要放置光标，请单击其中一个视图中的消息，然后显示游标：它由图形视图中的黑线组成，而在其他视图中线条是蓝色的。

要同步视图，请双击当前视图中的一条消息，或者在将光标定位到当前视图所需的消息后，按« Enter »键。

Figure 14 shows the graphic, list and tabular views all synchronized.

图 14 显示了所有同步的图形、列表和表格视图。

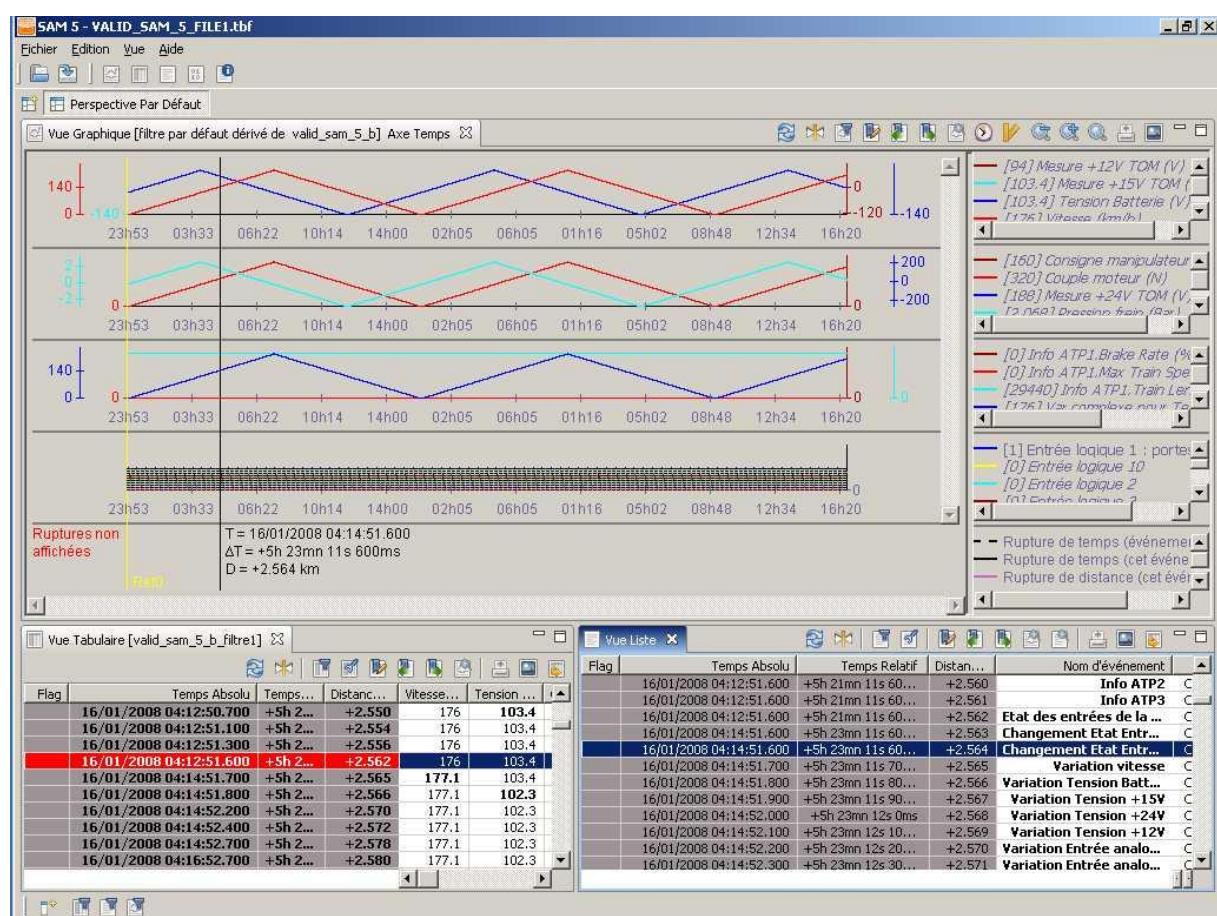


Figure 14 图14

4.11 Managing virtual variables 管理虚拟变量

The application lets you manage virtual variables, variables from an equation that use either existing variables or virtual variables that are already defined. 应用程序允许您管理虚拟变量，即使用已定义的现有变量或虚拟变量的等式中的变量。

In the latter case, the system lets you use up to 20 levels of virtual variable nesting. It is therefore possible to create up to a maximum of 100 virtual variables. 在后一种情况下，系统允许您使用多达20级的虚拟变量嵌套。因此，最多可以创建100个虚拟变量。

All of the virtual variables can be used in all SAM functions (filters, searches, ...). They are displayed in the different popup lists assigned to the available variables. 所有的虚拟变量都可以在 SAM 功能使用 (过滤器, 搜索,...)。它们显示在分配给可用变量的不同弹出列表中。

The virtual variable management IHM is split into two parts:

- The "**Variables List**" part (the left hand side of the window) used to view all of the virtual variables defined as well as their exact makeup.
- The "**Variable Details**" part (the right hand side of the window) used to edit each variable. An information field is provided in the lower part of this window to remind the user of the various operations required to create/modify/delete a virtual variable.

Virtual variables are stored in the SAM environment (variables are retained even after the application is shutdown).

A check is run on the virtual variables before every save, to ensure that formulas are coherent. If an incoherent variable is present, a message is displayed for the user (and the affected variable is not saved).

虚拟变量管理 IHM 分为两个部分：

- "变量列表" 部分 (窗口的左侧) 用于查看所有指定的虚拟变量以及它们的精确构成。
- "变量详细信息" 部分 (窗口的右侧) 用于编辑每个变量。此窗口下部提供了一个信息字段，以提醒用户创建/修改/删除虚拟变量所需的各种操作。

虚拟变量存储在 SAM 环境中 (即使在应用程序关闭后仍保留变量)。

每次保存前都对虚拟变量运行检查，以确保公式是一致的。如果存在非相干变量，则会为用户显示一条消息 (并且不保存受影响的变量)。

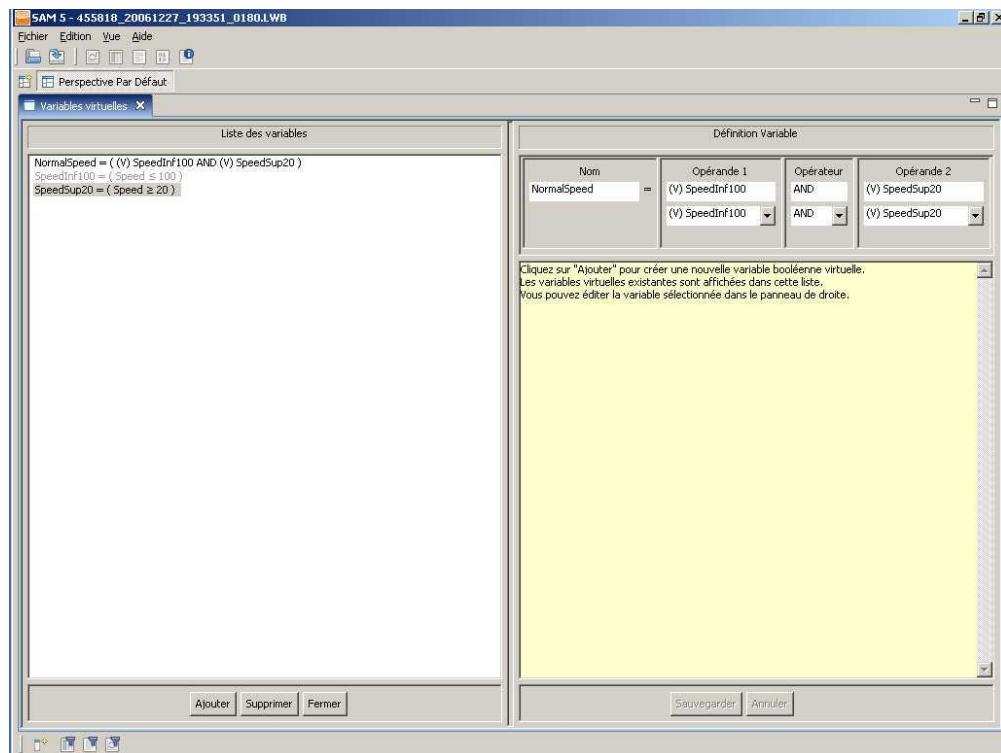


Figure 15 图 15

4.11.1 Creating 创建

To create a virtual variable simply click on the "**Add**" button in the "**Variables List**" part, then fill-in the various fields in the "**Variable Details**" part:

- Use the "**Name**" field to fill-in the name of the virtual variable to create.
- Use the "**Operand 1**" fields to fill-in, manually or via the popup list, the name of the first variable to be used in the formula.
- Use the "**Operator**" fields to fill-in, manually or via the popup list, the name of the operator to be used in the formula.
- Use the "**Operand 2**", fields to fill-in, manually or via the popup list, the name of the second operand (the name of a variable or a value) to be used in the formula.

After creating the virtual variable, click on the "**Save**" button in the "**Variable Details**" part to save the newly created variable (the "**Cancel**" button lets you abort the data entry process without saving the definition of the variable).

若要创建虚拟变量，只需单击“变量列表”部分中的“添加”按钮，然后填写“变量详细信息”部分中的各个字段：

- 使用“名称”字段填充要创建的虚拟变量的名称。
- 使用“操作数 1”字段，手动或通过弹出列表填充公式中要使用的第一变量的名称。

- 使用 "运算符" 字段来填写，手动或通过弹出列表，该运算符的名称将在公式中使用。
- 使用 "操作数 2"、"手动" 或 "弹出式" 列表中的 "字段"，将在公式中使用的第二个操作数的名称 (变量或值的名称)。

创建虚拟变量后，单击 "变量详细信息" 部分中的 "保存" 按钮以保存新创建的变量 ("取消" 按钮允许您中止数据输入过程而不保存变量的定义)。

4.11.2 **Modifying** 修改

To modify a virtual variable, go to the "**Variables List**" part and select the line that corresponds to the variable to be modified, then make the modifications required in the "**Variable Details**" part.

After modifying the virtual variable, click on the "**Save**" button in the "**Variable Details**" part to save it (the "**Cancel**" button lets you abort the data entry process without saving the definition of the variable).

若要修改虚拟变量，请转到 "变量列表" 部分，并选择与要修改的变量对应的行，然后在 "变量详细信息" 部分中进行修改。

修改虚拟变量后，单击 "变量详细信息" 部分中的 "保存" 按钮以保存它 ("取消" 按钮允许您中止数据输入过程而不保存变量的定义)。

4.11.3 **Deleting** 删除

To delete a variable, go to the "**Variables List**" part and select the line that corresponds to the variable to be deleted, then click on the "**Delete**" button.

If this virtual variable is also used by another virtual variable or by another SAM function (filter, ...), then an error message is displayed for the user to show the reason why this variable cannot be deleted.

若要删除变量，请转到 "变量列表" 部分，然后选择与要删除的变量对应的行，然后单击 "删除" 按钮。

如果此虚拟变量也由另一个虚拟变量或另一个 SAM 功能 (筛选器,...) 使用，则会显示一条错误消息，用于显示无法删除此变量的原因。

4.12 Filtering a view 篩选视图

In order to limit the amount of information displayed, and to make it easier to read, you have the possibility of creating/changing and using filters.

A filter type is associated with each of these three views (graphic, list and tabular).

In each view, a dedicated icon (/ /) is provided to launch the filter manager associated with this view. Right click in the view to open a drop-down menu that can also be used to open the filter editor or select an existing filter (see sub-section 4.12.3).

为了限制显示的信息量，并使其更易于阅读，您可以创建/更改和使用筛选器。

筛选器类别与这三种视图中的每一个（图形、列表和表格）都相关联。

在每个视图中，提供了一个专用的图标 (/ /) 来启动与此视图关联的筛选管理器。在视图中右键单击以打开一个下拉菜单，也可用于打开筛选编辑器或选择现有筛选器（请参见子节 4.12.3）。

The edit filter window is displayed as follows: "Edit filter" window is displayed as follows:

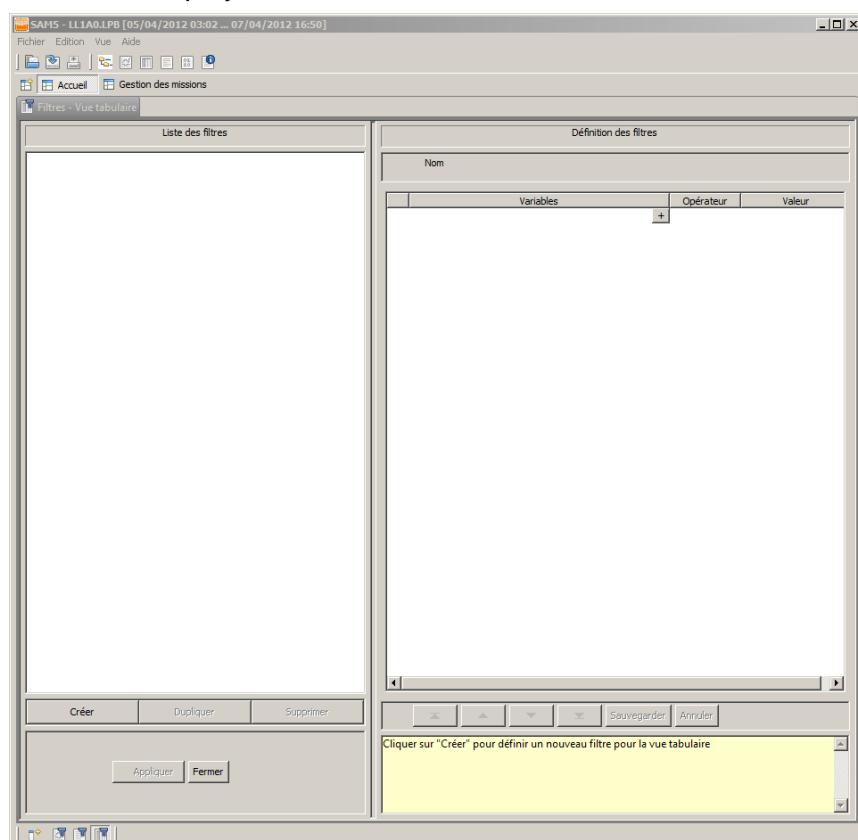


Figure 16 图16

4.12.1 Creating or changing filters 创建或修改筛选器

The "Create" button creates a new filter, the "Delete" button deletes the selected filter in the list. To change a filter, select it from the left-hand side of the editor and change its content on the right-hand side. The yellow box contains helpful information used to guide the user on the actions to be performed.

"创建"按钮创建一个新的筛选器，"删除"按钮将删除列表中选定的筛选器。要更改筛选器，请从编辑器的左侧选择，并在右侧更改其内容。黄色框包含有用的信息，用于指导用户执行操作。

Note: When creating a filter, SAM refers to the configuration of the open journey file. You must therefore open a journey file in order to use the filter manager. 注意：创建筛选器时，SAM 会参考已打开的日志文件的配置。因此，您必须打开一个日志文件才能使用筛选管理器。

4.12.1.1 Filters on the graphic view 图形式视图筛选器

If the chosen filter is a filter on a graphic view, the user must firstly choose the graphic type (analog or digital) for each of the four axes available. An analog graphic can contain up to 4 analog variables, whereas a digital graphic can contain up to 10 boolean variables (see **Figure 17**). After clicking on the "+" sign, a variable is added in a graphic using a dialog box, the use of which is described in sub-section 4.12.2. A graphic variable is deleted by clicking on the "-" sign.

The color associated with the variable can be configured via a pull-down list in the "Color" column.

如果所选筛选器是图形视图上的筛选器，则用户必须首先为有效的四个坐标轴选择图形类型（模拟或数字）。模拟图形可以包含多达4个模拟变量，而数字图形最多可以包含10个布尔变量（参见图 17）。单击“+”符号后，将使用对话框添加到图形中一个变量，在子节 4.12.2 中对其使用进行了说明。通过单击“-”符号删除图形变量。

与该变量关联的颜色可以通过“颜色”列中的下拉列表进行配置。

The display order of the graphs in the view and the variables in each graph can be configured using the arrow keys:

- to position the selected graph in first position (at the top) in the graphic view or to position the selected variable in the first line of the graph.
- ▲ to raise the selected graph by one position in the graphic view or to raise the selected variable by one position in the graph.
- ▼ to lower the selected graph by one position in the graphic view or to lower the selected variable by one position in the graph.
- ▼ to position the selected graph in last position (at the bottom) in the graphic view or to position the selected variable in the last line of the graph.

视图中图形的显示顺序和每个图表中的变量都可以使用箭头键进行配置：

将选定的图形定位在图形视图中的第一个位置（位于顶部），或将选定的变量放置在图形的第一行中。

在图形视图中按一个位置引发选定的图形，或在图形中按一个位置引发选定的变量。

通过图形视图中的一个位置降低所选图形，或将所选变量按图形中的一个位置降低。

将选定的图形定位在图形视图中的最后一个位置 (底部), 或将选定的变量放置在图形的最后一行中。

▼

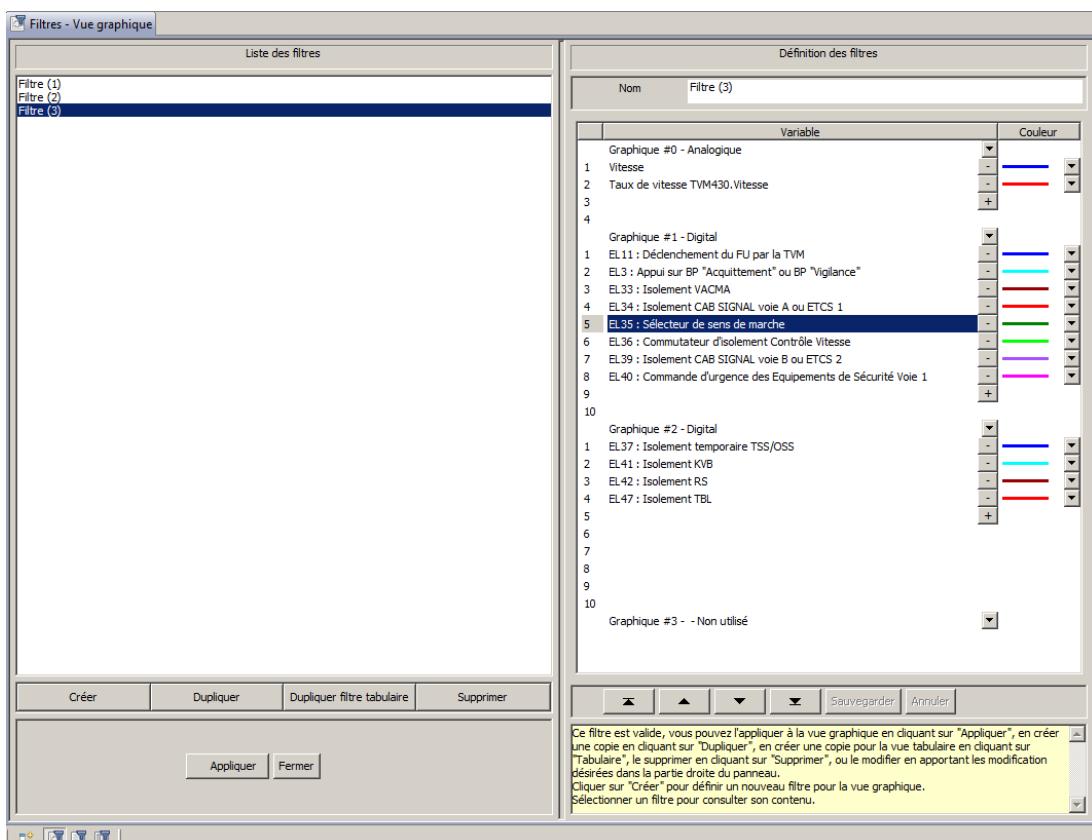


Figure 17 图 17

4.12.1.2 Filters on the tabular view 表格式视图筛选器

To add a variable to the filter selected, click on the "+" sign, which opens a dialog box, the use of which is described in sub-section 4.12.2. A variable is deleted by clicking on the "-" sign.

