

extend RAD Server or modularize your applicationsUse FireDAC to get quick and direct access to any dataLeverage IoT technologies such as Bluetooth and Beacons and learn how to put your app on a Raspberry PiEnable remote apps with backend servers on Windows and Linux through REST APIsDevelop modules for IIS and Apache web serversWho this book is for This book is for Delphi developers interested in expanding their skillset beyond Windows programming by creating professional-grade applications on multiple platforms, including Windows, Mac, iOS, Android, and back-office servers. You'll also find this book useful if you're a developer looking to upgrade your knowledge of Delphi to keep up with the latest changes and enhancements in this powerful toolset. Some Delphi programming experience is necessary to make the most out of this book.

Learn the complete Qt ecosystem and its tools and build UIs for mobile and desktop applications **Key Features**Unleash the power of the latest Qt 5.9 with C++14Easily compile, run, and debug your applications from the powerful Qt Creator IDEBuild multi-platform projects that target Android, iOS, Windows, MacOS, Linux, and moreBook Description Qt 5.9 is an application development framework that provides a great user experience and develops full-capability applications with Qt Widgets, QML, and even Qt 3D. This learning path demonstrates the power and flexibility of the Qt framework for desktop application development and shows how you can write an application once and deploy it to multiple operating systems. It will address all the challenges while developing cross-platform applications with the Qt framework. This course will give you a better understanding of the Qt framework and tools to resolve serious issues such as linking, debugging, and multithreading. It will also upskill you by explaining how to create a to-do-style app and taking you through all the stages in building a successful project. You will build a suite of apps; while developing these apps, you'll deepen your knowledge of Qt Quick's layout systems, and see Qt 3D and widgets in action. The next project will be in the industrial and agricultural sectors: making sense of sensor data via a monitoring system. Your apps should run seamlessly across devices and operating systems such as Android, iOS, Windows, or Mac, and be cost-effective by integrating with existing web technologies. You take the role of lead developer and prototype a monitoring system. In doing so, you'll get to know Qt's Bluetooth and HTTP APIs, as well as the Charts and Web Engine UI modules. These projects will help you gain a holistic view of the Qt framework. What you will learnInstall and configure the Qt Framework and Qt Creator IDEImplement a rich user interface with QMLLearn the fundamentals of QTTest and how to integrate unit testingCreate stunning UIs with Qt Widget and Qt QuickDevelop powerful, cross-platform applications with the Qt frameworkDesign GUIs with Qt Designer and build a library in it for UI previewsBuild a desktop UI with widgets and DesignerGet familiar with multimedia components to handle visual input and outputWho this book is for This book will appeal to developers and programmers who would like to build GUI-based applications. Knowledge of C++ is necessary and a basic familiarity with Qt would be helpful.

Learn GUI application development from the ground up, taking a practical approach by building simple projects that teach the fundamentals of using PyQt. Each chapter gradually moves on to teach more advanced and diverse concepts to aid you in designing interesting applications using the latest version of PyQt. You'll start by reviewing the beginning steps of GUI development from, using different projects in every chapter to teach new widgets or concepts that will help you to build better UIs. As you follow along, you will construct more elaborate GUIs, covering topics that include storing data using the clipboard, graphics and animation, support for SQL databases, and multithreading applications. Using this knowledge, you'll be able to build a photo editor, games, a text editor, a working web browser and an assortment of other GUIs. **Beginning PyQt will guide you through the process of creating UIs to help you bring your own ideas to life.** Learn what is necessary to begin making your own applications and more with PyQt! **What You'll Learn** Create your own cross-platform GUIs with PyQt and PythonUse PyQt's many widgets and apply them to building real applicationsBuild larger applications and break the steps into smaller parts for deeper understandingWork with complex applications in PyQt, from animation to databases and more Who This **Book is For** individuals who already have a fundamental understanding of the Python programming language and are looking to either expand their skills in Python or have a project where they need to create a UI, but may have no prior experience or no idea how to begin.

Build stunning cross-platform applications and widgets with the most powerful GUI framework

The hands-on guide to making apps with Python

Design and build applications with modern graphical user interfaces without worrying about platform dependency

Create stunning cross-platform applications using C++ with Qt Widgets and QML with Qt Quick, 2nd Edition

Beginning PyQt

GUI Programming With Python

Building desktop applications doesn't have to be difficult. Using Python & Q5 you can create fully functional desktop apps in minutes. This is the 4th Edition of Create GUI Applications, updated for 2020 & PySide2 Starting from the very basics, this book takes you on a tour of the key features of PySide you can use to build real-life applications. Learn the fundamental building blocks of PySide applications — Widgets, Layouts & Signals and learn how PySide uses the event loop to handle and respond to user input. Design beautiful UIs with Qt Designer and customize the look and feel of your applications with Qt Style Sheets and custom widgets. Use Qt's MVC-like ModelViews framework to connect data sources to your widgets, including SQL databases, numpy and pandas data tables, to build data driven application. Visualize data using matplotlib & PyQtGraph and connect with external data sources to build live dashboards. Learn how to use threads and processes to manage long-running tasks and communicate with external services. Parse data and visualize the output in logs and progress bars. The book includes usability and architectural tips to help you build maintainable and usable PySide2 applications from the start. Finally, once your application is ready to be released, discover how to package it up into professional-quality installers, ready to ship. The book includes - 665 pages of hands-on PySide2 exercises - 211 code examples to experiment with - Includes 4 example apps - Compatible with Python 3.4+ - Code free to reuse in your own projects

