



A Division of UNICOM®Global

# DoXite

Intelligent Document Composition

Putting  IT All Together.™

## DoXite at a Glance

DoXite is a solution for dynamically turning data from a broad range of applications incl. SAP® into formatted documents for printing or electronic channels. It can also convert data, for instance to generate XML for a communication interface. Last but not least, it can execute complex printing and document management process flows in a controlled manner.

DoXite leverages our extensive experience gained over the course of developing the predecessor product LibertySoft\*. DoXite represents the next product generation and is based on an object-oriented design. The well-structured, intuitive Windows-style graphical user interface offers great ease of use.

In addition to Windows, it can also be operated under Linux and Unix, and any common browser can be used to administer the system. Owing to the consistent use of Unicode (MBCS) – from input data converted into Unicode through to the formatted document – DoXite can be employed anywhere in the world using LTR character sets.

## Data, Document Design, and Processes

### ICE – Global Configuration

The central “Integrated Configuration Environment” (ICE) component offers a 360-degree view of all DoXite projects and configurations. DoXite ICE provides a graphical user interface (fig. 1) for accessing configuration data and performing administration tasks. The Data Styler and Document Styler tools are ICE plug-ins.

During configuration using ICE, the employed DoXite elements are grouped in environments, for example, to map an IT structure such as development, quality assurance and production or to map a business organization including head office and branches.

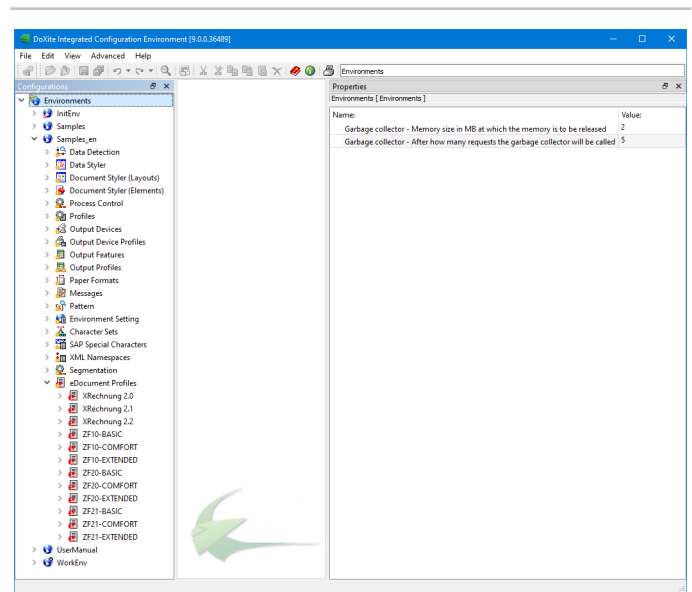


Fig. 1: The “Integrated Configuration Environment” (ICE) offers a 360-degree view of all DoXite projects and configurations.

ICE further performs two other important DoXite functions: It automatically versions all DoXite objects and keeps track of the validity period assigned to each object. This allows users to easily reactivate previous versions or configure definitions that are enabled automatically at a later date.

### Intelligent Process Control

DoXite has a strictly modular design. This greatly facilitates integration of the solution as a formatting subsystem into other systems, for example, spooling and output management systems. The software can also be called up from other systems, thus making it possible to carry out freely definable processes in a controlled manner.

Such a process can include the execution of DoXite components as well as third-party software components – such as for post-processing printed matters or signing digital documents.

Thanks to this controlled process, the results can be passed on to other processes in various ways, e.g. using pipes or files. DoXite Process Control is used to control any application, including LibertySoft applications and DoXite processes. It is also possible to configure event-based process steps. This wealth of functions and

*\*also known as LaserSoft in German-speaking territories and named hereafter LibertySoft*

modern technologies makes the solution highly flexible and thus suitable for use in various application scenarios.

## Match-Network for Conversion Steps

DoXite has a built-in match network for determining which process sequence is to be executed to achieve a specific data or document formatting result. DoXite can even run conversion steps not intended for document production. Matches with input data are determined based on regular expressions. The process sequence associated with the match is then executed. This technology enables users to specify complex conditions and perform the corresponding transformations.

DoXite offers a large selection of predefined converters for conversion of, for instance, SAP® data formats such as RDI or IDOC to XML. Custom-made converters for new data types can also be added with ease.

# Structuring Data, Designing Documents

DoXite comes with two special tools for splitting up and structuring data as well as for defining the layout of dynamic documents and forms: the Data Styler supports various data formats and converts them to XML. The Document Styler takes the XML data, determines the document layout and places the variable XML data at the correct locations.

