

EPCDisplay Editor (V2.0.b.0)

| | |
|---|----|
| 1- Purpose..... | 2 |
| 1.1- Arrangement of display information (regions, pages and messages) | 2 |
| 1.2- Object definition | 3 |
| 1.2.1- Region..... | 3 |
| 1.2.2- Page | 3 |
| 1.2.3- Message..... | 3 |
| 2- Environment description | 4 |
| 2.1- Views organization:..... | 4 |
| 2.1.1- The message tree view..... | 5 |
| 2.1.2- The contextual actions area | 5 |
| 2.1.3- The static emulation area | 6 |
| 2.2- Menus and toolbar | 6 |
| 2.2.1- File menu | 6 |
| 2.2.2- View menu..... | 6 |
| 2.2.3- Option menu..... | 7 |
| 2.2.4- Communication menu | 7 |
| 3- Creating a message | 8 |
| 3.1- Importing a sign configuration..... | 8 |
| 3.2- Editing page parameters | 9 |
| 3.3- Region creation | 9 |
| 3.3.1- Editing region coordinates | 9 |
| 3.3.2- Editing text into a region | 10 |
| 3.3.3- Importing a graphic into a region | 14 |
| 3.4- Setting message parameters | 17 |
| 3.4.1- The message name | 17 |
| 3.4.2- Message scheduler options and parameters..... | 17 |
| 4- Communicating with the sign | 19 |
| 4.1- Setting up the communication..... | 19 |
| 4.2- Checking message into the sign..... | 19 |
| 4.3- Checking the memory status (for Advanced Users) | 20 |

EPCDisplay Editor (V1.2)

1- Purpose

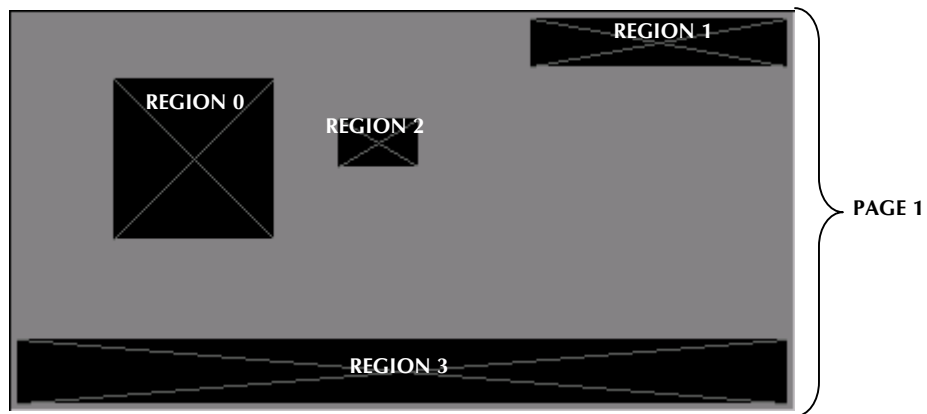
This editor has been designed to manage Alpha™ signs, which embeds an embedded PC controller, running with the “Embedded PC Display” application (EPCDisplay).

It allows to perform the following tasks :

- Create a complete message including text and graphic information.
- Send this message to a sign.
- Read back information from the sign, such as message name or memory status.
- Proceed to maintenance operations such as setting time or clearing the memory of the sign.

1.1- Arrangement of display information (regions, pages and messages)

Into all the display area, the user has to set-up regions where he wants the information to be displayed:

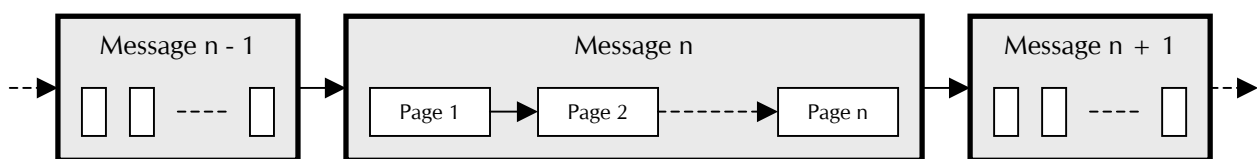


Then, these regions are filled with a display content (text or graphic).



The set of regions that are displayed together on the sign, constitute a page, and several page constitute a message.

Then, the display sequence is the following :



EPCDisplay Editor (V2.0.b.0)

A message is the object that is transferred to the display. It can contain several pages, and the display can contain several messages.

1.2- Object definition

1.2.1- Region

The region constitutes the lowest display organization element. It is defined like a rectangle (horizontal position, vertical position, width, height).

The region contents the display information that could be a text or a graphic.

A display mode is attached to the region, and defines the way in which the information appears.

1.2.2- Page

A page is constituted by some regions that are displayed together. The page defines also the display time for all these regions.

