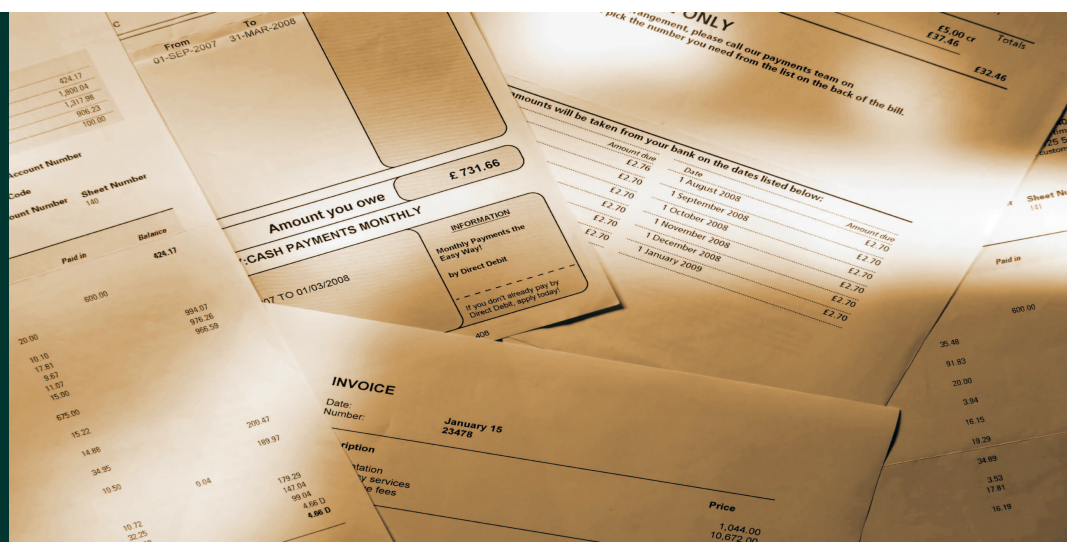# Recogniform Technologies

Recogniform Invoices

Advanced INVOICES data Capture

Recogniform Invoices

the Solution for Invoices Data Capture

Recogniform Invoices is the solution to extract data from invoices, minimizing the time required for invoices manual handling. This is very important in order to achieve more productivity at minor costs, in a fast, simple and reliable way.

Recogniform Reader: Beyond Optical Recognition

Recogniform Invoices is entirely developed on Recogniform Reader platform. Recogniform Reader is the solution for form recognition, structured or semi-structured, developed by Recogniform Technologies SpA and point of reference in the market of data-capture solutions. Recogniform Reader stands as the most innovative solution for optical recognition from paper forms, suitable to little customers as well as big companies and services bureau.

Just 4 Simple Steps

The whole process is splitted into 4 steps: input, recognition, correction and output. You can acquire single or multi-pages invoices from scanner or file. These invoices are processed then by a recognition station, working 24/7: during this step the software recognizes the invoices, getting all datas each with its own level of "confidence". Once the recognition stap has been completed, all "suspicious" data are sent to a correction/validation step. This step is managed by an operator, and requires very little time thanks to an user-friendly interface. The last step is the output: the software automaticaly releases all datas to files/DBMS/ERP, saving invoices images in the format/directory preferred.
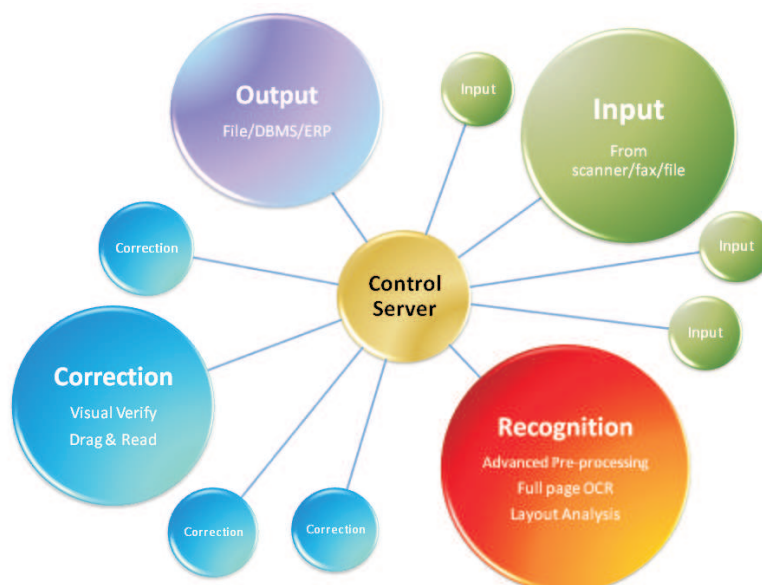
Desktop or Client/Server Architecture

