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ergon

Ergon Java Libraries, Products & Toolkits



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1. Ergon Java Libraries

1.1 Network

The networking library extends the Java networking classes in several aspects and solves a few well-known problems of the Java default implementation:

- Java Standard Edition SSL 3.0 Implementation. Full Export Strength Encryption and Authentication. Support for Client Certificates (including Netscape and Internet Explorer PEM certificates) and Server Certificates.
- HTTPS Support.
- Cookie Manager for HTTP/HTTPS.
- URLFactory and content handlers for various formats.
- Proxy support for SOCKS, HTTP and HTTPS.
- Support for Proxy Auto-Config Files (PAC).
- MOM Data Protocol and SORB (Simple-Object Request Broker) support for use with the Ergon Application Server.

1.2 Generic Application Starter

The starter library offers a generic application starter that is especially useful in conjunction with the update library since it offers some additional features not available when using other launchers (or no launcher at all):

- Application Context. Several applications that are aware of the generic starter may be launched in the same Java Virtual Machine.
- Class Preloading. A crucial feature for the update library to enforce loading of all classes of a package including its subpackages. Also useful to increase application startup when used as a background while e.g. a login box is showing.
- Dynamic Classpath Changes. The classpath of an application may be adjusted at runtime and for the next startup (in conjunction with the update library).

1.3 Update

The update library provides tools and an API for use in an application to provide automatic application updates (similar to the Windows or Netscape update). It includes:

- Update Builder. A tool to generate update files. These update files only contain the differences of the two versions and are optimized to have a small size.
- Update Patcher. Standalone tool to patch an application with an update file without the need of application update support.
- Diff-Tool. A tool (similar to the update builder) that calculates and lists the differences between two application installations.
- Update Application API Implementation. An API to use in an application that provides automated update support.

1.4 GUI (Swing)

The GUI libraries offer basic functionality needed in most GUI based applications including:

- **Application Framework.** A simple application framework provides a unified application programming interface. It covers things like application startup, shutdown, error handling and more.
- **Command Handling.** A flexible command interface for automatic tool generation such as menu entries, toolbar buttons. Using command collections application menus may be generated automatically.
- **Generic Components.** The GUI libraries include some generic components that may be re-used such as a preferences dialog or a calendar.
- **Extended Editing Components.** The GUI libraries offer generic pattern-based editing fields such as number-only and date/time entry fields. A generic interface for editing components also simplifies use of different editing components such as check boxes, combo boxes, text fields, etc. with just one programming interface.

1.5 Layout

The Layout Generator contains a suite of Tools for separating the GUI definition from the actual code. It allows the developer to create and change the GUI on the fly while the application is executing, thus improving the coding time of GUI applications by a huge factor.

- **Layout Description as XML Files.** Layout files may easily be created using any standard text or XML editor.
- **Layout Editor and GUI Tool.** At application runtime the layout definition may be inspected, modified and directly stored as layout description XML files.

1.6 Translate (Swing)

The translation library supports translation of the application user interface to different languages. The user interface is created using translation keys that are mapped to the various translations:

- **Dynamic Multilanguage Extension.** The display language used by the application may be changed on the fly without any additional programming.
- **Transparent Use.** There is no need for the programmer to support the translation library. An application GUI is simply defined using translation keys instead of fixed translations and the translation library performs the translation in the background without the programmer needing to know about it.

1.7 Resource

The resource library offers a flexible and extensible resource management for Java. It offers the following advantages over the default Java resource management functionality:

- **Dynamic Ordering for Resource Information Discovery.** Resource providers may be

ordered dynamically. It is possible to support several resource locations such as user preferences, application settings, server settings, etc. at one resource manager.

- Pluggable, priority-based resource providers. Simple resource providers may be plugged together to provide a powerful and complex resource handling.
- Rich Set of Default Resource Types. The resource manager offers a rich set of default resource types such as strings for translations, images, binaries and properties (such as lists of strings, integers, colors, dimensions, etc.).

1.8 Chart Library

The chart library support the most common chart types:

- Simple two-dimensional bar and pie charts.
- Support for common financial chart types.
- New: Three-dimensional bar and pie charts.

1.9 Printing Library

The printing library simplifies creation of print-outs using tables, images, etc. The usual Java layout managers are not suited for printing since they do not take into account that printouts have a fixed width but may usually stretch across several pages without any problem. Features include:

- Enhanced Printing Layout Managers. Simplified creation of printing forms using various layout managers.
- Table Printing Support. Direct support to print tables without the need of much configuration.

1.10 XML Library

The Ergon XML library offers a simple event driven XML parser that is optionally compliant with the SAX parser interface. The XML library has been optimized to have:

- Small Footprint. The XML library is extremely small and therefore suitable even for applications that need a small footprint (such as on micro devices).
- Low overhead. In contrast to DOM parser the XML library parser does not need much memory and is suitable for low-memory environments.
- High performance XML Parser. The parser is very fast compared to other SAX and DOM parsers available.

1.11 Option Parsing Library

A parsing library for complex command line arguments in the style of GNU tools. It includes support for:

- Short and long command line options.
- Options that require further arguments or support optional arguments.

- On-the-fly configurability. Unlike other parsing libraries this library does not generate code and may therefore be used when parsing options that are calculated on-the-fly.

1.12 Dependency Generator

The dependency graph library offers access to the dependency graph of a Java application that is available in source. This dependency graph may be used to improve and/or modify source code automatically. The following tools are already included in the library itself:

- Automatic Dependency Generation Tool for improving Compilation Speed of large Java Software Projects.
- Mutual Dependency Checker. The mutual dependency checker lists mutual dependencies and may hint at design and performance problems in the source code.

2. Ergon Java Technologies/Products

2.1 Java Tabletool Version 3

Generic Application Framework for creating end user Applications relying on relational Databases such as Oracle or Sybase.

- Generic Tool for maintaining data in relational databases.
- DB based layout description of Entry Masks.
- Full User extensibility of Basic Tools.
- Plug-in support. Entry masks may be customized to suit any taste using custom Java plugins.
- Framework containing basic building blocks such as Table Browsers or Dynamic Entry Masks for easy adaption to specific data query and entry needs.

2.2 Push Service

Client and Server Framework for implementing high volume asynchronous push services in realtime, such as ICQ Chat or Streaming Quotes/News. The Framework is based on the JMS API and offers full Encryption of all Messages. The Server Side components are fully scalable and fault tolerant.

- Client Framework
- Highly optimized Server Framework.

3. Ergon Java Wireless Toolkit

3.1 J2ME Java SSL 3.0

Full Java SSL 3.0 Implementation specifically adapted to the resource constraints found on mobile devices. The core encryption routines and BigInteger multiplication are hand-coded in assembler to achieve an outstanding level of performance.

- Java SSL 3.0 Implementation.
- Native Optimizations for key encryption/authentication algorithms for the M68K.
- Full HTTPS support.

3.2 GUI Framework

- GUI Framework with advanced Widgets and UI Model adapted to PDA devices.

3.3 Message Handling

- Message Handling Implementation for easy and efficient server access across low bandwidth/high latency networks.

3.4 Development Support

- Full Java Palm J2ME Emulation for improved Development and Debugging in your preferred development environment.