1.2.3- Message

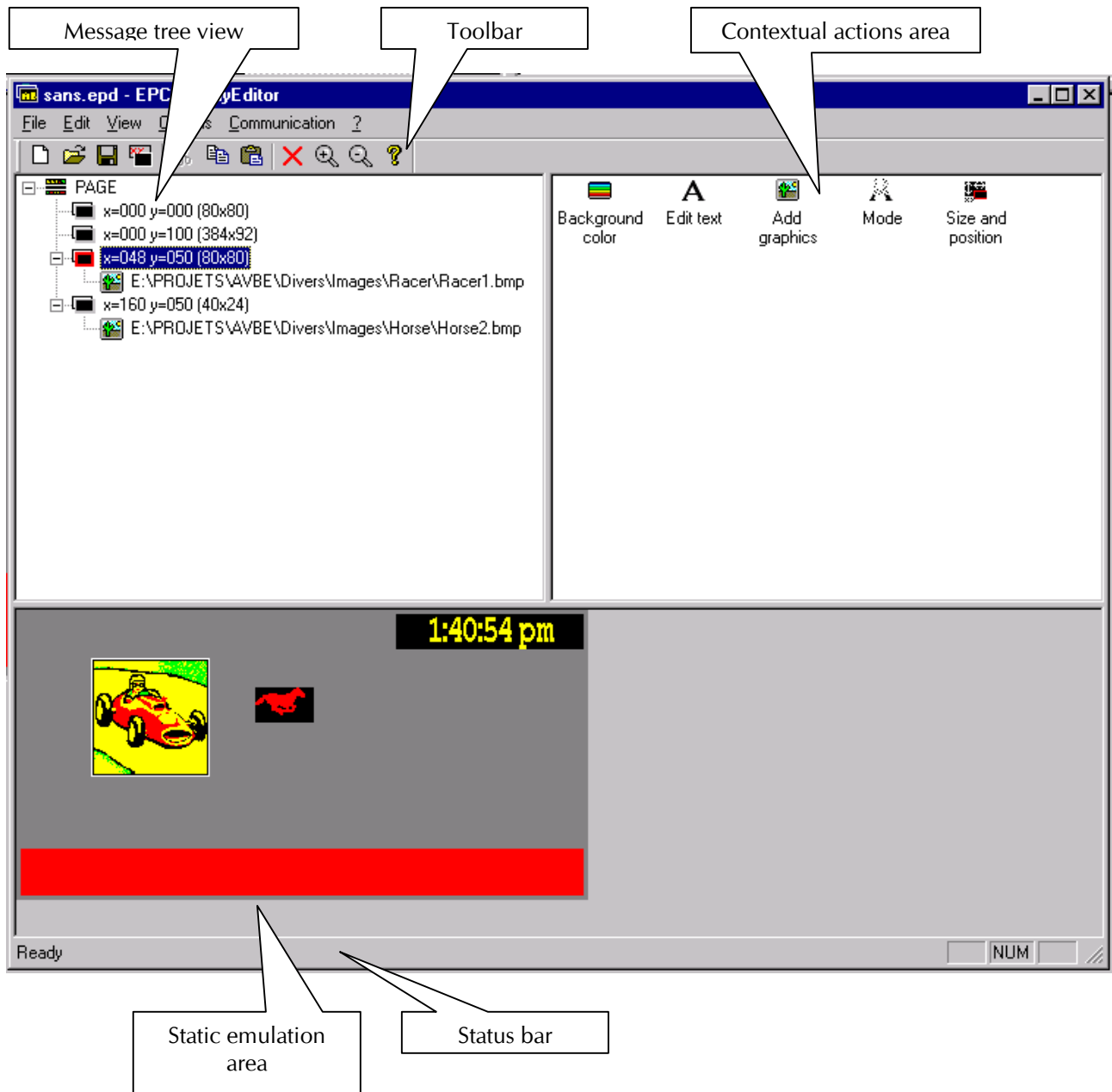
A message is constituted by some pages. It is linked to a validity condition that the user can define.

This editor allows the user to create its own message, and to play with all its attributes.

EPCDisplay Editor (V1.2)

2- Environment description

2.1- Views organization:



EPCDisplay Editor (V2.0.b.0)

2.1.1- The message tree view

The message tree view is used to represent the current message frame and to show which object is selected. It allows the user to go directly on the object he wants to select. The object that are represented in this component are:

- The pages of the currently edited message.
- The regions of each pages.
- The graphics that are defined into the regions.

The user can use this view to proceed a drag and drop or a copy and paste operation. He can also name its object.

The operation that the user can proceed on this view are:

- **Deleting** an object (Command 'Delete' from menu 'Edit', or red cross in the toolbar).
- Applying a **drag and drop** operation.
- Applying a **cut and paste** operation.

Notes :

The drag and drop is allowed for some object which have the same parent (ex : graphics under the same regions).

The copy and paste operation is allowed only for the pages.

2.1.2- The contextual actions area

This area content depends on the object kind that is selected. Its rule is to show to the user the possible actions on the selected object.