In a tabular view, a filter displays only the lines containing at least one of the variables selected in the filter.

A condition on each variable can be added in order to display in the tabular view only the variables which satisfy the condition; for the operator, a combo-box offers all available operators. For the values, a decimal value is input by the user.

若要将变量添加到选定的筛选器中，请单击 "+" 符号，该标志打开一个对话框，在子节 4.12.2 中描述了该标记的使用。通过单击 "-" 符号删除变量。

在表格视图中，筛选器只显示包含筛选器中选定的至少一个变量的行。

可以添加每个变量的条件，以便仅在表格视图中显示满足条件的变量；对于操作人员，组合框提供所有有效运算符。对于值，十进制值由用户输入。

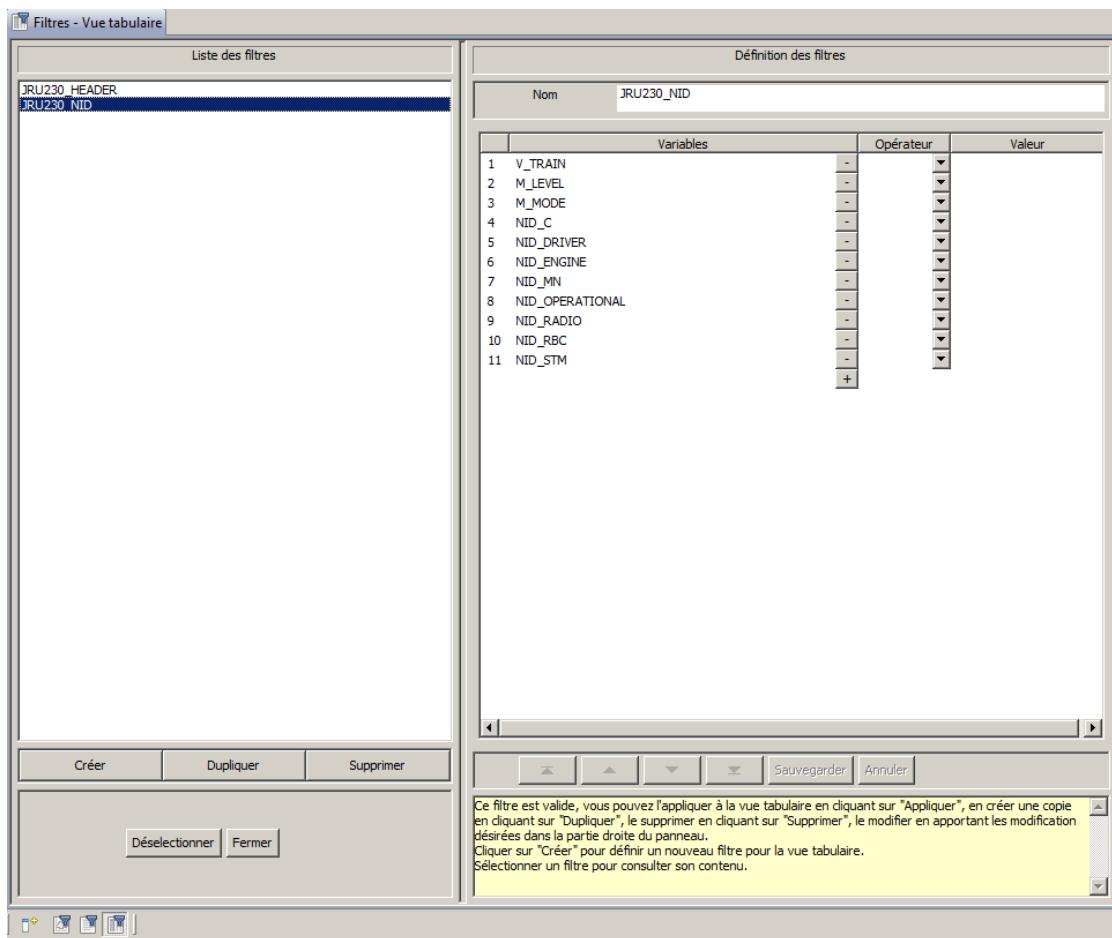


Figure 18 图18

4.12.1.3 Filters on the list view 列表视图筛选器

To add an event to the filter selected, click on the "+" sign, which opens a dialog box, the use of which is described in sub-section 4.12.2. An event is deleted by clicking on the "-" sign.

Once the filter has been applied, only the rows containing events that have been selected in the filter will be displayed in the list view. The display can also be limited at column level to a given number of variables by ticking the "**Choose variables to display...**" check-box. All the variables contained in the events selected are proposed, and they can be selected or deselected using the "+" and "-" buttons.

若要将事件添加到选定的筛选器中, 请单击 "+" 符号, 该标志打开一个对话框, 在子节 4.12.2 中对该标记的使用进行了描述。单击 "-" 符号将删除事件。

应用筛选器后, 只有包含筛选器中选定事件的行才会显示在列表视图中。通过滴答作响 "选择要显示的变量" 复选框, 显示也可以在列级别限制为给定数量的变量。所选事件中包含的所有变量都将被建议, 并且可以使用 "+" 和 "-" 按钮选中或取消选择。

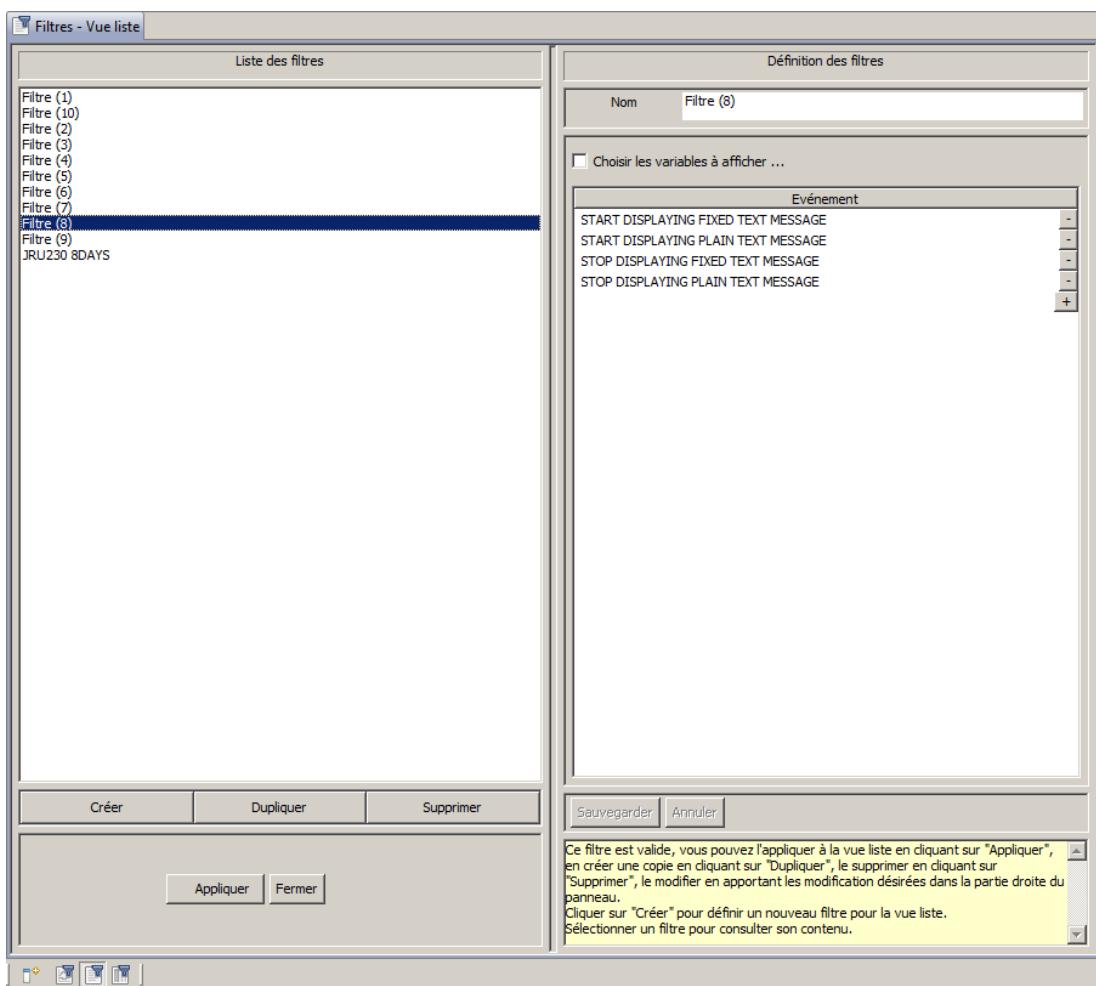


Figure 19 图19

4.12.2 Selecting variables or events of a filter 选择筛选器变量或事件

A dialog box common to the 3 types of filter is used to quickly find an event or a variable to add to the filter being created (see figure below).

三类型筛选器常用的对话框用于快速查找要添加到正在创建的筛选器中的事件或变量（请参见下图）。

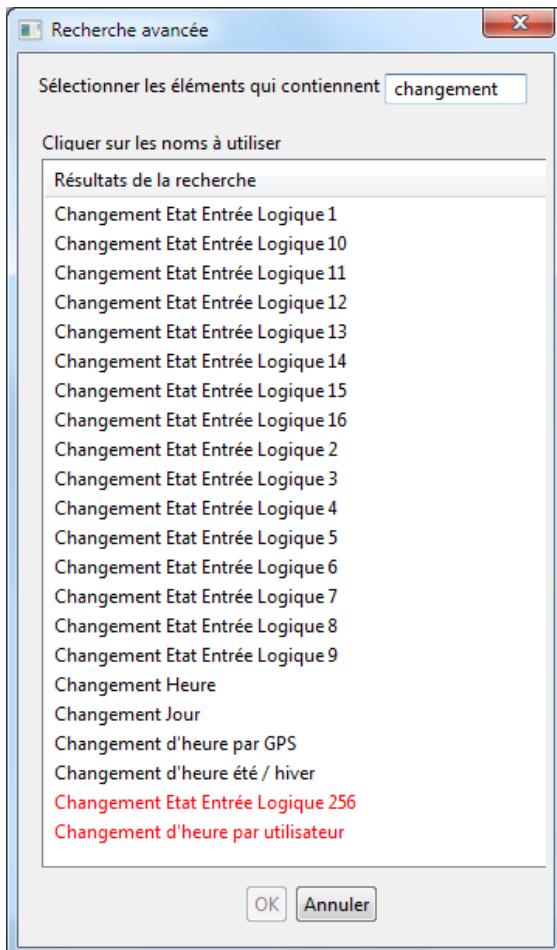


Figure 20 图20

- The events or variables proposed in the list are those declared in the XML file associated with the open journey file.
- The list of variables (or events) is automatically filtered with the key word written in the “**Select variables which contain**” box.
- The variables or events in red are not included in the open file. Nevertheless, they can be selected to create a filter.
- Then the user can choose one of the variables (or events) proposed in the “Search results” list by double-clicking on its name or by selecting the desired element(s) and then clicking the “OK” button.

Note: When creating a filter, variables (or events) already selected in the filter will not appear in the "Advanced variable search".

- 列表中推荐的事件或变量在与已打开的日志文件关联的 XML 文件中有声明。
 - 变量 (或事件) 列表将自动筛选为 "选择包含" 框中写入的关键字。
 - 标有红色的变量或事件不包括在已打开的文件中。但是，可以选择它们来创建筛选器。
 - 然后用户可以通过双击其名称或选择所需的元素，然后单击 "确定" 按钮，选择 "搜索结果" 列表中所推荐的变量 (或事件) 之一。
- 注意：创建筛选器时，筛选器中已选定的变量 (或事件) 不会出现在 "高级变量搜索" 中。

4.12.3 Choosing and applying a filter on a view 在视图中选择和使用筛选功能

There are two ways to apply a filter on a view

1. open the filter manager for the view, select a filter in the list of existing filters and press the "**Apply**" button (see Figure 18 图 18 for example)
2. right click in the view to open the drop-down menu and choose one of the filters recently applied (see figure below)

在视图上应用筛选器有两种方法

1. 打开视图的筛选管理器，在现有筛选器列表中选择一个筛选器，然后按 "应用" 按钮 (见图18例如)
2. 右键单击视图以打开下拉菜单并选择最近应用的筛选器之一 (请参见下图)

Flag	Temps Absolu	Temps Relatif	Nom d'événement	Var0	Var1	Variable	Valeur Brute	Valeur Décodée
4020	26/06/2015 22:10:28.000	+0h 6mn 27s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda	L_MESSAGE_JRU	0x0047	71
4021	26/06/2015 22:10:32.000	+0h 6mn 31s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda	Date		
4022	26/06/2015 22:10:36.000	+0h 6mn 35s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda	Time		
4023	26/06/2015 22:10:40.000	+0h 6mn 39s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda	Train Position		
4024	26/06/2015 23:33:50.000	+1h 29mn 49s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda	V_TRAIN	0x00	0 km/h
4025	26/06/2015 23:33:50.000	+1h 29mn 49s 0ms	PERMITTED SPEED	L_MESSAGE_JRU:71	Date : 0x1eda	NID_DRIVER	0x0000000000...	
4026	26/06/2015 23:33:50.000	+1h 29mn 49s 0ms	CURRENT VALUE OF MOST REST...	L_MESSAGE_JRU:71	Date : 0x1eda	NID_ENGINE	0x0004fd	1277
4027	26/06/2015 23:33:50.000	+1h 29mn 49s 0ms	RELEASE SPEED	L_MESSAGE_JRU:71	Date : 0x1eda	M_LEVEL	0x03	Level 2
4028	26/06/2015 23:33:50.000	+1h 29mn 49s 0ms	TARGET SPEED	L_MESSAGE_JRU:71	Date : 0x1eda	M_MODE	0x06	Stand By
4029	26/06/2015 23:33:50.000	+1h 29mn 49s 0ms	TARGET DISTANCE	L_MESSAGE_JRU:72	Date : 0x1eda	M_DRIVERACTIONS	0x15	Driver confirmation of data
4030	26/06/2015 23:33:50.000	+1h 29mn 49s 0ms	CURRENT VALUE OF MOST REST...	L_MESSAGE_JRU:71	Date : 0x1eda			
4031	26/06/2015 23:33:51.000	+1h 29mn 50s 0ms	PERMITTED SPEED	L_MESSAGE_JRU:71	Date : 0x1eda			
4032	26/06/2015 23:33:51.000	+1h 29mn 50s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda			
4033	26/06/2015 23:33:51.000	+1h 29mn 50s 0ms	START DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4034	26/06/2015 23:33:51.000	+1h 29mn 50s 0ms	PERMITTED SPEED	L_MESSAGE_JRU:71	Date : 0x1eda			
4035	26/06/2015 23:33:53.000	+1h 29mn 52s 0ms	START DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4036	26/06/2015 23:33:53.000	+1h 29mn 52s 0ms	START DISPLAYING FIXED TEXT ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4037	26/06/2015 23:33:57.000	+1h 29mn 56s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4038	26/06/2015 23:34:02.000	+1h 30mn 1s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4039	26/06/2015 23:34:05.000	+1h 30mn 4s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4040	26/06/2015 23:34:10.000	+1h 30mn 9s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:70	Date : 0x1eda			
4041	26/06/2015 23:34:11.000	+1h 30mn 10s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda	Gestion des colonies...		
4042	26/06/2015 23:34:11.000	+1h 30mn 10s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:71	Date : 0x1eda	Gestion des filtres...		
4043	26/06/2015 23:34:14.000	+1h 30mn 13s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:71	Date : 0x1eda	Aucun Filtre		
4044	26/06/2015 23:34:15.000	+1h 30mn 14s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda	Filtre (1)		
4045	26/06/2015 23:34:15.000	+1h 30mn 14s 0ms	STM SELECTED	L_MESSAGE_JRU:71	Date : 0x1eda	Filtre (2)		
4046	26/06/2015 23:34:15.000	+1h 30mn 14s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:71	Date : 0x1eda	Filtre (3)		
4047	26/06/2015 23:34:15.000	+1h 30mn 14s 0ms	START DISPLAYING FIXED TEX	L_MESSAGE_JRU:71	Date : 0x1eda	Filtre (4)		
4048	26/06/2015 23:34:17.000	+1h 30mn 16s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda	Filtre (5)		
4049	26/06/2015 23:34:20.000	+1h 30mn 19s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:71	Date : 0x1eda	Filtre (6)		
4050	26/06/2015 23:34:24.000	+1h 30mn 23s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:71	Date : 0x1eda	Filtre (7)		
4051	26/06/2015 23:34:28.000	+1h 30mn 27s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:71	Date : 0x1eda	Filtre (8)		
4052	26/06/2015 23:34:32.000	+1h 30mn 31s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:71	Date : 0x1eda	Filtre (9)		
4053	26/06/2015 23:34:34.000	+1h 30mn 33s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda	Filtre (10)		
4054	26/06/2015 23:34:36.000	+1h 30mn 35s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:71	Date : 0x1eda	Ajouter une annotation...		
4055	26/06/2015 23:34:41.000	+1h 30mn 40s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:71	Date : 0x1eda			
4056	26/06/2015 23:34:45.000	+1h 30mn 44s 0ms	GENERAL MESSAGE	L_MESSAGE_JRU:71	Date : 0x1eda			
4057	26/06/2015 23:34:46.000	+1h 30mn 45s 0ms	DRIVER'S ACTION	L_MESSAGE_JRU:71	Date : 0x1eda			
4058	26/06/2015 23:34:46.000	+1h 30mn 45s 0ms	DATA ENTRY COMPLETED	L_MESSAGE_JRU:107	Date : 0x1eda			
4059	26/06/2015 23:34:46.000	+1h 30mn 45s 0ms	START DISPLAYING FIXED TEX ...	L_MESSAGE_JRU:71	Date : 0x1eda			
4060	26/06/2015 23:34:46.000	+1h 30mn 45s 0ms	STOP DISPLAYING FIXED TEX M...	L_MESSAGE_JRU:71	Date : 0x1eda			
4061	26/06/2015 23:34:46.000	+1h 30mn 45s 0ms	CURRENT VALUE OF MOST REST...	L_MESSAGE_JRU:71	Date : 0x1eda			

N.B.: The number of recent filters is limited to 10. The filter manager must be used to apply an older filter (method 1).

