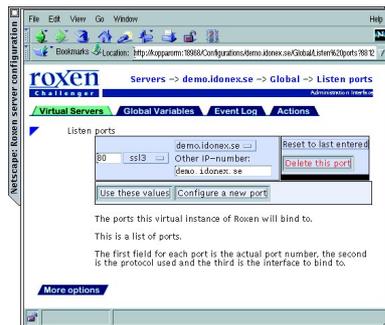


Roxen™ Challenger

Challenger is a modular web server and forms the foundation of the Roxen platform. Challenger's modular construction makes it easy to adapt it to your needs, being flexible and designed to minimize your total cost of ownership. Challenger is secure, fast and scales very well. The ease of administrating, configuring and maintaining Challenger will free up time for other tasks.

Full Control, yet Easy to Handle

Challenger's modular design and graphical user interface make it suitable for all types of user, from beginners to advanced developers. Its modularity makes it "future proof" by allowing the addition of new modules, at any time, to change the functionality of the server. The configuration interface is entirely web based, permitting remote administration of the server see figure down below.



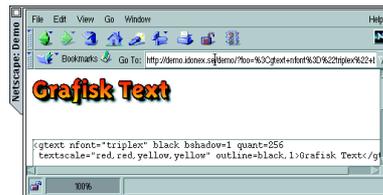
High Level of Security

Challenger provides strong encryption SSL 3 using the https protocol. With the use of strong encryption you can examine sensitive information without risking interception, for instance from your company intranet. Or you can administrate Roxen remotely in a secure manner.

Design and Graphical Consistency

The use of graphical headers maintains a graphically uniform profile. Fonts can be changed dynamically across the entire web site, and headers can be edited like any other text. The actual headers are rendered into image files based on content and form information by the Gtext graphics text module, see figure across. With Challenger you can optimize your web site for all browsers running on all platforms. Using

the Roxen Macro Language RXML you can produce web sites with dynamic content, speeding up development and cutting maintenance costs. This separates appearance from content, see figure below.



Roxen SiteBuilder goes much further in this direction, and is suitable for the owner of average to large web sites who wants to minimize web costs.

Web Interface to Underlying Systems

Challenger's advanced web capabilities can be used in the development of other applications. Challenger supports the use of database queries to produce diagrams. This allows users to receive up-to-the-minute reports containing bar, pie and line charts based on stored data. As this is all web based you can request and receive such reports regardless of time, place or computer as long as you are on-line.

Multi-Language Support

For many people, support of multiple languages is an absolute necessity. With Challenger you can manage a multilingual web site without having to create multiple copies of the site.

For more information on Roxen Challenger, visit our web site at <http://www.roxen.com>. There you will also find comments from veteran users of Roxen Challenger.

"Roxen Challenger 1.2 is faster than almost all other servers on the market, free or commercial. Roxen Challenger 1.2 with Pike and RXML is more powerful than any other server in my experience, including Apache, Netscape, Microsoft, Lotus Domino, Novell and Webstar Pro. Those developers in our organization who work with new web sites based on Roxen 1.2, Pike and RXML save hours each day, as they are relieved of the unnecessary updating work required by, for instance, Apache."

Jesper Weissglas, Robot Icke- Mekanisk Information

Roxen™ Challenger

Core Functionality

- Secure web server supporting https and strong encryption, SSL 3
- FTP server allows both anonymous and restricted FTP, with authentication
- Proxy server
- Mirror server

Characteristics

- Stable under heavy work loads, capable of handling in excess of 500 connections simultaneously
- Free source distribution
- Expandable
- Modular and object-oriented
- Rugged and reliable
- Fast and powerful
- Resource thin
- Multi-threaded
- The Roxen Platform is portable across the most common Unix dialects, see system requirements
- Extraordinary scalability
- Very flexible and highly configurable

Installation, Administration and Maintenance

- Easy and convenient administration and configuration
- Installation support included
- Web-based graphical user interface
- Remote administration across a secure, encrypted connection

- Allows on-the-fly modification, for example reconfiguration or the addition of modules
- Automatic updates via the Internet
- Easy to manage, not requiring expert knowledge
- Configuration troubleshooter checking for conflicts, important for stability and security