Two actions groups could be displayed in this area :

The action group applied to the regions:



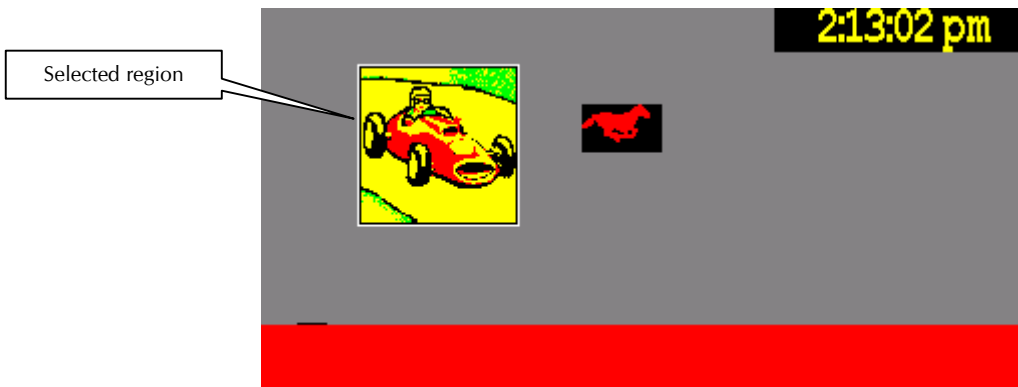
The action group applied to the pages:



EPCDisplay Editor (V1.2)

2.1.3- The static emulation area

This area allows to have a quick preview of the pages that the user is creating:

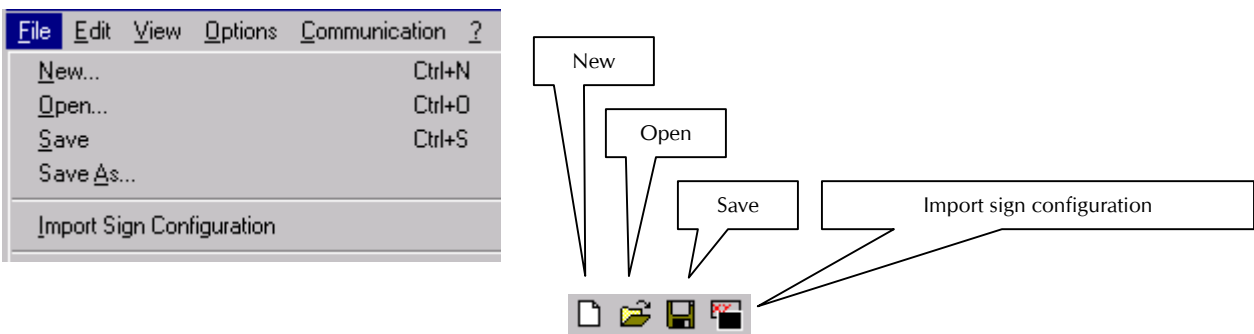


Note : If a region is selected, a white boarder is drawn all around it. It is also possible to select a region by double clicking on it.

2.2- Menus and toolbar

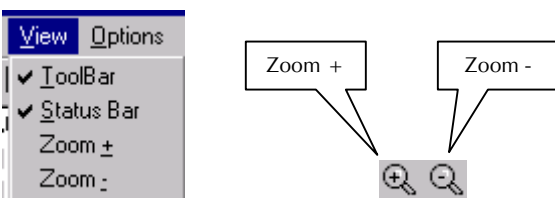
2.2.1- File menu

This menu allows classical file operations, such as saving, opening or importing a sign configuration (*.or files).



2.2.2- View menu

This menu allows to change the zoom ration, and also to enable/disable the toolbar and the status bar.



EPCDisplay Editor (V2.0.b.0)

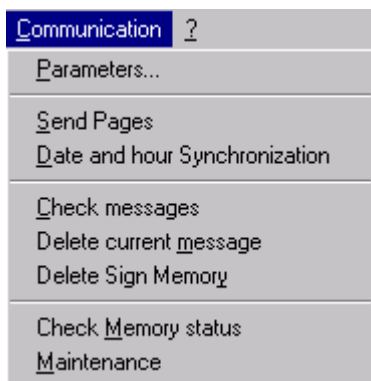
2.2.3- Option menu



- **Property page:** allows to change message parameters such as message name and time scheduler options.
- **Graphic color handling:** allows to change the red and green color balance when a graphic is imported into a region.

2.2.4- Communication menu

This menu allows to set-up or execute all communication operations.



- **Parameters:** Allows to set-up the communication parameters (Sign address, com port, IP address...)
- **Send pages:** Sends the current message to the sign.
- **Date and hour synchronization :** Synchronizes date and hour of the display with the ones of the PC on which the editor is running.
- **Check messages :** Gets the list of the messages from the displays. Indicates also if the message is active or inactive.
- **Delete current message :** Deletes the current message from the memory of the display. If the message is not already into the display, this operation will give back an error.
- **Delete sign memory :** Deletes all the messages from the memory of the display. This operation will call back the background message on the display.
- **Check memory status :** This function is reserved for advanced user which wants to know the amount of available memory of the system.
- **Maintenance :** This function is locked by a key code and is not accessible by a standard user.

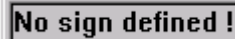
EPCDisplay Editor (V1.2)

3- Creating a message

When the editor is launched, no configuration is loaded. So, it is impossible to create a message without a sign definition, and the first step is to import a valid one that corresponds to the display that is used.

