

Pragma ADE

Mission statement

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Introduction

This document introduces you to PRAGMA Advanced Document Engineering and the CONTEX_T typesetting system developed at PRAGMA. We also discuss our company's manner of operation.

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The CON_TE_XT engine

CON_TE_XT is a typographical engine written in the typographical computer language T_EX. CON_TE_XT provides you with a convenient way to encode documents in a structured way and to typeset these documents in various ways on paper, computer screen or web site.

Use CON_TE_XT to create simple documents and complex layouts. From a single source produce traditional paper documents as well as highly interactive electronic documents. Combine text and graphics and other information in your document in different ways. Move around, use and reuse information and typeset in one or more natural languages.

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The METAFUN subsystem

METAFUN (a superset of well known METAPOST) is a powerful system for vector graphics that is fully integrated into CONTEX_T thereby reaching its full potential for the first time, but also useable as a stand alone product.

METAFUN is not for interactive drawing applications and not for free hand drawings. Its strength lies in the ability to enhance the document layout with highly accurate graphics elements.

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The EXAMPLE project

CONTEX_T facilitates the coding of highly structured documents but less structured, low level, directives can still be intermixed and are not blocked. Coding in XML is more restrictive with the advantage that one can be more certain that the input matches the formal document description. Another benefit of XML is that editor software can be specially setup for enforcing structured documents.

For simple documents, coding in XML — although verbose — does not differ much from CONTEX_T, but as soon as the need to reuse content arises much more tagging is required. The area where coding in CONTEX_T has a real advantage over coding in XML is for mathematics, since it seems to be better adapted to a mathematician's mind. This, however, opens the door to inconsistent markup. In CONTEX_T, therefore, it is possible to mix XML and CONTEX_T.

EXAMPLE is an internal PRAGMA ADE project that combines the power of document encoding in XML with the advanced typesetting capabilities of CONTEX_T. EXAMPLE provides the user with tools and methods and uses the XML processing capabilities build into CONTEX_T.

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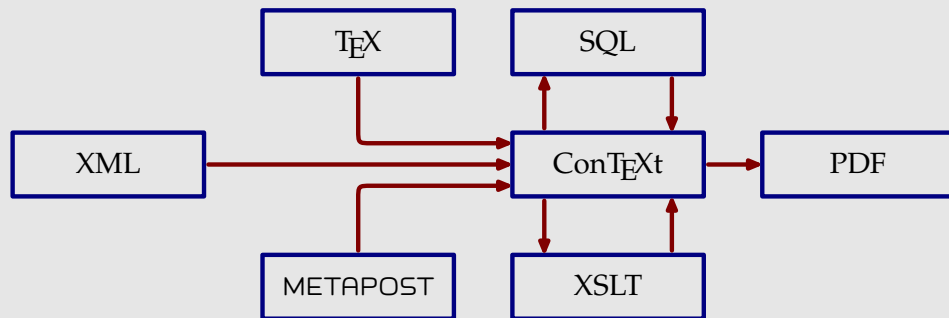
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How things relate

The core of the `ConTEXt` system is the `TEX` typesetting engine, but it is the integration with other technologies that provides it with real power.



The user may code in `ConTEXt` or XML or both simultaneously. Third-party graphics can be included with ease and `ConTEXt` understands and interplays with `METAPOST` such that its graphics output may adapt to its surroundings. If needed, an XSLT processor processes XML snippets, and data can be fed into and fetched from SQL databases.

Output can be generated in the now rather old fashioned but still widely used device independent (DVI) format, which requires post processing, but today's demands for portability make PDF the most natural `ConTEXt` supported format. PDF output also permits the creation of intelligent documents with hyperlinks, `JAVASCRIPT` (although potentially limiting portability), movies and sound.

