

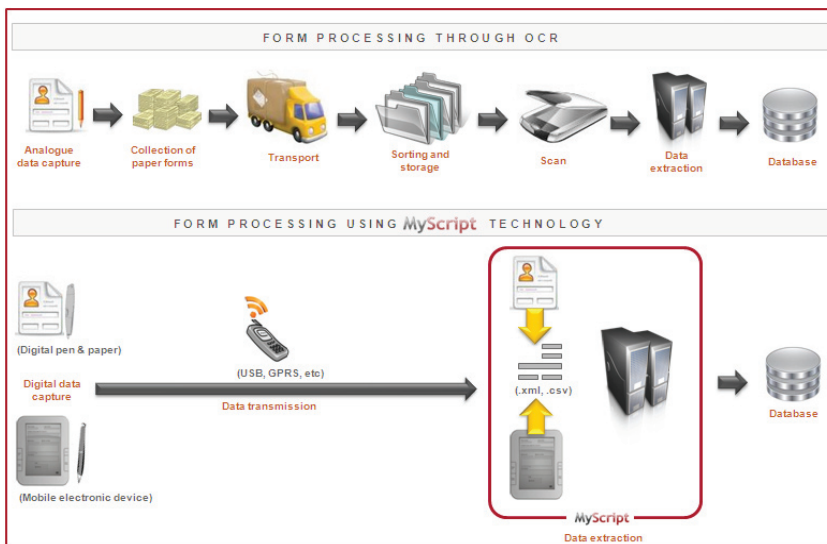
MyScript for Form Processing

Process handwritten forms faster and at a lower cost.

In the last few years, automation of form processing has been a key factor in a lot of business efficiency improvements.

In this revolution, real-time handwriting conversion to digital ink, with solutions like digital pen and paper, tablet PCs or digital paper pads and tablets, is bringing more flexibility and efficiency.

Every day millions of forms are processed worldwide, most of which are filled out by hand. This handwritten information is generally scanned and processed using OCR (Optical Character Recognition).



Processing forms this way is a costly and time-consuming task for various reasons: human intervention, storage, transport, risk of loss of paper forms just to name a few.

With Online Handwriting Recognition, most of these laborious tasks are avoided. The trajectory, the speed and the pressure of digital pens or other pointing devices is captured and digitized. **The time and cost to acquire information are therefore dramatically reduced.**



+ MyScript in the form industry

For more than 10 years, Vision Objects has been working with system integrators and end users to automate the form processing tasks using MyScript technology.

In order to benefit more customers, we have used our extensive experience to develop the best technology and tools to make deployment of such solutions easier, faster and thereby more cost effective.

The MyScript for Form Processing offer enables you to:

- **Reduce time to market**
- **Lower development and deployment costs**
- **Improve form processing accuracy and quality** thereby minimizing correction overheads
- **Increase customer satisfaction**

Featuring state-of-the-art functionalities, modularity and performance, MyScript for form processing **improves ROI** by enabling fast deployment and high levels of quality, making your form processing project a success.

