This document http://www.sil.org/sgml/publicSW.html is part of the SGML Web Page. Support for development and maintenance of the SGML Web Page is provided in part by SoftQuad, Inc. and by the Summer Institute of Linguistics, to whom gratitude is acknowledged.

[Back to Main Page, Table of Contents] [Search the entire SGML database]

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# Public SGML Software

*[CR: 19961029]* [Table of Contents]

## Introduction

Priority is given to "public" SGML software in this document database since the scope of interest is mainly the Internet, where the ethic of public gift is highly esteemed. The wealth of SGML software made freely available for public use is evidence of that ethos. As a supplement to the links and information provided on public SGML software below, readers should consult the the hypertext version of Steve Pepper's "SGML Tools and Vendors" in the Whirlwind Guide, where a code for "public" identifies these same software offerings. The FTP location for a text version is: ftp://ftp.falch.no/pub/sgmltool/sgmltool.txt. See the main bibliographic entry for the *Whirlwind Guide* for a document abstract and detailed information about its contents. See also the detailed software summary for 89 products extracted from the technical report of Kuikka and Nikunen: (a) the full bibliographic entry, or (b) the overview in the "Commercial SGML Software" page. NICE Technologies [October 1996] also has an online database of SGML vendors and products.

Primary sections in this document include the following -- however infelicitious the taxonomy for software categories. See the Contents listing to link directly to a particular description.

- **SGML Parsers**
- **SGML/HyTime Editing, Browsing, and Searching Tools**
- **SGML Data Conversion, Transformation, and Manipulation**
- **SGML Formatting Tools**
- **DSSSL Software Tools**
- **XML Software Tools**

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## Public SGML Software: Table of Contents

- ASP-SGML: Jos Warmer’s Amsterdam SGML Parser
- SGMLS: James Clark’s SGMLS parser
- YASP: Pierre Richard’s Yorktown Advanced SGML Parser (or: ’Yet Another SGML Parser’
- YAO (Yuan-Ze--Almaden--Oslo project) Parser Materials

- **SGML/HyTime Editing, Browsing, and Searching Tools - For DTDs and instances**

- Lennart Staflin’s PSGML
- Emacs LISP Mode (James Clark et al.)
- Panorama: SoftQuad’s SGML Viewer for WWW
- HoTMetaL: SoftQuad’s HoTMetaL editor for HTML
- The WP Project
- GRIF Symposia: "A Collaborative Authoring Tool for the World Wide Web"( HTML and SGML)
- perlSGML - Perl programs and libraries (Earl Hood)
- Carthage, dpp, and Bison tools by Michael Sperberg-McQueen
- DTDParse, by Norman Walsh
- NORMDTD (by Richart Light)
- Babble - Synoptic Text Browsing/Searching Tool
- IADS: Integrated Authoring and Display System
- SARA (SGML-Aware Retrieval Application)
- Ispell for SGML
- Syntext -- the SGML Grammar Grapher
- MtSgmlQL, the SgmlQL interpreter
- ’sgrep’ grep-like searching of structured documents
- Inside & Out, from ZGDV
- MU: Forms Assisted SGML Markup

- **SGML Data Conversion, Transformation, and Manipulation**

- Rainbow
- ICA: Integrated Chameleon Architecture
- STIL - ‘SGML Transformations in Lisp’
- CoST (Copenhagen SGML Tool, UNIX)
- costwish - SGML postprocessor and renderer based upon CoST
- SGMLS.pm and sgmlspl: A Simple Post-Processor for SGMLS and NSGMLS
- LT NSL and NSL (Normalised SGML Library)
- TclYasp SGML toolkit
- I4I S4-Desktop V2.1 SGML middleware
- SENG: SGML/Scheme Transformation Engine
- SGMLC-Lite free compiler

- **SGML Formatting Tools**

- format: Thomas Gordon’s QWERTZ SGML -> LaTeX formatting package
- gf: Gary Houston’s general formatter program
- Jörg Wittenberger’s Typeset Package
- Jörg Wittenberger’s SDC Package
- SGML-Tools [Was: Linuxdoc-SGML]

- MetaMorphosis
- gmat: an SGML Publishing System
- SGML2TeX - SGML-to-TeX converter
- Ken MacLeod's Generalized Document Objects (GDO)
- tei2latex - TEILITE to LaTeX2e

- **DSSSL Software Tools**

- Jade - James [Clark]'s DSSSL Engine
- YADE (Yet Another DSSSL Engine)
- DSC---DSSSL Syntax Checker
- DSSSL Developer's Toolkit
- Kawa - Java-based Scheme system (SENG)
- psgml-dsssl
- panodssl
- psgml-jade.el
- Jadetex Package
- DSSSL editing under emacs (dsssl/scheme mode)

- **XML Software Tools**

- Lark, an XML processor
- NXP - Norbert's XML Parser
- Microsoft XML parser in Java (MSXML)
- Jumbo - XML browser
- LT XML - XML toolset
- XML Developer's Tookit
- Tcl XML Parsing Package

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# SGML Parsers

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## SP: James Clark's New (1994/1995/1996) SGML Parser: SP

