

MyScript Builder SE

MyScript Builder Standard Edition (SE) is a Software Development Kit (SDK) for integration of handwriting recognition capabilities in a wide range of applications requiring data input such as:

- Data capture,
- Form processing,
- Notes management.

MyScript Builder SE is based on MyScript Technology that reliably recognizes natural handwriting including: isolated characters, hand-printed and cursive handwriting.



BENEFITS

+ Comfort & ease of use

MyScript gives the comfort of entering text through natural handwriting, without changing writing habits.

+ Time saving & cost efficient

No more retyping of handwritten information. MyScript offers a time saving and cost efficient solution to applications requiring free text entry.

+ Immediate availability of data

The use of MyScript improves workflow considerably as handwritten information is immediately available for use in back-end applications.

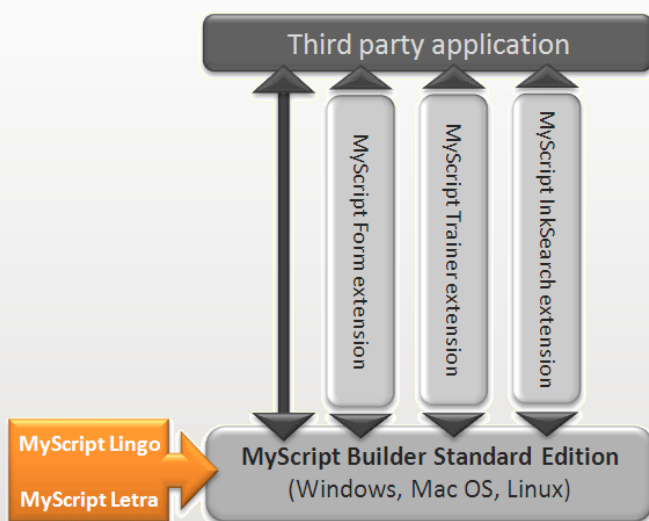
+ Customization

Regardless of the device or operating system on which you are developing, you can bring MyScript to it. MyScript Builder SE can be adapted to proprietary platforms on demand.

+ Extended possibilities

Vision Objects proposes **extension SDKs** that add more power and wider possibilities to MyScript Builder. These extension SDKs help optimize MyScript Builder SE for specific application types, such as form processing, notes management and many more.

MYSCRIPT PRODUCT OFFER



MyScript is online handwriting recognition technology. It captures and uses all information provided by your handwriting: shape of characters, writing style, time order of strokes.

MyScript Builder SE can be used with a wide range of data input devices such as digital pens, tablet PCs, graphic tablets and interactive whiteboards.

The following MyScript Builder extensions are available:

- **MyScript Form extension:** designed for bringing MyScript handwriting capabilities into form processing systems.
- **MyScript InkSearch extension:** to create a search engine for handwritten content.
- **MyScript Trainer extension:** to create user profiles in order to provide higher accuracy for people whose writing differs from the "average".

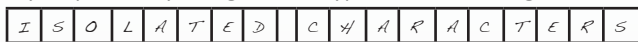
FEATURES AT A GLANCE

✓ Handwriting understanding

MyScript does not just convert handwriting to digital text: it “understands” natural handwriting. In addition to characters, MyScript recognizes word components, complete words and phrases. Through powerful language models MyScript verifies that what is recognized actually fits in the context.

✓ Natural handwriting

MyScript reliably recognizes all types of handwriting:



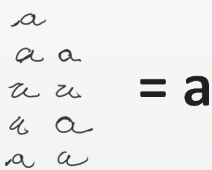
Handprinted characters

Cursive handwriting

✓ Variation in handwriting

Trained on thousands of handwriting samples collected around the world, MyScript takes into account the alphabet, the vocabulary and country-specific handwriting styles for each language.

This information allows MyScript to deliver high recognition accuracy rates.