3.1- Importing a sign configuration

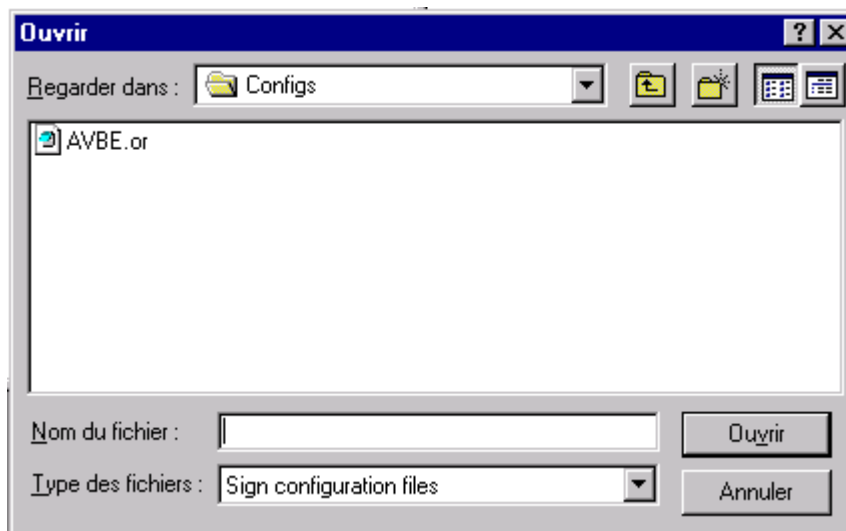
When no configuration has been loaded, the editor cannot display something in the emulation view, so this message appears:



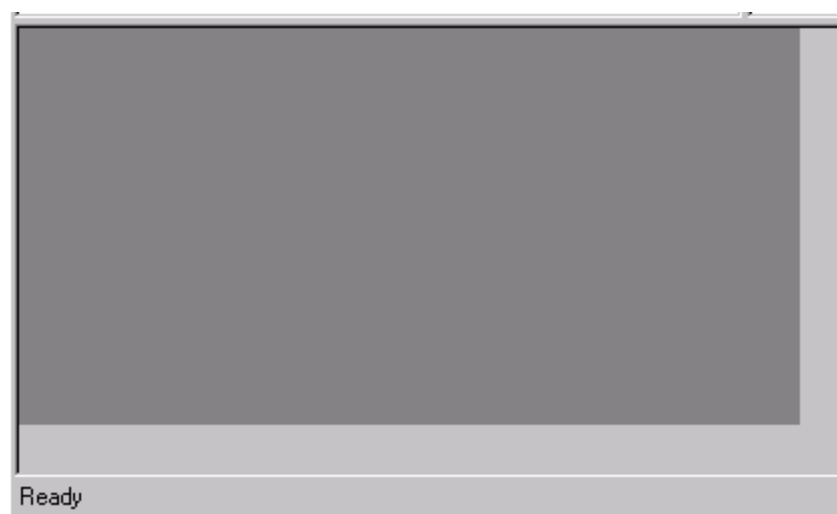
No sign defined !

This configuration importation is proceeded via the command 'File' then 'Import sign configuration' (or the toolbar shortcut).

Once the file dialog box is opened, a configuration file (*.or) needs to be selected and opened:



Once this operation has been proceeded, the emulation view shows a rectangle that is an emulation of the display, without any region created:



Once a sign configuration has been loaded, a first blank page has been created. This page has to be filled in by the region that the user will define.

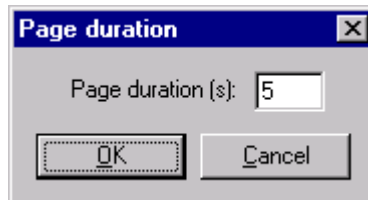
The first blank page can already be seen under the message tree view.

3.2- Editing page parameters

At this stage the user has the possibility to:

- Add another blank page (icon 'Add Page').
- Add a region to the current page (icon 'Add area').
- Edit the duration of the current page (icon 'Page duration').

The only parameter that is attached to the page is its duration, accessed via this dialog box:



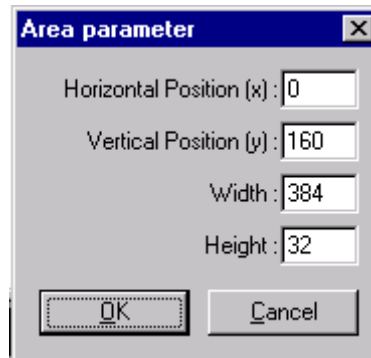
The duration is defined in seconds and can go from 1 to 255 seconds.

3.3- Region creation

3.3.1- Editing region coordinates

To create a region, the user needs to know the size and the position of the region that he wants to create. Into the right contextual action view, the 'Add area' function has to be launched.