To deactivate a filter on a view, you must

1. Either open the filter manager for the view, select the filter applied and press the "**Deselect**" button
2. Or choose "No filter" from the right-click drop-down menu

注: 最近使用过滤器数量痕迹限制为10, 必须使用筛选器管理器来应用较旧的筛选器 (方法 1)。

若要停用视图上的筛选器, 必须

1. 打开视图的筛选器管理程序, 选择应用的筛选器, 然后按 "取消选择" 按钮
2. 或从右键单击下拉菜单中选择 "无过滤器"

4.13 Finding a criterion 查找标准

Table of possibilities to search on criteria 查找标准

Table of possible searches for a view.

Criteria 标准	Text 文本	Variable 变量	Event 事件	Annotations 注释
Views 视图				
Graphic 图形				X
List 列表		X	X	X
Tabular 表格		X		X
Binary 二进制式				

4.13.1 Finding a variable 查找一个变量

You can search for a variable on the selected view. This search is on two levels. Those two levels work like the two levels of the filter on variables.

Click the  icon in the view selected. The specified window as shown in **Figure 21** will then be displayed.

A combo-box proposes the list of variables known to SAM, and another combo-box the list of operators for the second level. For the values, a decimal value is entered by the user in the edit zone planned (see **Figure 21**).

可以在所选视图上搜索变量。此搜索位于两个级别。这两个级别的工作类似于变量上的筛选器的两个级别。

单击所选视图中的图标 。然后将显示指定的窗口，如图21所示。

组合框提出了 SAM 已知的变量列表，另一个组合框列出了第二级运算符的列表。对于值，用户可在规划的编辑区域中输入十进制值（请参见图 21）。

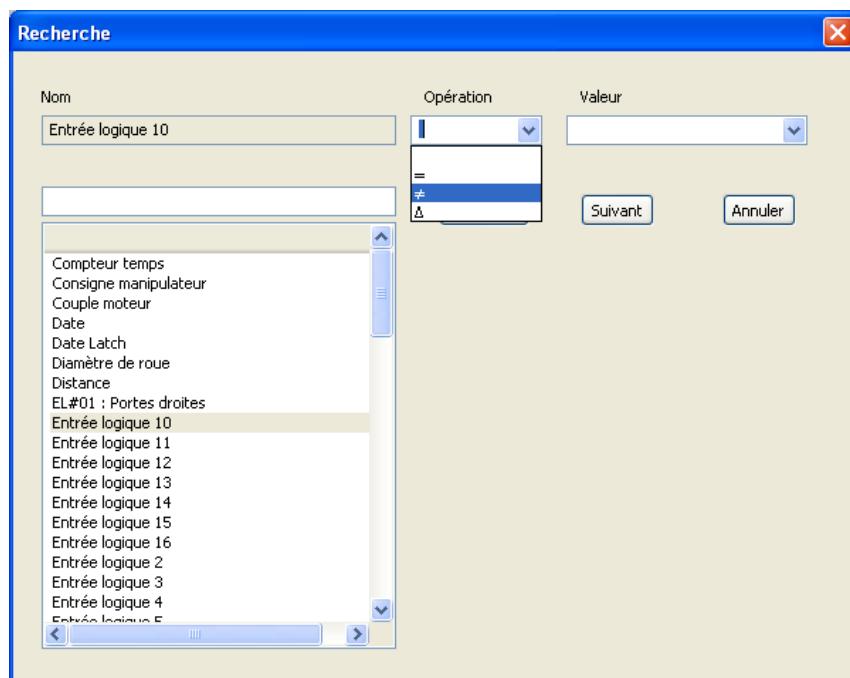


Figure 21 图21

An advanced search of variables is available by selecting the **<Search>** element in the list. Refer to § 4.12.2 for a detailed description of this functionality.

Once you have selected the variable, click "**Next**" to go to the next occurrence of that variable, or "**Previous**" to go to the previous occurrence of that variable.

通过选择列表中的 **<Search>** 元素，可以获得对变量的高级搜索。有关此功能的详细说明，请参阅§4.12.2。

选择了变量后，单击 "下一步" 转到该变量的下一个匹配项，或 "上一个" 转到该变量的上一个匹配项。

Lastly the "**Cancel**" button allows you to quit this function. (see **Figure 22**).

最后，“取消”按钮允许您放弃该功能，如图22所示。

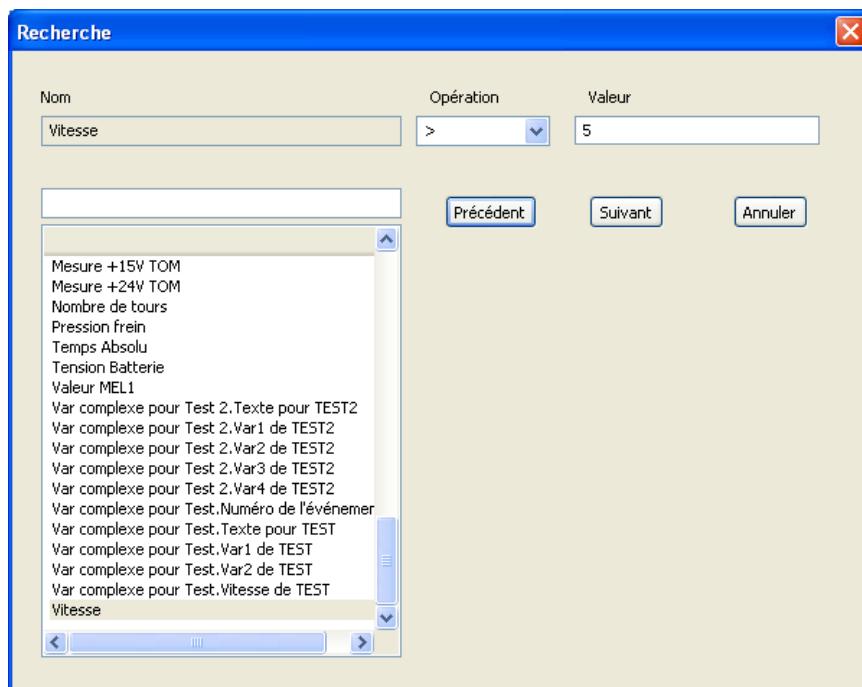


Figure 22 图22

Information bubbles containing help for the user appear when the mouse pointer passes over the labels "Name", "Operator", "Value" of the dialog. (cf. **Figure 23 and Figure 24**). 当鼠标指针越过对话框的标签 "名称"、"运算符"、"值" 时, 会出现包含用户帮助的信息文本框。 (参见图23和图 24)。

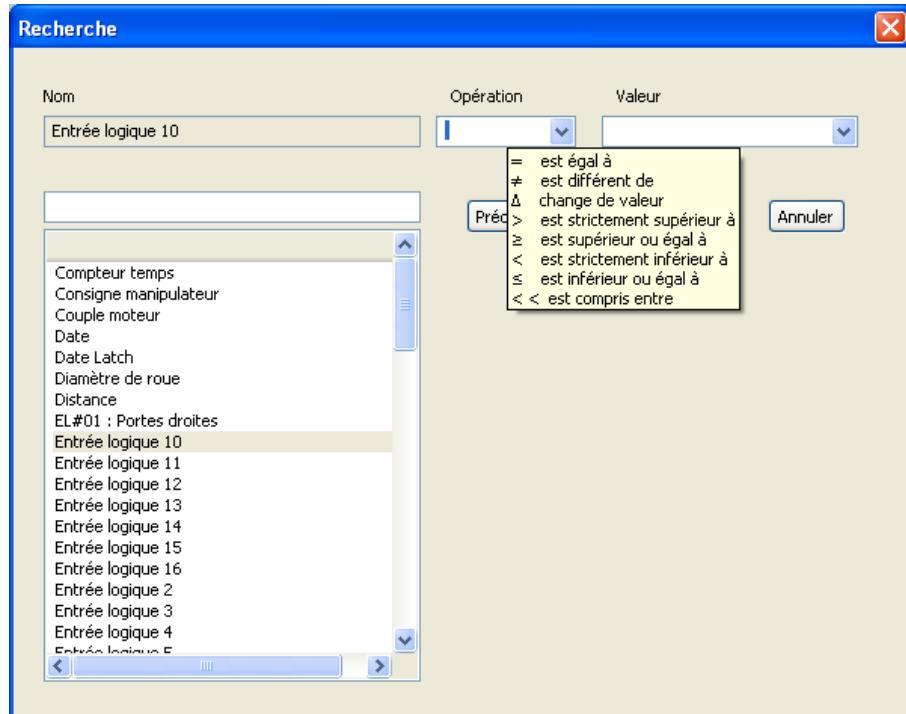


Figure 23 图23

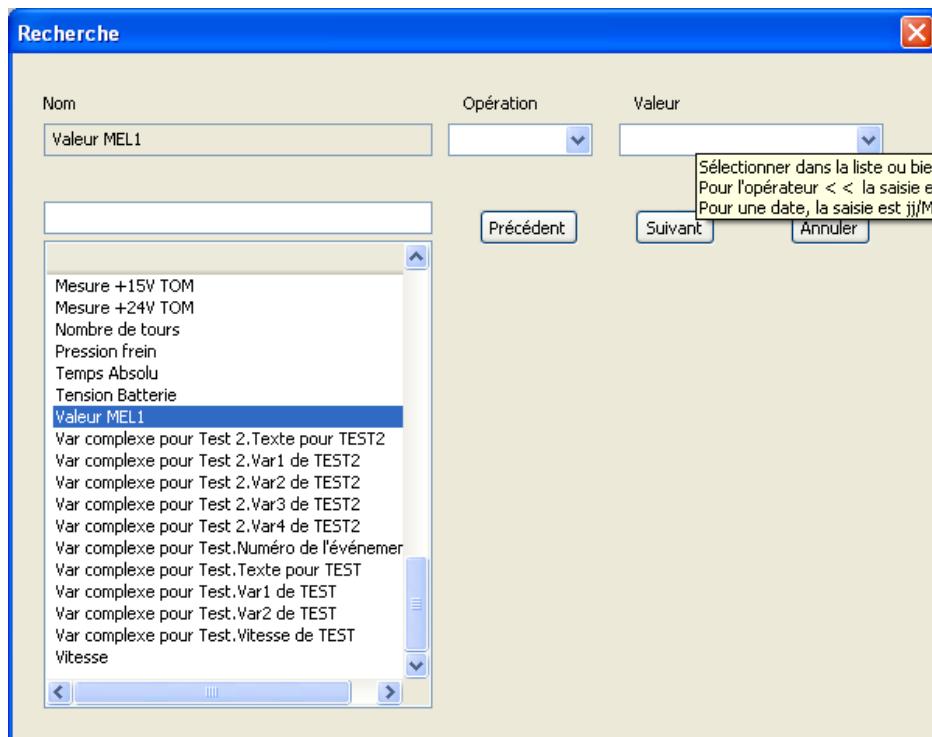


Figure 24 图24

4.13.2 Finding an event 查找事件

It is possible to look for an event in the *List view*.

Click the  icon in the view. The specified window as shown in Figure 25 will then be displayed.

A combo-box proposes the list of events known to SAM (see Figure 25).

可以在列表视图中查找事件。

单击视图中的图标。然后将显示指定的窗口，如图25所示。

组合框向 SAM 推荐已知事件列表 (见图 25)。

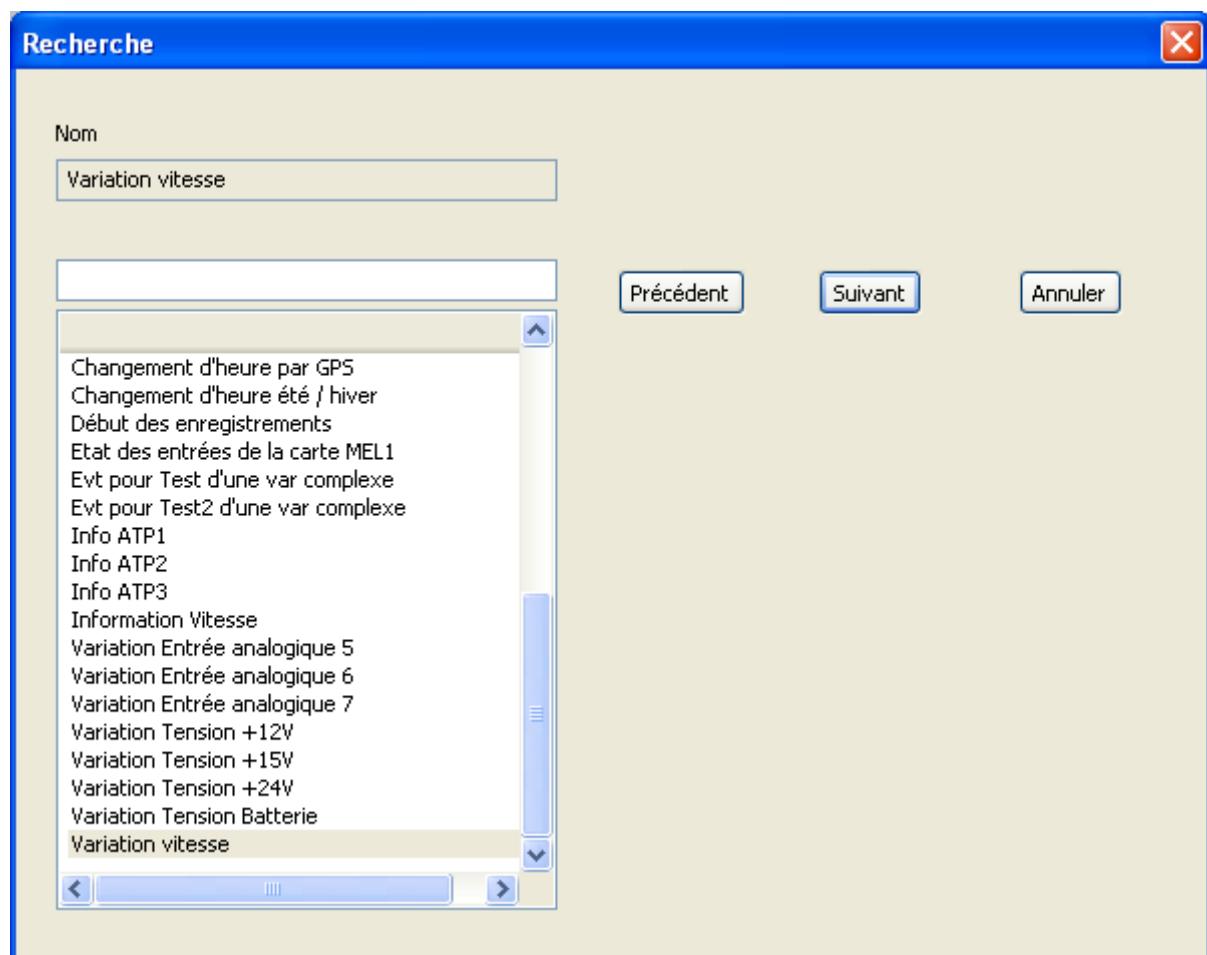


Figure 25 图25

An advanced search of variables is available by selecting the **<Search>** element in the list. Refer to § 4.12.2 for a detailed description of this functionality.

Once you have selected the event, click on the "**Next**" button to go to the next occurrence of that event, or on "**Previous**" to go to the previous occurrence of that event.

Lastly the "**Cancel**" button allows you to quit this function.

通过选择列表中的 <Search> 元素，可以获得对变量的高级搜索。有关此功能的详细说明，请参阅§4.12.2。

选择了该事件后，单击“下一步”按钮以转到该事件的下一个匹配项，或在“上一项”上转到该事件的上一个匹配项。

最后，“取消”按钮允许您退出此功能。

4.14 Applying correction factors to the time and to wheel diameters

时间和轮径的校正因素

These functions are independent of each other so they can therefore be used either separately or simultaneously in SAM. 这些功能相互独立，因此可以分别或同时在 SAM 中使用。

4.14.1 Time correction 时间校准

This function is intended to correct the absolute time value displayed during the analysis of the data from the journey files. This makes it possible to advance or delay the absolute time displayed in the various SAM windows. Nevertheless, **this function does not in any way modify the data stored in the journey file, only the time calculation in SAM is impacted by the time correction.** 此功能用于更正从日志文件分析数据期间显示的绝对时间值。这使得可以提前或延迟在各种 SAM 窗口中显示的绝对时间。然而，此功能不以任何方式修改存储在日志文件中的数据，只有 SAM 的时间计算受到时间修正的影响。

The "Time correction" function is accessed via the "**Edit -> Time correction**" menu. The following window is displayed: "时间修正" 功能是通过 "编辑->> 时间修正" 菜单访问的。将显示以下窗口：

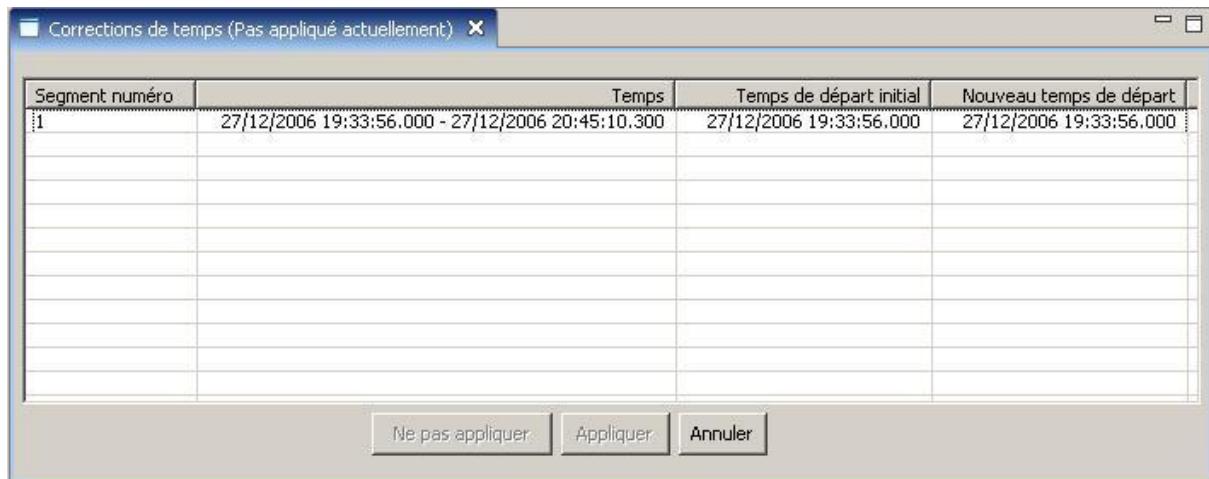


Figure 26 图26

For every time segment in the journey time (all of the events between two "Power On" or "Time break" events), this window lets you define a new absolute time reference called the "Corrected time".