Applications Development

- Gtext, the graphical text module, allows typesetting of headers, maintaining corporate identity even on the Internet
- Font packages included, along with software
- Allowing the creation of new fonts from PostScript and TrueType data
- RXML expands on HTML, enabling the creation of dynamic web pages
- Easy application of multiple language support
- Browser database allows optimization for all browsers running on all platforms
- Graphical support for advanced image processing
- Excellent environment for the creation of dynamic web pages
- Database application programming interfaces, APIs to free databases, such as mSQL, MySQL and Postgres

- Support for the simultaneous use of multiple databases for applications
- Functional diagram production for both web diagrams and dynamic applications
- Support for ht-access enabling access management
- Possible to develop internal, secure, resource thin server modules

Features

- Extended log format to collect the most information possible about visitors
- Virtual servers allowing multiple web sites on one server
- Mirroring capabilities allow for multiple, continuously updated, identical web sites on separate servers

Support

Various types of support and upgrade licenses are available.

System Requirements

Roxen Challenger supports the most common Unix dialects:

- Solaris & 2.6 (Sun SPARC)
- Digital UNIX 4.0
- AIX 4.2.1 (IBM)
- IRIX 6.3 (Silicon Graphics)
- FreeBSD 2.2.2
- HP-UX 10.20 (Hewlett Packard)

It is possible to run Roxen on the PC architecture, with the following operating systems running:

- SCO UnixWare
- Solaris 2.5 & 2.6
- FreeBSD 2.2.2
- Linux Red Hat 4.2

PC-architecture hardware requirements are:

- 486 processor
- 30 MB of memory space
- 16 MB of hard disk space

Disc and memory space are similar for Unix systems.

Server Extensions

Challenger is the foundation of the Roxen platform and can be expanded using add-on products. There are four such products:

- Roxen LogView, a high-capability log analyzer
- Roxen IntraSeek, a powerful search engine
- Roxen SiteBuilder, a major management system for medium to large sized web sites and intranets
- Roxen Database API Pro, offering connectivity to commercial databases

Refer to the appropriate product sheets for further information. Please visit us at

<http://www.roxen.com> for more extensive product information and up-to-date pricing information.



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Roxen™ IntraSeek

Characteristics

- Stable, fast and reliable
- Source distribution
- Internal Roxen module
- Handles web sites with up to 100,000 documents effectively

Functionality

- Can perform both index and full-text searches
- Support for stop lists
- Handles meta-data
- Sorts search results
- Complies with current standards, in accordance with the "Robots Exclusion Standard" for search engines
- Can make multiple web sites searchable
- Possible to be used as a dedicated search server
- Can index any web site
- Able to define and search multiple search profiles
- Checks site structure
- Spots, and points out broken links
- Records the most common searches made by visitors to your web site
- Very fast site indexing

Search Possibilities

- AND, OR and NOT are used to construct logical expressions
- (...) are used to group search terms into components of expression's
- + and - are used to require or exclude particular single words
- NEAR is used to find words that are close to each other
- " ... " are used to search for compound phrases
- * and ? are used to search for incomplete words

Indexing

- Easy to automate search index updates
- Manual search register is updated by pressing one button
- Single pages and whole libraries can be closed off, preventing search engines from accessing and indexing

Indexed File Formats

- HTML format files
- Text documents

Language Support

Supports the following languages:

- Danish
- English
- Finnish
- French
- German
- Hungarian
- Italian
- Lithuanian
- Norwegian
- Portuguese
- Slovenian
- Spanish
- Swedish
- Turkish
- Supports the five most common ISO Latin character sets, as given in ISO-8859-1 through -5.
- Stop lists for all supported languages
- Presents search results in the language of your choice

Easy to Use

- Optimized for ease of use and configuration
- Convenient installation
- Wizard-assisted configuration
- Graphical configuration interface

Easy Linking Into Pages Using Tags

- One tag to generate search forms
- One tag to present search results
- Tags do not require special treatment. Search forms may be placed on any page, as may results

Support

Various types of support and upgrade licenses are available.

System Requirements

- IntraSeek is an add-on product for Roxen Challenger. PC architecture hardware requirements are:
- Pentium 200
 - 64 MB of memory space
 - 20 MB of hard disk space

Disk and memory space are similar for Unix systems.

For information on the Roxen Challenger web server, refer to the appropriate product sheet. Please visit us at <http://www.roxen.com> for more extensive product information and up-to-date pricing information.



