Deliverable report

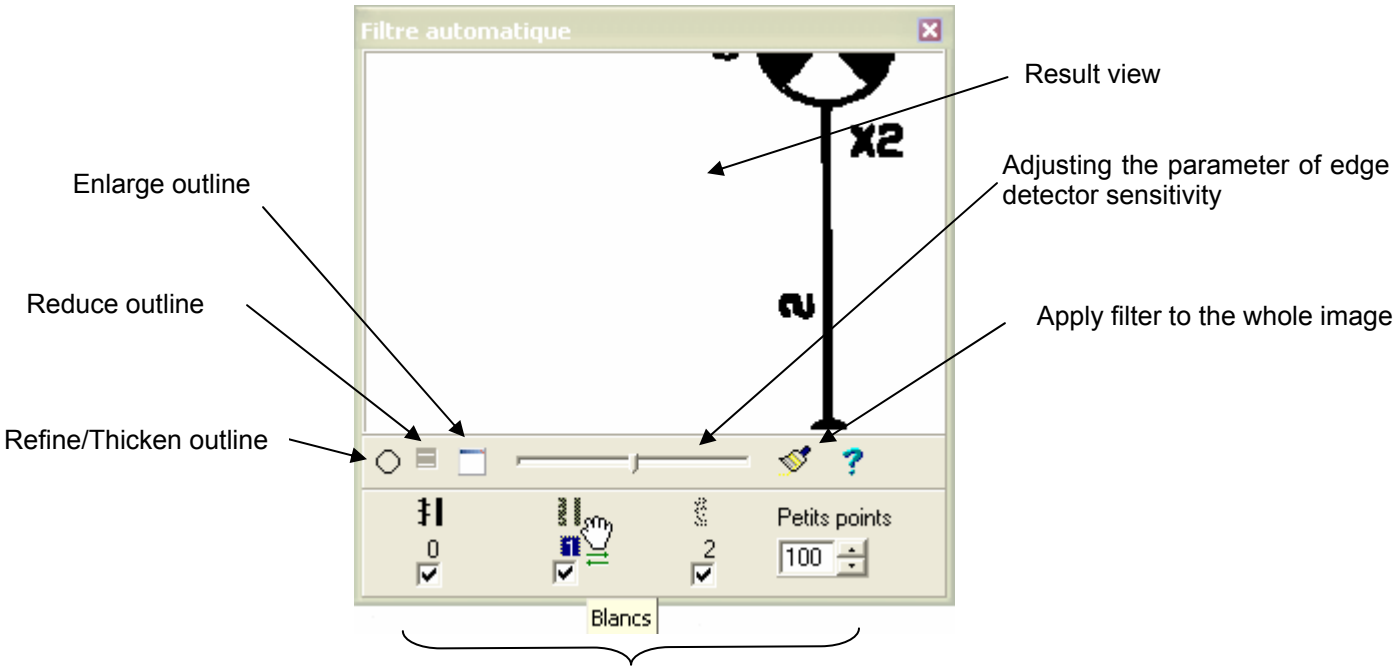
Project Number:	FP6-516059
Availability:	Confidential

Abstract	**This report summarizes the work done on Image thresholding of the Fresh WP2**

Keyword List	WP2, image thresholding

SUMMARY

As images can be from different sizes the processing time can be quite long. And the result can be different according to the adjustment of parameters. That's why the adjustment can't be done on the whole image. So 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.

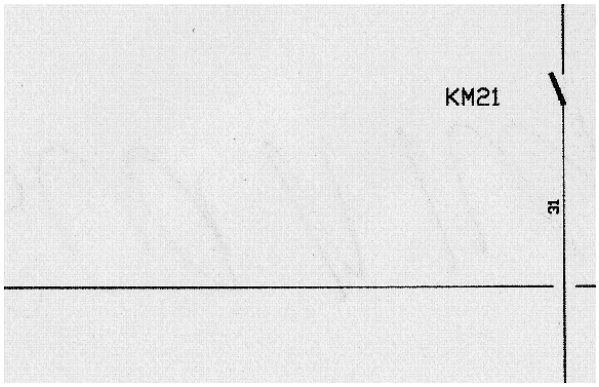


1. THICKNESS OF THE LAYOUT

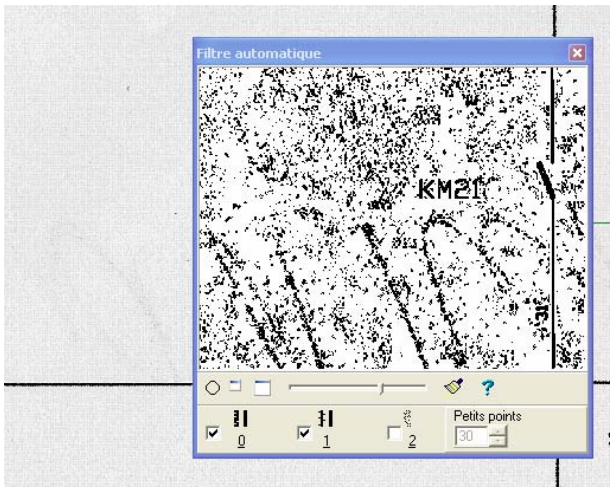
The thickness of the layout can be refined or thickened. According to the initial thickness of the layout, a thin or thick layout is necessary for a good recognition. So we have made an option which permits to enlarge the layout or not. In this way, the user can have a large view or a precise view of the result.