对于日志时间中的每个时间段(在两个 "通电" 或 "时间中断" 事件之间的所有事件), 此窗口允许您定义一个新的绝对时间基准, 称为 "更正时间"。

The meanings of the columns present in this window are:

- "**Segment number- "**Time- "**Initial start time- "**New start time********

此窗口中的列的含义是:

- "段号": 日志文件时间段的编号。
- "时间": 确定时间段的绝对时间间隔 (第一个和最后一个事件的绝对时间, 如不使用任何 "时间修正" 因子, 将显示日志文件所记录的绝对时间)。
- "初始开始时间": 是初始绝对时间值, 当第一个事件发生在给定时间段中时(如不应用任何 "时间修正" 因子, 绝对时间为日志文件所记录的绝对时间)。
- "新开始时间": 是已更正的绝对时间值。当第一个事件发生在给定时间段中时(在使用 "时间修正" 因子后, 绝对时间将显示在 SAM 中)。

Only the "**New start time**" column can be modified by the user. The other columns are displayed only for the user's information (columns that cannot be modified).

只有 "新开始时间" 列可以由用户修改。其他列仅做向用户显示的信息 (无法修改的列)。

After entering new corrected values, it becomes possible, using the "**Apply**" button, to apply a "time correction". In the same way, after applying the corrected values, it is possible, using the "**Do not Apply**" button, to disable the "time correction" function. After these actions are performed, all of the SAM windows are updated.

输入新的更正值后, 使用 "应用" 按钮就可以应用 "时间修正"。同样地, 在应用更正后的值后, 可以使用 "不应用" 按钮, 禁用 "时间修正" 功能。执行这些操作后, 将更新所有 SAM 窗口。

The main windows that are impacted by applying a "time correction" are:

使用 "时间更正" 影响的主窗口有:

- "List" view 列表视图:

- Adding an absolute time difference in the view header (difference between the absolute time initial value and the corrected time value, relative to the time segment where the cursor is located).
- Adding the "**Corrected time**" column (shown in red).

添加绝对时差到视图标头中(相对于光标所在的时间段而言, 绝对时间初始值和已更正的时间值之间的差异)。

添加 "更正时间" 列 (以红色显示)。

Flag	Temps Absolu	Temps Corrigé	Temps Relatif	Distance Relative	Nom d'événement	Var0	Distance
>	27/12/2006 19:33:56.1	27/12/2006 20:33:56.1	+0h 0mn 0s 0ms	+0.000	Digital input 49 to 64 change	Time counter:202	Time
	27/12/2006 19:33:56.1	27/12/2006 20:33:56.1	+0h 0mn 0s 100ms	+0.000	Analog input 6 threshold	A.A06 Brake cylinder pres...	Time
	27/12/2006 19:33:56.1	27/12/2006 20:33:56.1	+0h 0mn 0s 100ms	+0.000	Analog input 9 threshold	T.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:56.1	27/12/2006 20:33:56.1	+0h 0mn 0s 100ms	+0.000	Digital input 193 to 208 change	Time counter:203	Distance
	27/12/2006 19:33:56.1	27/12/2006 20:33:56.1	+0h 0mn 0s 100ms	+0.000	Analog input 17 threshold	M.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:56.2	27/12/2006 20:33:56.2	+0h 0mn 0s 200ms	+0.000	Digital input 177 to 192 change	Time counter:203 iter:204	Distance
	27/12/2006 19:33:56.2	27/12/2006 20:33:56.2	+0h 0mn 0s 200ms	+0.000	Analog input 9 threshold	T.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:56.3	27/12/2006 20:33:56.3	+0h 0mn 0s 300ms	+0.000	Analog input 17 threshold	M.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:56.3	27/12/2006 20:33:56.3	+0h 0mn 0s 300ms	+0.000	Analog input 6 threshold	A.A06 Brake cylinder :160...	Time
	27/12/2006 19:33:56.3	27/12/2006 20:33:56.3	+0h 0mn 0s 300ms	+0.000	Analog input 30 threshold	B.A06 Brake cylinder:190...	Time
	27/12/2006 19:33:56.4	27/12/2006 20:33:56.4	+0h 0mn 0s 400ms	+0.000	Digital input 17 to 32 change	Time counter:206	Distance
	27/12/2006 19:33:56.4	27/12/2006 20:33:56.4	+0h 0mn 0s 400ms	+0.000	Digital input 129 to 144 change	Time counter:206	Distance
	27/12/2006 19:33:56.4	27/12/2006 20:33:56.4	+0h 0mn 0s 400ms	+0.000	Analog input 9 threshold	T.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:56.5	27/12/2006 20:33:56.5	+0h 0mn 0s 500ms	+0.000	Digital input 161 to 176 change	Time counter:207	Distance
	27/12/2006 19:33:56.5	27/12/2006 20:33:56.5	+0h 0mn 0s 500ms	+0.000	Digital input 113 to 128 change	Time counter:207	Distance
	27/12/2006 19:33:56.5	27/12/2006 20:33:56.5	+0h 0mn 0s 500ms	+0.000	Analog input 17 threshold	M.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:56.5	27/12/2006 20:33:56.5	+0h 0mn 0s 500ms	+0.000	Analog input 21 threshold	M.A05 Traction motor curr...	Time
	27/12/2006 19:33:56.5	27/12/2006 20:33:56.5	+0h 0mn 0s 500ms	+0.000	Digital input 113 to 128 change	Time counter:207	Distance
	27/12/2006 19:33:56.5	27/12/2006 20:33:56.5	+0h 0mn 0s 500ms	+0.000	Analog input 6 threshold	A.A06 Brake cylinder :140...	Time
	27/12/2006 19:33:56.6	27/12/2006 20:33:56.6	+0h 0mn 0s 600ms	+0.000	Analog input 21 threshold	M.A05 Traction motor curr...	Time
	27/12/2006 19:33:56.6	27/12/2006 20:33:56.6	+0h 0mn 0s 600ms	+0.000	Analog input 9 threshold	T.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:56.6	27/12/2006 20:33:56.6	+0h 0mn 0s 600ms	+0.000	Analog input 30 threshold	B.A06 Brake cylinder:170...	Time
	27/12/2006 19:33:56.7	27/12/2006 20:33:56.7	+0h 0mn 0s 700ms	+0.000	Analog input 17 threshold	M.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:56.7	27/12/2006 20:33:56.7	+0h 0mn 0s 700ms	+0.000	Analog input 21 threshold	M.A05 Traction motor curr...	Time
	27/12/2006 19:33:56.7	27/12/2006 20:33:56.7	+0h 0mn 0s 700ms	+0.000	Digital input 113 to 128 change	Time counter:207	Distance
	27/12/2006 19:33:56.8	27/12/2006 20:33:56.8	+0h 0mn 0s 800ms	+0.000	Analog input 6 threshold	A.A06 Brake cylinder :120...	Time
	27/12/2006 19:33:56.8	27/12/2006 20:33:56.8	+0h 0mn 0s 800ms	+0.000	Analog input 9 threshold	T.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:56.9	27/12/2006 20:33:56.9	+0h 0mn 0s 900ms	+0.000	Analog input 17 threshold	M.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:56.9	27/12/2006 20:33:56.9	+0h 0mn 0s 900ms	+0.000	Analog input 21 threshold	M.A05 Traction motor curr...	Time
	27/12/2006 19:33:56.9	27/12/2006 20:33:56.9	+0h 0mn 0s 900ms	+0.000	Analog input 30 threshold	B.A06 Brake cylinder:150...	Time
	27/12/2006 19:33:56.9	27/12/2006 20:33:56.9	+0h 0mn 0s 900ms	+0.000	Digital input 113 to 128 change	Time counter:211	Distance
	27/12/2006 19:33:56.9	27/12/2006 20:33:56.9	+0h 0mn 1s 0ms	+0.000	Digital input 33 to 48 change	Time counter:212	Distance
	27/12/2006 19:33:56.9	27/12/2006 20:33:56.9	+0h 0mn 1s 0ms	+0.000	Digital input 177 to 192 change	Time counter:212	Distance
	27/12/2006 19:33:57.0	27/12/2006 20:33:57.0	+0h 0mn 1s 0ms	+0.000	Analog input 9 threshold	T.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:57.0	27/12/2006 20:33:57.0	+0h 0mn 1s 0ms	+0.000	Analog input 17 threshold	M.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:57.1	27/12/2006 20:33:57.1	+0h 0mn 1s 100ms	+0.000	Analog input 6 threshold	A.A06 Brake cylinder :100...	Time
	27/12/2006 19:33:57.1	27/12/2006 20:33:57.1	+0h 0mn 1s 100ms	+0.000	Analog input 30 threshold	B.A06 Brake cylinder:130...	Time
	27/12/2006 19:33:57.2	27/12/2006 20:33:57.2	+0h 0mn 1s 200ms	+0.000	Analog input 9 threshold	T.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:57.2	27/12/2006 20:33:57.2	+0h 0mn 1s 200ms	+0.000	Analog input 17 threshold	M.A01 Brake cylinder pres...	Time
	27/12/2006 19:33:57.3	27/12/2006 20:33:57.3	+0h 0mn 1s 300ms	+0.000	Analog input 21 threshold	M.A05 Traction motor curr...	Time
	27/12/2006 19:33:57.3	27/12/2006 20:33:57.3	+0h 0mn 1s 300ms	+0.000	Digital input 33 to 48 change	Time counter:215	Distance
	27/12/2006 19:33:57.3	27/12/2006 20:33:57.3	+0h 0mn 1s 300ms	+0.000	Digital input 113 to 128 change	Time counter:215	Distance
	27/12/2006 19:33:57.4	27/12/2006 20:33:57.4	+0h 0mn 1s 400ms	+0.000	Digital input 177 to 192 change	Time counter:216	Distance

Figure 27

图27

- "Tabular" view 表格式视图:

- Adding an absolute time difference in the view header (difference between the absolute time initial value and the corrected time value, relative to the time segment where the cursor is located).
- Adding the "**Corrected time**" column (shown in red).

添加绝对时差到视图标头中(相对于光标所在的时间段而言, 绝对时间初始值和已更正的时间值之间的差异)。

添加 "更正时间" 列 (以红色显示)。

Flag	Temps Absolu	Temps Corrigé	Temps Relatif	Distance Relative	Speed (miles/h)	A.D1 Emergency Brake	A.D2 Brake continuity
>	27/12/2006 19:33:56.0	27/12/2006 20:33:56.0	+0h 0mn 0s 0ms	+0.000	0	###	###
	27/12/2006 19:33:56.1	27/12/2006 20:33:56.1	+0h 0mn 0s 100ms	+0.000	0	###	###
	27/12/2006 19:33:56.1	27/12/2006 20:33:56.1	+0h 0mn 0s 100ms	+0.000	0	###	###
	27/12/2006 19:33:56.1	27/12/2006 20:33:56.1	+0h 0mn 0s 100ms	+0.000	0	###	###
	27/12/2006 19:33:56.1	27/12/2006 20:33:56.1	+0h 0mn 0s 100ms	+0.000	0	###	###
	27/12/2006 19:33:56.2	27/12/2006 20:33:56.2	+0h 0mn 0s 200ms	+0.000	0	###	###
	27/12/2006 19:33:56.2	27/12/2006 20:33:56.2	+0h 0mn 0s 200ms	+0.000	0	###	###
	27/12/2006 19:33:56.3	27/12/2006 20:33:56.3	+0h 0mn 0s 300ms	+0.000	0	###	###
	27/12/2006 19:33:56.3	27/12/2006 20:33:56.3	+0h 0mn 0s 300ms	+0.000	0	###	###
	27/12/2006 19:33:56.3	27/12/2006 20:33:56.3	+0h 0mn 0s 300ms	+0.000	0	###	###
	27/12/2006 19:33:56.4	27/12/2006 20:33:56.4	+0h 0mn 0s 400ms	+0.000	0	###	###
	27/12/2006 19:33:56.4	27/12/2006 20:33:56.4	+0h 0mn 0s 400ms	+0.000	0	###	###
	27/12/2006 19:33:56.5	27/12/2006 20:33:56.5	+0h 0mn 0s 500ms	+0.000	0	###	###
	27/12/2006 19:33:56.5	27/12/2006 20:33:56.5	+0h 0mn 0s 500ms	+0.000	0	###	###
	27/12/2006 19:33:56.5	27/12/2006 20:33:56.5	+0h 0mn 0s 500ms	+0.000	0	###	###
	27/12/2006 19:33:56.5	27/12/2006 20:33:56.5	+0h 0mn 0s 500ms	+0.000	0	###	###
	27/12/2006 19:33:56.5	27/12/2006 20:33:56.5	+0h 0mn 0s 500ms	+0.000	0	###	###
	27/12/2006 19:33:56.6	27/12/2006 20:33:56.6	+0h 0mn 0s 600ms	+0.000	0	###	###
	27/12/2006 19:33:56.6	27/12/2006 20:33:56.6	+0h 0mn 0s 600ms	+0.000	0	###	###
	27/12/2006 19:33:56.6	27/12/2006 20:33:56.6	+0h 0mn 0s 600ms	+0.000	0	###	###
	27/12/2006 19:33:56.7	27/12/2006 20:33:56.7	+0h 0mn 0s 700ms	+0.000	0	###	###
	27/12/2006 19:33:56.7	27/12/2006 20:33:56.7	+0h 0mn 0s 700ms	+0.000	0	###	###
	27/12/2006 19:33:56.8	27/12/2006 20:33:56.8	+0h 0mn 0s 800ms	+0.000	0	###	###
	27/12/2006 19:33:56.8	27/12/2006 20:33:56.8	+0h 0mn 0s 800ms	+0.000	0	###	###
	27/12/2006 19:33:56.9	27/12/2006 20:33:56.9	+0h 0mn 0s 900ms	+0.000	0	###	###
	27/12/2006 19:33:56.9	27/12/2006 20:33:56.9	+0h 0mn 0s 900ms	+0.000	0	###	###
	27/12/2006 19:33:56.9	27/12/2006 20:33:56.9	+0h 0mn 0s 900ms	+0.000	0	###	###
	27/12/2006 19:33:57.0	27/12/2006 20:33:57.0	+0h 0mn 1s 0ms	+0.000	0	###	###
	27/12/2006 19:33:57.0	27/12/2006 20:33:57.0	+0h 0mn 1s 0ms	+0.000	0	###	###
	27/12/2006 19:33:57.1	27/12/2006 20:33:57.1	+0h 0mn 1s 100ms	+0.000	0	###	###
	27/12/2006 19:33:57.1	27/12/2006 20:33:57.1	+0h 0mn 1s 100ms	+0.000	0	###	###
	27/12/2006 19:33:57.2	27/12/2006 20:33:57.2	+0h 0mn 1s 200ms	+0.000	0	###	###
	27/12/2006 19:33:57.2	27/12/2006 20:33:57.2	+0h 0mn 1s 200ms	+0.000	0	###	###
	27/12/2006 19:33:57.3	27/12/2006 20:33:57.3	+0h 0mn 1s 300ms	+0.000	0	###	###
	27/12/2006 19:33:57.3	27/12/2006 20:33:57.3	+0h 0mn 1s 300ms	+0.000	0	###	###
	27/12/2006 19:33:57.3	27/12/2006 20:33:57.3	+0h 0mn 1s 300ms	+0.000	0	###	###
	27/12/2006 19:33:57.4	27/12/2006 20:33:57.4	+0h 0mn 1s 400ms	+0.000	0	###	###
	27/12/2006 19:33:57.4	27/12/2006 20:33:57.4	+0h 0mn 1s 400ms	+0.000	0	###	###

Figure 28 图28

- "Graphic" view 图形视图:

- Adding an absolute time difference in the view header (difference between the absolute time initial value and the corrected time value, relative to the time segment where the cursor is located).
- Adding the "cursor - corrected time" association (the corrected absolute time value relative to the cursor's position in the view).
- Adding the "**Corrected time**" line (an additional line in addition to the ones that already exist when no "time correction" is applied).