## Data Styler

Separating data structuring and document design offers many benefits: using the Data Styler for selecting data elements from an input source and arranging them in a transparent XML structure results in a highly user-friendly process. In a next step distinct from data selection and structuring, the user then works with the Document Styler to create the desired document layout.

Another reason for splitting the process is the fact that any given data structure is usually much more stable than the desired optical presentation of individual components of the document. Also, often the transformation of an

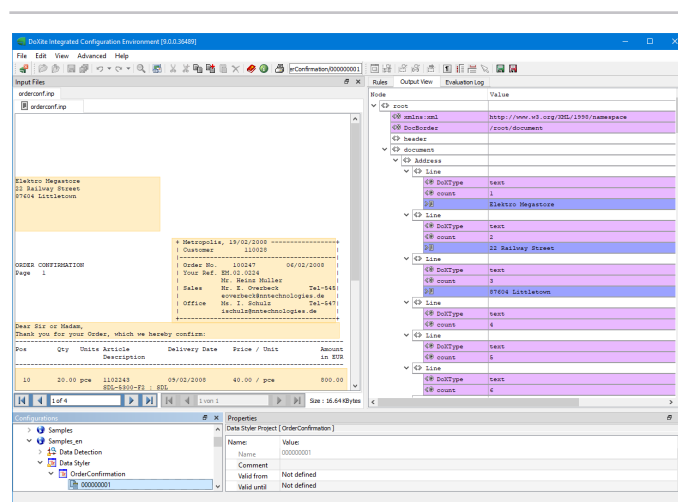


Fig. 2: Generating the XML data design with the Data Styler, here based on excerpts (Windows) of an ASCII input file. The input data converted to XML format provide the input for the Document Styler.

input data format to XML is all that is required. The data thus generated can be further processed in any downstream processes.

This is why data selection and transformation to XML, and creation of formatted documents are individual processes in DoXite (fig. 2). The “Process Control” workflow component or the match network draw on these processes in the configured workflows.

## Document Styler

The Document Styler processes data from the included standard converters or custom-made converters and produces formatted documents. When designing the document, users can specify the document structure and the layout of the logical document sections such as header, body, table and footer (fig. 3). DoXite offers central building blocks which can be referenced as required. These building blocks can contain text, images, tables, pictures, barcode or references to variable data or even additional building blocks.

Further Document Styler features include the support of nested tables and processing of hierarchical line item data (sub line items), different image formats (TIFF, GIF, JPEG, BMP, PNG and PSD at any color depth and freely scalable), as well as a large selection of integrated barcode types. DoXite predominantly uses True Type fonts. Conversion to printing formats is performed automatically. Device-resident fonts are also supported. All tasks, including the distribution to different output channels and sorting, are defined using the Document Styler GUI. No programming is required (but generally possible).

## Document Import in any Format

Document templates in a wide range of formats, such as PDF, PCL and SAPGOF, can be easily imported into DoXite from third-party systems (fig. 4).

This saves users valuable working time, because templates already created for headers and footers, background images or the entire document can be simply transferred, adapted and extended in DoXite.

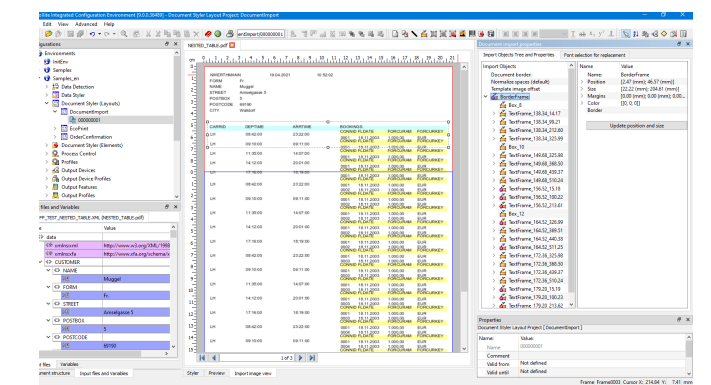


Fig. 4: Existing documents (in PDF or PCL format) can be imported true to template. In addition, the original input file from which the document to be imported was created is required.

## Output Interfaces: Mail, Web, Optical Archives

There are many different output drivers for printers and electronic media available for DoXite. These include PCL5 and PCL6 (PCL-XL) as well as PDF, PDF/A and TIFF. The production of the output data streams is fully configurable, e.g., to accommodate specific printer models, page features such as duplex type, page formats and the output tray. Single documents can also be stored as separate files, e.g., in a defined directory ("hot folder" of a follow-up application). As another option, output interfaces can be used for diverse archiving systems and mail.