+ Complete form processing product offer

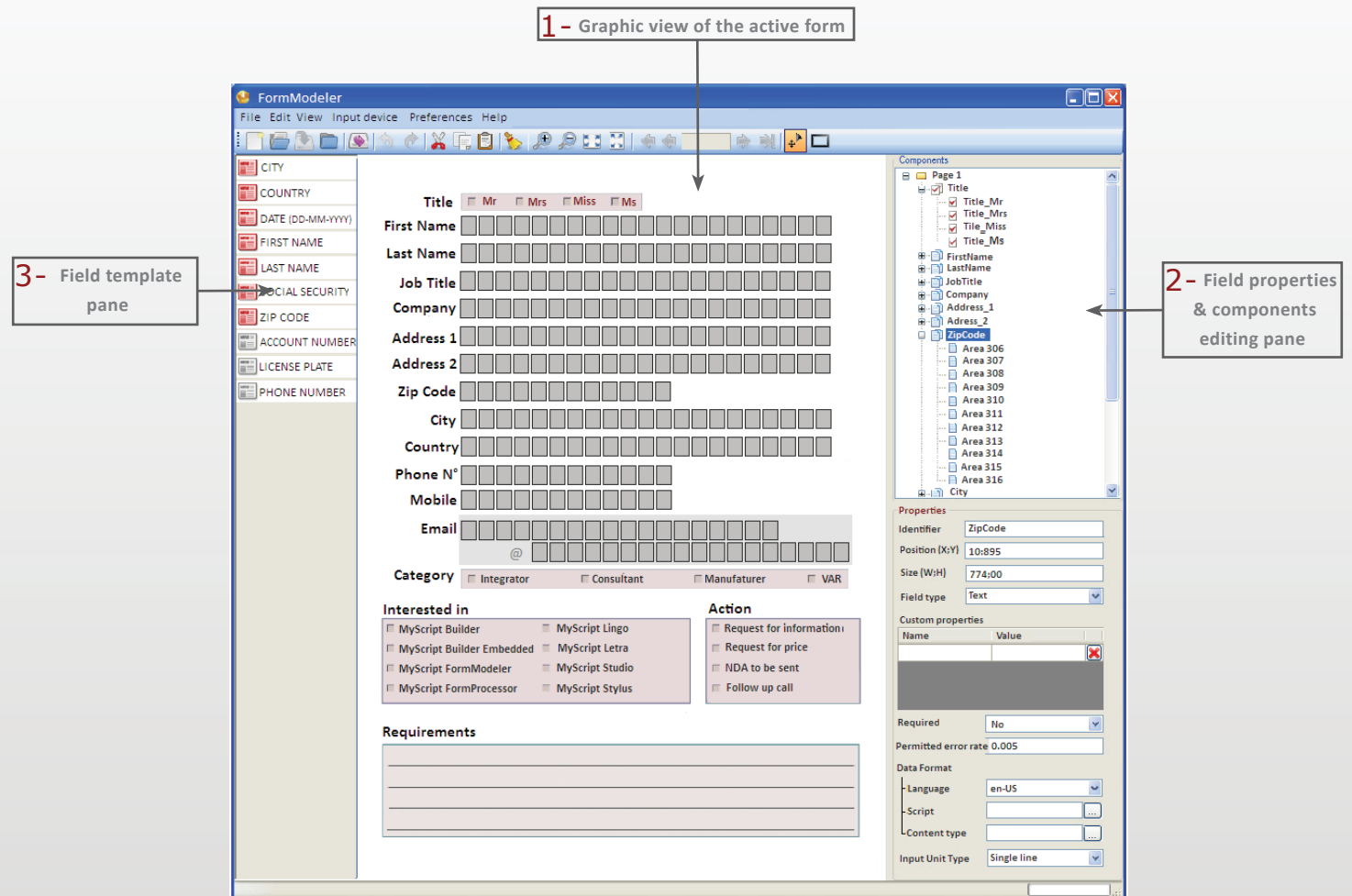
Discover the MyScript offer for form processing:

- **MyScript FormModeler:** an easy and interactive tool to prepare your forms for automated processing.
- **MyScript Builder Form extension:** an extension to MyScript Builder SDK to develop a customized form processing application.
- **MyScript FormProcessor:** a form processing server that can quickly adapt to your specific environment and handle your form processing tasks reliably.

MyScript FormModeler enables system integrators and value added resellers specializing in form processing and automated data capture to create **form templates optimized for handwriting recognition**.

MyScript FormModeler is a Windows stand-alone application for modeling single and multi-page forms and their field properties in order to process the handwritten data.

It takes a predefined graphics file as input and displays it as a background so you can place and define fields graphically, thanks to a system of automatic detection or field drawing techniques.