✓ Language specificities

The recognizer takes into account a large amount of language specificities:

- **All types of characters:** alphabet-based (e.g. Arabic, Cyrillic, Devanagari, English, Greek, Hebrew, Tamil), or ideograms (e.g. Chinese or Japanese).
- **Mix of Asian languages with English cursive handwriting:** MyScript recognizes cursive English when combined with Asian languages (Simplified and traditional Chinese, Japanese, Korean).
- **Writing directions:** In addition to left to right writing, MyScript recognizes right to left writing direction for Arabic and Hebrew, as well as Japanese vertical writing.

✓ Handwritten text correction

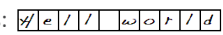
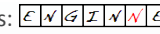
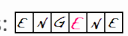
Recognition can detect:

- Erasure of text (crossing out, strikethrough, double-strikethrough, scratch out),

- Ink incidents such as missing pen lifts (cursive style writing in boxed fields) or identical characters written on top of each other,

- Insertion of text.



✓ Optimized isolated character recognition

Improve boxed field recognition with the ability to treat spelling distortion, erased characters and out of lexicon words. For instance:

- Omitted characters:  ⇒ Hello world
- Superfluous characters:  ⇒ ENGINE
- Substituted characters:  ⇒ ENGINE

✓ Data formats

Data formats describe the **structure and syntax of expected handwritten data input** as well as the variation in the word/digit order, abbreviations and typical words or expressions. Pre-defined data formats are available within MyScript Builder such as phone numbers, dates and email addresses. You can also create and test data formats with **MyScript Language Resource Tool**, an Integrated Development Environment with a friendly Graphic User Interface.

✓ Confidence scores

MyScript provides a top list of candidates with **confidence scores at a character and word level** that indicates both accuracy and recognition quality. This helps to define a resemblance threshold that can be used to decide whether a recognition result is satisfactory or not (especially appreciated in form processing applications).

✓ Synchronous / Asynchronous mode

MyScript supports both synchronous and asynchronous modes.

- **Synchronous recognition:** The recognition process starts as soon as the writer starts to write, to provide results as fast as possible.
- **Asynchronous recognition:** Recognition only starts when the entire ink sample has been provided.

✓ Interactive handwriting

MyScript recognizes **intuitive gestures, circled characters, words and phrases** to make handwritten text even more **interactive**. For example, to a circled piece of text you can attach the action “send text as an email”.

✓ Special characters

In addition to commonly used characters, such as alphabet and punctuation, MyScript Builder supports **specific characters** used especially in note taking applications in indented and bulleted lists, such as:

- bullet
- right arrow
- ⇒ double right arrow

TECHNICAL SPECIFICATIONS

Language packs

MyScript Builder SE supports all MyScript Lingo and Letra language packs. See the MyScript Lingo and MyScript Letra data-sheet for more details.

SDK contents

APIs

C, Java and .NET (with C, C# and Java examples)

Operating Systems

Windows platforms from 2000 to 7 (32-bit and 64-bit systems)

Linux platforms (32-bit and 64-bit systems)

Mac OS X (Intel processor only - 32-bit and 64-bit systems)

InkTool

InkTool is an ink editor for managing and testing recognition on handwritten ink samples. It allows the user to analyze ink files and to choose the optimal configuration to get the best handwriting recognition results.

MyScript Language Resource Tool

This standalone application enables developers to create, debug, manage and test specific language resources. One license is delivered with the SDK, possibility to add licenses if needed.

Developers' Guide

This comprehensive guide brings developers quickly up to speed in creating applications integrating MyScript handwriting recognition capabilities. It provides a vast range of examples for C, C# and Java.

System requirements

Processor: Pentium 400 MHz or faster

RAM: 32Mb

Disk usage: 10Mb and an additional 20 to 50Mb per language pack.

Performances*

The table below shows a sample of the recognition time for different types of handwriting using MyScript Lingo language packs.

	Cursive handwriting**	Isolated characters***
Arabic, Cyrillic, Latin, Greek, Hebrew	78.7 char/ sec	162.3 char/sec
Chinese, Japanese, Korean	36.1 char/ sec	588.2 char/sec

* These performances are obtained on a machine running under Windows Vista Professional (API: C) with the following characteristics: Intel Core 2 Quad; CPU : 2.40 GHz; RAM: 2046 Mo - ** With Linguistic resources - ***Without Linguistic resources

SERVICES

Vision Objects can assist you during the development of your solution in several ways: Developer Training, Technical Support and Professional Services.