While with the Desktop version all features are available on one single station, with the Workgroup solution all steps (input, recognition, validation, correction and output) can be distributed on several dedicated stations.

The Workgroup solution is made up of the following applications:

- ► Recogniform Control Server
- ► Recogniform Input Station
- ► Recogniform Recognition Station
- ► Recogniform Correction Station
- ► Recogniform Output Station

Workgroup's configuration can change easily, according to your specific requirements. Thanks to our innovative licensing system, you can use any number you wish of input, correction and output stations without paying any additional charges. For example, if the correction phase requires more resources, it's possible to arrange multiple correction stations; at the same time, if you have more scanners available, it would be convenient to arrange more input stations.
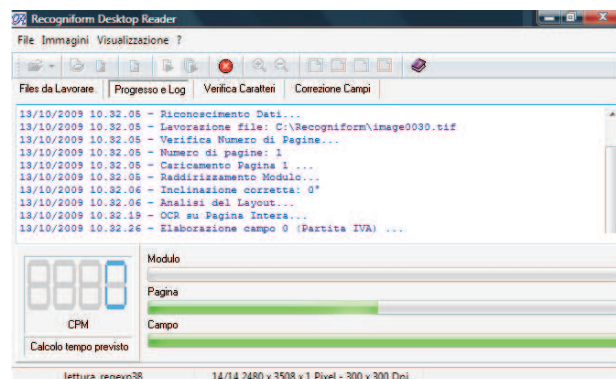
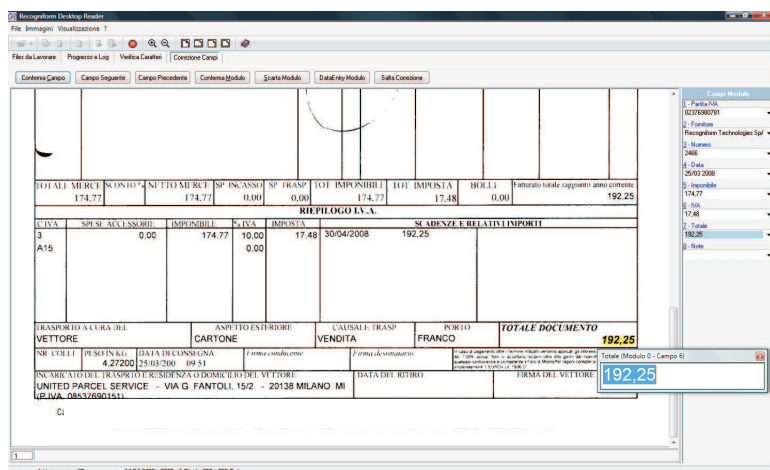## FreeForm Technology: OCR Full-Text and layout Analysis

Recogniform Invoices is able to process "unknown" invoices thank to the state-of-art Free-Form technology. Free-Form thechnology allows to identify the position of the data to extract in complete autonomy. This can be possible performing a Full-Text OCR in synergy with a sophisticated algorithm of layout analysis, that allows to identity blocks of text, vertical and horizontal lines, graphical elements. In this way it is possible to extract data from any invoice, in a few seconds, independently from its graphic layout.

Heuristic Approach

The heuristic approach allows to produce hypotheses that can be confirmed or rejected, always in total autonomy, based on the temporary state of the circumstances. The way Recogniform Invoices works reflects the human way of reasoning, identifying a value according to a series of specific attributes, like a label, a regular expression, or its layout position.

