



## Deliverable Report

Client : European Commission

Project : FRESH

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Abstract	<b>This report summarizes the work done on MMI mock-up of the Fresh WP2</b>
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Keyword List	WP2, MMI mock-up MMI mock-up
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### **1. INTRODUCTION**

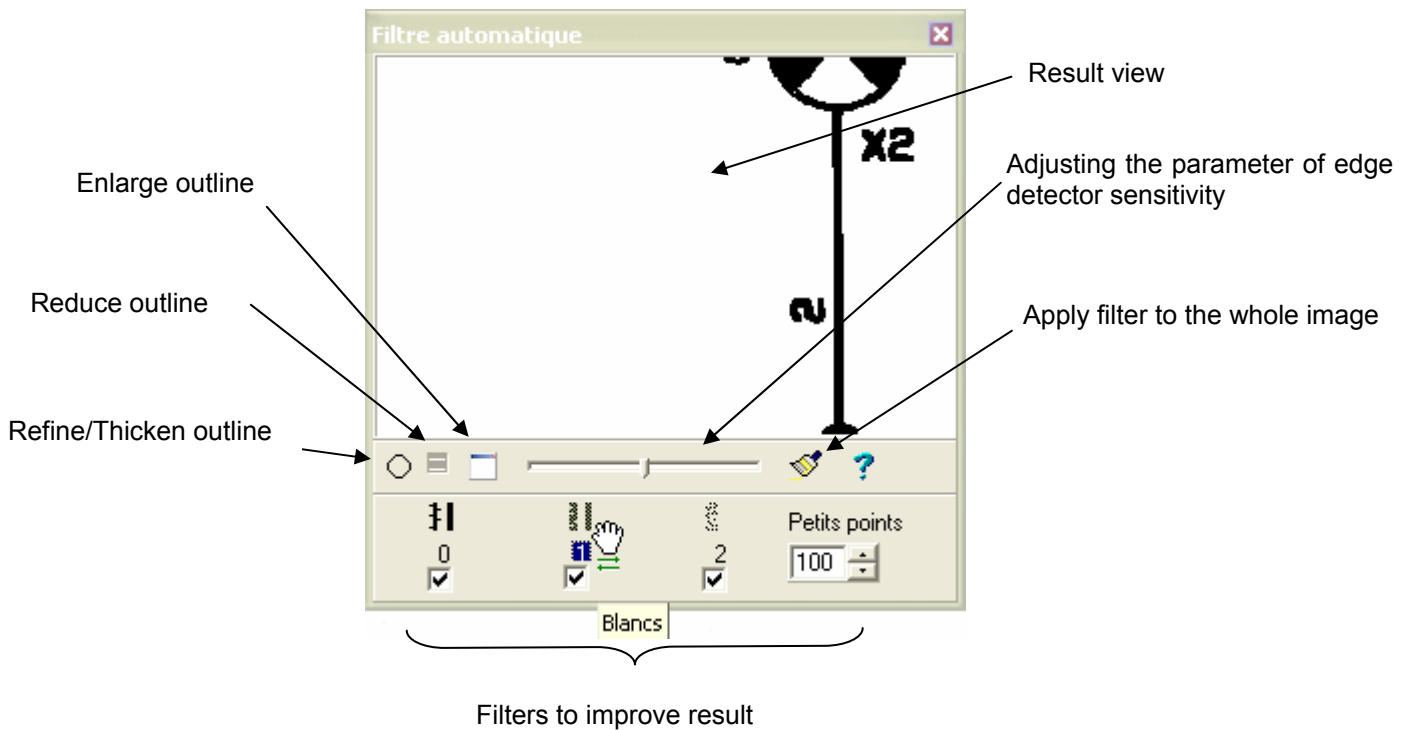
All along the recognition process of an electrical diagram document, the operator can be able to check the validity of the data obtained in each step and to make corrections if necessary.

The ergonomics and the choice of the command tools must enable a simple and quick export of the data into CAD.

## 2. THE DIFFERENTS STEPS

### 2.1. TRESHOLDING :

Before applying the binarizing filter to the whole image, we have done a little window which permits to choose the best value for the different parameters whithout making the computation on the whole image but just on a part of it.