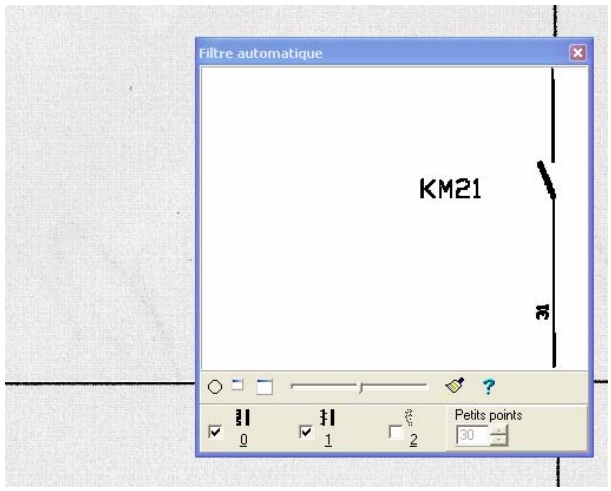
2. SENSITIVITY OF THE FILTER

The parameter of edge detector sensitivity permits to modify the sensitivity of the result. The filter is based on the edges detection. An edge can be defined as a variation of grey level.
In this part of the image we can see three sorts of pixels, the background (high grey level), the information (less grey level for KM21, 31, lines and interuptor) and deletions in the background. According to the sensitivity of the edge detector, deletions will be found or not.



If the parameter of edge detection is too precise, deletions will be found.

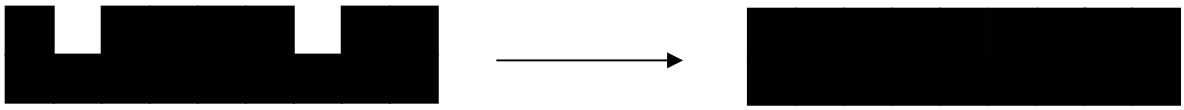




There are three filters to improve the result. By checking a filter it becomes active for improving the result.

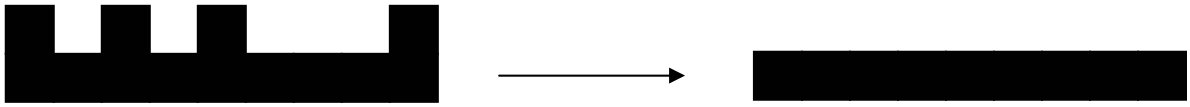
3. "WHITE" FILTER

The "white" filter consists in making a dilatation of the image.



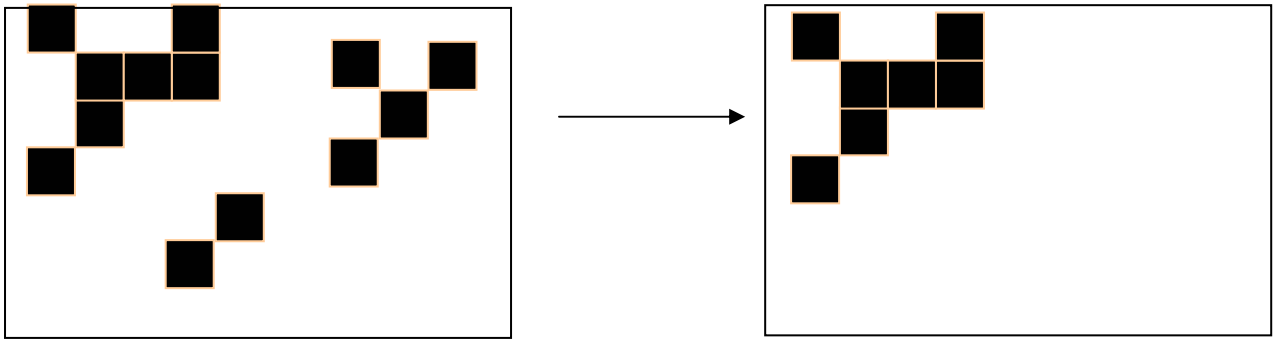
4. "MILLING" FILTER

The "milling" filter consists in making an erosion of the image



5. "LITTLE POINTS" FILTER

The "little points" filter permits to remove a group of pixels.



The order in which filters are applied can give different results. That's why we have given the possibility of changing their order. The position of a filter in the list view indicates in wich order it will be applied. The order can be changed by a drag and drop of the little image representing the filter.