Leverage the power of Python and its de facto GUI framework to build highly interactive interfaces **Key Features** The fundamentals of Python and GUI programming with Tkinter. Create multiple cross-platform projects by integrating a host of third-party libraries and tools. Build beautiful and highly-interactive user interfaces that target multiple devices. Book Description Tkinter is a modular, cross-platform application development toolkit for Python. When developing GUI-rich applications, the most important choices are which programming language(s) and which GUI framework to use. Python and Tkinter prove to be a great combination. This book will get you familiar with Tkinter by having you create fun and interactive projects. These projects have varying degrees of complexity. We'll start with a simple project, where you'll learn the fundamentals of GUI programming and the basics of working with a Tkinter application. After getting the basics right, we'll move on to creating a project of slightly increased complexity, such as a highly customizable Python editor. In the next project, we'll crank up the complexity level to create an instant messaging app. Toward the end, we'll discuss various ways of packaging our applications so that they can be shared and installed on other machines without the user having to learn how to install and run Python programs. What you will learn Create a scrollable frame via theCanvas widget Use the pack geometry manager andFrame widget to control layout Learn to choose a data structure for a game Group Tkinter widgets, such asbuttons, canvases, and labels Create a highly customizablePython editor Design and lay out a chat window Who this book is for This book is for beginners to GUI programming who haven't used Tkinter yet and are eager to start building great-looking and user-friendly GUIs. Prior knowledge of Python programming is expected.

Begin writing graphical user interface(GUI) applications for building human machine interfaces with a clear understanding of key concepts of the Qt framework **Key Features**Learn how to write, assemble, and build Qt application from the command lineUnderstand key concepts like Signals and Slots in QtBest practices and effective techniques for designing graphical user interfaces using Qt Book Description Qt is a cross-platform application framework and widget toolkit that is used to create GUI applications that can run on different hardware and operating systems. The main aim of this book is to introduce Qt to the reader. Through the use of simple examples, we will walk you through building blocks without focusing too much on theory. Qt is a popular tool that can be used for building a variety of applications, such as web browsers, media players such as VLC, and Adobe Photoshop. Following Qt installation and setup, the book dives straight into helping you create your first application. You will be introduced to Widgets, Qt's interface building block, and the many varieties that are available for creating GUIs. Next, Qt's core concept of signals and slots are well illustrated with sufficient examples. The book further teaches you how to create custom widgets, signals and slots, and how to communicate useful information via dialog boxes. To cap everything off, you will be taken through writing applications that can connect to databases in order to persist data. By the end of the book, you should be well equipped to start creating your own Qt applications and confident enough to pick up more advanced Qt techniques and materials to hone your skills. What you will learnSet up and configure your machine to begin developing Qt applications Discover different widgets and layouts for constructing Qt applications Understand the key concept of signals and slots Understand how signals and slots help animate a GUIExplore how to create customized widgets along with signals and slots Understand how to subclass and create a custom windows applicationUnderstand how to write applications that can talk to databases.Who this book is for Anyone trying to start development of graphical user interface application will find this book useful. One does not need prior exposure to other toolkits to understand this book. In order to learn from this book you should have basic knowledge of C++ and a good grasp of Object Oriented Programming.

Explore Qt Creator, Qt Quick, and QML to design and develop applications that work on desktop, mobile, embedded, and IoT platforms **Key Features**Build a solid foundation in Qt by learning about its core classes, multithreading, File IO, and networkingLearn GUI programming and build custom interfaces using Qt Widgets, Qt Designer, and QMLUse the latest features of C++17 for improving the performance of your Qt applicationsBook Description Qt is a powerful development framework that serves as a complete toolkit for building cross-platform applications, helping you reduce development time and improve productivity. Completely revised and updated to cover C++17 and the latest developments in Qt 5.12, this comprehensive guide is the third edition of Application Development with Qt Creator. You'll start by designing a user interface using Qt Designer and learn how to instantiate custom messages, forms, and dialogues. You'll then understand Qt's support for multithreading, a key tool for making applications responsive, and the use of Qt's Model-View-Controller (MVC) to display data and content. As you advance, you'll learn to draw images on screen using Graphics View Framework and create custom widgets that interoperate with Qt Widgets. This Qt programming book takes you through Qt Creator's latest features, such as Qt Quick Controls 2, enhanced CMake support, a new graphical editor for SCXML, and a model editor. You'll even work with multimedia and sensors using Qt Quick, and finally develop applications for mobile, IoT, and embedded devices using Qt Creator. By the end of this Qt book, you'll be able to create your own cross-platform applications from scratch using Qt Creator and the C++ programming language. What you will learnCreate programs from scratch using the Qt framework and C++ languageCompile and debug your Qt Quick and C++ applications using Qt CreatorImplement map view with your Qt application and display device location on the mapUnderstand how to call Android and iOS native functions from Qt C++ codeLocalize your application with Qt LinguistExplore various Qt Quick components that provide access to audio and video playbackDevelop GUI applications using both Qt and Qt QuickWho this book is for If you are a beginner looking to harness the power of Qt and the Qt Creator framework for cross-platform development, this book is for you. Although no prior knowledge of Qt and Qt Creator is required, basic knowledge of C++ programming is assumed.