### 2.2. ISO-POTENTIAL SEGMENTS:

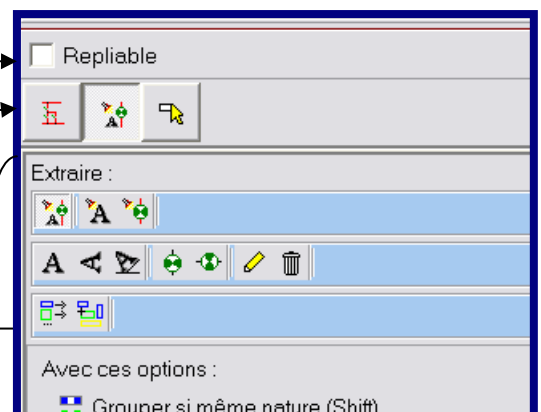
The user can select what kind of segment he wants to detect in the picture:

- Iso-potential segments
- Solid drawing segments and rectangles
- Dashed drawing segments and rectangles

### 2.3. BLOCS ANALYSIS :

Automatic analysis tools

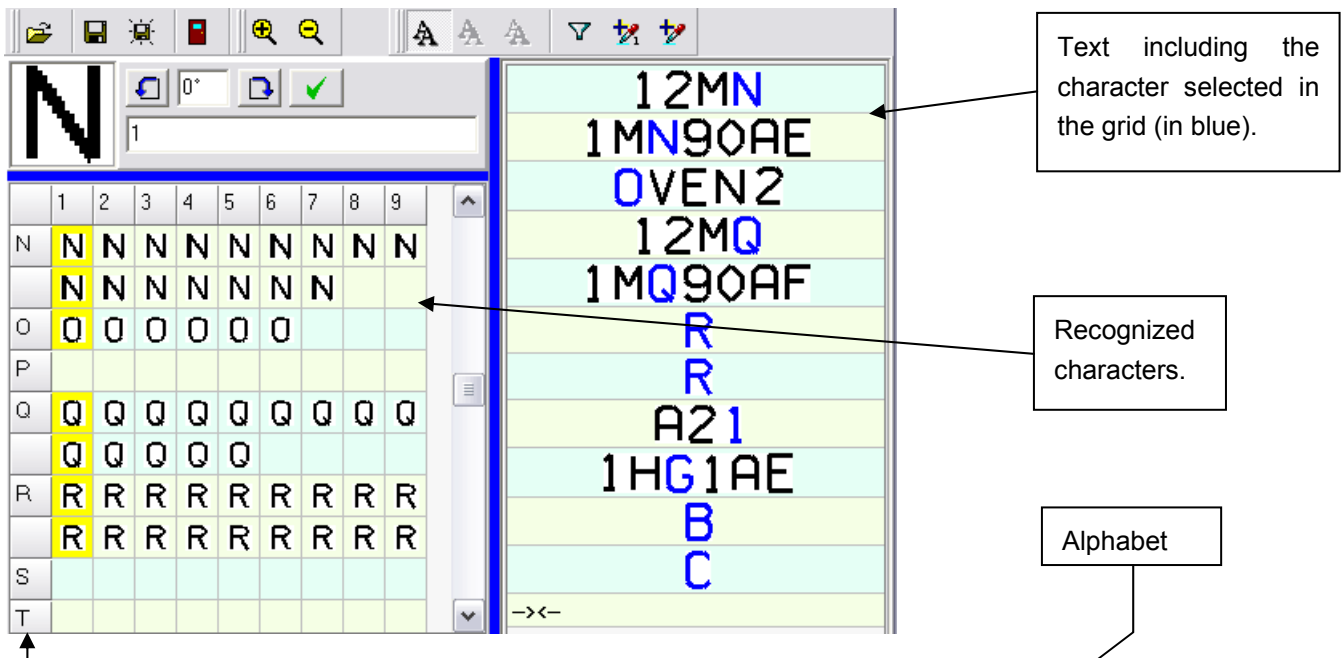
Manual analysis tools



Analysis options

If the automatic analysis tools gives some incorrects results, the user always have the possibility to manually define blocks.

**2.4. TEXT RECOGNITION :**



The screenshot shows a software interface for text recognition. On the left, there is a grid of characters with columns numbered 1 to 9 and rows labeled with letters N, O, P, Q, R, S, T. The character 'N' is selected in the top-left cell. On the right, a list of recognized text blocks is displayed, including '12MN', '1MN90AE', 'OVEN2', '12MQ', '1MQ90AF', 'R', 'R', 'A21', '1HG1AE', 'B', and 'C'. Some characters in the list are highlighted in blue. Callout boxes provide additional information: 'Text including the character selected in the grid (in blue)', 'Recognized characters.', and 'Alphabet'.

**2.5. TEXT CORRECTION:**

After the text recognition, the user can check the syntax and the selected font for each recognized block.



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### **2.6. THE DICTIONARY**

The dictionary takes into account the technical terms and expressions that correspond to a lexicon and the expressions corresponding to markers or numbering which are formatted by pre-defined structures.

### **2.7. SYMBOLS RECOGNITION :**

If a symbol is not automatically recognized, the user can manually realize the recognition by clicking on the corresponding icon of the graphic palette.

### **2.8. SYMBOLS PARAMETERS CORRECTION :**

The last step is the parameters verification.

Each symbol selected is displayed in its context in the image and the corrections are done by a simple click-drop of the parameters.

## **3. CONCLUSION**

The MMI is optimized for a quick check of analyse and recognition results. The user can quickly apply corrections before to build DAO Export.