*[CR: 19970221]*

James Clark's new SP parser toolkit is the successor to his SGMLS parser. The current version is SP 1.1.1 (July 30, 1996). SP is a "free, object-oriented toolkit for SGML parsing and entity management." SP is written in C++, supports the LINK feature, is reentrant (a single process can use multiple parsers at the same time), is command-line compatible with SGMLS, includes an application [nsgmls] to generate sgmls-style output format, and an application [rast] to generate RAST output format (like SGMLS) conforming to ISO/IEC 13673:1944. Other parser tools include [sgmlnorm], a simple SGML tag normalizer, and [spent], a facility for printing an SGML entity on standard output. SP supports any concrete syntax allowed by ISO 8879, and supports large character sets (can be compiled to use 16-bit characters internally; supported systems include UTF-8, Unicode/UCS-2, UJIS/EUC, and Shift-JIS). It is said to be fast for large documents. In addition to the C++ source code, binaries [nsgmls and rast] are available for MS-DOS (SP version 0.2) and several UNIX systems. The MS-DOS binaries use a 32-bit DOS extender (included in the distribution), so that the MS-DOS 640K conventional memory barrier should not be a limiting factor in the use of SP.

In the most recent releases of SP, James Clark has also issued some very useful tools that handle entities and "normalize" SGML documents in various ways, as specified in command line options. For example, SPAM (SP Add Markup) will provide canonical SGML when SHORTTAG and OMITTAG have been used in the SGML source. The output SGML is determined by the user's specification. SPAM (SP Add Markup) thus serves as a markup stream editor. See the documentation from the official site for complete details. Version 1.1 also supports Architectural Form Processing [mirror copy], on which, see the following "toy example".

Commercial support for SP is provided by TechnoTeacher, Inc. (although James Clark himself has no commercial connection with TechnoTeacher, Inc.). See the support announcement (September 1996).

- Hints about enhancements possibly in SP version 1.2, from test version 1.1.2; see summary on the "What's New" page (February 18, 1997). Note the update from James Clark: "A new release of SP is available as part of Jade 0.5 from ftp://ftp.jclark.com/pub/jade/jade0_5.zip. This fixes the compilation problems with gcc as well as a couple of other minor glitches. This SP release should be considered a beta release. [February 21, 1997]
- Announcement from James Clark for version 1.1.1 of SP. Version 1.1.1 represents a minor revision: "The only serious bug 1.1 is [was] the incorrect handling of colons in SGML_CATALOG_FILES on MS-DOS and Windows machines."
- [*NB June 10, 1996. The following links are somewhat out-of-date; see the main site] Some very accessible written description and documentation (HTML format) from a recent [June 10, 1996] version (test release 1.1). See the current and test releases (JClark FTP server) for more current and more complete information. See here provisionally (with some incomplete linking):
- Summary of SP's features
- What's new in SP?
- How to get SP
- nsgmls, a replacement for sgmls [incompletely linked here]
- spam, a sophisticated normalizer, perhaps better thought of as a markup stream editor [incompletely linked here]
- Generic API to SP
- Catalogs: Using SGML Open catalogs to generate system identifiers
- sp-1.1.1 with gcc 2.7.2 under Solaris 2.5 (binaries)

Pointers to the latest released version of the SP parser (version 1.0.1: October 21, 1995) and its description:

- SP - an SGML Parser (Official WWW Page for SP)
- **Compilation notes**: Notes on compiling and installing SP 1.0.1 for several systems, by Nelson H. F. Beebe (Email: beebe@math.utah.edu) [ mirror December 26, but use the canonical version if possible]. As of 15-November-95, Nelson Beebe had successfully compiled SP 1.0.1 on these systems: DEC Alpha OSF/1 3.0, DECstation 3100 and 5000 ULTRIX 4.3, Hewlett-Packard 9000/735 HP-UX 10.0.1, IBM RS/6000 AIX 3.2.5, Silicon Graphics Indigo/2 IRIX 5.3, Sun

SPARCstation SunOS 4.1.3, and Sun SPARCstation Solaris 2.3 and 2.4.

- Programming with SP
- A mailing list for programmer-level discussions of SP. See also the entry in the lists page. Mail subscription requests sp-prog-request@jclark.com. Messages for the list should go to sp-prog@jclark.com.
- Nelson Beebe's collection of binaries for various Unix machines
- SP source-code changes for "port of James Clark's SP version 1.1.1 to Mac PowerPC as a set of MPW tools, including Open Transport support for HTTP" December 1996. [Ashley Colin Yakeley]
- FTP to JClark. Data is mirrored on the SGML Repository FTP server
- FTP to Darmstadt
- WWW link to JClark
- Overview of SP (described by James Clark) with links to FTP server
- Formatted man pages for (version 0.2) nsgmls and rast applications. [Note: get version 0.3 now]
- See also: David Megginson's SGMLS.pm: A Post-Processor for SGMLS and NSGMLS

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# SGML Editing, Browsing, and Searching Tools - For DTDs and instances

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### PSGML, by Lennart Staflin

*[CR: 19970617]*

PSGML is a GNU Emacs Major Mode for editing SGML coded documents. Version 0.4 requires GNU Emacs 19.19 or higher, Lucid Emacs 19.9, or OEmacs. "PSGML contains a simple SGML parser and can work with any DTD. Functions provided includes menus and commands for inserting tags with only the contextually valid tags, identification of structural errors, editing of attribute values in a separate window with information about types and defaults, and structure based editing."