添加绝对时差到视图标头中(相对于光标所在的时间段而言, 绝对时间初始值和已更正的时间值之间的差异)。

添加 "游标-修正时间" 关联 (相对于视图中光标位置的修正的绝对时间值)。

添加 "更正时间" 行 (在不使用 "时间修正" 时, 且除已存在行外的另外一行)。

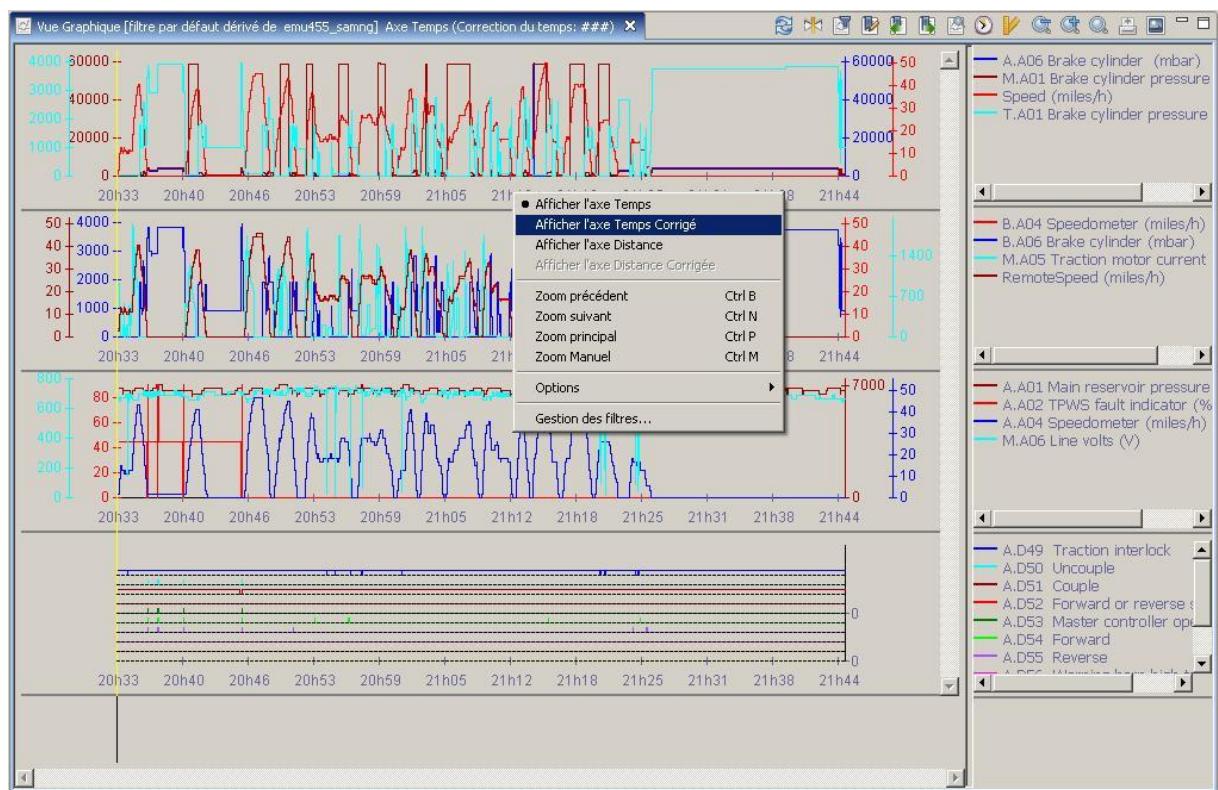


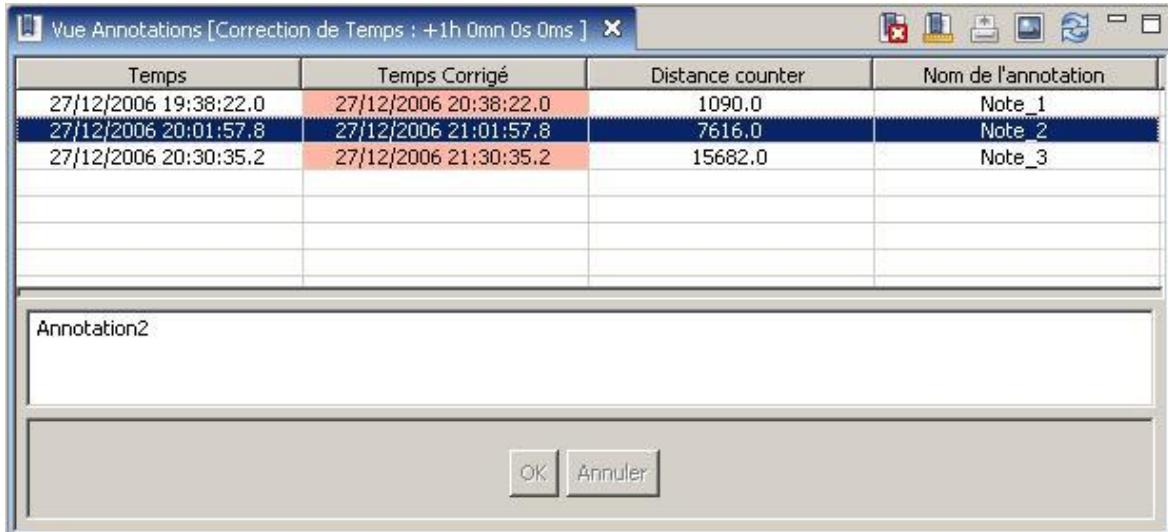
Figure 29 图29

- "Annotations list" window:

- Adding an absolute time difference in the window header (difference between the absolute time initial value and the corrected time value, relative to the time segment where the cursor is located).
- Adding the "**Corrected time**" column (shown in red).

- "注释列表" 窗口:

- 在窗口页眉中添加绝对时差 (相对于光标所在的时间段而言, 绝对时间初始值和更正的时间值之间的差异)。
- 添加 "更正时间" 列 (以红色显示)。



The screenshot shows a software interface titled "Vue Annotations [Correction de Temps : +1h 0mn 0s 0ms]". It displays a table with four columns: "Temps" (Original Time), "Temps Corrigé" (Corrected Time), "Distance counter" (Distance Counter), and "Nom de l'annotation" (Annotation Name). The table contains three rows of data:

Temps	Temps Corrigé	Distance counter	Nom de l'annotation
27/12/2006 19:38:22.0	27/12/2006 20:38:22.0	1090.0	Note_1
27/12/2006 20:01:57.8	27/12/2006 21:01:57.8	7616.0	Note_2
27/12/2006 20:30:35.2	27/12/2006 21:30:35.2	15682.0	Note_3

Below the table, there is a modal dialog box titled "Annotation2" with two buttons: "OK" and "Annuler".

Figure 30 图30

- "Journey information" window : 日志信息窗口

This window is also impacted by the application of a "time correction", but less so (adding information such as the start of record corrected time, the end of record corrected time, etc.). 该窗口受时间校准影响, 但影响较小 (添加信息, 如记录更正时间的开始、记录更正时间的结束等)。

The functions assigned to these windows are not impacted by applying a "time correction" and they therefore retain exactly the same mechanisms. As a result, it is always possible to create virtual variables, to filter views, run searches or even export files. For further information, refer to the relevant sub-sections in this manual. 分配给这些窗口的功能不会因应用 "时间校准" 而受到影响, 因此它们保留完全相同的机制。因此, 始终可以创建虚拟变量、筛选视图、运行搜索甚至导出文件。有关详细信息, 请参阅本手册中的相关小节。

As for the operating mode used to save time corrected values, refer to sub-section "4.15.4 - Saving user remarks". 关于节省时间更正值的操作模式, 请参阅 "4.15.4 保存用户备注" 部分。

Note:

All of the cells where the value is not defined (value that cannot be calculated or that is not present in the journey file), will be replaced by a "####" symbol. 注意:

所有未定义值的单元格 (无法计算的值或在日志文件中不存在的值), 将被 "###" 符号替换。

4.14.2 **Wheel diameter correction** 轮径校准

This function is intended to correct the wheel diameter value used when calculating the corrected distance and the corrected speed. As the wheel diameter value is taken from the journey file, consequently this function is only available in SAM if the journey file contains the wheel diameter information. If this information is present in the journey file then it is possible to reduce or increase the wheel diameter via the "Wheel diameter correction" function and therefore to influence the corrected distance and corrected speed values displayed in the various SAM program windows. Nevertheless, **this function does not in any way modify the data stored in the journey file, only the corrected distance and corrected speed calculation in SAM is impacted by the wheel diameter correction.** 此功能用于在计算校正距离和校正速度时修正车轮的直径值。由于车轮直径值取自日志文件, 因此如果日志文件包含车轮直径信息, 此功能仅在 SAM 中可用。如果此信息存在于日志文件中, 则可以通过 "车轮直径修正" 功能减少或增加车轮直径, 从而影响在各种 SAM 程序窗口中显示的校正距离和校正速度值。然而, 该功能不得修改存储在日志文件中的数据, 只有修正的距离和修正后的速度计算会在 SAM 中受到车轮直径修正的影响。

The "Wheel diameter correction" function is accessed via the "**Edit -> Wheel diameter correction**" menu. The following window is displayed: "车轮直径修正" 功能是通过 "编辑->> 车轮直径修正" 菜单进行存取。显示如下窗口:

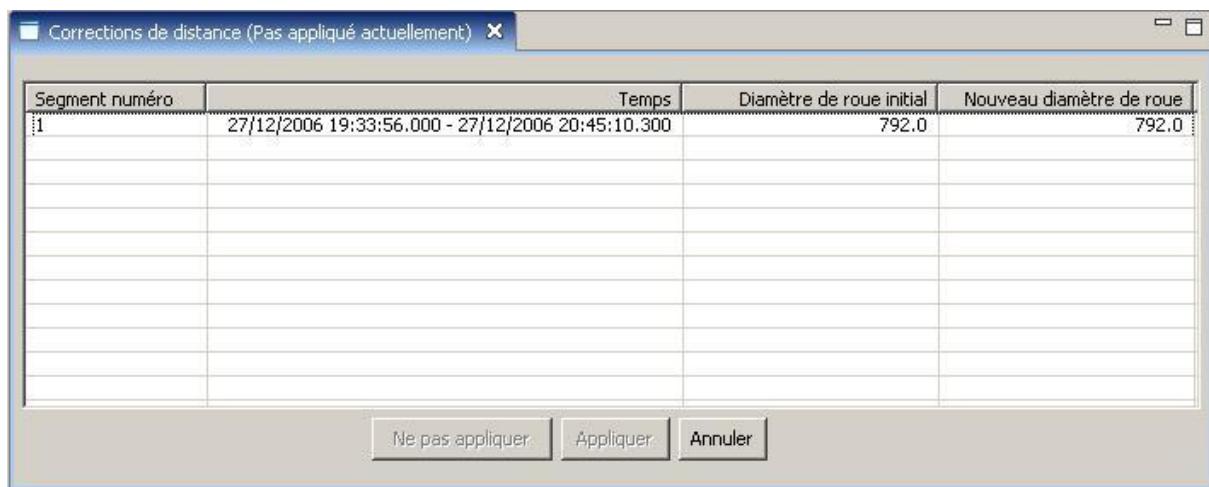


Figure 31 图31

For every time wheel diameter segment in the journey (all of the events between two "Power On" events), this window lets you define new distance and speed references called the "Corrected distance" and "Corrected speed". 对于日志文件中车轮直径的时间段 (在两个 "通电" 事件之间的所有事件), 此窗口允许您定义新的距离和速度基准, 称为 "校正距离" 和 "校正速度"。

The meanings of the columns present in this window are:

- **"Segment number"**: The number of the journey file time segment.
- **"Time"**: An absolute time interval that identifies a wheel diameter segment (the absolute time of the first and the last event without applying any "time correction" factor, displaying the absolute time as it is recorded in the journey file).
- **"Initial wheel diameter"**: The initial wheel diameter value for the segment (the wheel diameter value as recorded in the journey file).
- **"New wheel diameter"**: The corrected wheel diameter value for the segment (the wheel diameter value after applying the "wheel diameter correction", as used in the corrected distance and corrected speed calculations).

此窗口中的列的含义是:

- "段号": 日志文件时间段的编号。
- "时间": 确定车轮直径段的绝对时间间隔 (第一个和最后一个事件的绝对时间, 而不应用任何 "时间修正" 因子, 显示日志文件所记录的绝对时间)。
- "初始车轮直径": 该段的初始轮直径值 (在日志文件中记录的轮径值)。
- "新轮直径": 修正后的车轮直径值 (在应用 "车轮直径修正" 后的车轮直径值), 如在校正距离和校正速度计算中使用)。

Only the "**New wheel diameter**" column can be modified by the user. The other columns are displayed only for the user's information (columns that cannot be modified).

只有 "新车轮直径" 列可以被用户修改。其他列仅为显示给用户的信息 (无法修改的列)。

After entering new corrected values, it becomes possible, using the "**Apply**" button, to apply a "wheel diameter correction". In the same way, after applying the corrected values, it is possible, using the "**Do not Apply**" button, to disable the "wheel diameter correction" function. After these actions are performed, all of the SAM windows are updated.

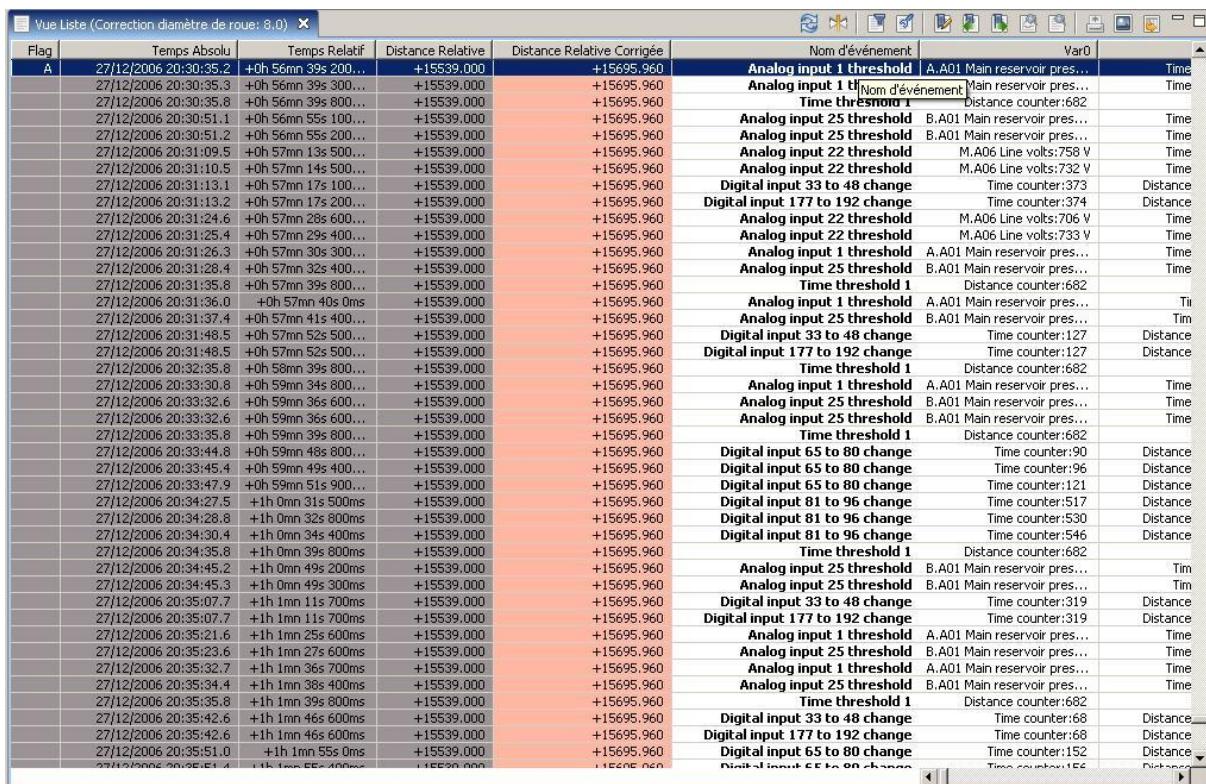
输入新的修正值后, 使用 "应用" 按钮就可以应用 "车轮直径校正"。以同样的方式, 应用了修正后的值, 可以使用 "不应用" 按钮, 禁用 "车轮直径修正" 功能。执行这些操作后, 将更新所有 SAM 窗口。

The main windows that are impacted by applying a "Wheel diameter correction" are:

主窗口受 "车轮直径校正"应用的影响为:

- "List" view列表视图:

- Adding the wheel diameter difference in the view header (difference between the initial and the corrected wheel diameter value, relative to the wheel diameter segment where the cursor is located). 在视图标头中添加车轮直径差值 (相对于光标所在的轮径段, 初始和修正的轮径数值之间的差异)。
- Adding the "**Corrected distance**" column (shown in red). 添加 "更正距离" 列 (以红色显示)。



The screenshot shows a software window titled "Vue Liste (Correction diamètre de roue: 8.0)". It displays a list of events with columns for Flag, Temps Absolu, Temps Relatif, Distance Relative, Distance Relative Corrigée, Nom d'événement, and Var. The "Distance Relative Corrigée" column is highlighted in red. The "Nom d'événement" column lists various input types: Analog input 1 threshold, Analog input 1 to Nom d'événement, Analog input 25 threshold, Analog input 25 to Nom d'événement, Analog input 22 threshold, Analog input 22 to Nom d'événement, Digital input 33 to 48 change, Digital input 177 to 192 change, Analog input 22 threshold, Analog input 22 to Nom d'événement, Analog input 1 threshold, Analog input 1 to Nom d'événement, Analog input 25 threshold, Analog input 25 to Nom d'événement, Digital input 33 to 48 change, Digital input 177 to 192 change, Analog input 1 threshold, Analog input 1 to Nom d'événement, Analog input 25 threshold, Analog input 25 to Nom d'événement, Digital input 33 to 48 change, Digital input 177 to 192 change, Analog input 1 threshold, Analog input 1 to Nom d'événement, Analog input 25 threshold, Analog input 25 to Nom d'événement, Digital input 65 to 80 change, Digital input 65 to 80 to Nom d'événement, Digital input 65 to 80 change, Digital input 65 to 80 to Nom d'événement, Digital input 81 to 96 change, Digital input 81 to 96 to Nom d'événement, Digital input 81 to 96 change, Digital input 81 to 96 to Nom d'événement, Digital input 33 to 48 change, Digital input 177 to 192 change, Analog input 1 threshold, Analog input 1 to Nom d'événement, Analog input 25 threshold, Analog input 25 to Nom d'événement, Digital input 33 to 48 change, Digital input 177 to 192 change, Digital input 65 to 80 change, Digital input 65 to 80 to Nom d'événement, Digital input 65 to 80 change, Digital input 65 to 80 to Nom d'événement.