1- A graphic view of the active form that displays each field and its layout.

2- A field properties and components editing pane:

- A tree view shows the hierarchy of field components (parent/children).

Example for the form displayed above: Relationship between the "Title" field and the 4 check boxes "Mr", "Mrs", "Miss", "Ms".

- For each field, properties can be set to determine the optimal recognition parameters: language, field type, expected content, character sets, default value, etc.
- Some properties and rules can be customized in order to be used by your application during or after the form processing stage.

Example : Red color can indicate that the significance level of a data contained in a specific field is high.

3- A field template pane with standard field types that can be selected and applied to forms. Users can also create their own templates library for future use, enabling them to model forms with increased efficiency.

Specifications

User interface and help files: English

Operating systems: Windows 2000, Windows XP, Windows Vista, Windows 7

CPU: Intel Pentium Processor

Recommended RAM: 1 Gb

Hard disk space: 64 Mb

Screen resolution: 1024 x 768

Software: Ghostscript freeware v.8.60 needs to be installed

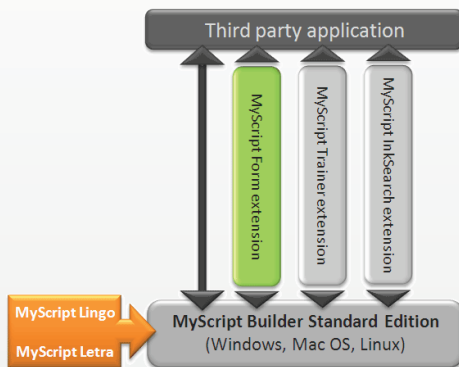
.NET framework 2.0

MyScript Form is an extension to the MyScript Builder Software Development Kit, and is designed to build handwriting recognition-based solutions for processing handwritten forms.

Thanks to its modular architecture, MyScript Form can be integrated in any application using digital ink generated by touch screen devices, digital pens and tablets.

FEATURES AND BENEFITS

MyScript product offer



Ideal set of tools

MyScript Form offers a complete set of tools to:

- **Model forms** (field characteristics and expected content),
- **Dispatch digital ink** into the correct field of a form,
- **Process forms** for optimal data accuracy,
- **Optimize** the management of **memory and resources**.

Efficient form modeling

MyScript Form can use form models from MyScript FormModeler. These models supply information about various types of fields (boxed, free handwriting, check boxes and radio buttons) and their data formats (language, lexicons, business rules, context information).

Accurate stroke to field assignment

MyScript Form contains methods to assign ink correctly to form fields before processing. Two dispatching policies are available in the API:

Location of first point



This method dispatches strokes based on the first point placed. In this example, even though part of the "M" spills out of the first box, the whole letter is allocated to the correct box.

Center of Gravity



The other method used is to assign strokes using their center of gravity.

Highly accurate recognition

MyScript Form takes full advantage of MyScript technology and its **linguistic resources** such as data formats or lexicons that help the handwriting recognition engine to recognize the field content.

For example, in a date field, a data format will describe the possible order in which the digits need to be written including separators.

SMART HWR: a multi-level recognition process

Using the MyScript recognition engine, "Smart HWR" carries out a series of consecutive recognition processes, that progressively set looser constraints in order to obtain a satisfactory result. Developers set the confidence score thresholds that define a satisfactory result.

Example:

Recognizing a first name on a French form:

- The first recognition process uses a lexicon of French first names.
- If the result does not meet the user-set score threshold, Smart HWR runs another recognition with a lexicon of international first names.
- If it fails to produce a convincing result, free recognition mode, without a lexicon, is used.

Optimal resource management

This tool is used to control resource traffic. It avoids unnecessary loading and unloading of resources for optimal application performance and memory usage.