Roxen™ LogView

LogView is an add-on product for Roxen Challenger that offers detailed logging of activities on a web site enabling you to discern visitor behaviour. LogView offers the possibility of analyzing logs and rapidly compiling and presenting results in a graphical form.

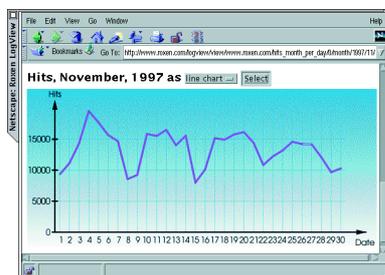
In addition to this, LogView is able to import old logs, and logs in the Common Log Format from other servers. Because of this, LogView is capable of analyzing logs from several other well-known web servers, including Apache, Netscape and Microsoft IIS, and compiling those logs into a report.

Powerful & Capable

LogView is fast, capable of handling and keeping log files corresponding to one gigabyte per day up-to-date, without any problem. LogView's power makes it an excellent choice for a web site or intranet of any size, even the world's most heavily trafficked web sites. LogView stores the logs in an internal database, which compress Common Log Format logs by 80% in general. LogView will provide you with correct and reliable statistics, accessible in real-time.

Flexibility

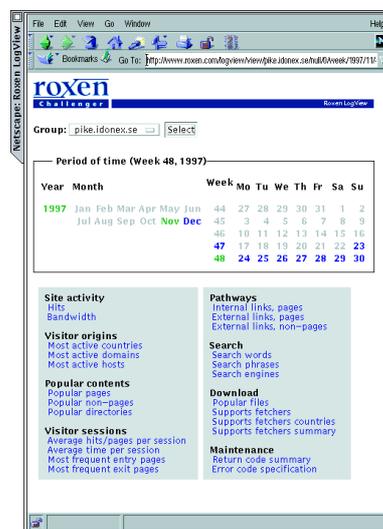
From whatever perspective you would like to view the log statistics LogView will do the job. You have a vast array of predefined report elements to choose from, and to aggregate over any period of time. From a calendar based interface you can select the time period of your choice. The report elements can be selected to show up as diagrams of different kinds, to be tabulated or to be exported to any spreadsheet or statistics program for further processing, see figure down below.



As well LogView comes with an advanced user interface where you have full freedom to customize your view to the statistics. From this advanced interface you also can choose to export any output as a tag, which generates e.g. the chosen diagram or table. In effect all report element are dynamic and generated from RXML tags. Such tags can be placed on any web page. However, from the advanced interface you can work out your own favorite statistics views and then

copy-and-paste them into a ReportMaker.

With the ReportMaker you can compile any report based on the log statistics. Such reports are of course real-time retrievable and updated. Such reports can even be relative, i.e. they on an ongoing basis reports statistics over the past 30 days etc. These reports can then be accessed or put on any web page, thanks to the modular construction of the Roxen platform, see figure down below.



Grouping

LogView can import old logs to be analyzed. In fact, even logs from other web servers than Roxen Challenger can be analyzed. Further, logs from different web servers can be grouped and analyzed, even from different brands of servers as it can import Common Log Format logs. By grouping you get even more flexibility and new opportunities to learn more about visitors behaviour.

Simple and Intuitive

Both use and administration of LogView is done through a browser using a graphical user interface. Installation and configuration is easy and there are no cryptic command-line activities to be performed by any user.

Independent

As LogView can import Common Log Format logs and compile any group of web sites it is suitable to be used as a stand-alone log analysis server.

Troubleshooter

One of the report element groups of LogView are focused on troubleshooting of a web site or intranet. It surveys missing pages, faulty links and other problems that may be encountered by visitors to a web site.

