

# Delphi Prism™ 2010 What's New

## Go further with the Delphi Prism language

The Delphi Prism language is a great way for Delphi developers and .NET developers to write .NET applications. Delphi developers can take advantage of familiar syntax and .NET developers will find exciting language features not available in other .NET programming languages.

The Delphi Prism language has been updated with the following new features:

- Enhanced compatibility with the Delphi language
- Aspect Oriented Programming (AOP)
- Support for Dynamic Typing (under .NET 4.0)

Delphi Prism's AOP makes it possible to change the behavior of code, add or remove fields, properties, events or methods and even extra classes, by applying special kinds of attributes - Aspects - to classes or members.

Aspects are written in Prism, compiled into a separate library, and are reusable by different projects. They are also fairly simple to write. Aspect attributes are loaded and instantiated by the compiler at compile time, and are given the chance to take very powerful influence on the code the compiler is generating.

Additional features have also been added to the language and compiler since the original 2009 release of the product:

### Major Compiler Features

- RemObjects Cirrus: AOP for Oxygene
- Standard Aspects Library for RemObjects Cirrus (shipping as Tech Preview)
- Unmanaged Exports
- Generic Type Variance
- Volatile fields
- CLSCompliantAttribute support and compiler warnings
- New LINQ Query Expressions operators Skip, While, Take and Take While

### Minor Compiler Features

- Unquote expression support (mainly to support Cirrus)
- \$DELPHICOMPATIBILITY compiler directive and project option
- Runtime range checking
- Range Enum Types (e.g. "type Ten = 1..10;")
- Read-only classes

- Support for negative low bounds in Array Types

### **Other New Features**

- CodeDom enhancements to support OxygeneInterface, OxygenePartial and OxygeneEmpty tags in UserData
- Pre/Post build events
- Debug options: Remote Machine
- Custom "Add Reference" pane for adding Mono assembly references
- New Monobjc Template and Monobjc libraries deployed with Delphi Prism
- Updated setup to install the latest Mono 2.4
- Added Internet Pack as an integrated part of setup
- Integrated F1 help based on an offline copy of the documentation wiki
- Added templates for ASP.NET Web projects

### **Make the connection with data and applications**

With Delphi Prism 2010, developers can build .NET DataSnap client applications that use new capabilities of DataSnap 2010, including support for communicating with the server using the HTTP protocol. DataSnap features are available in Delphi Prism Enterprise, Embarcadero RAD Studio Enterprise and Embarcadero RAD Studio Architect.

Features vary by product edition. See the Delphi Prism 2010 Feature Matrix for a full list of features by edition.