Figure 32 图32

- "Tabular" view 表格式视图:

- Adding the wheel diameter difference in the view header (difference between the initial and the corrected wheel diameter value, relative to the wheel diameter segment where the cursor is located).
 - Adding the "**Corrected distance**" column (shown in red).
 - Adding the "**Corrected speed**" column (shown in red).
- 在视图标头中添加车轮直径差值 (相对于光标所在的轮径段, 初始和修正的轮径数值之间的差异)。
- 添加 "已更正距离" 列 (以红色显示)。
- 添加 "已更正速度" 列 (以红色显示)。

Flag	Temps Absolu	Temps Relatif	Distance R...	Distance Relative Corrigée (km)	Vitesse (km/h)	Vitesse Corrigée (km/h)	Entrée logique 2	Entrée logique 3
16/01/2008 08:25:10.900		###	###	257.4	351.0	351.0	faux	faux
16/01/2008 08:27:11.000		###	###	258.5	352.5	352.5	faux	faux
16/01/2008 08:27:12.000		###	###	258.5	352.5	352.5	faux	faux
16/01/2008 08:29:12.100		###	###	259.6	354.0	354.0	faux	faux
16/01/2008 08:29:13.100		###	###	259.6	354.0	354.0	faux	faux
16/01/2008 08:31:13.200		###	###	260.7	355.5	355.5	faux	faux
16/01/2008 08:31:14.200		###	###	260.7	355.5	355.5	faux	faux
16/01/2008 08:33:14.300		###	###	261.8	357.0	357.0	faux	faux
16/01/2008 08:33:15.300		###	###	261.8	357.0	357.0	faux	faux
16/01/2008 08:35:15.400		###	###	262.9	358.5	358.5	faux	faux
16/01/2008 08:35:16.400		###	###	262.9	358.5	358.5	faux	faux
16/01/2008 08:37:16.500		###	###	264	360.0	360.0	faux	faux
16/01/2008 08:37:17.500		###	###	264	360.0	360.0	faux	faux
16/01/2008 08:02:00.100	+0h 0mn 0s 100ms	+0.002	+0.003	265.1	361.5	361.5	faux	faux
16/01/2008 08:02:01.100	+0h 0mn 1s 100ms	+0.015	+0.020	265.1	361.5	361.5	faux	faux
16/01/2008 08:04:01.200	+0h 2mn 1s 200ms	+0.018	+0.025	266.2	363.0	363.0	faux	faux
16/01/2008 08:04:02.200	+0h 2mn 2s 200ms	+0.031	+0.042	266.2	363.0	363.0	faux	faux
16/01/2008 08:06:02.300	+0h 4mn 2s 300ms	+0.034	+0.046	267.3	364.5	364.5	faux	faux
16/01/2008 08:06:03.300	+0h 4mn 3s 300ms	+0.047	+0.064	267.3	364.5	364.5	faux	faux
16/01/2008 08:08:03.300	+0h 6mn 3s 300ms	+0.049	+0.067	267.3	364.5	364.5	VRAI	faux
16/01/2008 08:08:03.400	+0h 6mn 3s 400ms	+0.050	+0.068	268.4	366.0	366.0	VRAI	faux
16/01/2008 08:08:04.400	+0h 6mn 4s 400ms	+0.063	+0.086	268.4	366.0	366.0	VRAI	faux
16/01/2008 08:10:04.400	+0h 8mn 4s 400ms	+0.064	+0.087	268.4	366.0	366.0	Faux	Faux
16/01/2008 08:10:04.400	+0h 8mn 4s 400ms	+0.065	+0.089	268.4	366.0	366.0	Faux	VRAI
16/01/2008 08:10:04.500	+0h 8mn 4s 500ms	+0.066	+0.090	269.5	367.5	367.5	Faux	VRAI
16/01/2008 08:10:05.500	+0h 8mn 5s 500ms	+0.079	+0.108	269.5	367.5	367.5	Faux	VRAI
16/01/2008 08:12:05.500	+0h 10mn 5s 500...	+0.080	+0.109	269.5	367.5	367.5	Faux	faux
16/01/2008 08:12:05.500	+0h 10mn 5s 500...	+0.081	+0.110	269.5	367.5	367.5	Faux	faux
16/01/2008 08:12:05.600	+0h 10mn 5s 600...	+0.082	+0.112	270.6	369.0	369.0	Faux	faux
16/01/2008 08:12:06.600	+0h 10mn 6s 600...	+0.095	+0.130	270.6	369.0	369.0	Faux	faux
16/01/2008 08:14:06.600	+0h 12mn 6s 600...	+0.096	+0.131	270.6	369.0	369.0	Faux	faux
16/01/2008 08:14:06.700	+0h 12mn 6s 700...	+0.098	+0.134	271.7	370.5	370.5	Faux	faux
16/01/2008 08:14:07.700	+0h 12mn 7s 700...	+0.111	+0.151	271.7	370.5	370.5	Faux	faux
16/01/2008 08:16:07.800	+0h 14mn 7s 800...	+0.114	+0.155	272.8	372.0	372.0	Faux	faux
16/01/2008 08:16:08.800	+0h 14mn 8s 800...	+0.127	+0.173	272.8	372.0	372.0	Faux	faux
16/01/2008 08:18:06.900	+0h 16mn 8s 900...	+0.130	+0.177	273.9	373.5	373.5	Faux	faux
16/01/2008 08:18:09.900	+0h 16mn 9s 900...	+0.143	+0.195	273.9	373.5	373.5	Faux	faux
16/01/2008 08:20:10.000	+0h 18mn 10s 0ms	+0.146	+0.199	275	375.0	375.0	Faux	faux
16/01/2008 08:20:11.000	+0h 18mn 11s 0ms	+0.159	+0.217	275	375.0	375.0	Faux	faux
16/01/2008 08:22:11.100	+0h 20mn 11s 100...	+0.162	+0.221	276.1	376.5	376.5	Faux	faux
16/01/2008 08:22:12.100	+0h 20mn 12s 100...	+0.175	+0.239	276.1	376.5	376.5	Faux	faux
16/01/2008 08:24:12.200	+0h 22mn 12s 200...	+0.178	+0.243	277.2	378.0	378.0	Faux	faux
16/01/2008 08:24:12.300	+0h 22mn 12s 300...	+0.181	+0.250	277.2	378.0	378.0	Faux	faux

Figure 33 图33

- "Graphic" view 图形式视图:

- Adding the wheel diameter difference in the view header (difference between the initial and the corrected wheel diameter value, relative to the wheel diameter segment where the cursor is located).
- Adding the "**Corrected speed**" trend.
- Adding the "cursor – corrected distance" association (the corrected distance value relative to the cursor's position in the view).
- Adding the "**Corrected distance**" line (an additional line in addition to the ones that already exist when no "wheel diameter correction" is applied).
- Adding the "**Display distance breaks**" that define those portions of the journey file comprising different wheel diameters. This option is selected when the box at the bottom of the window is checked (the distance breaks will be shown by vertical bars).

- 在视图标头中添加车轮直径差值 (相对于光标所在的轮径段，初始和修正的轮径数值之间的差异)。
- 增加 "修正后的速度" 趋势。
- 添加 "游标-已更正距离" 关联 (相对于视图中光标位置的修正距离值)。
- 添加 "校正距离" 线 (除了在未应用 "车轮直径校正" 时已存在的附加线)。
- 添加 "显示距离"，定义日志文件中包含不同车轮直径的部分。当选中窗口底部的框时，将选择此选项 (垂直条形图将显示距离分隔符)。

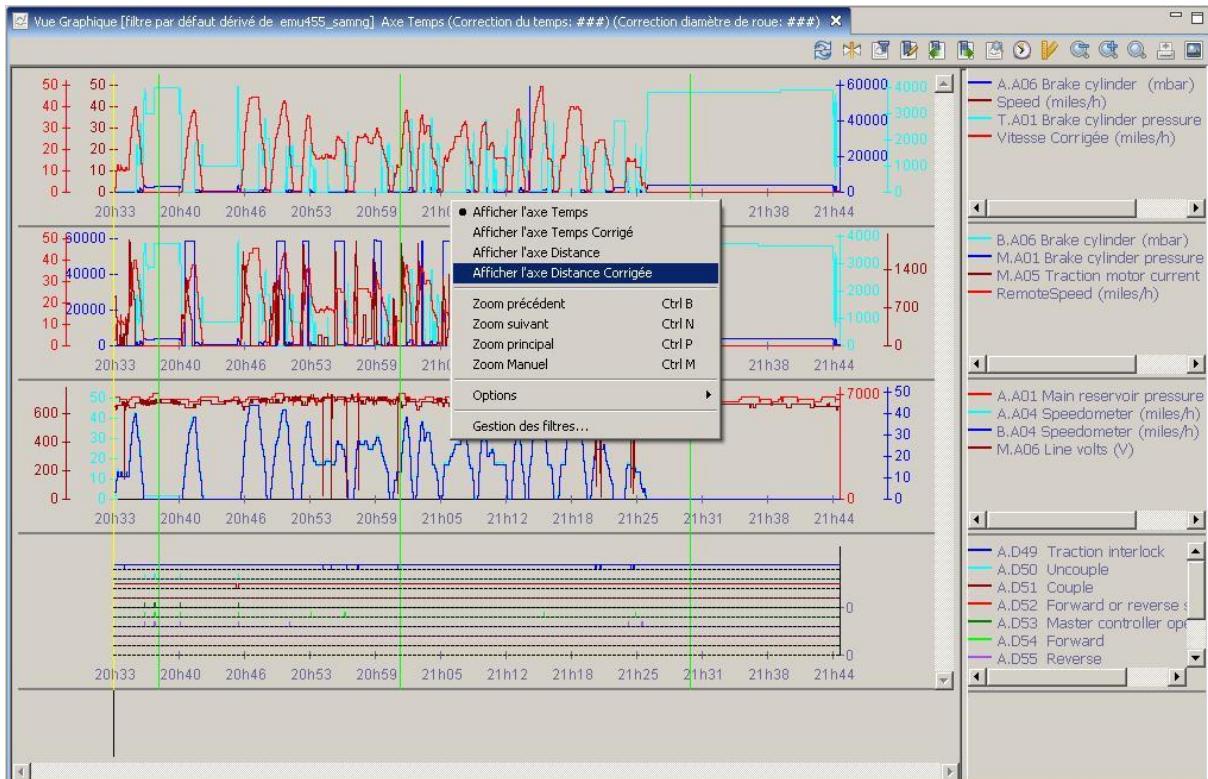
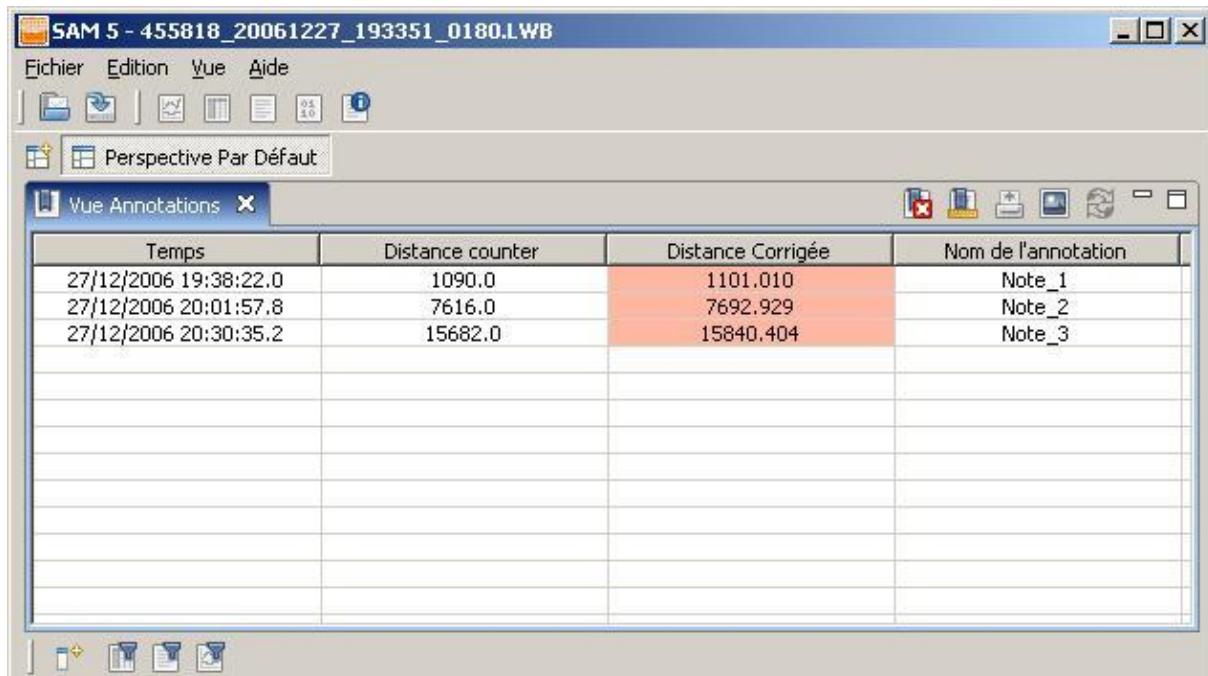


Figure 34 图34

- "Annotations" window:
 - Adding the wheel diameter difference in the view header (difference between the initial and the corrected wheel diameter value, relative to the wheel diameter segment where the cursor is located).
 - Adding the "**Corrected distance**" column (shown in red).
- -"注释" 窗口:
- ·在视图标头中添加车轮直径差值 (相对于光标所在的轮径段, 初始和修正的轮径数值之间的差异)。
- ·添加 "更正距离" 列 (以红色显示)。



Temps	Distance counter	Distance Corrigée	Nom de l'annotation
27/12/2006 19:38:22.0	1090.0	1101.010	Note_1
27/12/2006 20:01:57.8	7616.0	7692.929	Note_2
27/12/2006 20:30:35.2	15682.0	15840.404	Note_3

Figure 35 图35

- "Journey information" and "Markers" window :日志信息和标记窗口

These windows are also impacted by the application of a "wheel diameter correction", but less so (adding information such as the corrected distance, the corrected speed, etc.). 这些窗口也受到 "车轮直径修正" 应用的影响, 但较少 (添加信息, 如校正距离, 校正速度等)。

The functions assigned to these windows are not impacted by applying a "Wheel diameter correction" and they therefore retain exactly the same mechanisms. As a result, it is always possible to create virtual variables, to filter views, run searches or even export files. The corrected speed information is furthermore available in these functions when a "wheel diameter correction" is applied. For further information, refer to the relevant sub-sections in this manual.

As for the operating mode used to save wheel diameter corrected values, refer to sub-section "4.15.4 - Saving user remarks".

分配给这些窗口的功能不会因应用 "车轮直径校正" 而受到影响，因此它们保留完全相同的机制。因此，始终可以创建虚拟变量、筛选视图、运行搜索甚至导出文件。当应用 "车轮直径校正" 时，在这些功能中还可以得到修正的速度信息。有关详细信息，请参阅本手册中的相关小节。

关于节省车轮直径修正值的操作模式，请参阅"4.15.4小节——用户备注"。

Note: 注意

All of the cells where the value is not defined (value that cannot be calculated or that is not present in the journey file), will be replaced by a "####" symbol.

所有未定义值的单元格（无法计算的值或在日志文件中不存在的值），将被 "####" 符号替换。

4.15 Using tools associated with journey file analysis 使用与日志文件分析相关工具

4.15.1 Change of origin 更改原点

To make relative reading easier between two points, it is possible to change the origin of the time and the distances.

To change the origin, position the cursor on one of the views (Tabular, List, Graphic), then click the  icon (reference point) in the view.

A new dialog of the Pop-Up type appears with an entry box to modify the value of the relative distance to the "Reference Point". By default the value zero is displayed in this box, cf. **Figure 36**.

为了使两点之间的相对阅读更容易，可以改变时间和距离的原点。

要更改原点，请将光标放在其中一个视图上（表格、列表、图形），然后单击视图中的图标（参考点）。

弹出式的新对话框将出现，并带有一个输入方框，用于修改与 "参考点" 相对距离的值。默认情况下，此框中显示值为零，参见图36。

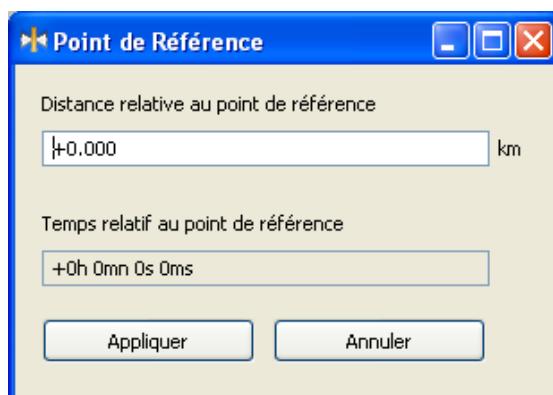


Figure 36 图36

The value entered in the box can be zero, positive or negative, and is used as a reference point for calculating the relative distance values (Relative Distance column). The reference value of the relative time is always 0h0min0s.

The button "Apply" closes the entry window and starts the calculation of the relative values, for all the views concerned, simultaneously for the relative time and the relative distance (Relative Time and Relative Distance columns of the Table and List views). A "Cancel" button closes the window without starting the calculation of the relative values.

在该框中输入的值可以为零、正数或负值，并用作计算相对距离值（相对距离列）的参考点。相对时间的参考值总是0h0min0s。

按钮“应用”关闭输入窗口，并开始计算相关的所有视图，同时考虑相对时间和相对距离（表和列表视图的相对时间和相对距离列）。“取消”按钮关闭窗口，而不开始计算相对值。

The position that corresponds to the reference point is then shown, highlighted in yellow, in the various views (see Figure 37).

To return to the previous setting, place the cursor on the first element (preferably on a view or tabular list) and reposition the origin.

Note:

By default, when a view is opened, the reference point is set on the first "PowerOn" event in the journey file. In cases where no "PowerOn" event is present, the reference zero is set on the first event in the file.

然后，在各种视图中以黄色突出显示与参考点对应的位置（见图 37）。

要返回上一个设置，请将光标放在第一个元素上（最好是在视图或表格列表中），然后重新定位原点。

注意：

默认情况下，当打开视图时，参考点设置在日志文件中的第一个“通电”事件上。在不存在“通电”事件的情况下，对文件中的第一个事件设置基准零。

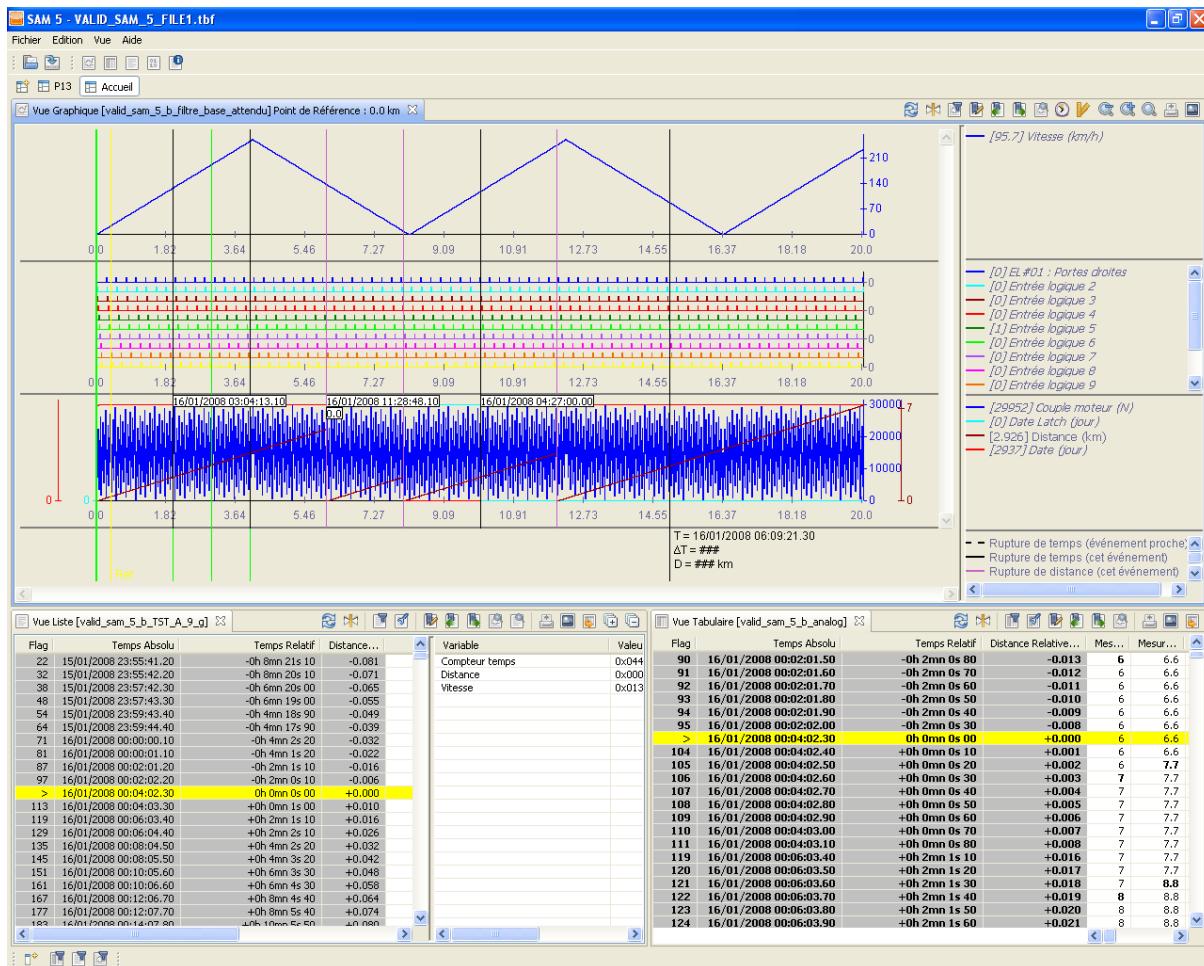


Figure 37 图 37

4.15.2 Multiple search 多重搜索

The SAM software supports searches for a particular criterion in all the files present in a tree on a disk.