- Description HTML version of PSGML
- Editing SGML with Emacs and PSGML - Manual
- PSGML and Fonts. David Megginson explains how to map font faces to any or all of the symbols 'comment', 'doctype', 'end-tag', 'entity', 'ignored', 'ms-end', 'ms-start', 'pi','sgml', 'short-ref', 'start-tag' and so forth. [June 1997]
- SGML: Lysator PSGML (Remote file ftp.lysator.liu.se/pub/sgml)
- FTP PSGML from the SGML Repository
- FTP PSGML from Exeter
- Setting up PSGML and sgmls for HTML, or try: this link; (courtesy of Martijn Koster, m.koster@nexor.co.uk)

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### Panorama: SoftQuad's SGML Viewer for WWW

*[CR: 19970527]*

SoftQuad Panorama is a free version of SoftQuad Panorama PRO. It supports browsing (and searching?) of fully compliant SGML documents on the WWW.

- Panorama is now released (May 1995) as the "First Freeware SGML Viewer for the World Wide Web". See the public announcement and the Information Page: The Wider World of SGML on the Web. If you already have Panorama, link here
- PanoramaFree for Windows 3.1; [mirror copy]
- Register/Download Panorama Viewer [May 1997]
- The software and documentation are also available from sites in Sweden
- A list of links and resources from the University of Michigan Humanities Text Initiative: HTI Resources in support of Panorama (DTDs, style sheets, navigators, SDATA mapping files, etc.)
- University of Michigan Press ISO 12083 stylesheet (Panorama); [mirror copy]
- See provisionally the description of the commercial version, called Panorama PRO [announcement of the pre-release edition of Panorama PRO, 8-April-95]
- See a brief overview of features in Panorama's style sheet language
- Notes on Panorama for users of the EAD DTD [principles applicable to other complex DTDs; mirror copy]
- See help information for use of Panorama with the TEI (Lite) DTD
- See the description of SoftQuad Panorama on SoftQuad's WWW server [from a press release, October 19, 1994]; see also the announcement and feature list in mirror copy here.
- See "SoftQuad Panorama -- A Companion for Mosaic," *<TAG>* 7/11 (November 1994) 9.
- Eliot Kimber: Nifty...Panorama
- Scholar's Press public domain Greek font (SPIonic), and an sdata.map for adding support for SPIonic to SoftQuad's Panorama

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## HoTMetaL: SoftQuad's HoTMetaL editor for HTML

HoTMetaL is an unsupported version of the commercial product HoTMetaL Pro. It provides an editor/browser for (extended) HTML documents. HoTMetaL is available on a number of platforms (UNIX, MS-Windows, etc.). A tutorial for HoTMetaL Pro teaches HTML basics, supported by an HTML Quick Reference guide. The most recent [March 1995] Windows version of HoTMetaL supports some of the Netscape extensions (e.g., <CENTER>, <BLINK>), displays graphics inline, uses a stylesheet configured to look like a standard HTML browser, and supports a filter for loading plain text files and invalid HTML documents. See the posted public announcement or the fuller description on the SoftQuad server, including FTP location. Try the FTP directory ftp://ftp.ncsa.uiuc.edu/Web/html/hotmetal/Windows, and specifically the binary file ftp://ftp.ncsa.uiuc.edu/Web/html/hotmetal/Windows/hotm1new.exe).

- FTP from SGML Repository
- FTP from Exeter
- HoTMetaL executables (Remote file ftp.ncsa.uiuc.edu/Web/contrib/SoftQuad/hotmetal)

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## perlSGML - Perl programs and libraries (Earl Hood)

*[CR: 19961012]*

perlSGML is a collection of Perl programs and libraries written by Earl Hood for processing SGML documents. The following software is available in the perlSGML distribution: dtd.pl (A Perl library to parse SGML DTDs), dtd2html (An SGML DTD documentation/navigation tool), dtddiff (a utility to list changes in a DTD), dtdtree (Generate content hierarchy trees of SGML elements), dtdview (Interactively query a DTD), sgml.pl (A Perl library to parse SGML instances), stripsgml (utility to remove SGML markup).

The 'dtd2html' tool is widely used. "What is dtd2html: dtd2html is part of the perlSGML package. dtd2html is a program that generates an HTML document (composed of several files) that documents and allows hypertext navigation of an SGML DTD."