TECHNICAL SPECIFICATIONS

Prerequisite: MyScript Builder 4.2 and later

Programming Languages: Java and .NET for Windows, Java for Linux

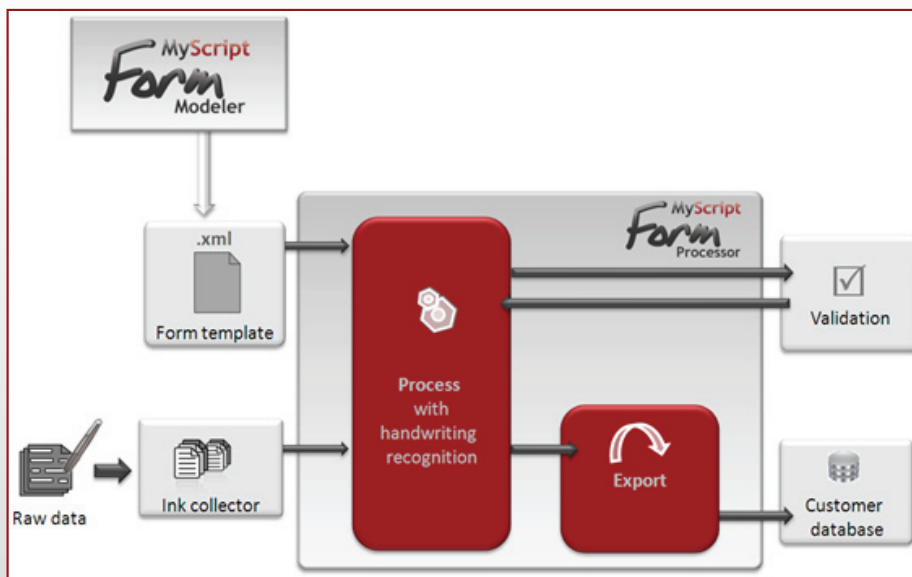
Operating Systems: Windows 2000, XP, Vista, 7, Windows Server 2003 and later, Mac Tiger, Leopard and Snow Leopard, Linux Ubuntu and Fedora.

CPU: Pentium 1,7 GHz or faster

Recommended RAM: 1 Gb

Hard Disk Space: 50 Mb and an additional 20 to 50 Mb per language pack

MyScript FormProcessor is a Web application designed for a quick deployment of a form processing application. Its modules can: **per-**form handwriting and check-box recognition, enable result validation and correction, export processing results.



FEATURES AND BENEFITS

✓ Easy to get ready for production

Once you have defined the fields of your form with MyScript FormModeler and collected the filled forms, send the handwritten content to MyScript FormProcessor for recognition. The result is available straight away.

✓ Out of the box accuracy

Based on MyScript technology, MyScript FormProcessor will give you the best possible handwriting recognition accuracy.

✓ Robust and reliable

When receiving a new form to process, MyScript FormProcessor will add it to a queue and process it in a few milliseconds. To avoid unnecessary manual verification overheads, the result of each field comes with a confidence flag, that indicates if the result needs to be verified or not. Of course, the parameters defining this flag can be tuned to adapt to your needs.

To ensure full traceability of data, during the recognition process, all original forms contents, recognition results and potential corrections are safely stored on the server for further use in your business processes.

✓ Flexible deployment

Interfaced to the outside world through HTTP(S) requests, the MyScript FormProcessor server can be connected, with minimum development effort, with any devices producing digital ink, like digital pen and paper, Tablet PCs, digital paper pads or tablets. Thanks to its flexible architecture you can deploy MyScript FormProcessor on a single computer or in a distributed environment depending on your business requirements and scalability needs. MyScript FormProcessor also perfectly fits in Anoto Forms Solution.

TECHNICAL SPECIFICATIONS

Operating systems: Windows Server 2003

CPU: Intel Pentium Processor 3GHz

Recommended RAM: 2 Gb

Hard disk space: min 500 Mb

Environment: Java Runtime Environment 5.0, Apache Tomcat 5.5, MySQL 5.0 and MySQL Connector/J 5.0