Visual Component Library

Build Rich User Interfaces for Windows Desktop Clients

The Visual Component Library (VCL) offers easy and visual development of the application user interface. The VCL architecture is rooted in a robust and high-performance OOP structure which allows developers to embrace modern patterns and design paradigms. VCL developers create modern looking applications with support for styling and modern Windows 10 UI controls. Coupled with a strong data access layer, it supports live data at design time, so that a developer can preview the final output while designing the applications.

Benefits

DESIGNERS AND LIVE DATA

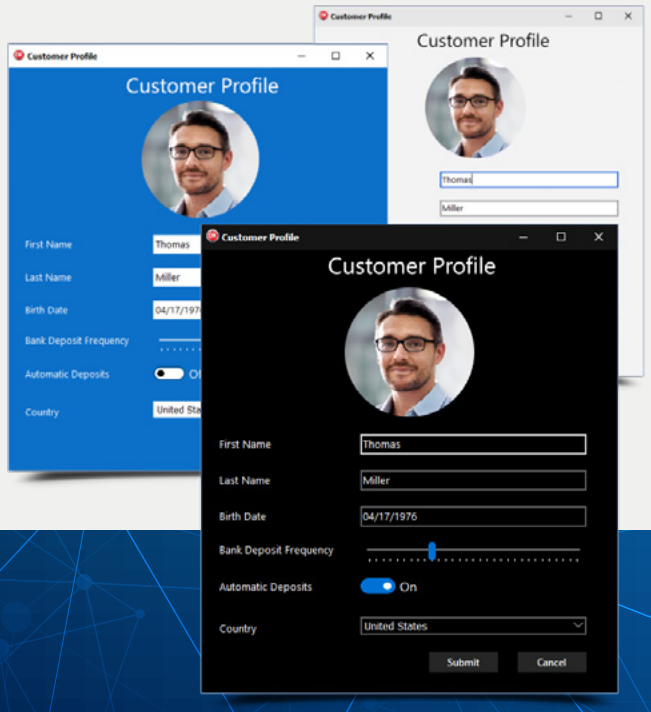
Since its inception, the VCL has been designed for an elegant, component-based RAD (Rapid Application Development) model that integrates a strong data access layer. Developers can leverage the built-in visual designer, offering composition and inheritance, and populate their UI with prototypes or real data at design time. Showing database or REST server data at design time is a huge advantage for developer productivity. Visually connect UI controls to your database of choice usingthe LiveBindings Designer - no code required.

NATIVE CODE AND SIMPLIFIED DEPLOYMENT

The VCL allows you to deploy standalone executables with no runtime libraries and no “DLL hell”. The compiled applications do not have any dependency on any virtual execution environment (like Java and .NET). Optionally, developers can generate a smaller executable and deploy alongside runtime packages. In all cases, you can do “xcopy deployment” of your VCL applications (or use the APPX format of the Windows Store). All RAD Studio applications are compiled to binary code for maximum security and performance. Native code offers higher IP protection since it makes it significantly more difficult to reverse engineer an application.

PREMIUM WINDOWS 10 SUPPORT

The VCL offers extensive support for the latest version of the Windows OS. With direct support for the traditional Windows API, the Windows COM components, and the modern WinRT API, the VCL has great integration with the underlying operating system. The VCL has dozens of modern Windows 10 style controls that also work on Windows 7, plus specific component-based integration of new platform features like notifications that run only on Windows 10. VCL applications can be deployed to the Windows Store using the Windows Desktop Bridge directly from the IDE.



Choose from three Windows 10 Modern UI VCL styles or create your own with the included templates

Try it in RAD Studio!

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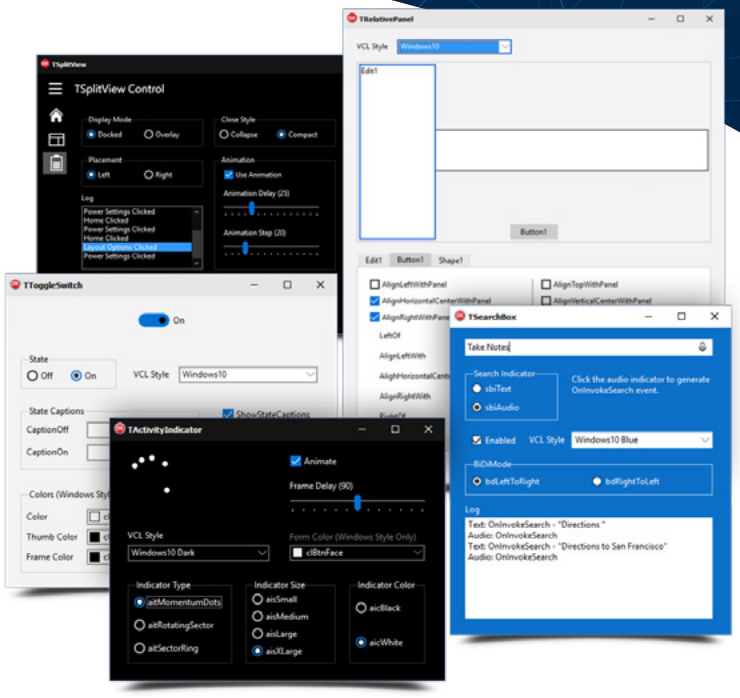
RICH THIRD-PARTY ECOSYSTEM

The VCL offers a large collection of user interface controls and non-visual components augmented by a huge set of third-party libraries. There are several sophisticated grids, reporting engines, graphics rendering libraries, and more. RAD Studio ships with the basic versions of TeeChart for creating business graphs and FastReport for generating printed and PDF-based reports. It also provides easy access to enterprise data via Cloud components and the CData Enterprise Connectors.

MODERN CODING STYLE

The VCL offers a modern and effective coding style with the ActionList command pattern and Visual LiveBindings for binding objects to the UI controls using dynamic expressions, both allowing excellent UI and logic separation. Anything you can do in the designer you can do in code. For your coding, you can use our modern Object Pascal language (with features like generics, closures, reflection, and attributes) or use modern C++ with our CLANG-enhanced tooling. The VCL comes with full source code for learning, debugging and extending the existing controls.



	VCL	WINFORMS	WINRT	QT
Framework	Native platform framework for WinAPI and WinRT	Native platform framework for WinAPI	New Windows 10 only platform framework	UI abstraction layer for multiplatform
Platforms and Dependencies	Win 7 and Win 10, no dependency	Win 7 and Win 10, .NET dependency	Win 10 only, no dependency (unless .NET is used)	Win 7 and Win 10 (abstract UI)
UI Controls and Components	Very rich set, many third-party offerings	Limited set, many third-party offerings	Limited set, currently limited third-party offerings	Rich set, limited third-party offerings
Long-term Viability	Excellent, 20 year old code still supported, full Windows 10 UI and platform support	No enhancements in many years, no modern UI controls	Nice but limited set of controls, older applications may require full rewrite	An established library that abstracts from the OS
Languages and Compilers	Delphi or C++, natively compiled	C#, .NET framework	C# and .NET, JavaScript, or C++ (compiled for C++ only)	C++
Visual Designers	Yes, with live data	Limited	Limited	QTCreator
Styling Support	Yes, modernizes the UI without changing the underlying controls	No	Not needed (new UI library)	No

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