- perlSGML Main Page
- Documentation for perlSGML
- October 09, 1996: Announcement from Earl Hood for a new release of the perlSGML tools -- a collection of perl software for processing SGML data. These SGML software tools run under Perl versions 4 and 5. Most important changes: (a) "Hierarchial tree output of DTDprint_tree of dtd.pl modified to preserve the content model in the output. New tree format utilized by dtd2html, dtdtree, and dtdview; (b) sgml.pl rewritten to be more efficient and be useable for large files. Still more suited for simple tasks. stripsgml rewritten to utilize new sgml.pl." Available in .gz or .zip distribution format.
- December 09, 1995: Announcement for a new version or Earl Hood's perlSGML. **perlSGML** is a collection of Perl programs and libraries for processing SGML documents: dtd.pl (2.2.0) -- A Perl library to parse SGML DTDs; dtd2html (1.4.0) -- An SGML DTD documentation/navigation tool; dtddiff (1.1.0) -- List changes in a DTD; dtdtree (1.2.0) -- Generate content hierarchy trees of SGML elements; sgml.pl (0.1.0) -- A Perl library to parse SGML instances; stripsgml (0.1.1) -- Remove SGML markup. Changes: (1) Fixed code so it will run under Perl 4 and 5; (2) MS-DOS usage support; (3) Entity map file syntax has changed to the SGML open catalog format; (4) Support for the envariables SGML_SEARCH_PATH, SGML_CATALOG_FILES; (5) New functions added; (6) Speed improvement; (7) Bug fixes. See the text of the announcement, or link to the WWW page.
- Links on Earl Hood's page, including demos for DTDs processed (TEI, HTML 2.0, HTML 3.0).
- FTP from the SGML Repository
- FTP from Exeter
- documentation for dtd2html (Earl Hood) via CETHMAC
- documentation for dtd2html (etc) on Earl Hood's (OAC) Home Page
- FTP to Darmstadt

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## NORMDTD (by Richart Light)

[May 1996] "NORMDTD is a DOS (yes!) program that reads a valid SGML DTD, even a TEI-like one that uses marked sections and multiple input files, and generates a single file containing a normalized version of that DTD. The element content models in this normalized DTD will not contain any references to elements that are not declared, and so it can be used by highly-strung SGML packages such as RulesBuilder that refuse to process TEI applications (in particular) for this reason. In fact, having a normalized DTD in a single file can be helpful for a number of reasons, to a variety of SGML applications."

NORMDTD is written in Borland Pascal and runs only under DOS.

- The text of the announcement, with brief documentation
- Source for self-executing utility on OTA FTP server: ftp://ota.ox.ac.uk/pub/ota/TEI/software/normdtd1.exe
- Mirror copy, May 1996
- Also by Richard Light: The SGML Tagger, from Oxford University Press; [mirror copy]. "SGML Tagger is loaded on top of word-processing software, and allows users to insert SGML markup accurately and efficiently, without the need to learn a specialized SGML editor." See the bibliographic entry.

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## SARA (SGML-Aware Retrieval Application)

**The SARA system.** SARA (SGML-Aware Retrieval Application) is a client/server software tool allowing a central database of texts with SGML mark-up to be queried by remote clients. The system was developed at Oxford University Computing Services, with funding from the British Library Research and Development Department (1993-4) and the British Academy. The original motivation for its development was the need to provide a robust low-cost search-engine for use with the 100 million word British National Corpus, and several features of the system design necessarily reflect this.

The SARA system has four key parts:

- the indexing program, which generates an index of tokens from an SGML marked-up text
- the server program, which accepts messages in the Corpus Query Language (see below) and returns results from the SGML text
- the SARA protocol, a formally defined set of message types which determines legal interactions between the client and server programs; this protocol makes use of a high-level query language known as CQL (for Corpus Query Language)
- one or more client programs, with which a user interacts in any appropriate platform-specific way, and which communicate with the server program using the protocol

Links:

- See the main BNC entry
- SARA Documentation
- SARA (SGML Aware Retrieval Application) Workshop 29th June 1994 [mirror copy]
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## Ispell for SGML

*[CR: 19970225]*

- Announcement from R. Alexander Milowski of Copernican Solutions Incorporated for a utility that 'spell-checks' SGML documents: Ispell for SGML. Sources are available as a patch to the standard distribution; binaries are also available for Solaris 2.5, and a WIN32 port will be provided in the future. The brief description on the COPSOL WWW site says [970225]: "Ispell for SGML is a version of the ispell spell checker distribution that has been patched to understand and ignore SGML markup. This version is a simple markup scanner that does not assume any further knowledge of the DTD. It purely relies on markup mode scanning as specified in the SGML standard."

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## 'sgrep' grep-like searching of structured documents

*[CR: 19970524]*

DESCRIPTION: 'sgrep' (structured grep) is a tool for searching text files and filtering text streams using structural criteria. The authors are Pekka Kilpeläinen and Jani Jaakkola of Helsinki University, and they have distributed sgrep under GNU General Public License. The data model of sgrep is based on regions, which are nonempty substrings of text. Regions are typically occurrences of constant strings or meaningful text elements, which are recognizable through some delimiting strings. Regions can be arbitrarily long, arbitrarily overlapping, and arbitrarily nested. . . Like grep, sgrep can be used for any kind of text files. However it is most useful for text files containing some kind of structured text. A file containing structured text could be defined as a file, which obeys some syntax. Examples of structured text files are SGML, HTML, C, Tex and mail files."

"Sgtool is tcl/tk based X frontend to sgrep. Sgtool supports easy creation of sgrep queries and macro libraries. Sgtool requires tk version 4.0, and comes bundled in with the sgrep distribution."

