The Developers Group Masterclass
Delphi 2010 Development Essentials
with Bob Swart

Click here now to book

on Monday 12th April and Tuesday 13th April 2010

at the Village Hall (Parish Reading Room), Upavon, Wiltshire SN9 6EB

This two-day masterclass is taught by Bob Swart, using the courseware material from Bob Swart Training & Consultancy. It focuses on the **Delphi 2009-2010 enhancements and new features** compared to Delphi 2007, but the courseware is even more detailed and also includes the enhancements and new features compared to Delphi 7. So even if you've never made the step from Delphi 7 to 2005, 2006 or 2007, this masterclass is the ideal place to step up and join the new wave of the first release of Delphi from Embarcadero, showing true dedication to Delphi again.

Monday April 12th

During the first day, you will become more efficient in using the new Delphi 2010 IDE, and you will learn when and how to apply the language, RTL and VCL enhancements plus you will no longer be a stranger to Unicode (whether you like it or not), Windows 7 support or the new Debugger Visualizers.

9:30 Registration, tea/coffee and calories

10:00 Delphi IDE and Language Enhancements
We start the day with a brief view of some IDE enhancements that can increase productivity like build configurations, warnings as errors, the new search ability, followed by an overview of language enhancements since Delphi 2007. We look briefly at generic types, generic methods, anonymous methods (introduced in Delphi 2009) and in detail at new language enhancements like the updated RTTI (run-time type information), changes in the "is" and "as" operators, the support for attributes and the new delayed keyword for delay loading DLLs.

11:20 Tea/coffee and more calories

11:35 RTL and VCL Enhancements
We continue with the major RTL and VCL enhancements in Delphi 2010, including effective use of the classes and routines found in the IOUtils unit (For TDirectory, TPath, TFile), the Diagnostics and TimeSpan units, as well as the Touch and Gesturing support that has been added to the VCL, including the new TTouchKeyboard (and how to customise the layout of it). The TDirect2DCanvas class is covered later.

12:50 Lunch at the pub

14:00 Unicode Strings
We dive deep into Unicode, starting with an explanation of what Unicode is, which encodings are most relevant (UTF-8 and UTF-16) and how the new String in Delphi 2009 and later implements all this. At the end of this section, you will know everything you need to know about payloads, code points, and even code pages as we compare UnicodeStrings as well as AnsiStrings (as well as the old COM-based WideString) and see what the benefits and costs are of using either of these.

Then we change the focus from Unicode strings themselves to the way they are used in the Delphi RTL and VCL, and see how we can make best use of Unicode today, but also how we can migrate existing applications (using AnsiString) over to Unicode. Or keep them in AnsiString when needed.

There are a number of source code constructs that need special attention when migration to Unicode (such as the size of a "Char" and the length of buffers), which is also covered in detail both in the masterclass.

15:20 Tea/coffee and yet more calories

15:35 Windows 7 Support
Now we demonstrate special Windows 7 support. In order to "play along", you need Windows 7 (as well as Delphi 2010). Topics include TDirect2DCanvas to support Direct2D and DirectWrite, but also special dialogs, Aero support and other special Windows 7 features and issues.

16:50 Fidget break

17:00 Debug Visualizers
Finally we see what Debug Visualizers are, how we can use them, and even how we can write our own debug visualizers for our own custom classes or situations.

18:00 End - supper at the pub at 19:00 if you like.

Tuesday, April 13th - the hands on day

Tuesday is **DataSnap 2010** day. When this day is over, you will have seen that DataSnap no longer relies on COM, but is now based on an open architecture with lots of options for future extensions. We build one big example on the day, but will use anecdotes and experiences from two of Bob's current real-world DataSnap 2010 applications. If you do not have Delphi 2010 Enterprise or higher, you can download the Delphi 2010 Architect edition trial-edition in order to play along and learn what DataSnap 2010 can do.

9:30   Registration, tea/coffee and calories

10:00 **DataSnap 2010**
We start by building DataSnap 2010 servers with server methods, exploring both HTTP and TCP/IP as communication protocols, generating client classes and examining the proxy code that's being generated. The (limited) callback mechanism is explored, and finally after adding HTTP Authentication, DataSnap server deployment is covered (for all different project targets, except for web targets, which are covered later).

11:20 Tea/coffee and more calories

11:35 **DataSnap and Databases**
We continue by adding datasets and especially DataSetProviders to the server module. We use both SQLServerMethod and DSProviderConnection at the client side, and examine the pros/cons. Applying updates back to the server in combination with the optimal DataSetProvider settings and reconcile error events are handled. Special care is taken with tables where the primary key consists of an autoincrement value, including those used in master-details situations.

12:50 Lunch at the pub

14:00 **DataSnap Filters and Security**
Filters are built-in the new DataSnap framework as a means to intercept and modify the data stream at the server and client side.

We see how they work, and how we can add our own custom filters. We examine built-in filters for compression and third-party filters for encryption in combination with the performance and bandwidth consequences. Special care is taken with encryption, where the use of a shared key is not desirable.

15:20 Tea/coffee and yet more calories

15:35 **DataSnap Web Servers**
So far the DataSnap servers have been Windows applications (GUI, Service, console), but now we migrate them to web server applications, specifically to ISAPI DLLs. We see how to deploy the DataSnap 2010 server on IIS, what it means for client connections, and how we want HTTPS / SSL support built-into DataSnap. This is also the time to demonstrate the REST and JSON capabilities of DataSnap.

When time allows, we also build Delphi Prism and/or C++Builder clients to the DataSnap 2010 servers of today.

16:50 Fidget break

17:00 **Final Delphi 2010 QA session**
The closing section of the last day consists of a short summary of what we've seen in both days, and some questions and answers that haven't been addressed during the day itself. You can always contact Bob by e-mail after the training event for more information or support.

18:00 Home.

Things You'll Need to Know

Click here now to book

Cost and booking

The price for members is £175 + VAT per day or £300 + VAT for both days. (Non-members please contact us.) All places must be booked and paid for in advance. Please book as soon as you can - bookings are open NOW - and make sure that we have payment by bank transfer or cheque before Easter.

The price includes refreshments and lunch. It does not include drinks at the pub, your evening meal or accommodation if you're staying overnight, or your taxi.

Getting here, food, accommodation, parking etc - ask if you need more info

Upavon is at the crossroads of the A342 (Andover to Devizes) and A345 Swindon to Salisbury.

The hall is on the A342 between Andover (East) and Devizes (West), near the river bridge, just to the East of the junction of the A345 between Salisbury (South) and Swindon (North).

Regrettably getting here by public transport isn't easy and it's generally easier to drive. **Parking** is at your b&b or just outside the hall. You can also park at the Ship Inn in the High Street (A345) just round the corner from the hall. Our lunch is at the Ship too - they don't provide accommodation but ....

Accommodation very close to the hall is available at Upavon Manor (isabelbgreen@hotmail.com or 01980 635115) and the Antelope Inn (01980 630206). There are other b&bs a very brief drive or a walk across the fields away - ask if you need more information.

Please remember that **phones** must be switched off during the class (signal is poor here anyway) and you won't have internet access at the hall or (most probably) at your accommodation. Bring your laptop fully charged - you'll be able to recharge at lunchtime.