Then this dialog box appears :



Note : When a region has just been created, it is free of content. A cross is drawn inside it, to show this status, and its parameters are used as default name into the tree view:

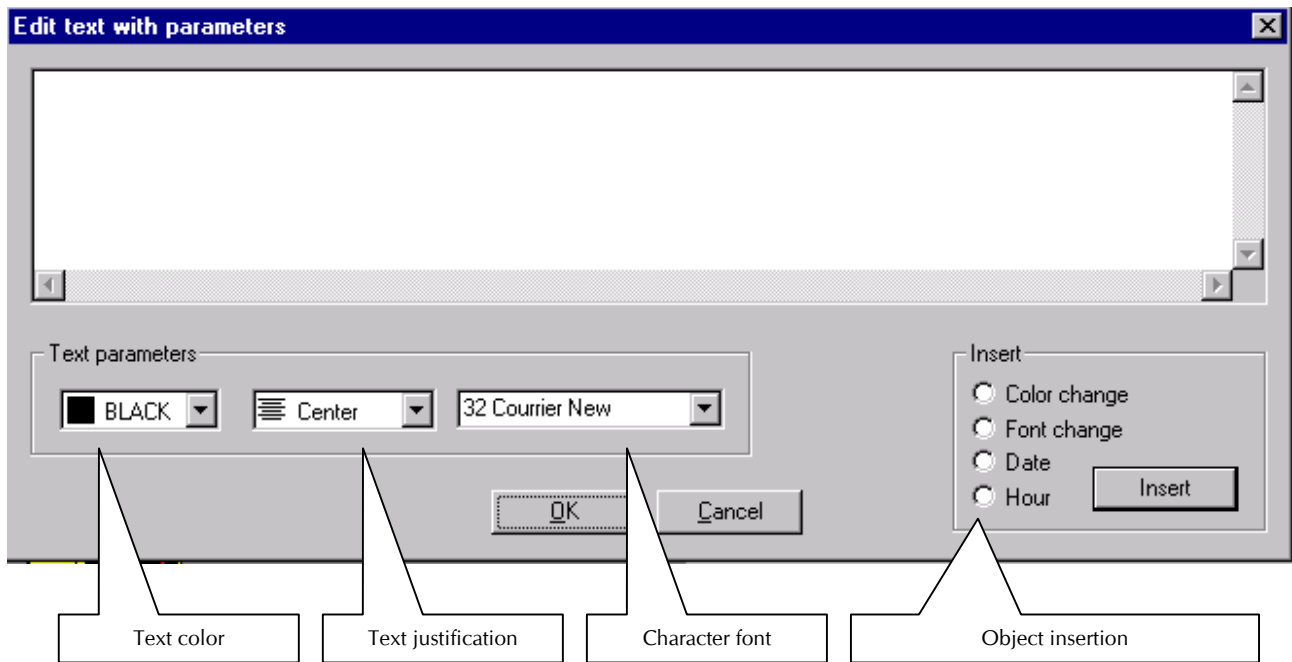


The next step will consist in filling the region with a content. To do this, the user needs the 'region action group' into the right view. So the region needs to be selected, by double clicking directly into the region, or selecting it from the tree view.

EPCDisplay Editor (V1.2)

3.3.2- Editing text into a region

The text edition handles several parameters of the region which are set-up by default, but that the user can change. To launch the text edition, the 'Text' icon has to be double clicked in the right view.



So, the user has to type his text into the edit area. When the OK button will be hit, the new text will be taken in account into the emulation view.

EPCDisplay Editor (V2.0.b.0)

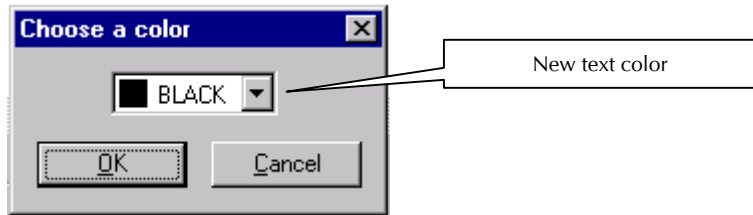
3.3.2.1- Inserting objects into the text:

It is possible to insert object into the text edition. These object allows to :

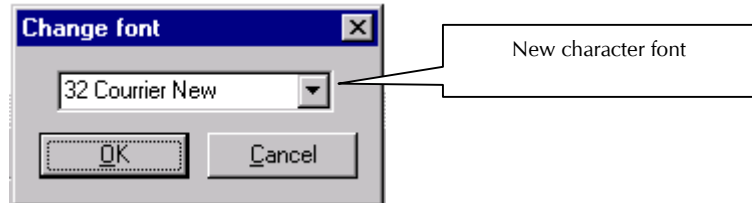
- Use several text colors into the same region.
- Use several characters fonts into the same region.
- To call date and hour from the system, according several formats.