Links (November 1996):

- Announcement for version 0.99 of 'sgrep' (April 30, 1996)
- Announcement for preliminary/test version of 'sgrep' (April 18, 1996)
- Documentation in brief ("What is sgrep?"): http://www.cs.helsinki.fi/~jjaakkol/sgrep.html
- Home Page [Jani Jaakkola] also: Pekka Kilpeläinen
- Fuller documentation:
- Example queries using sgrep [May 03, 1996]
- DocMan - The Document Management Research Group (the Department of Computer Science at the University of Helsinki)
- Tarred and gzipped sgrep distribution version "sgrep-0.99.tar.gz"; [mirror copy]
- See the bibliographic entry for a technical report: Jani Jaakkola and Pekka Kilpeläinen. "Using sgrep for querying structured text files," In J. Saarela, editor, *Proceedings of SGML Finland 1996*, Espoo, Finland, October 1996. SGML Users Group Finland, pages 56-67.
- Email contact: Pekka.Kilpelainen@cc.helsinki.fi or Jani.Jaakkola@cc.helsinki

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### MU: Forms Assisted SGML Markup

"MU is a perl-based program that builds fill-out forms for SGML editing, based on simple templates. It supports lock files (for networked workgroups), and it is distributed with a TEI-lite template. Demonstrations, source code, help files, and an email list for bug reports and developers are available. . .Features: (1) Helps to automate the SGML markup process; (2) Quite general - works on various types of DTD templates; (3) Version 1.1 deals quite nicely with attributes; (4) Allows for multi-user editorial communication through the use of remarks; (5) Supports internet workgroups via lockfiles."

- The announcement, by John Unsworth (May 1996)
- MU main page
- Demo version

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## SGML Data Conversion, Transformation, and Manipulation

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### Rainbow

Several companies have collaborated on the design of an SGML interchange language for word-processing formats. Rainbow makers produce SGML from the supported word-processing formats, preserving as much information about document structure as can be deduced reliably. The Rainbow SGML format can then be used as input to other applications. See further explanation on EBT's server or on the mirrors in the file 'rainbow.why'. Rainbow makers are now available (free) for FrameMaker/FrameBuilder MIF, RTF, Interleaf, and (possibly) Ventura. Authoritative files for the Rainbow distribution are located on EBT's FTP server (SGML Rainbow via ftp.ebt.com/pub/nv/dtd/rainbow/

Other sources for Rainbow makers include:

- Announcement for Rainbow 2.01
- [mirror copy]
- Information: rainbow@ebt.com
- FTP from the SGML Repository
- FTP from Exeter

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### ICA: Integrated Chameleon Architecture

The ICA (Release 1.6, February 1994) is a toolset for generating data translators. In particular, the toolset can be used to generate translators to and from a constrained subset of instances of SGML Document Type Definitions (DTDs). There are several example translators included in the distribution. The first is a book DTD and includes specific translators for the LaTeX book documentstyle and a specific troff macro package. The second is a bibliographic DTD and includes specific translators for

BibTeX and refer bibliographic database formats. Please note that the ICA is for developing translators and not providing translators. The ICA runs in the Unix environment, using the X Window System for the basis of the graphical user interfaces.

A new user's manual for ICA is also available. Published by Prentice Hall, the book is entitled *The Integrated Chameleon Architecture: Translating Documents with Style*, by Sandra Mamrak, Conleth S. O'Connell, and Julie Barnes. ISBN 0-13-056418-4. This book contains much new and revised material over the previously available online documentation, including a chapter on the ICA and SGML. See also description in excerpts from the release notes.

See further description in the ICA toolkit anouncement, and see network addresses for supporting mailing list. The sources for ICA on the Internet are:

- FTP from SGML: ICA Chameleon: Remote file archive.cis.ohio-state.edu/pub/chameleon/
- FTP from the SGML Repository
- FTP from Exeter

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## CoST (Copenhagen SGML Tool, UNIX)

"What is CoST? CoST (Copenhagen SGML Tool) is a structure-controlled SGML application programming tool. It is built on top of a public domain SGML tool: the SGMLS parser made by James Clark. With CoST you can write translation specifications for SGML document instances. CoST is purely structure driven, i.e. it gives you access to the structure of the SGML document instance. It won't, however, let you access the lexical and syntactical details in the SGML entities that represent the document instance in storage. You can write CoST programs that will translate SGML document instances or perform other processing in response to SGML documents. You program CoST using TCL - Tool Command Language." [from the Manual Introduction [March 1995]

CoST was written by Klaus Harbo (Klaus.Harbo@euromath.dk) and is currently [October1995] maintained by Joe English (joe@trystero.art.com).

Links:

- Announcement for CoST version 2.0 beta, September 14, 1995, including a draft version of the manual in Postscript format. Version 2.0 [2.0a2, October 13, 1995] contains a new query language.
- Searching SGML structure with CoST 2.0 (Peter Murray-Rust), April 1996
- Copenhagen SGML Tool, Manual
- Frequently Asked Questions about CoST
- CoST 2 Reference Manual
- Sources for the CoST package
- Or FTP the package from Exeter.
- See the Documentation of the Copenhagen SGML tool at http://laurel.euromath.dk/test.html.