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CON_TE_XT system characteristics

CON_TE_XT, the distribution, is a coherent system of macros, styles and tools, featuring:

- a powerful integrated typesetting kernel
- strong support for structuring
- parameter driven style setups
- extensible structuring with inheritance
- integrated interactive document support
- structured project organization of documents
- descriptive style definitions
- integrated XML parser
- presentational and content MATHML
- high level of data abstraction (e.g. abbreviations)
- tight cooperation with METAPOST
- graphic inclusion
- resource management
- graphic extension capabilities
- content reuse and selective processing
- (interactive) flow charts
- chemical structure formulas
- physical unit's management
- math typesetting environments
- the T_EXEXEC process manager
- the T_EXWORK workbench (under development)
- specific educational extensions
- typesetting-on-demand support
- DTP-competing output
- page imposition
- extensive layering
- presentation styles
- task dedicated modules
- documentation

CON_TE_XT is being used for typesetting complex, often educational, paper based documents, journals, interactive manuals and user's guides, dynamic WEB documents. It is a suitable back-end for highly automated workflows.

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The way we at PRAGMA ADE operate

CONTeXT is a software available free of charge, that may be downloaded from our website or from one of its mirror sites. The CONTeXT system, however, is a work in progress, meaning that we may add features when we need them in our projects.

Occasionally, you will see new methods being applied in our published documents or in those that are produced in publishing projects in which we participate. Once their usability is demonstrated and the interface stable we formally add these new methods to the CONTeXT distribution for others to use.

This way of operation gives our customers a competitive edge while at a later time ensuring the existence of a wider group of users to fall back on.

PRAGMA ADE consists of three cooperating companies. The parent company is PRAGMA Advanced Document Engineering, focussing on CONTeXT development, on implementing typesetting workflows, on maintaining complex documents, on developing styles.

PRAGMA Publishing On Demand integrates workflow development with our customers, while hosting the CONTeXT-on-demand server application used for customer-driven document generation. This company is a joint effort of PRAGMA ADE and ASKVME (informatics technology).

In preparation is PRAGMA CTS. This subsidiary company will focus on maintaining workflows and performing day-to-day typesetting jobs. Positioned as an intermediary to third parties working with CONTeXT, it will offer quality control and style management.

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PRAGMA ADE's objectives

We continue to improve CONTEX_T and its accompanying tools, adapting it to new or changing demands. Our short-term objectives are:

- an even tighter integration with XML while at the same time providing those preferring CONTEX_T with a comfortable authoring environment;
- a series of generic styles for paper documents and public presentations;
- additional tools for managing and enhancing resources (such as graphics) in response to a growing demand for document source reuse, where the same resources are used many times in different applications;
- further mapping of CONTEX_T functionality onto XML, permitting mixed document encoding and a smooth transition between encoding methods;
- support for XML formatting objects to embed third party XML code, to be implemented in a configurable way to achieve good consistency within a document.

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PRAGMA ADE's long term objectives

With priority given to project driven developments, we classify some objectives as 'long term':

- an integrated authoring environment to facilitate the production of highly complex documents, which will be based on publicly available tools as well as tools developed within PRAGMA ADE;
- automated support for common DTD's such that users maintain full control over the layout;
- manuals on how to well layout and code documents.

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How to obtain further information

CONTEXT, METAFUN and EXAMPLE are original developments of PRAGMA ADE. With our roots in research and development of course materials for profit and non-profit organizations, we currently focus on high end automated typesetting, using the tools we developed for typesetting educational products.

All new tools developed are first used internally in projects and evolve with our own demands as well as those of users. Download manuals, examples and source code from our web site:

www.pragma-ade.nl

or use one of the mirrors. You may also join the dedicated majordomo mailing list maintained by NTG. This is a closed list.

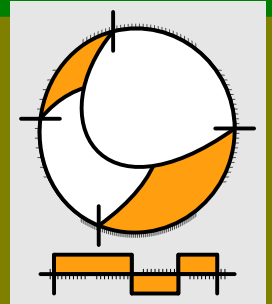
ntg-context@ntg.nl

If you want to know more about PRAGMA ADE, contact us at:

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