Using the Qt Toolkit

Cross-Platform Development with Qt 6 and Modern C++

Develop cross-platform applications with modern UIs using the powerful Qt framework

Hands-On GUI Programming with C++ and Q5

Build responsive, cross-platform, graphical applications with the Go programming language

Q5 Python GUI Programming Cookbook

If you are a programmer looking for a truly cross-platform GUI framework to help you save your time by side-stepping the incompatibility between different platforms and building applications using Qt 5 for multiple targets, then this book is most certainly intended for you. It is assumed that you have a basic programming experience of C++ and fundamental knowledge about Qt.

Boost UI development with ready-made widgets, controls, charts, and data visualization and create stunning 2D and 3D graphics with PyQt and PySide2. **Key Features** Build optimized GUI applications by implementing multiprocessing and concurrency Understand embedded and mobile development with PyQt and PySide Learn to create magnificent GUI applications using PySide2 and QtQuick/QML Book Description Qt is one of the most widely used and flexible frameworks for GUI application development, allowing you to write your application once and then deploy it to multiple operating systems. This book combines the best of Python and Qt to help you develop GUI applications with Python bindings, such as PyQt and PySide, that will supercharge your Python applications. The book begins with an overview of Qt and QML. You'll start by working with PyQt GUI elements to style your applications. Then, you will learn how to use QWidget, frames, labels, and text fields, and work with graphics. This will be followed by taking you through how elements in the application communicate with each other by understanding signals, slots, and event handlers. This book will help you to gain a better understanding of the Qt framework and the tools to resolve issues when testing, linking, debugging, and multithreading your Python GUI applications. Finally, the book will help you get to grips with embedded and mobile development using PyQt and PySide. By the end of the book, you will be able to create modern, responsive, cross-platform desktop applications with the power of Qt, Python, and QML. What you will learn Explore PyQt5 and PySide2 to create comprehensive GUI applications Find out how threading and multiprocessing work Understand how to style GUIs with PyQt Get to grips with implementing buttons Understand how elements communicate with signals, slots, and event handlers Explore mobile development with PyQt and PySide Who this book is for This book is for Python developers who want to develop GUIs and cross-platform applications that are modern, responsive, and attractive. No prior knowledge of Qt or QML is required.

Create modern yet effective multi-platform applications by building interactive UIs following a single codebase approach to boost productivity **Key Features**Delve into the FireMonkey framework and explore its powerful capabilitiesEnhance the user experience by using various technologies included in Delphi and FMXBoost developer productivity through the cross-platform capabilities enabled by the FrameworkBook Description FireMonkey (FMX) is a cross-platform application framework that allows developers to create exciting user interfaces and deliver applications on multiple operating systems (OS). This book will help you learn visual programming with Delphi and FMX. Starting with an overview of the FMX framework, including a general discussion of the underlying philosophy and approach, you'll then move on to the fundamentals and architectural details of FMX. You'll also cover a significant comparison between Delphi and the Visual Component Library (VCL). Next, you'll focus on the main FMX components, data access/data binding, and style concepts, in addition to understanding how to deliver visually responsive UIs. To address modern application development, the book takes you through topics such as animations and effects, and provides you with a general introduction to parallel programming, specifically targeting UI-related aspects, including application responsiveness. Later, you'll explore the most important cross-platform services in the FMX framework, which are essential for delivering your application on multiple platforms while retaining the single codebase approach. Finally, you'll learn about FMX's built-in 3D functionalities. By the end of this book, you'll be familiar with the FMX framework and be able to build effective cross-platform apps. What you will learnExplore FMX's fundamental components with a brief comparison to VCLAchieve visual responsiveness through alignment capabilities and layout componentsEnrich the user experience with the help of transitions and visual animationsGet to grips with data access and visual data bindingBuild exciting and responsive UIs for desktop and mobile platformsUnderstand the importance of responsive applications using parallel programmingCreate visual continuity through your applications with TFormStand and TFormStandExplore the 3D functionalities offered by FMXWho this book is for This book is for Delphi developers who are looking to discover the full potential of the FireMonkey framework in order to build interactive cross-platform GUI applications and achieve an optimal UI/UX. Basic familiarity with Delphi programming and the VCL will be beneficial but not mandatory.

Application Development with Qt Creator