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## costwish - SGML postprocessor and renderer

"Costwish is a graphical interface (SGML postprocessor and renderer) for Joe English's CoST-2 tool. From the README: "costwish is a generic graphical interface to Joe English's CoST SGML/ESIS post-processing tool. It is aimed at those who wish to: (1) run sgmls (or other ESIS-based parser) under a graphical interface; (2) browse their documents graphically (3) customise their postprocessing easily, powerfully and flexibly; (4) construct powerful searches of SGML-based documents; (5) and manage the results interactively; (6) develop interfaces to helper applications (e.g. graphical renderers)." [from the README, April 1996]

Links:

- Index Page: http://www.venus.co.uk/omf/costwish/
- Costwish Home Page
- Index of /omf/packages/binaries/
- Overview [mirror copy, April 1996]
- README file
- Documentation
- Review comments (compliments) by Len Bullard

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## SGMLS.pm and sgmlspl: A Simple Post-Processor for SGMLS and NSGMLS

Written by David Megginson, ". . .**SGMLSpm** is a free perl5 object-oriented postprocessor for James Clark's SGMLS and NSGMLS parsers. The main part of this release is a library, SGMLS.pm, which repackages the ESIS output of (N)SGMLS into perl5 objects. On top of this, I have built a script, sgmls.pl, for formatting or processing SGML documents quickly using event patterns. Like CoST (which is several times slower), and unlike QWERTZ (etc.), SGMLSpm is a general-purpose package which can be used with any DTD. It even includes a script, skel.pl, which will write a skeleton conversion script for your document automatically!"

"**sgmlspl** is a sample application distributed with the SGMLS.pm perl5 class library -- you can use it to convert SGML documents to other formats by providing a specification file detailing exactly how you want to handle each element, external data entity, subdocument entity, CDATA string, record end, SDATA string, and processing instruction. sgmlspl also uses the Output.pm library (included in this distribution) to allow you to redirect or capture output."

- Direct link to sgmlspl: a simple post-processor for SGMLS and NSGMLS
- SGMLSpm via the FTP server, ftp://aix1.uottawa.ca/pub/dmeggins
- David Megginson's Home Page
- The announcement (July 1995)
- Comparison of OmniMark and SGMLS-PM, by Lou Burnard (February 1996)
- Email: dmeggins@aix1.uottawa.ca

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## LT NSL and NSL (Normalised SGML Library)

*[CR: 19970128]*

From the Language Technology Group, Human Communication Research Centre, University of Edinburgh: the "Normalised SGML Library (NSL version 2.0 ) . . .consists of a set of C programs for manipulating SGML files and a C application program interface (API) designed to ease the writing of C programs which manipulate SGML documents."

"LT NSL is a development environment for SGML-based corpus and document processing, with support for multiple versions and multiple levels of annotation. It consists of a C-based API for accessing and manipulating SGML documents and an integrated set of SGML tools. The LT NSL initial parsing module incorporates v1.1.1 of James Clark's SP software, arguably the best SGML parser available. The basic architecture is one in which an arbitrary SGML document is parsed once, yielding two results: (1) An optimised representation of the information contained in the document's DTD; (2) A normalised version of the document instance, which can be piped through any tools built using our API for augmentation, extraction, etc.

Links:

- The main entry for the LTG in the "Academic Applications" area of this database
- **January 28, 1997:** Announcement from David McKelvie for the HCRC Language Technology Group's public release of LT NSL --- Normalised SGML Library, version 1.4.6. The toolkit offers significant enhancements over version 1.4.4. "LT NSL is an integrated set of SGML querying/manipulation tools and a C-language application program interface (API) designed to ease the writing of C programs which manipulate SGML documents. Its API is based on the idea of using 'normalised' SGML (i.e. an expanded, easily parsable subset of SGML) as a data format for inter-program communication of structured textual information. The API defines a powerful query language which makes it easy to access (either from the shell or in a program) those parts of an SGML document which you are interested in. Both event based and (sub-)tree based views of SGML documents are supported."
- LTG Home Page [or, no frames: ]
- LT NSL main page
- The LT NSL documentation

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# SGML Formatting Tools

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## RATFINK SGML <--> RTF Conversion

*[CR: 19970107]*

"RATFINK, a library of Tcl utilities for generating RTF files, including a Cost script for converting SGML to RTF, is now available." From Joe English

Links:

- http://www.art.com/cost/ratfink/index.html
- RATFINK Manual in HTML format, also in Postscript format
- information about Cost

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### SGML-Tools [Was: Linuxdoc-SGML]

*[CR: 19970422]*

SGML-Tools "is a text-formatting package based on SGML (Standard Generalized Markup Language), which allows you to produce LaTeX, HTML, GNU info, LyX, RTF, and plain ASCII (via groff) from a single source; due to the flexible nature of SGML many other target formats are possible. This system is tailored for writing technical software documentation, an example of which are the Linux HOWTO documents. However, there is nothing Linux-specific about this package; it can be used for many other types of documentation on many other systems. It should be useful for all kinds of printed and online documentation. The package was formerly called Linuxdoc-SGML because it originates from the Linux Documentation Project (LDP). The name has been changed into SGML-Tools to make it clearer that there is no Linux-specific stuff included in this package." Currently [April 1997] maintained by Cees de Groot.

Links:

- Description of package
- Release 0.99.0 ("current" as of April 21, 1997)
- README file accompanying the package
- SGML-Tools User's Guide, by Matt Welsh. Updated by Greg Hankins [v0.99.0, 29 November 1996]
- Mailing list for users and developers: "There is also a mailing list for updates and general discussion of the package. To subscribe, send mail to majordomo@via.ecp.fr with 'subscribe sgml-tools' in the message body. The actual list address is sgml-tools@via.ecp.fr.
- Mailing list archive
- See also the article "Flexible Formatting with Linuxdoc-SGML", by Christian Schwarz; [mirror copy]

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## DSSSL Software Tools

*[CR: 19970630]* [Table of Contents]

See the main DSSSL entry for fuller information about sample application profiles, stylesheets, etc. In particular, see the DSSSL stylesheet for HTML 3.2 printouts, submitted by Jon Bosak, and for the TEI-Lite DSSSL stylesheet, from Richard Light.