To insert the wished object, the corresponding radio button needs to be checked, and then the insert button hit. A dialog box will appear for each kind of operation :

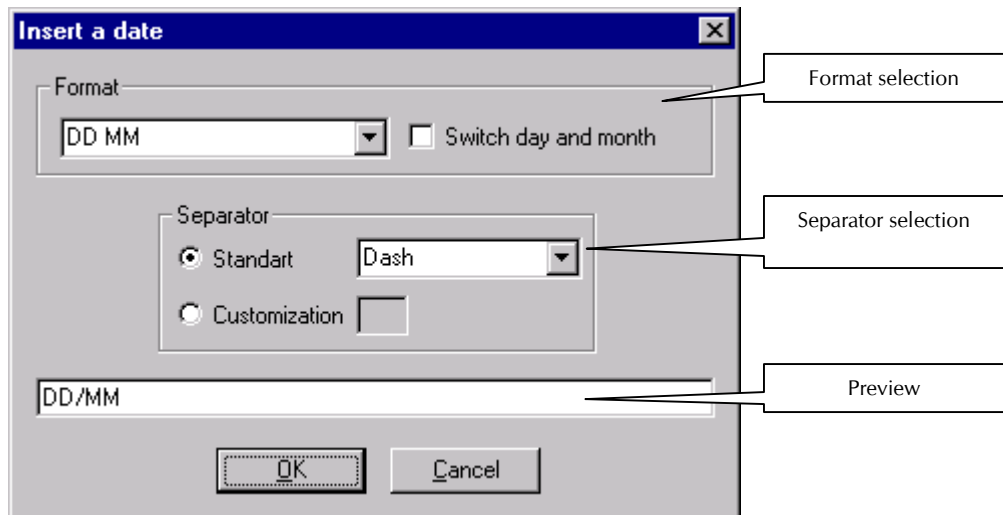
- **Color change:**



- **Font change:**

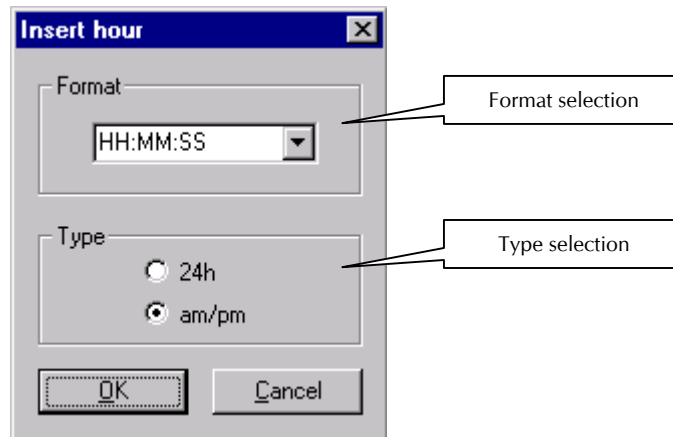


- **Date insertion:**



EPCDisplay Editor (V1.2)

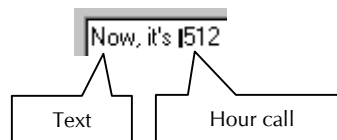
- Hour insertion:



For example, to create the following text :

Now, it's 3:55:11 pm


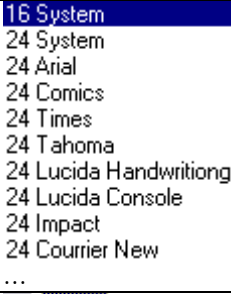




The user just has to enter the string « Now, it's », and insert an hour object. So, the edited text will be :



Note : The inserted object will be always inserted at the position of the cursor into the edit control. It is also possible to handle the inserted section like a normal text.

EPCDisplay Editor (V2.0.b.0)

3.3.2.2- Text display parameters:

| Parameter : | Default value : | Possible values : | Description : |
|--------------------|-----------------|--|--|
| Text color | Amber |  BLACK RED GREEN AMBER | Access by using the Dialog Window "Edit Text with parameters". |
| Characters font | Font 16 System |  16 System 24 System 24 Arial 24 Comics 24 Times 24 Tahoma 24 Lucida Handwriting 24 Lucida Console 24 Impact 24 Courier New ... | Access by using the Dialog Window "Edit Text with parameters". Note : The number before the police name represents the character height. |
| Text justification | Centered |  Center Left Right | Access by using the Dialog Window "Edit Text with parameters". |
| Background color | Black |  BLACK RED GREEN AMBER | Access by the right view ('Background Color' icon). |
| Display mode | Hold |  Permanent Hold Flash Snow Sparkle Rotation | Access by the right view ('Mode' icon). |
| Mode speed | No speed |  NO SPEED SPEED1 SPEED2 SPEED3 SPEED4 SPEED5 | Access by the right view ('Mode' icon). (until now this parameter is defines only the graphic scan speed). |

EPCDisplay Editor (V1.2)

3.3.3- Importing a graphic into a region

3.3.3.1- Inserting the graphic files:

The graphic importation is supported only with Windows bitmap files (bmp files) of 24bits.

The user can use the graphic mode to import a single static graphic into a region, or to import a split animation.

In this case, the animation speed will be selected with the 'Mode Speed' parameter.

The graphic importation is launched via the 'Add Graphic' icon of the right view.

A file dialog box appears, to get the bmp files:



Note: It is possible to proceed a multiple selection, but it is necessary to take care about the file order, to restore the right display order of the pictures into the memory of the sign.

