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Abstract **This report summarizes the work done on image segmentation MMI mock-up of the Fresh WP2**

Keyword List WP2, image segmentation
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MMI MOCK-UP

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MMI MOCK-UP

1. INTRODUCTION

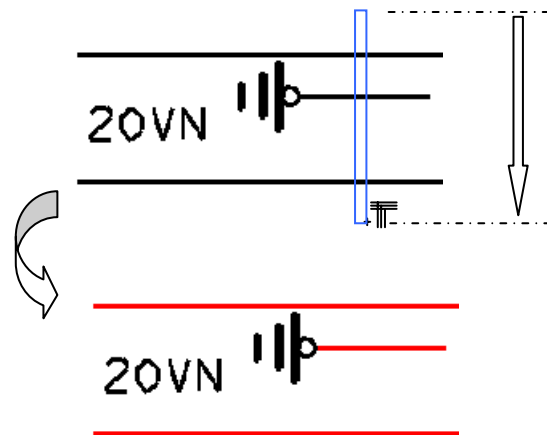
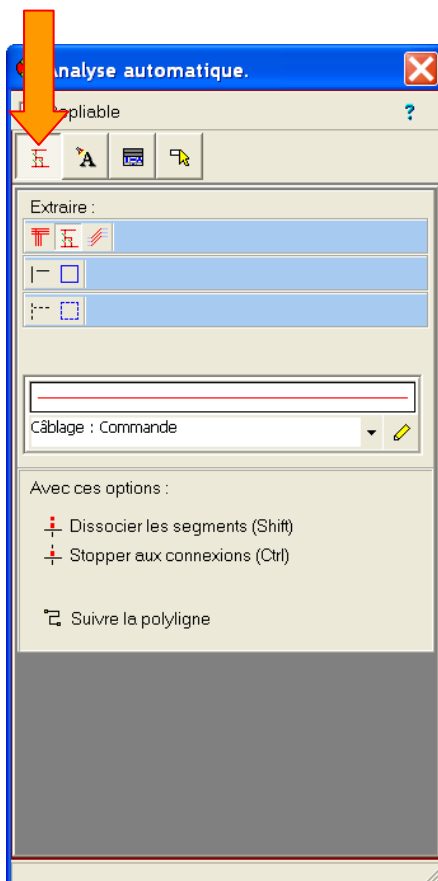
The document image analysis processes must be sequential and carried out chronologically in a defined order so that they can be optimised.

Therefore, the operator doesn't need all tools at the same time. The MMI mock-up has been designed according to this method.

2. SEGMENTATION TOOLS

The objects which must be extracted first are the wires. They connect all the symbols into some big blocks. Once the wires are extracted, it remains only isolated blocks of symbols and text.

2.1. WIRES DETECTION:



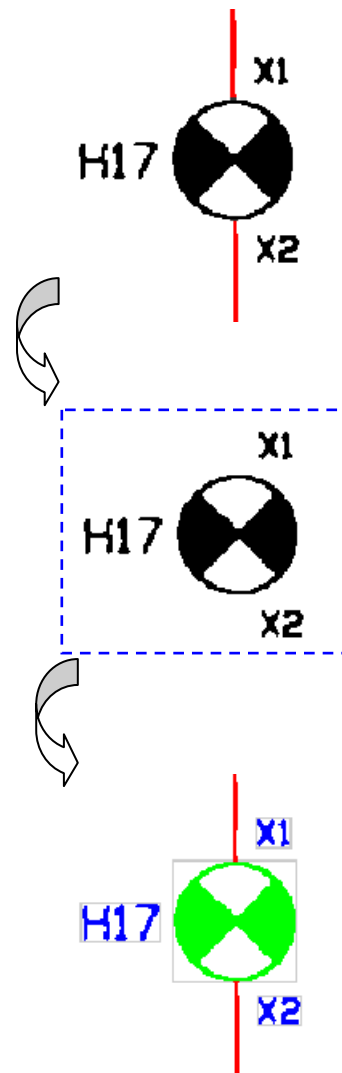
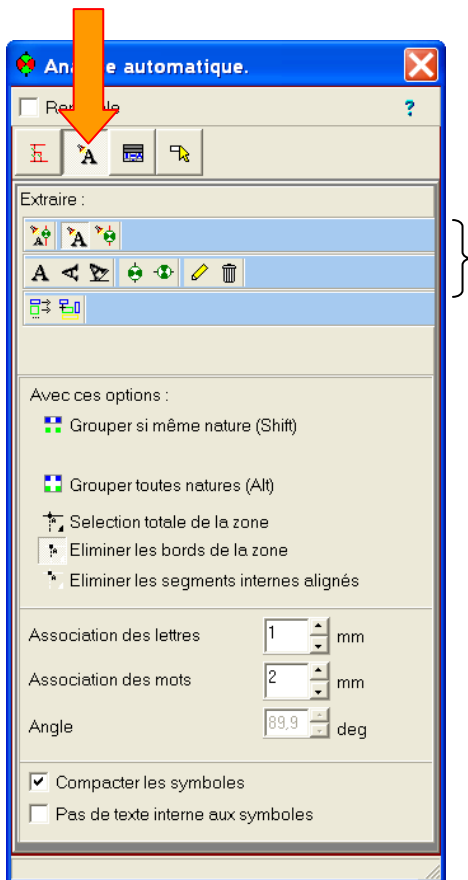
Each wires detection tool must be link to a pen which has properties like thickness, color or electrical characteristics. This choice is only usefull at CAD export moment. Any options allow to extract rectangle, polyline or just a segment between two nodes.