Select the "**Edition -> Search in files...**" menu to display the following window.

SAM 软件支持在磁盘上树状结构的所有文件中进行特定条件的搜索。

选择 "编辑->> 在文件中搜索..." 菜单以显示如下窗口。

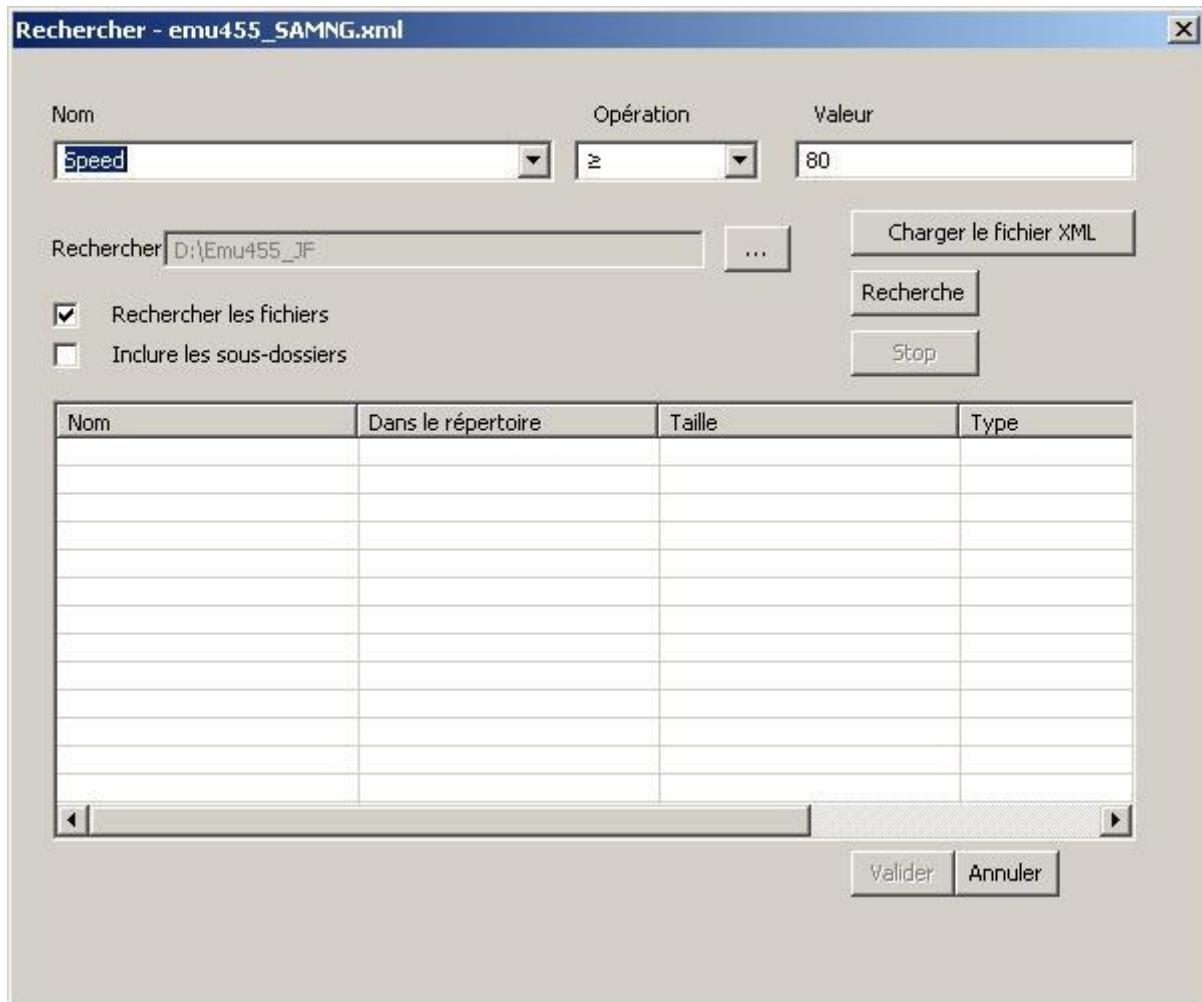


Figure 38 图 38

An advanced search of variables is available by selecting the **<Search>** element in the list. Refer to § 4.12.2 for a detailed description of this functionality. 通过选择列表中的 **<Search>** 元素，可以获得对变量进行高级搜索。有关此功能的详细说明，请参阅§4.12.2。
。

In the "**Name**", "**Operation**" and "**Value**" zones select an equation with a variable.

Next, define the directory containing the files to be analyzed. If necessary, request an analysis of the full branch by checking the "**Include subfolder**" checkbox, then click on the "**Search**" button to start the search.

The result of the search is displayed in the lower part of the window.

The user can then select the file to be opened, by double-clicking on its name.

NB: When a search is started, the current file is closed. Messages confirming closure may appear.

在 "名称"、"操作" 和 "值" 区域中，选择一个具有变量的公式。

接下来，定义包含要分析的文件的目录。如有必要，请检查 "包含子文件夹" 复选框，请求对整个分支进行分析，然后单击 "搜索" 按钮开始搜索。

搜索结果显示在窗口的下部。

然后，用户可以通过双击其名称来选择要打开的文件。

NB: 在开始搜索时，当前文件已关闭。可能会出现确认关闭的消息。

4.15.3 Masking and sizing columns 隐藏和调整列大小

This function is intended to mask and size "List" and "Tabular" view columns. It is accessed via the contextual menu assigned to each view (this menu is called up by clicking on the right hand mouse button when the cursor is placed on the "List" or "Tabular" view) or via the  and  icons.

此功能用于隐藏和调整 "列表" 和 "表格" 视图列的大小。它是通过分配给每个视图的上下文菜单访问的（当光标放在 "列表" 或 "表格" 视图上）或通过图标  和  时，单击鼠标右键来调用此菜单。

The following window is displayed: 显示如下窗口

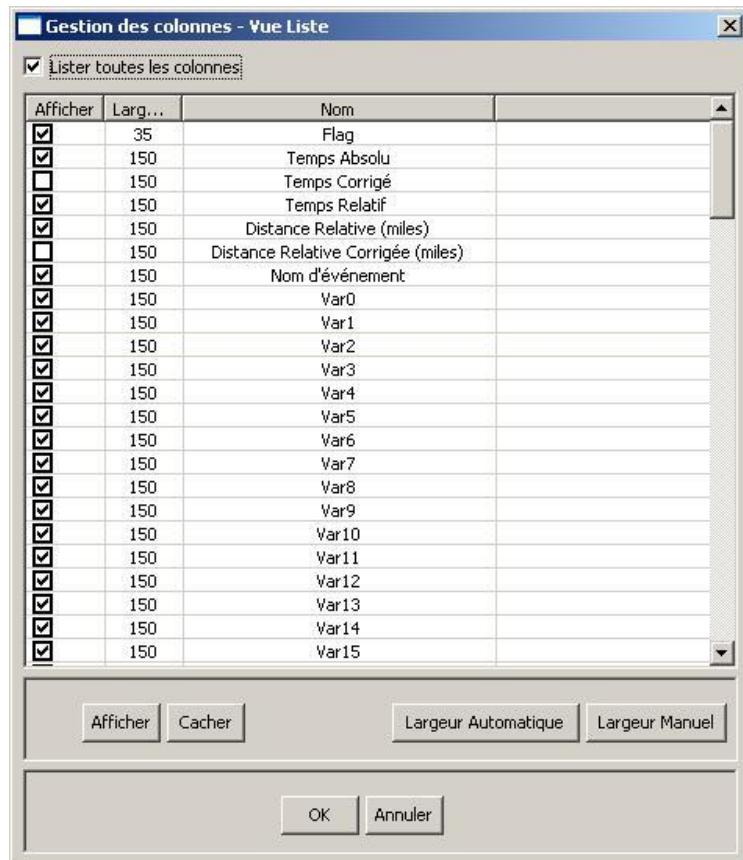


Figure 39 图39

This window comprises a number of buttons used to:

- "**List all columns**": In the "Columns management" window, lists all of the columns that can be displayed in SAM (columns displayed without applying filters, without hiding, ...)/In the "Columns management" window, lists only those columns currently being displayed in SAM.
- "**Display
- "**Hide
- "**Auto width
- "**Manual width********

此窗口包含许多用于以下内容的按钮:

- "列出所有列": 在 "列管理" 窗口中, 列出可以显示在 SAM 中的所有列 (显示的列未应用筛选器, 未隐藏,...)/在 "列管理" 窗口中, 只列出当前在 SAM 中显示的列。
- "显示": 显示选定的列。
- "隐藏": 隐藏选定的列。
- "自动宽度": 以 "自动" 宽度模式初始化选定的列 (列宽自动适应单元格内容, 以避免数据显示不完整)。

- "手动宽度": 以 "手动" 宽度模式初始化选定的列 (无论单元格内容如何, 可手动设置列宽)。

All of the parameters defined in this way are shown in the "Columns management" window, for each column in the view involved:

- **"Display"**: displays/hides the column.
- **"Width"**: column width (expressed in pixels in "manual" mode).
- **"Name"**: the column header name as displayed in the view.

以这种方式定义的所有参数都显示在 "列管理" 窗口中, 用于所涉及视图中的每一列:

- "显示": 显示/隐藏列。
- "宽度": 列宽 (以像素表示的 "手动" 模式)。
- "名称": 显示在视图中的列标题名称。

Note:注意

It is possible to set these parameters manually without using the buttons, by directly entering the values assigned to the appropriate columns in the "Columns management" window.

It is also possible, via the "Columns management" window, to directly change the column widths in the views by placing the mouse cursor on the line that separates the column headings. In this case, a column that was previously defined in "automatic" mode is set to "manual" mode after resizing.

可以在不使用按钮的情况下手动设置这些参数, 方法是直接在 "列管理" 窗口中输入分配给相应列的值。

通过 "列管理" 窗口, 还可以通过将鼠标光标放在分隔列标题的线上, 直接更改视图中的列宽。在这种情况下, 以前在 "自动" 模式下定义的列在调整大小后被设置为 "手动" 模式。

4.15.4 Saving user remarks 保存用户备注

You can save the markers, annotations, corrected time and wheel diameter values set in a journey file at any time, using the "**File -> Save remarks**" menu. You will automatically be asked to save when you close the journey file. The data will be saved in a file that has the same name as the open journey file but with an ".xml" extension.

您可以使用 "文件 > 保存备注" 菜单，在任何时候保存日志文件中设置的标记、注释、更正的时间和车轮直径值。当您关闭日志文件时，将自动要求您保存。数据将保存在与打开的日志文件同名但具有 ".xml" 扩展名的文件中。

4.15.5 Exporting files 导出文件

4.15.5.1 Exporting a journey file 导出一个日志文件

This function is designed to export a journey file. To do this:

- Open a journey file.
- Choose the "**File -> Export to file**" menu to call up a browser window.
- Specify the name of the export file to be generated using the browser window opened previously.
- Click on the "**Save**" button, a "filter on variable" selection window is displayed.
- Select a "filter on variable" from the list of filters available.
- Click on the "**Export**" button to start generating the ".xpt" export file.
- Click on the "**Export**" button to start generating the export file, in ".tsv" (Tab Separated Values text file format) or in ".csv" (Comma Separated Values text file format).

此功能旨在导出日志文件。为此：

- 打开日志文件。
- 选择 "文件->> 导出到文件" 菜单以调用浏览器窗口。
- 指定使用以前打开的浏览器窗口生成的导出文件的名称。
- 单击 "保存" 按钮，将显示 "变量筛选器" 选择窗口。
- 从可用的筛选器列表中选择 "变量筛选器"。
- - 单击 "导出" 按钮开始生成 ".xpt" 导出文件。
- 点击 “导出” 按钮开始生成导出文件，格式为 “.tsv”（制表符分隔值 - 文本文件，其数据由制表符分隔）或格式为 “.csv”（逗号分隔值 - 文本文件，其数据由分号分隔）。

The export file is then generated in the directory specified by the user (the file is generated in ASCII format and contains only filtered data). Then it is possible to edit or print it using a program like "WordPad" or "Excel".

然后，导出文件将在用户指定的目录中生成（该文件是以 ASCII 格式生成的，仅包含筛选数据）。然后，可以使用像“写字板”或“Excel”这样的程序来编辑或打印它。

4.15.5.2 Exporting faults 导出故障

This function is designed to export the fault conditions from a journey file. To do this:

- Open a journey file.
- Open the « Fault report » view
- Select the « Save » button in the view to display a browsing window.
- Specify the name of the export file to be generated using the browser window opened previously.
- Click on the "Save" button to start generating the ".rap" export file.

The export file is then generated in the directory specified by the user (the file is generated in ASCII format). Then it is possible to edit or print it using a program like "WordPad" or "Excel".

此功能旨在从日志文件中导出故障状态。为此：

- 打开日志文件。
- 打开«故障报告»查看
- 在视图中选择«保存»按钮以显示浏览窗口。
- 使用以前打开的浏览器窗口，确定待生成导出文件的名称。
- 单击“保存”按钮，开始生成“.rap”导出文件。

然后，导出文件将在用户指定的目录中生成（该文件是以 ASCII 格式生成的）。然后，可以使用像“写字板”或“Excel”这样的程序来编辑或打印它。

4.15.5.3 Multiple exports 多项导出

This function is used to export all journey files contained in a directory and its sub-directories in a single operation. It can be accessed from the "**File -> Multiple Exports**" menu.

After selecting the directory containing the files to be exported, the user can:

- either perform a partial data export by selecting one of the filters created for the tabular view,
- or perform a full export of all data if no filter is selected.

The files are exported in .tsv format (Tab Separated Values text file format).

N.B.: this action may take a large amount of time, depending on the size and number of files to be exported.

此功能用于在单个操作中导出目录及其子目录中包含的所有日志文件。可以从 "文件->>多项导出" 菜单访问它。

选择包含要导出的文件的目录后，用户可以：

- 通过为表格视图选择创建一个筛选器，就可以执行部分数据导出，
- 如果未选择筛选器，则执行所有数据的完全导出。

文件以TSV格式导出（制表符分隔值 - 文本文件，其数据由制表符分隔）。

注意：此操作可能需要大量时间，具体取决于要导出的文件的大小和数量。

4.16 Listening to an audio file in the multimedia view 在多媒体视图中播放音频文件

The multimedia view is used to display all the audio files which are linked to a journey file. The audio files are linked to a journey file given by their name. These are audio files which were saved at the same time as this journey file. 多媒体视图可查看链接至一个路径文件的所有音频文件。音频文件链接到按名称给出的一个路径文件。这些是与该路径文件一同录制的音频文件。

The audio files have the .opus extension. The OPUS codec is a standardised codec which is supported by many commercially-available multimedia players, such as VLC. 音频文件的扩展名为.opus。OPUS 编解码器是一种标准化编解码器，支持大量商业媒体播放器（例如 VLC）。

A player integrated into the SAM multimedia view is used to start playing and listening to an audio file on a computer which has a sound card, a loudspeaker or a headphone socket, without the need to install multimedia software in addition to SAM5. SAM 多媒体视图自带的播放器可让您开始播放和聆听装有声卡、扬声器或耳机插孔的计算机上的音频文件，而无需安装 SAM5 以外的多媒体软件。

The SAM multimedia view's functionalities are described below. 下面介绍 SAM 多媒体视图的功能。

Multimedia view only: 单个多媒体视图:



图 40

The three buttons in the Audio file player part are used to:

1. Start or stop playing the selected audio file –  and 
3. Return to the previous audio file in the audio file list - 

音频文件播放器的三个按钮可以:

1. 开始或暂停所选音频文件的播放 - 按钮  和 
2. 移至音频文件列表中的下一个音频文件 - 按钮 
3. 返回音频文件列表中的上一个音频文件 - 按钮 

Multimedia view in the whole application: 整个应用程序中的多媒体视图:

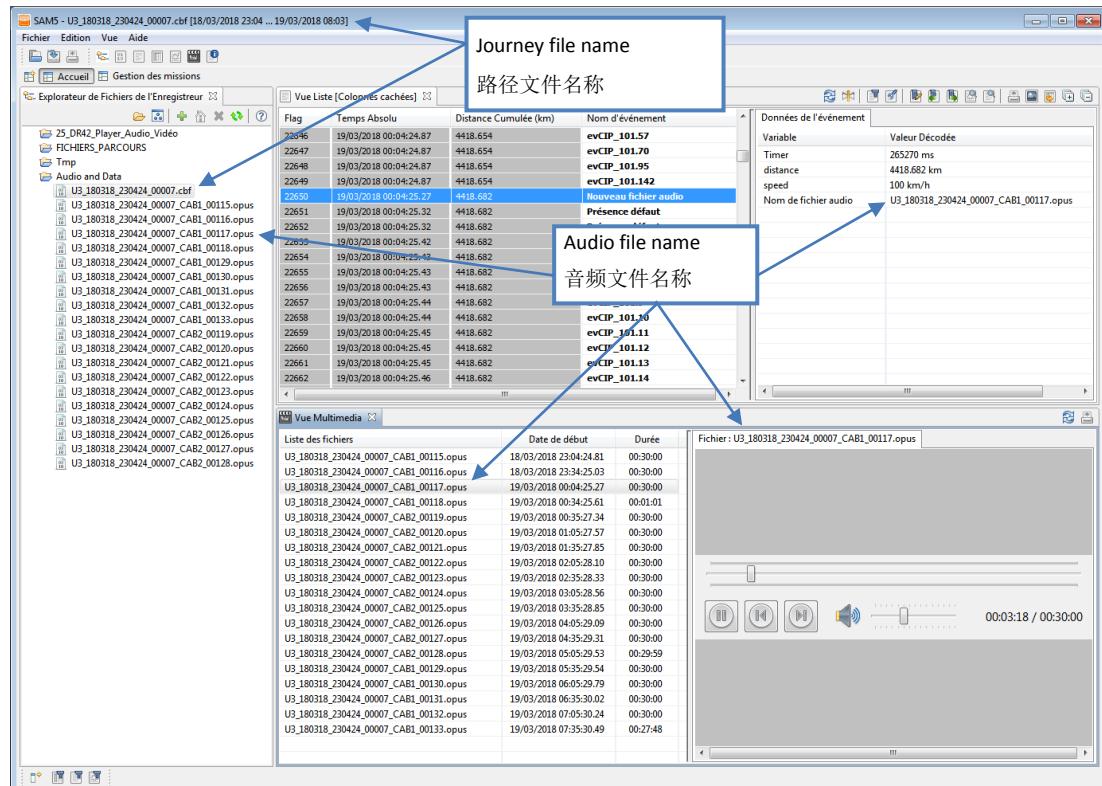


Figure 41 图 41

The synchronisation icon  in the multimedia view is used to synchronise the position of the multimedia player's progress bar icon with the position of the closest event at time level in the List view and in the other journey file views. 媒体视图中的同步图标  可以将媒体播放器进度条的光标位置与列表视图中和其他路径文件中在时间上最近的事件位置同步。

Conversely, the synchronisation from any other journey file view is used to position the multimedia view's cursor at the same date to the nearest second as the cursor in the other views. 相反，来自任何其他路径文件视图的同步则可以将将多媒体视图的光标定位在同一日期与其他视图的光标最近的秒数。

Therefore, it is possible to make a sound event in an audio file correspond with a driving element in a journey file. 因此，可以将音频文件的声音事件与路径文件的操作事件相匹配。

4.17 Printing all the views 打印所有视图

The purpose of this function is to print all the views shown on the screen. Access is via the "**File -> Print (short-form Ctrl+P)**" or via a dedicated icon located on the icon bar. 此功能旨在允许打印屏幕上显示的所有视图。可以通过菜单“文件 -> 打印（快捷键Ctrl + P）”或位于图标栏中的专用图标进行访问。

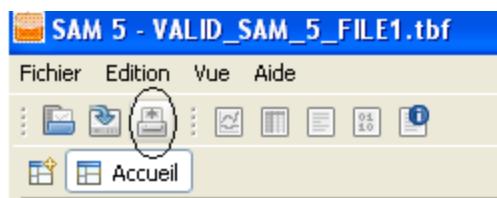


Figure 42 图 42

The window below is then displayed. You can choose the printer, the page format and any other printing options: 然后显示如下窗口。您可以选择打印机、页面格式和任何其他打印选项

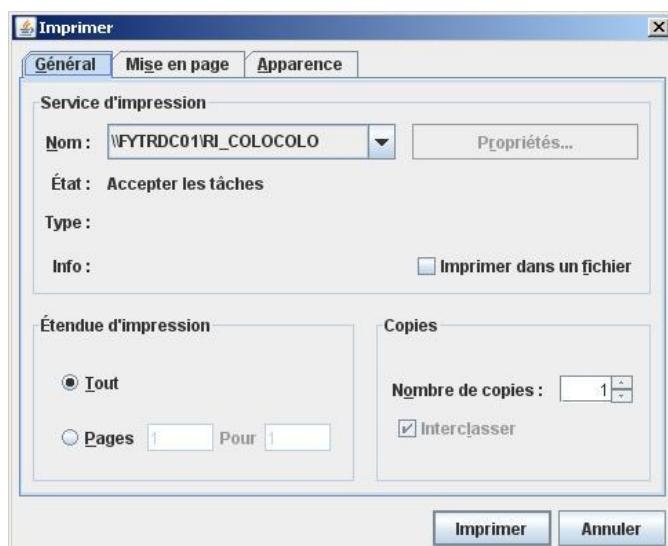


Figure 43 图 43

Printing example showing a graphic view and a list view: 打印示例，显示图形视图和列表视图:

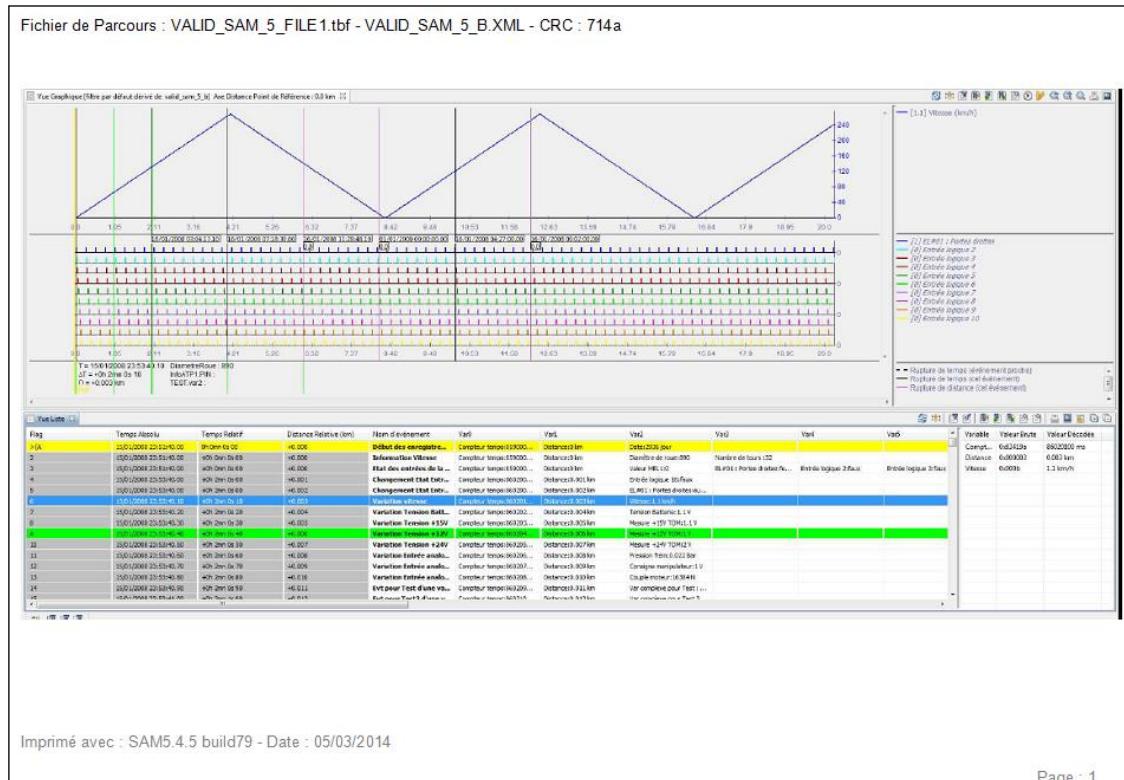


Figure 44 图 44

The file name concerned is shown at the top of the printed page followed by the name and the CRC of the XML file. 相关文件名显示在打印页的顶部，后跟 XML 文件的名称和 CRC。

At the foot of the page you will find the SAM version and the date of the printout and the page number. 在页脚下，您将找到 SAM 版本和打印输出的日期和页码。

4.18 Printing a special view 打印特殊视图

The purpose of this function is to print:

- The entire active view,
- Or else only the lines selected for the "List" and "Table" views.

此功能的目的是打印：

- 整个活动的视图，
- 或者只打印"列表" 和 "表" 视图选择的行。

To print out a particular view, click on the following icon in its toolbar: 要打印出特定视图，请单击其工具栏中的以下图标：

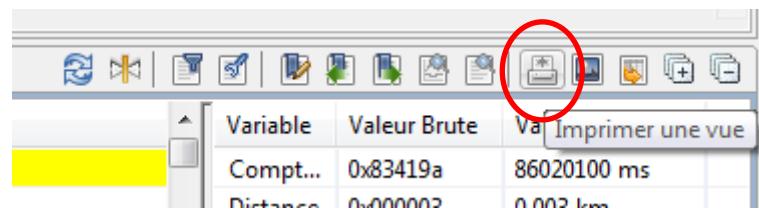


Figure 45 图 45

The window below is then displayed: 然后显示如下窗口:

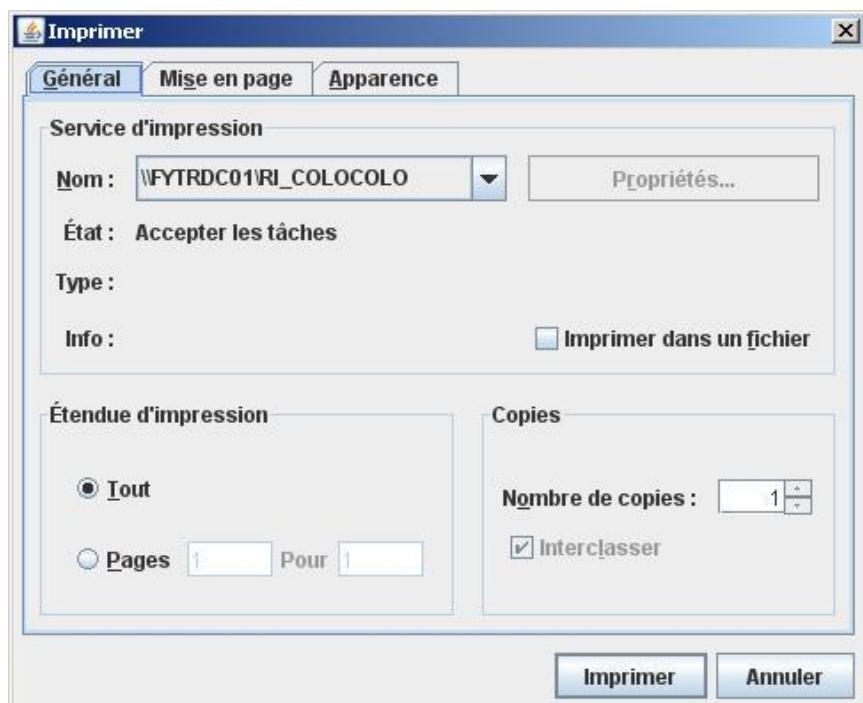


Figure 46 图 46

To print a complete view, please follow the steps shown below:

- Selection the view that you want to print.
- Open the printing screen, See **Figure 46** 图 46.
- Choose the printer and set its properties by using the "Properties" button
- Finally, press the "**OK**" button to launch the printer.

要打印完整视图, 请按照下面显示的步骤操作:

- 选择要打印的视图。
- 打开打印屏幕, 见图46。
- 选择打印机并使用 "属性" 按钮设置其属性
- 最后, 按 "确定" 按钮启动打印机。

The view is then directly printed on the selected printer.

The information in the page header and footer is then uniform in all of the printed views:

- The header contains the name of the journey file, followed by the name and the CRC of the XML file.
- The footer contains the SAM version and the date of the printout and the page number.

Note: the printing width of the "List" and "Table" view columns can be adjusted by using the column width manager for the views (see paragraph 4.15.3).

然后直接在所选打印机上打印视图。

页面、页眉和页脚中的信息在所有打印视图中都是一致的:

- 页眉包含日志文件的名称, 后跟 XML 文件的名称和 CRC。
- 页脚包含 SAM 版本和打印输出的日期和页码。

注意: 可以使用视图的列宽管理器调整 "列表" 和 "表" 视图列的打印宽度 (请参见段落 4.15.3)。

4.19 Capture of pictures 抓取图片

This function is designed to capture a picture. To do this:

- Select the picture to capture.
- Click the  icon.
- Specify the name of the capture to generate using the previously opened browser window.
- Lastly, use the "**Save**" button to start generating the ".jpeg" format picture capture file.

此功能旨在捕获图片, 为此:

- 选择要捕获的图片。
- 单击  图标。
- 使用以前打开的浏览器窗口指定要生成的捕获的名称。
- 最后，使用“保存”按钮开始生成 ".jpeg" 格式的图片捕获文件。

The capture file is then generated in the directory specified by the user. Then it is possible to edit or print it using a program like "Paint". 然后，将在用户指定的目录中生成捕获文件。然后可以使用像“画图”这样的程序来编辑或打印它。

Note: however, to obtain information about the journey file currently in use, it is preferable to use the printing functions described in paragraphs 4.17 and 4.18. 注意：但是，要获取有关当前正在使用的日志文件的信息，最好使用4.17和4.18段中描述的打印功能。

4.20 Managing profiles 配置文件管理

There are two possibilities to obtain profiles:

- Create a new profile
- Import an existing profile

A profile directory consists of the following 3 directories (see Figure 477):

- Filters: it contains the set of filters created by a user. Refer to section 4.12 for more information.
- View configurations: it contains a backup of the column widths. Refer to section 4.15.3 for more information.
- VBV (Virtual Boolean Variables): it contains all the virtual variables created by a user. Refer to section 4.11 for more information.

获得配置文件有两种途径：

- 创建新的配置文件
- 导入现有配置文件

配置文件目录由以下3个目录组成 (请参见图 47):

- 筛选器：它包含由用户创建的筛选器集。有关详细信息，请参阅第4.12 节。
- 查看配置：它包含列宽的备份。有关详细信息，请参阅第4.15.3 节。
- VBV (虚拟布尔变量)：它包含用户创建的所有虚拟变量。有关详细信息，请参阅第4.11 节。



Figure 477 图47

4.20.1 Creating a new profile 创建一个新的配置文件

To make a new profile simply open a path file. The profile is created automatically. With each new XML file being used, a profile is created.

The profile is saved in the installation directory `\Users\Application Data\Faiveley Transport\SAM 5.x.x.bxx\profil\`. This profile contains no configurations (list of filters empty, etc.).

若要新建配置文件，只需打开路径文件即可。配置文件将自动创建。使用每个新的 XML 文件时，将创建一个配置文件。

配置文件保存在安装目录 `\Users\Application Data\Faiveley Transport\SAM 5.x.x.bxx\profil\`。此配置文件不包含任何配置内容(空的筛选器列表，等等)。

4.20.2 Importing an existing profile 导入现有配置文件

A profile which already exists in a prior version of SAM can be imported, to recover files created previously, for example.

Profiles are generally found in the following directories: `\Users\Application Data\Faiveley Transport\SAM 5.x.x.bxx\profil\`. The path can be different depending on the age of the versions.

NB: If an imported profile has the same name as a profile which already exists, the new one may overwrite the old one, with the user's agreement.

可以导入 SAM 以前版本中已存在的配置文件，以恢复以前创建的文件。例如，

配置文件通常在以下目录中找到: `\Users\Application Data\Faiveley Transport\SAM 5.x.x.bxx\profil\`。版本时间不同，路径可能会有所不同。

NB: 如果导入的配置文件的名称与已存在的配置文件同名，则新模板可能会使用用户协议改写旧版本的信息。

4.21 Fault report 故障报告

The fault report can be viewed by selecting the "**View -> Fault report**" command from the main menu. The fault report contains the errors (where present) detected by SAM on opening a journey file. The errors encountered may originate from a problem that occurred when recording the data in the journey file (CRC errors), or from an incompatible XML file used by SAM with the recorded data (modified, incomplete or out-of-date XML file).

If no fault is present, the window remains blank.

通过从主菜单中选择 "视图->> 故障报告" 命令，可以查看故障报告。故障报告包含 SAM 在打开日志文件时检测到的错误 (如存在)。所遇到的错误可能源自记录日志文件 (CRC 错误) 中的数据时发生的问题，或 SAM 中记录数据 (修改的、不完整的或过期的 xml 文件) 的格式不兼容引发的故障。

如果没有出现故障，则窗口将保持空白。

4.22 Using perspectives 使用各式透视图

The perspectives are view arrangements memorized by the software.

The "Reception" perspective contains an arrangement of views and screens that can be modified by the user. This arrangement is then stored in memory on closing SAM for re-use during the next session.

The "Missions management" perspective only contains the journey file explorer and cannot be customized.

In addition to these two perspectives, the software proposes a given number of predefined and non-customizable perspectives (P13, P23, P316, ...), that are used to quickly switch from one view arrangement to another type of arrangement.

To be available in the perspectives toolbar, a predefined perspective must be opened via the perspectives menu (see § 4.1.1).

透视图是软件所记忆的视图布局。

"接收" 透视图包含可由用户修改的视图和屏幕的布局方式。然后，此布局方式存储在关闭的SAM内存中，以便在下一会话中重新使用。

"任务管理" 透视仅包含日志文件资源管理器，无法自定义。

除了这两种视图外，该软件还提出了给定数量的预定义和不可自定义的透视图 (P13、P23、P316、...)，用于快速从一种视图排列切换到另一种排列方式。

若要在 "透视图" 工具栏中使用，必须通过 "透视图" 菜单打开预定义的透视图 (请参见 § 4.1.1)。

The list of predefined perspectives is provided in the table below: 预先设定的视图类型见下方:

Name of perspective 透视图类型	List view 列表式	Tabular view 表格式	Graphic view 图形式	Multimedia view 多媒体式	Annotations view 批注式
P1	X				
P2		X			
P3			X		
P13	X		X		
P14	X			X	
P23		X	X		
P123	X	X	X		X
P316	X	X	X	X	
P34			X	X	

4.23 Application preferences – Language selection 应用程序首选项—语言选择

The "**File -> Preferences**" menu can be used to change the language in which the application's menus are shown. Selecting another language closes the software. The language change is effective after application reboot.

The following languages are available:

- English
- Italian
- Dutch
- Spanish
- French
- German
- Turkish
- Chinese

"文件->> 首选项" 菜单可用于更改显示应用程序菜单的语言。选择其他语言将关闭该软件。在应用程序重新启动后，语言更改有效。

可使用以下语言:

- 英语
- 意大利语

- 荷兰语
- 西班牙语
- 法语
- 德语
- 土耳其语
- 中文