Once the graphics have been imported, they can be accessed into the tree view:



The default graphic name is the complete file path to access to the graphic.

When the user selects a graphic, this one is directly displayed in the emulation view.

Note: The graphic content has a higher priority than the text content. This means that if a graphic is inserted into a region, its text and attributes will be ignored.

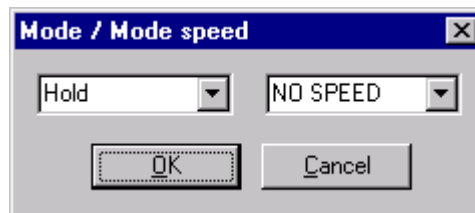
EPCDisplay Editor (V2.0.b.0)

3.3.3.2- Selecting the animation speed:

It is possible to modify the graphic animation speed by using the 'Mode Speed' attribute:

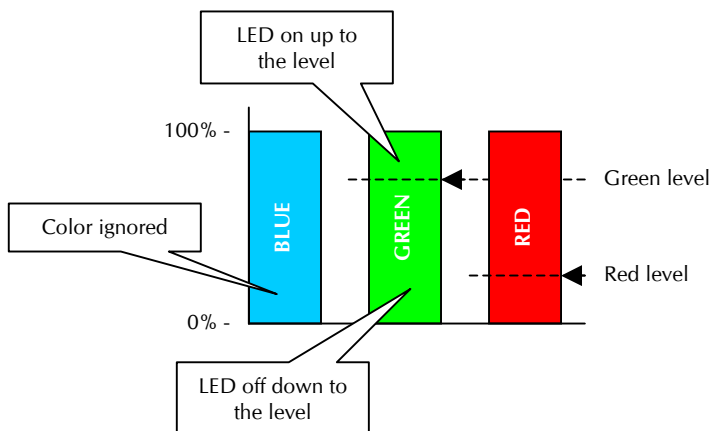
| Mode Speed | Animation speed : |
|------------|-------------------|
| NO SPEED | 1/20 s |
| SPEED 1 | 3 s |
| SPEED 2 | 2 s |
| SPEED 3 | 1 s |
| SPEED 4 | 1/2 s |
| SPEED 5 | 1/10 s |

It is possible to control the mode speed via this dialog box that is launched from the right view:

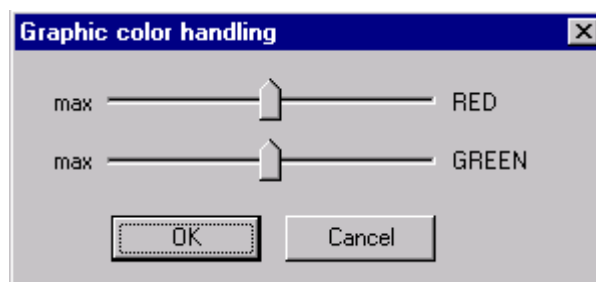


3.3.3.3- Modifying the color balance:

As the sign has only two primary colors (red and green), the color information of the imported graphic needs to be simplified, to fit into the sign. The color conversion algorithm is the following:



The user can change the color levels, and so modify the color proportion into the imported graphic. This can be done with the 'Graphic color handling' command, from the 'Option' menu:



EPCDisplay Editor (V1.2)

The default value for color levels is 50%, and it is necessary to proceed to the changes before the graphic importation.

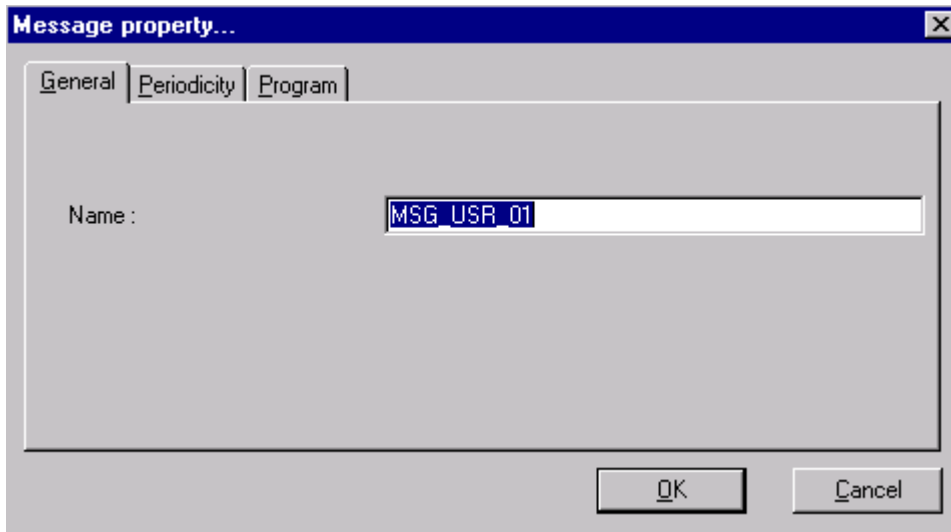
3.4- Setting message parameters

3.4.1- The message name

This parameter is very important if the user plans to put several message in the display memory, because each message is identified by its name. So, it is important to give a different name for each different message, otherwise, the sign will not be able to do the difference between the several messages, and there will always be a single message into the display memory.