Roxen™ LogView

Characteristics

- Stable, secure and scalable
- Source distribution
- Internal Roxen module
- Powerful, capable of handling very large web sites. More than one gigabyte of logs can be handled every day
- Flexible
- Easy to use and intuitive

Functionality

- Handles HTTP, FTP and proxy logs
- Can import older logs for analysis
- Reads Common Log Format logs, making it possible to import logs from arbitrary servers, such as Microsoft IIS, Netscape and Apache
- Can serve as a dedicated log analysis server
- Grouping is supported, meaning logs from several different servers can be compiled into one group and report
- Virtual servers can constitute one group or be part of several groups
- Even logs from remote servers can be automatically imported, if given file system access to the log files
- Logs are stored in an internal database
- Common Log Format logs are compressed 80% or more in general
- Continually up to date statistical reports
- Updates and compiles log statistics every hour, always ready for analysis
- Enables export for continued processing by spreadsheet and statistics programs

- LogView report element tags can be put on any Roxen web page
- Web based user interfaces enables access to the latest statistics independantly of time and place

Report Elements

Site Activity

- Hits
- Pages Served
- Bandwidth
- Most Active Countries
- Most Active Domains
- Most Active Hosts

Popular Contents

- Popular Pages
- Popular Non-pages
- Popular Directories

Visitor Sessions

- Average Hits/Pages per Session
- Average Time per Session
- Most Frequent Entry Pages

- Most Frequent Exit Pages

Visitor Profiles

- Most Common Operating System
- Most Common Browser and Version
- Most Common Operating System and Browser

Pathways

- Internal Links and Pages
- External Links and Pages
- External Links and Non-Pages

Search

- Search words
- Search Phrases
- Search Engines

Site Maintenance

- Return Code Summary
- Error Code Specification

Calender Based User Interface

- Enables to view any report element over any period of time, as any diagram or table
- Intuitive graphical web based interface

Advanced User Interface

- Lets you tailor and work out your preferred choices to view the statistics, on ad hoc basis
- Creates tags as to be copied-and-pasted into any report or web page

ReportMaker

- Enables compilation of any set of report elements into one report
- Time horizons can be set in relative terms, as latest 24h, or fixed

Report User Interface

- All reports can be accessed from one interface
- Such reports can also be put on any web page, thanks to the RXML tag based construction

Report Element Addition or Customization

- Possible to program your own additional report elements
- Existing reports elements can be tailored to fit your organization's particular needs, as the source code is distributed

Easily Administrated

- Easily installed
- Easy-to-use graphical web interfaces, both for users and administrators
- No command line activities necessary for configuration or administration

Support

Various types of support and upgrade licenses are available

System Requirements

LogView is an add-on product for Roxen

Challenger. PC architecture hardware requirements are:

- Pentium 200
- 64 MB of memory space
- 20 MB of hard disk space

Memory and disc space are similar for Unix systems.

For information on the Roxen Challenger web server, refer to the appropriate product sheet. Please visit us at <http://www.roxen.com> for more extensive product information and up-to-date pricing information.



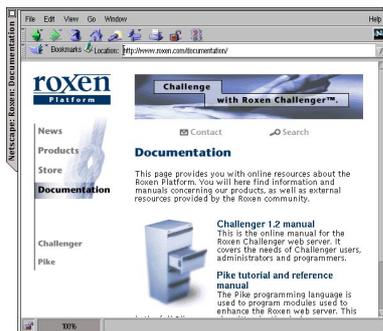
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Roxen™ SiteBuilder

SiteBuilder is an add-on product for the Roxen Challenger system that facilitates the management and creation of medium to large sized web sites. SiteBuilder is based on the concept to separate appearance from content. SiteBuilder is made up of four parts: WebLayout, which simplifies the creation of web page appearance; Content Editor, which handles the creation of the web pages' textual content, AccessControl, which simplifies the management of web page security, and VersionControl, which keeps track on who did what and when, as well as gives you the possibility to revert to an arbitrary earlier version of any web page or site.

Centralized Layout

In SiteBuilder, page appearance is determined by centralized page templates. SiteBuilder also contains a tool for the automatic generation of graphical navigation interfaces, see figure down below.



SiteBuilder pages are created and generated through a web based interface. The textual content of web pages are created in simple content files. Since content and appearance are separated, content pages become easy to create and maintain. This also allows personnel who are not technically trained to create content pages.

Multiple Work Areas

SiteBuilder includes a function for creating multiple work areas. This allows a large number of people to work on the web site simultaneously. The work areas act as test versions of the live web site where information can be entered, examined and approved before being published on the live web site.

VersionControl

VersionControl covers all files and documents part of SiteBuilder. VersionControl allows you to gain information about changes, such as when and by whom

they were made. If at any time responsible person does not approve the published web site, VersionControl enables the user to revert back to any earlier version.

