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version 12

Vectory

Ultimate image processing toolset

Automatic R2V conversion

Look and feel of a 2D CAD application

Autodesk DWG 2012 support

Text recognition

Direct support of wide-format scanners

What is Vectory?

Vectory is a program for the automatic raster-to-vector conversion. It includes a full set of technologies to convert scanned colour, grayscale and monochrome images to accurate CAD/GIS drawings.

Vectory has direct interfaces for wide format scanners and the TWAIN-driver, corrects retrieved raster, eliminates linear and non-linear image distortions using the calibration procedure, converts raster graphics to vector format automatically, makes post-conversion correction of vector objects, creates and edits vector objects, and prints the results or saves them in DXF or DWG format files.

Raster-to-Vector Conversion

Vectory converts to vector either the whole raster image or a selected part of it. Fine-tuning of the recognition parameters can be done manually or by using pre-sets (recognition templates).

Raster to vector conversion of colour images has become reality. Vectory splits a source colour image into separate monochrome layers and then converts them to vectors one by one.

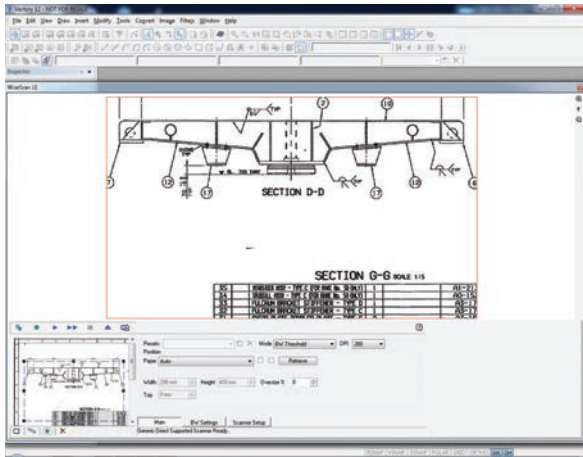
Vectory recognizes lines, arcs, circles, polylines, outlines, texts, symbols, and hatches. Such object properties as width, line type, size arrows are also preserved. Automatic correction of vector drawings is provided: joining the ends of contour objects, line orthogonalization to a specified direction, rounding objects width to specified values.

Users can choose to place objects with different widths onto different vector layers, and to highlight them with a selected colour. The resulting vector drawing will be of a high quality. In most cases only minimal manual correction is needed.

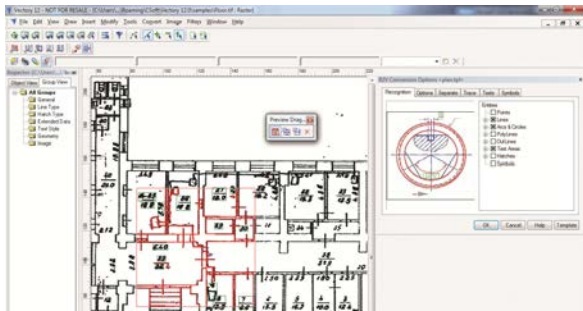
Raster Correction Tools

Raster correction tools allow correcting scanning errors and enhancing raster images. Most tools can handle all types of images: monochrome, grayscale, and colour. Full toolset includes filtration (colour and monochrome), colour correction, de-skewing, four-point correction, cropping, modifying the resolution and orientation of an image, fitting image size to a standard paper sheet.

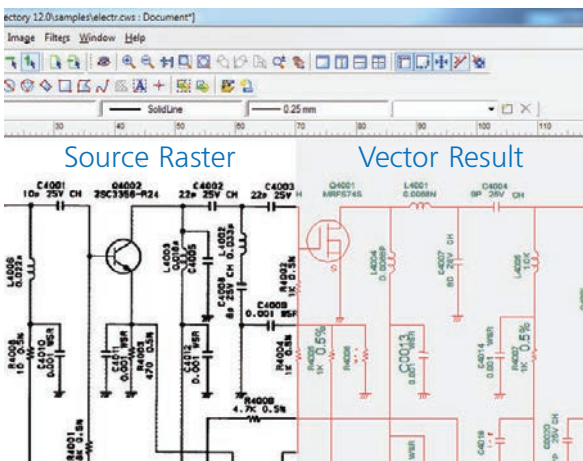




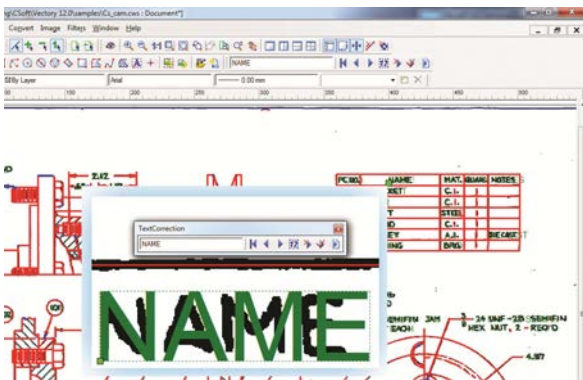
WiseScan LE



R2V Setup with instant preview



Raster-to-vector conversion



Text Correction tool

Text Recognition

Vector determines the location of raster texts and converts them to vector text objects. The user can train the OCR module to recognize any raster texts. After applying automatic vectorization, the user can review and correct the obtained texts in an interactive mode.

User Interface and Workspaces

The Vector workspace used to represent a set of raster files and a vector drawing linked through the file – workspace, containing a set of references. A workspace is created as an integrated file containing both raster and vector objects.

A workspace "is unlimited" – a raster image of any size can be always be inserted into a current workspace. A workspace can be saved to its own native format and to AutoCAD *.dwg files.

Raster images can be store inside the workspace file or outside – as an external reference.

Vector Correction

Standard CAD programs do not have tools for correction of errors from automatic raster to vector conversion. Vector provides an auto-correction procedure – i.e. removing low-sized objects, orthogonalization, and restoring touching, joining objects.

Vector Editor

Embedded in Vector's vector editor is a small 2D CAD package. It has enough power to create engineering drawings. But its main role is to provide the user with a comprehensive set of drawing tools for post-processing of converted drawings. The result is a finished AutoCAD compatible drawing. It is possible to have an unlimited level of block insertions. Object attributes such as colour, layer, width, elevation etc. are supported.

Transferring data to CAD systems

The first user of Vector v.1.0 was a company, specializing in space suits for astronauts. This was long time ago. It converts scanned drawings to AutoCAD files.

New Vector also is data-compatible with AutoCAD. The user can save hybrid (raster-vector) drawings directly in a DWG 2010 format or in a DXF format file. The DXF format is a de-facto standard for transferring graphical data between CAD programs.

Remember!

The results of automatic raster to vector conversion greatly depend on the quality of the source drawing. Poor quality of source always leads to inappropriate vector results. Even the most advanced vector correction algorithms will be useless in this case.

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