

INTELLIGENT RECOGNITION

Image, pattern and character recognition (OCR): core competencies for software robots

For stable automation, software robots must be able to reliably process data from images and texts. An essential technical feature for software robotics solutions is therefore high-quality processes for recognizing images and patterns or characters and texts (OCR, Optical Character Recognition). With these technologies, the software robots can not only reliably identify image content on the screen, but also read information from documents in image format (JPGs, PDFs), e.g. contract, invoice or customer numbers.



The better a system is at identifying images and text, the faster and more stable the subsequent automation will be. At the same time, inferior text and image recognition also carries risks that go beyond quality and stability: It can limit the scope of your automation potential, as well as the scalability of your automation.



It's also important to remember that a business department often starts working with image recognition without even realizing it because the company's IT department has made desktop or software applications available in virtualized form – that is, as images. **Servicetrace's patented image recognition technology is extremely mature and enables fast, stable process automation – even in virtualized environments.**

Intelligent Recognition - Seeing like the human eye

Many providers continue to take a technical approach to image recognition and OCR. In the case of virtualization, for example, they try to obtain technical data from virtualization solutions such as Citrix.

Servicetrace takes a completely different approach. No such technical information is required because our patented image recognition and OCR technology is based on human vision. Moreover, it works exclusively via the graphical user interface (GUI) or image in question. Servicetrace solutions can even interact with images and text, as well.



More stability through “fuzzy Logic”:

Humans can recognize familiar patterns even if they are blurred. All it takes is a few recognizable features. This is exactly how image recognition works with Servicetrace: It reduces an image or pattern to the features essential for recognition and hides those that are unimportant. This is made possible by an intelligent “fuzzy logic”. Handling fuzziness in this way provides for more stable automation because it results in fewer errors and malfunctions.



Advantages of Servicetrace’s image recognition:

- Understands images in a unique way
- Interacts with images
- Handles up to 50 varying images for different cases in parallel in one image search
- Reacts to exceptions
- “Heals” itself partially through special configuration and variant handling

Image and Text Recognition with Servicetrace



Patented, highly developed technology



Works exactly like the human eye



Based on artificial intelligence



Integrated into products at no additional cost

High-quality Process Automation in virtualised environments.

Many companies now make their IT landscape available in virtualized form – via Citrix, for example. Desktop virtualization is also very common. That said, the software is no longer installed on each individual end device; the desktop (including its programs) is only emulated on the end device. Technically speaking, the resulting replica is an image. This means that in virtualized IT environments, you can only automate processes with the help of strong image recognition. If an automation product relies solely on interface information and does not have strong image recognition, automation is not possible.

In addition to Citrix, there are many other applications that can be a black box for Windows (and thus for some automation products). These include Java rich clients, remote sessions, terminal servers, and mainframes, as well as new web technologies that use frames and are dynamically built. For process automation in virtualized environments like Citrix, high-quality image recognition is essential.

Glossary

Citrix XenApp

Citrix XenApp is a thin client solution from Citrix and the market leader in its area. The software is based on the terminal server functionality of Microsoft Windows Server operating systems, which makes it possible to use centrally provided applications with a wide variety of terminals that only require the user interface to be displayed.

Dynamische programming

Dynamic programming is a method for solving optimization problems with algorithms by dividing them into sub-problems and systematically storing the intermediate results.

Fuzzy logic

Fuzzy logic is a theory that was developed in pattern recognition for the precise detection of imprecision. Today, it plays a role mainly in applied areas such as control engineering.

Optical character recognition (OCR)

OCR is a term from computer science that refers to the automated recognition of text within images.

Virtualization

In computer science, virtualization refers to the reproduction of a hardware or software object with the help of an abstraction layer. Facilitating the creation of virtual (i.e. non-physical) devices or services in this way makes it possible to draw on computer resources (especially those of servers), transparently combine or divide them, or run one operating system within another.

Servicetrace: Process Automation “made in Germany”

Servicetrace was one of the first companies ever to start developing software robots and process automation solutions back in 2004.

Industry leaders and global players such as Siemens, Deutsche Telekom and Merck trust our experience and our leading automation solutions in the areas of Robotic Process Automation (RPA), Application Performance Monitoring and Test Automation. Market analysts such as Gartner and Forrester consider Servicetrace to be one of the top global vendors for RPA.

Servicetrace aims to empower organizations of all types and sizes for successful enterprise-wide process automation. To do this, the company develops holistically designed and easy-to-use solutions that enable organizations to effectively and efficiently plan, operate and control the complete process automation process. Servicetrace products feature highly sophisticated, intelligent recognition technology for images, patterns, text and characters, and integrated security and scaling technology that is patented multiple times.

The company has locations in Darmstadt (headquarters), Mannheim, Dubai and Singapore. An international partner network provides world-wide access to state-of-the-art automation solutions “made in Germany”.



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