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# Jade - James [Clark]'s DSSSL Engine

*[CR: 19970528]*

- Jade Home Page: http://www.jclark.com/jade/. Jade is an implementation of the DSSSL style language. It now [March 1997] has backends for: RTF, SGML Flow Object Tree, HTML, TeX, and SGML Transformation.
- Jade is for "(James [Clark]'s DSSSL Engine." Jade (April 1997) includes the following components: (1) An abstract interface to groves; (2) An in-memory implementation of this interface built with SP; (3) A style engine that implements the DSSSL style language; (4) A command-line application, `jade`, that combines the style engine with the spgrove grove interface and four backends: "(a) a backend that generates an SGML representation of the flow object tree; (b) a backend that generates RTF (tested with Microsoft Word 97); (c) a backend that generates TeX; (d) a backend that generates SGML. This is used in conjunction with non-standard flow object classes to generate SGML, thus allowing Jade to be used for SGML transformations."
- Update for Jade version 0.8 [May 28, 1997]. See the announcement from James Clark for a new version of Jade - "James' DSSSL Engine." A major new feature in Jade version 0.8 is "support for the sgml-parse procedure which allows multiple source documents. . .Other more minor features include: (1) a '-G' which causes Jade to produce stack traces on error; (2) support for quasiquotation; (3) a read-entity procedure that returns the content of an external entity as a string; (4) an all-element-number procedure, which is like element-number, but which counts elements of all types and is much faster (constant time)." For 0.8, James has also merged in the source for the Grove OLE Automation interface. See also: Jade/SP 0.8 Unix bibaries, from Ingo Macherius [Linux 2.0.30; Solaris 5.5; DigitialOS 3.2 (aka OSF1); Linux 2.0.30; MS-Windows NT/95]
- Update for Jade version 0.7 [April 1997]: the announcement describes several interesting aspects of Jade version 0.7: (a) "One important internal change is that backends can now add their own specialized flow objects without changing the front end. The SGML transformation backend now uses this to implement its flow objects"; (b) "The main addition in the front-end is support for much more of the query language. A lot of what is not implemented can be implemented easily with procedure definitions"; (c) The version of SP releases in Jade 0.7 "now has some support for XML validation. Use -wxml to turn this on."; (d) "Microsoft have now released its free Word Viewer 97, and the Jade RTF backend now uses the Word/Word Viewer 97 hyperlink mechanism for representing links. Word Viewer 97 has several features that are significant for Jade, notably much better Unicode support and tables with vertical spans." Binaries (for Windows 95 or Windows NT) and source code are available.
- **Jade Binaries**, organized and/or compiled by Ingo Macherius; for (posibly) Linux 2.0.30; Solaris 5.5; DigitialOS 3.2 (aka OSF1); Linux 2.0.30; MS-Windows NT/95
- Update from James Clark, February 21, 1997. "A new release of SP is available as part of Jade 0.5 from ftp://ftp.jclark.com/pub/jade/jade0_5.zip. This fixes the compilation problems with gcc as well as a couple of other minor glitches. This SP release should be considered a beta release. Please test it out and let me know of any problems. Jade Win32 binaries are available in ftp://ftp.jclark.com/pub/jade/jadew0_5.zip.
- Jade update November 11, 1996: Announcement for the first beta release of Jade (James' DSSSL Engine). Jade is implementation of the DSSSL style language developed by James Clark, author of the SGMLS and SP parser tools. "Jade is freely available, with source code, with no restrictions on commercial use. The development platforms are Windows 95 and Windows NT, but it also works on Unix. Jade allows you to display and print SGML documents; you control it by specifying a DSSSL style sheet. It has a modular design that allows you to add support for new output formats

by adding a new 'backend'. At the moment the most mature backend is for RTF (as supported by Microsoft Word for Windows 95). A TeX backend has been contributed by David Megginson. Jade currently supports the DSSSL Online subset of DSSSL with some additions. Jade is designed to have good performance. On the portable computer from which I am posting this it can turn the SGML source of the DSSSL standard into an RTF document of over 200 pages in under 20 seconds. On a high-end PC, it's more than twice as fast."

- Node Properties in Jade [0.7], provided by David Megginson (email: dmeggins@uottawa.ca)

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# DSC---DSSSL Syntax Checker

*[CR: 19970603]*

"This tool, which embeds a full R4RS Scheme interpreter in James Clark's SP parser, is designed both to provide an online syntax checker for all DSSSL expression, style and transformation language programs, and to serve as a preprocessor for any Scheme-embedded DSSSL implementation." [from version 1.0 announcement] "Version 2.0, providing a much richer implementation framework, including the ocre query language, is scheduled for 2Q97."

