ICR Extraction Software

ICR extraction software is used to extract handwritten inputs from forms. It includes powerful data capture and recognition algorithms that can help process many different kinds of paper documents with minimal human intervention. The technology was first developed by the Irish scientist Joseph Corcoran and first patented as Irish Patent S61092 in March 1993. It was further developed in the USA as AFP that allows ICR to work with real world forms that are not designed with drop out ink. ICR can serve as a single entry point for all kind of paper documents including: forms, for example: questionnaires, tests, insurance forms, tax returns.

How it works: the first step

ICR extraction software first scans the form document and stores an image of the form in the computer. This image is then cleaned up through multiple processes. The processes may involve one or more of despecking (removing noise) the image, registering the image to the original form and background removal that leaves only the information added to the form that needs to be captured. Once this process is done, an ICR extraction software then reads the cleaned up image of the handwritten information on the form.

How it works: the second step

ICR extraction software now validates the results of the reading in three steps. Primary Validation applies rules to the individual characters to see if they are valid. Secondary Validations involves applying rules to the zones or groups of characters on the form and validating whether the characters are correct by applying rules across two or more zones on one or more forms. Finally Manual Validation is used for the remaining characters that cannot be validated automatically. Once the ICR extraction software goes through these steps, it becomes very easy for the user to process these forms almost mechanically.