Easy to Administrate and Transparent

AccessControl is a transparent web site security system. By using a graphical web interface, the web site administrator can manage access and privileges for various parts of the public web site or intranet. Settings are made by dividing users into groups and allocating privileges to those groups. AccessControl is easy to use and provides a lucid overview of groups and their privileges, see figure down below.



Changes made will take effect all over the web site, without the administrator needing to do anything more than changing the settings in the graphical interface. As users are only allowed to view the pages they have access to, and the navigation interface only shows the selections they are allowed to make, the end user will never discover the existence of a security system, hence is transparent.

Minimizes Costs

SiteBuilder makes it possible to build and maintain web sites much faster than if traditional technology had been used. SiteBuilder is a complete solution making web site maintenance costs minimal, a system enabling a large number of users to be working with the web site together.

Roxen™ SiteBuilder

Characteristics

- Enables separation of web page appearance and content
- Source distribution
- Multiple work areas
- Web site appearance is controlled by templates
- Encrypted connections are possible
- Easy to use and administrate
- Supports search engine meta-data
- Minimizes total cost of ownership, as in terms of site maintenance
- Allows viewing of previous web page versions
- Provides high security
- No need to purchase expensive client licenses, a browser is the common user interface

WebLayout

Templates

- Dynamic tool allowing the functionality of existing HTML-tags to be expanded, and the creation of new, useful tags
- Automatic JavaScript generation
- Frame support
- Automatically-generated page indices

Navigation

- Tool for the construction of advanced navigation interfaces
- Makes navigation extremely flexible
- Automatically generated graphical interfaces
- Allows the creation of both simple and complex menu variants
- Allows hierarchical menus
- Possible to include background images in navigation menus
- Automatically generated JavaScript code makes it possible to highlight the currently selected menu item
- Easy to maintain an up-to-date navigation structure
- Special effects such as shadowed text, alpha channels and antialiased GIF format images makes it simple to produce visually appealing navigation structures
- Lessens the need for manual image editing

Content Editor

- Allow any number of people to work on the web site simultaneously
- Pages are created and edited through a web interface
- Content files are easy to create and edit, and can be authored by persons without expert knowledge of HTML

VersionControl

- Logs all changes made to files and provides history
- Manages conflicts resulting from multiple users simultaneously editing the same file
- Minimizes the risk of erroneous information being published on the web site
- Makes it easy to see when, and by whom, which parts of any file were created or changed

AccessControl

- Transparent security system
- Enables the management of rights and privileges for various parts of the web site or intranet
- Changes made are effective for the entire web site
- Directories and applications are protected by showing only those documents a user is allowed to view
- All administration and configuration is done in the web based interface
- Provides a lucid overview of rights and privileges given to the various groups
- Web based user interface enable web site use and administration regardless location.

Support

Various types of support and upgrade licenses are available

System Requirements

SiteBuilder is an add-on system for Roxen Challenger. PC architecture hardware requirements are:

- Pentium II 233 or Pentium Pro
- 128 MB of memory space
- 50 MB of hard-disk space

Disc and memory space are similar for Unix systems.

For information on the Roxen Challenger web server, refer to the appropriate product sheet. Please visit us at <http://www.roxen.com> for more extensive product information and up-to-date pricing.



Roxen™ Database API Pro

Database API Pro is an add-on product for the web server Roxen Challenger. The product offers easy access to commercial databases directly from your web pages and has many areas of utilization. With Database API Pro web based reports can be compiled where data is connected from several different databases. Also you can rapidly create fully scalable and powerful database applications. Dynamic web pages can easily be created where the content is always updated with Database API Pro. The database connections are created with a simple markup language, RXML or Roxen Macro Language, making it easy to write SQL questions directly onto the web page.

Connectivity to Several Different Databases

Database API Pro lets you connect to several different databases simultaneously. It is possible to read, write, process and present data in just one and only database application. If you are connected to several databases you simply connect a tag name to the current database. To guarantee the security the access passwords are not stored in the web page, but internally in Roxen.

Dynamic Content, as Content is Separated from Appearance

Database API Pro is built upon the concept of separating content from appearance, as with other Roxen products. Database API Pro is associated with the content, while Roxen's HTML-like macro language manages the appearance. Further, RXML contains additional tags easily making it possible to create web forms for instance.