## Electronic Invoicing

Companies can streamline electronic business transactions between each other by exchanging information in machine-readable XML formats using DoXite. Any data or document content can be converted into customized

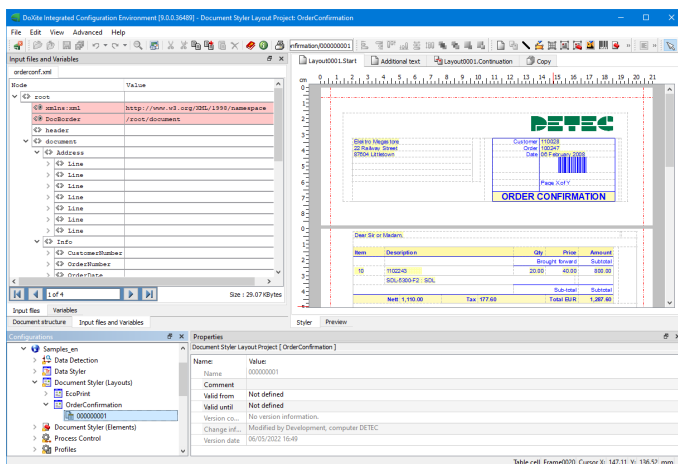


Fig. 3: When designing the document, users can specify the document structure and the layout of logical document sections such as header, body, table and footer. The display style and position of the windows for this screen display, e.g., the display of XML input data, can be freely defined by the user.

XML formats and automatically processed by business applications, eliminating the need for manual data entry.

DoXite 9.1 supports XRechnung 2.2.0 – which has been mandatory for sending invoices to German public-sector customers since August 1st, 2022 – as well as the Factur-X and ZUGFeRD standards, which meet the latest European Union requirements for electronic invoicing. These standards prescribe specific XML data exchange formats to support seamless commerce between organizations.

For example, a valid telephone number and an email address must be automatically transmitted to ensure that contact can be made directly with the responsible person at the biller in the event of problems with an invoice. DoXite also includes a validator so that compliance with the valid XRechnung standard can be checked as soon as the document is created.

## Scripting for DoXite

DoXite supports script programming for creating and integrating custom-tailored features required by the system. The script language used must support object-oriented concepts and integration into an object-oriented environment, namely DoXite. This makes it possible to show the results of a script in a preview window of the document designer.

DoXite is equipped with a Python framework to make the software fit for use with this script language. Python (open source) is a portable, interpreted and object-oriented programming language built for ease of use and clarity of structure. Python is therefore particularly suited for applications where transparency and the readability of the code are top priorities. Aside from this, Python offers a large standard library and thus supports many applications (XML, HTML, HTTP, SOAP, MIME etc.). There are many excellent and widespread specialist publications on the language and how to use it.

## Benefits

DoXite is the next LibertySoft generation. We chose a modern, object-oriented design to create a robust, expandable tool. DoXite is available for Windows, Linux and various Unix systems. DoXite provides your company with benefits in the following areas:

- Transparent, well-readable documents aligned with your customers' requirements. This results in reduced errors and queries and thus improves customer satisfaction.
- Existing document layouts can be easily adopted.
- Whenever needed, you can produce and distribute digital versions of documents: Multichannel via email, EDI, ZUGFeRD, XRechnung, XML, web document (e.g. signed PDF/A document).
- Internal processes, communication between companies (B2B) and between companies and customers (B2C) are optimized on the basis of digital documents.
- Whenever you need to print large volumes of paper and then distribute the printouts, you can create perfectly adapted workflows using barcodes, post-processing control, enveloping, sorting and, if required, electronic franking.
- DoXite print data streams are so compact that your output devices can operate at target performance.

## Better Documents & Communication

### DoXite-Server – What Purpose Does It Serve?

Formatted documents or specific data conversions are required in other areas beside output management as well. For instance, certain web or intranet applications may require a PDF document based on variable, dynamically generated data.

This is where DoXite Server comes into the picture. It provides the framework for executing the required workflow. With the help of DoXite processes, users can, for example, format documents, access databases or retrieve information on the latest market quotation. Another function of the server is to provide end users with a preview of formatted documents. Calls from applications or standard systems like SAP® containing raw data can be used to request, e.g., a PDF file with formatted documents. On the server, DoXite Process Control and Match Network execute the correct workflow depending on the match with the raw data. As an alternative method to matching the data, the calling client application can directly define the required workflow.

DETEC Software GmbH, Im Neugrund 16, 64521 Groß-Gerau, Germany

**Phone:** +49 6152 71230 **Fax:** +49 6152 7123199 **Email:** [info@detec.com](mailto:info@detec.com) **Web:** [www.detec.com](http://www.detec.com)

Trademarks and Registered Trademarks: [www.detec.com/trademarks](http://www.detec.com/trademarks)

All other brands or products are trademarks or registered trademarks of their respective holders and should be treated as such.

Copyright © 2023 DETEC Software GmbH - a division of UNICOM Global - All Rights Reserved.