Availability: Framework 4.0

Windows Workflow Foundation (WF) was first introduced in 2006 with .NET 3.0. It is probably fair to say that WF didn’t receive the widespread adoption Microsoft was hoping for. This lack of uptake was probably due to a number of factors:

- Although the WF designer offers a natural way of working, it is a very different way of developing applications and contains a new API to master.
- Slow performance.
- Writing your own work flow activities was not as easy as it could be.
- Handling and passing data between activities was cumbersome
- Limited support for messaging scenarios and integration with WCF.
- Some developers were confused by the hosting model.
- A clunky designer interface made you want to poke your own eyes out (OK, it wasn’t that bad but it wasn’t that good either).

Microsoft has aimed to address these issues and also to integrate WCF and WF closer than ever before.

Why Use WF?

Before we look at how to use Microsoft WF you may be wondering why should I bother? WF can greatly simplify the development of applications that deal with complex and long-running Processes as traditional coding methods are not ideal for solving this type of problem. To understand why they are not, let’s take the example of a visa approval system (loosely based on my experience of the UK/Australian emigration process) as shown in the flowchart in Figure 6-1.
Figure 6-1. Visa processing system workflow