Easy to Use and Substantially Shortened Development Time

With Database API Pro you can rapidly develop web sites with dynamic content, also applications that can easily be customized to meet the user's needs. As it is simple to use, you not only learn fast, but you can also dramatically reduce the development time, and thereby lowering the costs substantially. If you compare it with traditional development tools, you will even discover that it can be used for totally new and different purposes. Within the time span of an hour you can have a prototype ready. The only knowledge you will need is basic knowledge in HTML and SQL.

Graphical Presentation of Database Queries

If you want to present tabulated data in an appealing way you use RXML and the tablify tag. With another tag for graphical text to present text as headings, typographically correct images generated by the Roxen Challenger server. Business Graphics is yet another more sophisticated tag making it possible to create diagrams, such as table or pie charts, which easily can be combined with the tags for Database API Pro. Thus, you always can access updated information as diagrams from one or more databases, without any need for manual collection and compilation, see figure down below.



Economic reports are one example that illustrate the capabilities of Database API Pro. Reports can be compiled concurrently. Maybe you would like to continue to process the information by calculating the contribution margin for a set of products, where a negative value is colored red and positive black. In the same report you can also display the revenue, direct costs and product contribution as a bar chart for each product.

With Database API Pro you can develop such reports, as the type mentioned above, or even use it for more advanced database applications. The advantage is that such applications can be developed very rapidly and the solutions are not only powerful but are also scalable. This could be an important issue if they are implemented as business critical applications that are continuously used by many users on your intranet.

Roxen™ Database API Pro

Characteristics

- Very rapid development of database applications
- Powerful development tool
- Easy to process information stored in databases and present it in an attractive way
- Provides secure database applications as Database API Pro is an internal Roxen module
- Easy to design appealing and useful interfaces for applications
- Fully scalable database applications
- Easy to master the development tool as it only requires basic knowledge of HTML and SQL
- Enables entirely new methods for the development of database applications, for example Rapid Prototyping, where the application is immediately available for use
- Saves time, both in the development and implementation of prototypes
- Very flexible tool
- Once developed, applications can easily be copied, and the codes can be reused in other applications
- Source code distribution

Functionality

- Allows connection with several databases simultaneously

- By giving symbolic names to databases in the configuration interface, web applications can be reused for different databases
- Database applications can be provided with read and/or write privileges
- SQL queries are written in the actual HTML code in a lucid tag format
- Passwords for database access is stored internally in Roxen as opposed to on the web page, enhancing technical security
- Easy to present information fetched and collated from different databases, in real-time

Examples of presentation aids are:

- Rendering diagrams with Business Graphics
- Table generation
- Rendering headers as graphical headers, meaning text rendered into images and properly typeset
- Possible to check on correct entry of information that has been entered using forms

Connection to the following databases:

- Oracle
- Informix
- ODBC-based
- MS SQL
- MySQL
- Postgres

Fields of Use

Collating web reports

Fetch data from multiple sources and present it with the aid of, for example, table formatting, Business Graphics and graphical headers. This is particularly appropriate if this would otherwise require manual work of a repetitive nature. Reports of this type can be generated in real-time. One example of this could be decision support systems, where data is collected from multiple sources and then collated together into economical web reports

Web Interface to Existing Web Applications

Make your databases and other systems available to more users through your intranet. For instance, traveling sales personnel can access product information and customer databases, or even report new orders

It is possible that you would want to provide the sales department with access to information held by other departments. Naturally, you will safeguard these connections and run them through encrypted channels

New Web-Based Database Applications

Entirely new database applications such as interactive Internet web services like web stores and shopping carts can be constructed easily. Systems such as time report systems can be set up on your intranet. Another feasible are support systems for sales and support personnel, where several coworkers will need to work against the same databases

Support

Various types of support and upgrade licenses are available

System Requirements

Database API Pro is an add-on system for Roxen Challenger. PC architecture hardware requirements are:

- Pentium II 266 or Pentium Pro
- 128 MB of memory space
- 50 MB of hard-disk space

Memory and disc space are similar for Unix systems.

For information on the Roxen Challenger web server, refer to the appropriate product sheet. Please visit us at <http://www.roxen.com> for more extensive product information and up-to-date pricing.



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