2.2. BLOCKS DETECTION:

Once the wires are extracted, all the isolated blocks could be analysed and extracted to one of the different layers. One tool is entirely automatic, and is able to dissociate text and symbols from all the connected pixels of the picture.

For each layer (text, symbol, bitmap, and trash) a special tool is useable to extract exactly what the operator want. Therefore all the possibilities are availables.

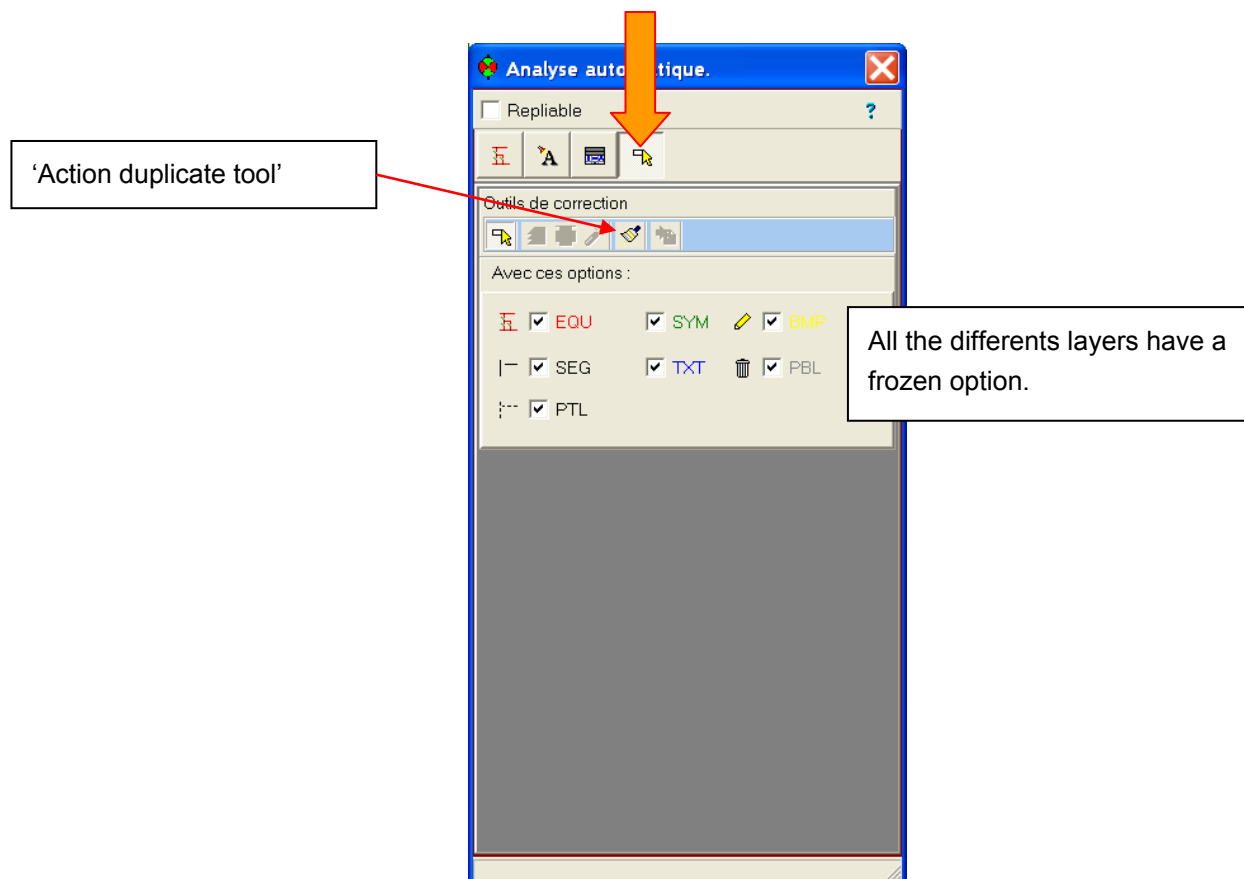
Some options give the general characteristics of the document. Characters, symbols and segments sizes min and max, text association, etc.



2.3. LAYERS SELECTION OPTIONS:

Whenever the operator can make corrections. To make easy the selection of the differents objects, each layer can be frozen, and thus its objects can be selected or not.

When a correction is applied to any objects, for example: 'select, group, change of layer', the same correction can be applied to others objects directly with the 'action duplicate tool'.



3. CONCLUSION

The differents tools are available according to the usefull chronology of the segmentation, from left to right in different pages.

In each page, the tools are organized from the most automatic on top, to the manual one on bottom.

That contributes to lead the user to follow the better segmentation method.