Access to this parameter is allowed via the 'Property page' command, from the 'Edit' menu (see before).

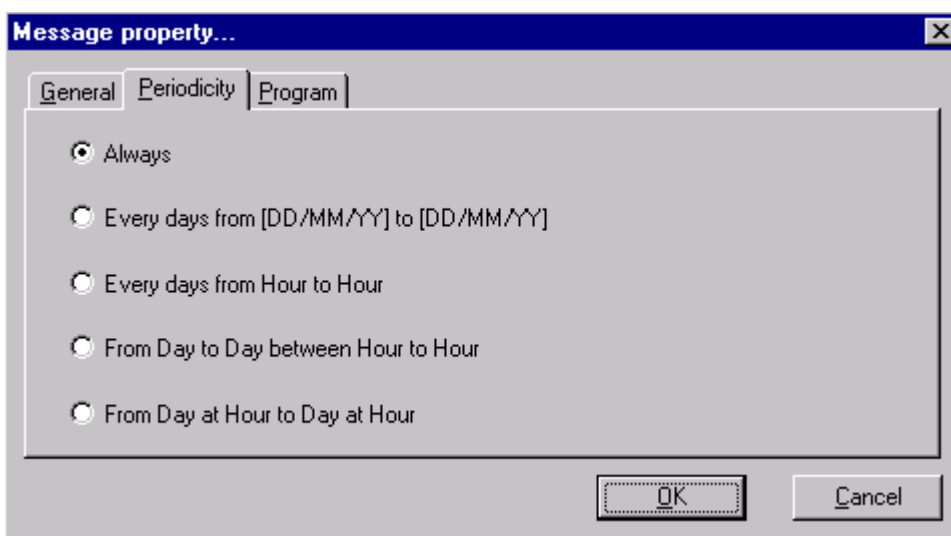
This dialog box appears:



So the user can type the name that he wants instead of the 'MSG_USR_01' default value.

3.4.2- Message scheduler options and parameters

It is possible to program the message validity, in relation with the date and time from the system. These options are available in the same dialog box, under the 'Periodicity' tab:



EPCDisplay Editor (V1.2)

The scheduler allows 5 functioning options:

- **Always:** As soon as the message has been sent to the display, it is valid, and so, displayed.
- **Every day from date to date:** The message will be displayed from the start date to the end date.
- **Every day from hour to hour:** The message will be displayed every day from the start hour to the end hour.
- **Every day from hour to hour:** This is a combination of the two previous conditions.
- **From day at hour to day at hour:** The message will be displayed since the start date at the start hour, continuously from the end day at the end hour.

The 'Program' tab allows the caption of the date and hour parameters:



The screenshot shows a dialog box titled "Message property..." with three tabs: "General", "Periodicity", and "Program". The "Program" tab is selected. It contains four input fields with dropdown menus:

- Date of beginning : lundi 19 novembre 2001
- Date of finish : lundi 19 novembre 2001
- Hour of the beginning : 10:55:54
- Hour of the end : 10:55:54

At the bottom right, there are "OK" and "Cancel" buttons.

Note : Only the useful parameters caption (in relation with the option chosen) are enabled.

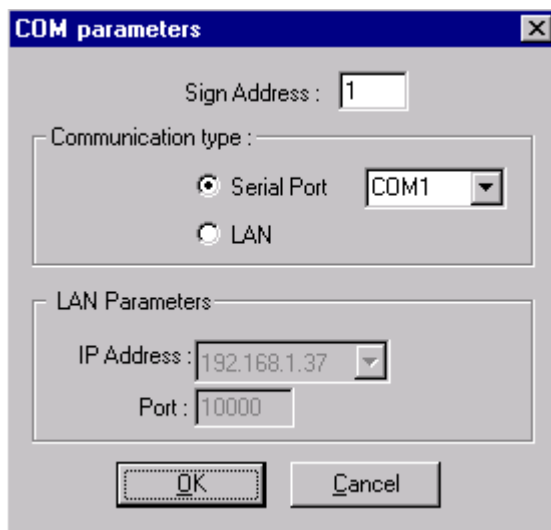
4- Communicating with the sign

Each time a communication is processed with the sign, this later gives back a status answer. So, if the user gets no error after each kind of communication operation, this means that this operation has been well processed.

4.1- Setting up the communication

The set-up of the communication is accessible from the 'Parameters' command from the 'Communication' menu. This allows the user to:

- Select the sign address.
- Choose the communication media (Serial Port or LAN).
- Edit the parameters corresponding to the communication media (Com port, IP address, IP port).



4.2- Checking message into the sign

This action is launched from the 'Check message' command from the 'Communication' menu. It allows to get the list of the message and their current activity status, reported in the following dialog box:



4.3- Checking the memory status (for Advanced Users)

This action is launched from the 'Check memory status' command from the 'Communication' menu. It allows to visualize the amount of physical and virtual memory that is used into the system.

