Multimodal Handwriting Recognition

DIRECT MANIPULATION FOR HUMAN-MACHINE INTERFACES

PARAGON SOFTWARE

Paragon Multimodal Handwriting Recognition (HWR) engine is backed by a solid mathematical knowledge and many years of continuous R&D activities since mid-90s. This complex technology has traveled a long way from first Apple Newton PDAs to today's mobile platforms, including Windows, iOS, Android, and Tizen.

What's inside

[1] AUTOMOTIVE GRADE LINUX

Paragon PenReader SDK with C-language API

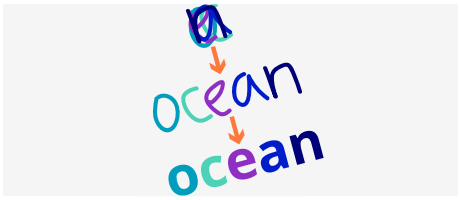
1. On-line (as you write) recognition of handwriting input,
2. Off-line (scanned image) handwriting OCR, and
3. Language libraries

Visit http://handwriting-sdk.com to learn more about Paragon HWR SDK and try out the demo API

Check out a limited show case for Android platform at https://play.google.com/store/apps/details?id=com.app.PenReaderDemo

[1] Full support for In-Vehicle Infotainment systems integration

How handwriting input works?



Users can write in more than 40 languages, including Latin and Cyrillic scripts with extended diacritics, Arabic and Hebrew, Chinese characters (simplified and traditional), Japanese, Korean, and many others.

New scripts and enhanced language packs are regularly released or can be made available on demand.

Users can write on any part of their touch screen using stylus or simply with their finger.

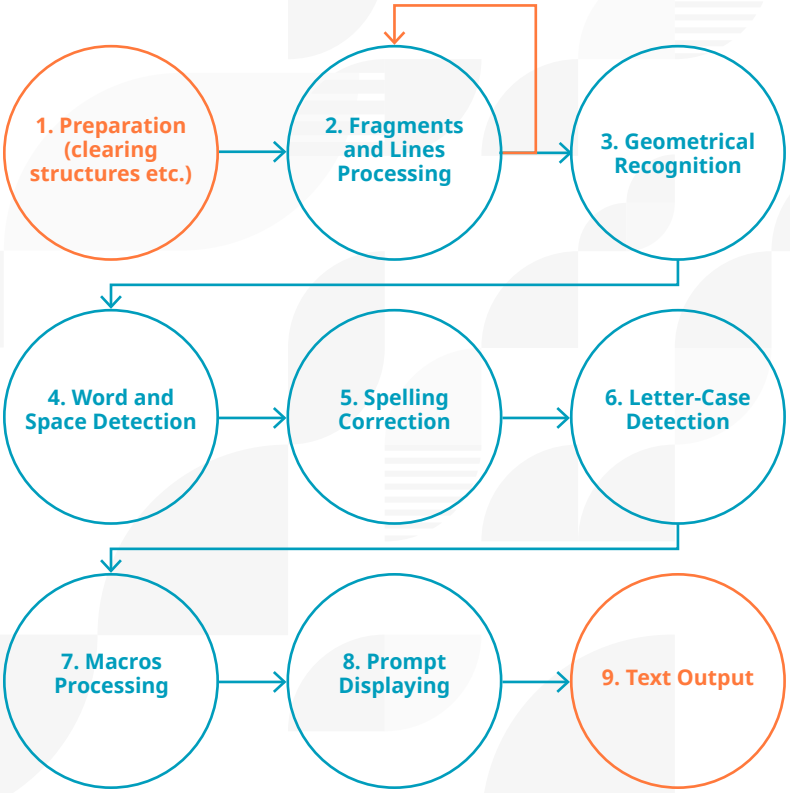
Users can write at any angle, overlap characters (or just write letter by letter on the same place), jump from one line to another (multi-line input), change over words and lines (delayed cumulative input).

Users can further turn on intelligent mode, which automatically fixes spelling errors, and display prompts from built-in or custom dictionaries.

General-purpose and specialized dictionaries for supported languages are regularly released or can be made available on demand.

Paragon Technologie GmbH
Wiesentalstraße 22
79115 Freiburg / Deutschland

Email: requests2020@paragon-software.com
Phone: +49-761-59018-201
www.paragon-software.com



How on-line HWR works?

Recognition of handwriting variants using thousands of reference samples for specific script, more than 5,500 control paths and over 60,000 processing instructions.

Reference samples can be extended and customized, including accommodation to graphic individuality of the user and handwriting verification.

Recognition of varying writing angle and pressure.

Intelligent recognition of strokes, stroke combinations, and superimpositions.

Recognition of letters, numbers, special symbols, and ligatures, case and diacritic marks detection.

Predictive and cumulative recognition of words and spaces, spelling correction, and input prompting.

Automatic detection of lines, including overlaps.

Average accuracy for English is above 98% (for other languages 95-97%).

Average off-line recognition speed on model test-bench is up to 200sps (symbols per second) for intelligent mode (with spelling correction), which leaves a large performance margin for any practical application even on «weak» hardware and under severe operational constrains.

Contact Paragon Technology Center

- Request technical specs and performance benchmarks
- Ask any question you may have
- Try out for free and get technical help

Since 1994, Paragon Software Group provides effective solutions to ISVs, OEM, ODM, and Tier-1 suppliers. Our technology works reliably across heterogeneous devices and platforms, operating and file systems, application environments and use cases. Join worldwide leaders who select the Paragon software and unlock these opportunities to ramp up your business:

- Vast and continually developing range of quality products
- Flexibility to adapt state-of-the-art technology to specific business, market and customer needs
- First-class engineering services and technical support

Paragon Technologie GmbH
Wiesentalstraße 22
79115 Freiburg / Deutschland

Email: requests2020@paragon-software.com
Phone: +49-761-59018-201
www.paragon-software.com