Recognition step is performed automatically, 24/7

An user-friendly interface allows a fast and accurate verification of captured data, minimizing the risk of human transcription errors.

Assisted Visual Verify and Drag & Read Feature

The software integrates a comfortable interface to allow the verification of all "suspicious" or "incorrect" data. The system proposes to the operator the data to validate, one after the other, placing side by side the data read and the image of the document. Thanks to the Text-To-Speech integrated, the comparison between recognized data and printed data is even more fast and easy. The verification step is therefore fast and reliable, thanks also to the possibility to perform crossed controls between fields and other operations in order to facilitate the auto-validation of the value read. In the event of a "problematic" data, not read or idntified correctly, the functionality of "Drag& Read" concurs to select the correct value directly on the image, selecting the area with mouse and dragging it to its field, making the process faster and more accurate, minimizing human transcription errors.

Artificial intelligence and Self-Learning

While the "artificial intelligence" mechanisms allows the identification of the values to be extracted, the verification step allows to keep the positional information of the document, saving all fields coordinates into an internal database that can be used for next invoice processing of the same supplier. This feature contributes to reduce the time of the documents, increasing the accuracy of the extracted data.

UNLIMITED: the number of input, correction and output stations. No extra charge for additional stations!

UNLIMITED: the number of invoices you can recognize. Process as many forms you wish, with no quantity restrictions!

UNLIMITED: the speed of our recognition engines. Speed depends only from the hardware you use, and can easily reach several hundreds of characters recognized per second!

Customization and Flexibility

The system is extremely flexible and customizable: thanks to the functionalities of Recogniform Reader, in fact, the software is customizable in order to extract data from any kind of document, structured or not (contracts, questionnaires, registration forms, etc.). It is also possible to perform controls on external sources, setting as many rules you wish in order to increase/decrease the confidence of data extracted. (example: Taxable amount + VAT = Total amount).

Data Extraction from tables and Grids

Recogniform Invoices allows to extract data from tables, too. For example, you can get the products with their amounts, codes, descriptions and prices. To get an idea of the extraordinary save you can get, just think about the possibility to use the extracted data to automate the loading procedures in your warehous, with reconciliation of orders and invoices. It is also possible to set up other controls (product quantity x unit price = total product amount), also to check external lookup database to simplify the recognition of extracted data (for example: verify if an item exists or not). This is possible thanks to Recogniform powerful scripting language, that allows infinite possibilities of customization.

An example of data extraction from table: on the lower grid are displayed "item code", "description", "unit price", "amount" and "total amount". The "Drag & Read" feature allows the keying of not recognized data in a simple and fast way, through a simple text dragging.

Output for every Need

Before being stored, the read data can be formatted in several ways, allowing the output to adapt to any necessity: conversion to uppercase or lowercase, empty spaces deletion, characters substitution, addition of suffix or prefix, etc.

Supported Databases:

Oracle, Interbase, Sybase, Microsoft SQL Server, DB2, Paradox, dBase, FoxPro, ODBC/ADO/dbExpress, Access.

Supported file formats:

ASCII text (.txt,) Fixed spaced text (.asc), Comma Separed Value (.csv), Tab Separed Value (.tsv/.tab), Hypertest Markup Language (.htm/.html), Extensible Markup Language (.xml), Microsoft Excel (.xls), Symbolic Link Interchange Format (.slk/.sylk), SQL scripts (.sql), dBase (.dbf), Paradox (.db), Access (.mdb), Portable Document Format (.pdf), Tagged Interchange File Format (.tif), Bitmap (.bmp), Joint of Photography Expert Group (.jpg).

Integration with ERP, Document management and External Applications

All data can be easily imported in any ERP application, and images can be saved according to specific criteria defined according to customer preferences. It is moreover possible to develop ad hoc connectors in order to connect the system directly with ERP, software managerial and third parts applications.

Recogniform Technologies is a private Italian company, leader in high technology image processing and image recognition software.
Constantly providing solutions to many Industry and Services private Companies, Government Agencies and Educational Institutions all over the world, Recogniform Technologies is the only Italian company to develop all the optical recognition engines used in its products.

Authorized dealer

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