Developer training

Vision Objects offers different levels of training to help partners build powerful recognition-based applications, depending on the chosen developer license.

Technical support and maintenance

Vision Objects provides support for its products. During the support period, partners can send information requests through a dedicated support site and **benefit from regular upgrades** of the licensed Vision Objects products.

Professional services

Vision Objects proposes development and integration services as well as third-party solution certification prior to the release of MyScript-powered applications. These services help Vision Objects' partners in developing solutions that provide the best possible recognition accuracy rates.

Examples of our Development and Integration services include:

- Consultancy in integrating handwriting recognition
- Consultancy in the use of SDK tools
- Code review
- Development of custom recognition resources
- Consultancy in setting rejection thresholds in data validation tools
- Development of on-demand data formats for vertical markets (such as healthcare, insurance, banking, etc.)

MYSCRIPT BUILDER EXTENSIONS

MyScript Builder SE Software Development Kit Extensions offer the possibility to **add more power and more possibilities to solutions integrating MyScript Handwriting Recognition.**

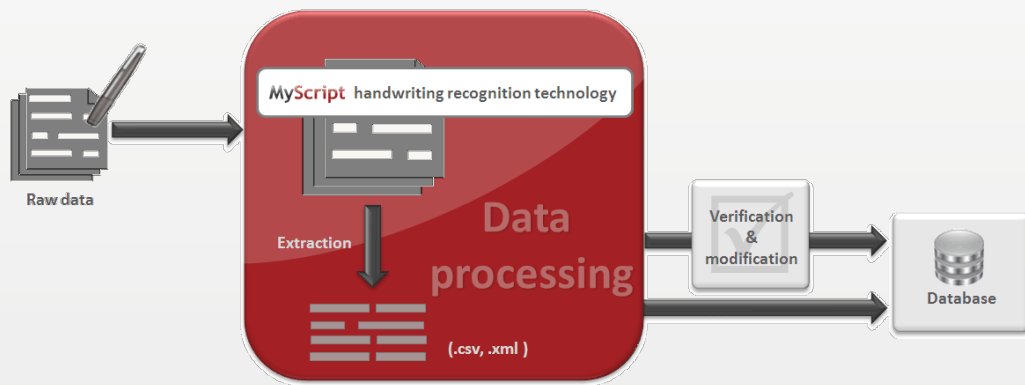
These extensions are completely modular and are a perfect fit to high performance applications.

✓ MyScript Form extension

MyScript Form is an extension to MyScript Builder SE designed to easily integrate handwriting recognition capabilities in digital form processing solutions.

Compared to traditional form processing applications, solutions integrating MyScript Technology process handwritten forms faster and more accurately.

Using MyScript Form, business critical data is available immediately in industry standard file formats and can be easily saved into a company database or further processed.



For more information on the MyScript Form Extension SDK, please refer to the MyScript for Form Processing datasheet.

✓ MyScript InkSearch extension

MyScript InkSearch is an SDK extension tailored to MyScript Builder SE that turns handwriting into searchable information. MyScript InkSearch provides the tools to create a search engine that retrieves all words, even those that are not in the dictionary, such as an acronym, a brand name or a last name.

Search engine for handwritten content:

MyScript InkSearch works through a system of indexes and queries: to provide quick searches, the digital ink file is indexed at storage time and then, the query runs through this index to find the required information. The search results quickly display the pages which contain the information you are looking for and its location. The most pertinent results are displayed at the top of the list.

There is no need to convert the text: indexing and searching is done on the raw ink, saving processing time.

✓ MyScript Trainer extension

For people whose writing style differs from the “average”, MyScript Trainer can improve recognition by **creating a custom handwriting profile**. Once the individual profile is created, it can be managed by the application to create a personal recognition environment.

MyScript Trainer is available as an extension to MyScript Builder and supports all the Lingo language packs.