- FTP source: ftp://www.cogsci.ed.ac.uk/pub/ht/dsc-1.0.tar.gz
- Announcement from Henry Thomson for the "availability of the public release of version 1.0 of DSC---DSSSL Syntax Checker [text version]. This tool, which embeds a full R4RS Scheme interpreter in James Clark's SP parser, is designed both to provide an online syntax checker for all DSSSL expression, style and transformation language programs, and to serve as a preprocessor for any Scheme-embedded DSSSL implementation. Virtually the entire language as specified in chapters 8 through 12 of the standard is checked for syntactic correctness, and a nearly complete implementation of the core expression language is included. . . This is a UNIX-only release, tested so far under SunOS 4/5 and FreeBSD 2.1."
- **See the previous entry.** -- Announcement from Henry S. Thompson for the public availability of DSC --- DSSSL Syntax Checker version 0.7. "This tool, implemented in Scheme, is designed both to provide an offline syntax checker for all DSSSL expression, style and transformation language programs, and to serve as a preprocessor for any Scheme-embedded DSSSL implementation. Virtually the entire language as specified in chapters 8 through 12 of the standard is supported." **Note:** by about mid-January 1997, look here for an announcement for DSC-1.0 -- "a DSSSL syntax checker and implementation framework, which is based on an existing full R4RS Scheme interpreter and includes support for the DSSSL-O subset of the expression language, including lambdas with keywords" [from Henry S. Thompson]
- See also: "Index to all DSSSL procedures by prototype", by Henry S. Thompson. Derived automatically from the DSSSL standard using Jade. April 21, 1997. [mirror copy]

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# DSSSL Developer's Toolkit

*[CR: 19970602]*

The announcement from R. Alexander Milowski (Copernican Solutions Incorporated) describes the DSSSL Developer's Toolkit (DSSSLTK) version 1.0, available as a downloadable distribution. The toolkit "is similar in nature to the applet or serverlet architectures developed by Sun Microsystems/JavaSoft. . . a set of abstract interfaces written in Java to allow application developers to work with different Java-based DSSSL environments. . .[it] serves as an interface between difference DSSSL components. It represents an architecture for building DSSSL-oriented systems using the Java programming language. . .[it] provides a means for different DSSSL implementations in Java to share components such as parsers, transformation engines and flow object semantics. The toolkit contains three Java packages: dsssl.engine, dsssl.grove, and dsssl.flowobject. . . Developed as part of the Seng DSSSL Environment from Copernican Solutions, the SSSL Developer's Toolkit contains: (1) Full source code to the interfaces and classes; (2) Javadoc for the API reference; (3) Configuration and makefile utilities for building the distribution; (4) A prebuilt zip file containing all the classes."

Links:

- Announcement for version 1.0 [June 02, 1997]
- DSSSL Developer's Toolkit
- Documentation

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## psgml-dsssl

*[CR: 19970307]*

"This program generates skeleton DSSSL specifications for DTDs from within PSGML. Emacs and PSGML are required."

- From David Megginson: announcement for a utility 'psgml-dsssl.el', which works with the free 'psgml' editor under Gnu Emacs. "This small package works together with the PSGML editor in XEmacs or Gnu Emacs to produce a skeleton DSSSL style spec automatically for the current document's DTD."
- See the mail link: http://www.uottawa.ca/~dmeggins/psgml-dsssl.elor mirror copy, October 20, 1996.

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## psgml-jade.el

*[CR: 19970609]*

"This file ]psgml-jade.el] is an add-on to the psgml package for editing SGML files with Emacs which is intended to make menu-driven processing SGML files with jade and jadetex possible."

- Update (June 09, 1997), version 1.1.1.1 1997/06/08: "...the ability to select the SGML backend of jade and a menu entry to edit an existing style sheet associated with a sgml file." [mirror copy]
- Announcement from Matthias Clasen (clasen@netzservice.de) for **psgml-jade.el** -- emacs lisp

code which adds jade and jadetex support to psgml. Requires Gnu Emacs 19.* or XEmacs, together with Lennart Staflin's PSGML mode (tested with version 1.0.1) and David Megginson's DSSSL extensions (psgml-dsssl.el). "Now, whenever you are editing an SGML document with PSGML, you will see an additional menu with title "DSSSL". It contains entries to Jade, JadeTeX, Xdvi, David Megginson's 'sgml-dsssl-make-spec' function and two more entries to display the results of process and to kill a running process."
- URL: http://www.uni-kiel.de:8080/Logik/persons/mc/psgml-jade.el, [mirror copy]

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# Jadetex Package

*[CR: 19970624]*

"Jadetex package, an implementation of the TeX skeleton produced by "jade -t tex". . built on top of LaTeX. From Sebastian Rahtz (s.rahtz@elsevier.co.uk) and David Megginson:

- CTAN sources [CTAN /tex-archive/macros/jadetex]
- jadetex.dtx
- Hints on using Jade and TeX (!), by Sebastian Rahtz
- Notice on availability of CDROM with upgraded 'jadetex' and the DSSSL standard in PDF format generated using jadetex [970509]
- Comments [970305] by Sebastian Rahtz
- Comments on update [970424]
- Jadetex enhancements: labels, links, color, etc. "This is the DSSSL spec transformed to TeX, and run through pdftex, which generates PDF output instead of TeX's original .dvi form." [970425]
- TeXFOTBuilder: a Generic TeX backend for Jade - Information in the Jade documentation set

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