



INTRODUCTION TO THE BACKGROUNDWORKER COMPONENT WITH WPF

Presented by **Jeremy Clark**
www.jeremybytes.com

AGENDA

- About Me
- BackgroundWorker Component Features
- LOOK AT THE CODE
- Resources



ABOUT ME

- Jeremy Clark
- 10 Years as an Application Developer
- .NET/C# since 2005
- ASP.NET, WinForms, Web Services, WCF, WPF, Silverlight
- www.jeremybytes.com



Jeremy – 7th Grade



BACKGROUNDWORKER COMPONENT FEATURES

- Background Thread Handling
- Automatic Marshalling Across Threads
- Progress Notification
- Cancellation

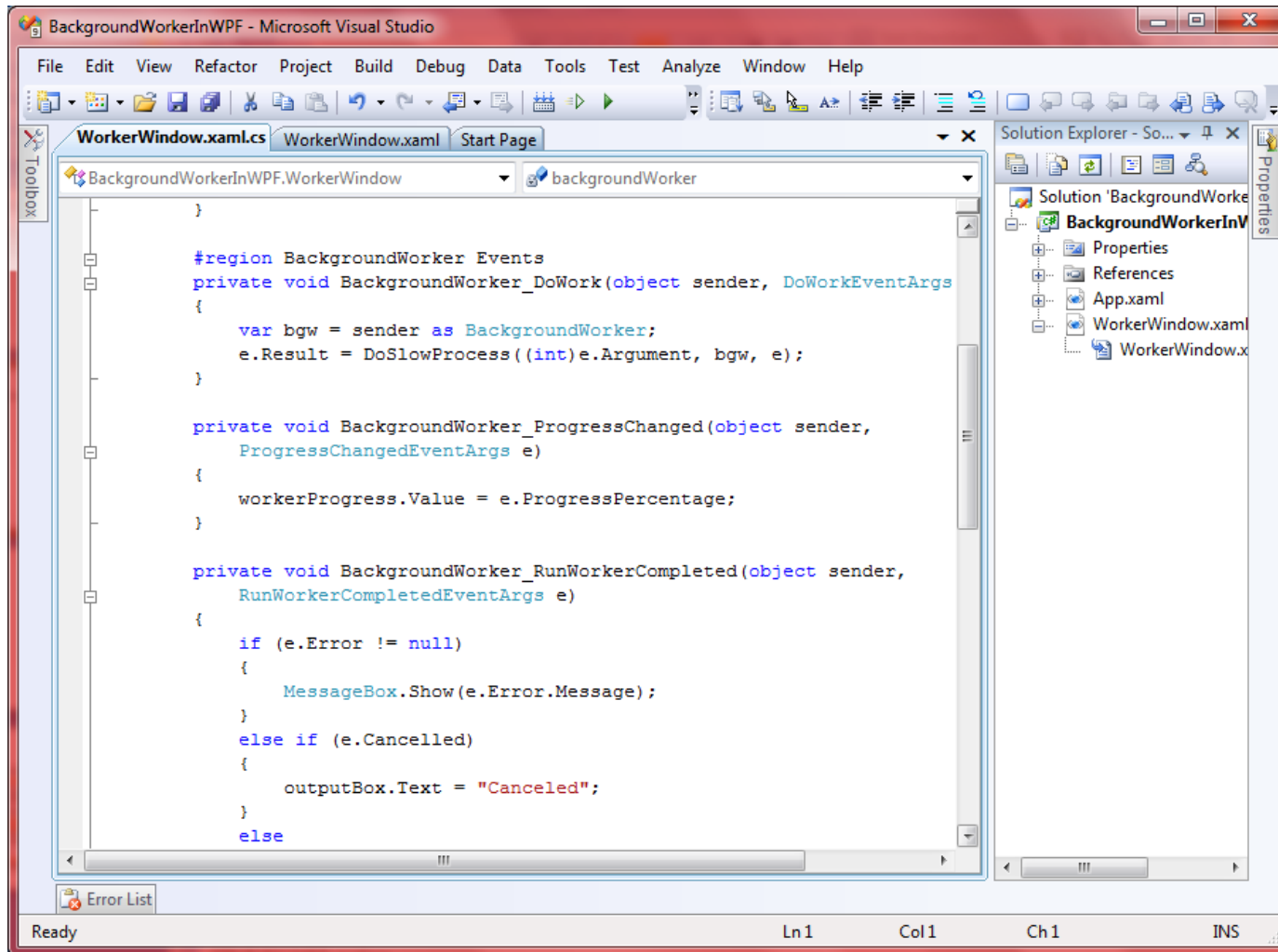


BACKGROUNDWORKER MEMBERS

- Methods
 - RunWorkerAsync
 - ReportProgress
 - CancelAsync
- Properties
 - WorkerReportsProgress
 - WorkerSupportsCancellation
 - CancellationPending
 - IsBusy
- Events
 - DoWork
 - RunWorkerCompleted
 - ProgressChanged



LOOK AT THE CODE



The screenshot shows the Visual Studio IDE with the following components:

- Menu Bar:** File, Edit, View, Refactor, Project, Build, Debug, Data, Tools, Test, Analyze, Window, Help.
- Toolbar:** Standard development icons for file operations, editing, and execution.
- Toolbox:** Located on the left side of the editor.
- Code Editor:** Displays the following C# code:

```
    }  
  
    #region BackgroundWorker Events  
    private void BackgroundWorker_DoWork(object sender, DoWorkEventArgs  
    {  
        var bgw = sender as BackgroundWorker;  
        e.Result = DoSlowProcess((int)e.Argument, bgw, e);  
    }  
  
    private void BackgroundWorker_ProgressChanged(object sender,  
        ProgressChangedEventArgs e)  
    {  
        workerProgress.Value = e.ProgressPercentage;  
    }  
  
    private void BackgroundWorker_RunWorkerCompleted(object sender,  
        RunWorkerCompletedEventArgs e)  
    {  
        if (e.Error != null)  
        {  
            MessageBox.Show(e.Error.Message);  
        }  
        else if (e.Cancelled)  
        {  
            outputBox.Text = "Canceled";  
        }  
        else
```
- Solution Explorer:** Shows the project structure for 'BackgroundWorkerInWP...' with files: Properties, References, App.xaml, WorkerWindow.xaml, and WorkerWindow.x...
- Status Bar:** Shows 'Ready', 'Ln 1', 'Col 1', 'Ch 1', and 'INS'.



RESOURCES

- Pro WPF in C# 2008 by Matthew MacDonald
 - <http://www.apress.com/book/view/1590599551>
 - Contains an overview of the BackgroundWorker and a WPF example (prime number calculation)
- MSDN – BackgroundWorker Component
 - <http://msdn.microsoft.com/en-us/library/c8dcext2.aspx>
 - Contains an overview of the BackgroundWorker and a WinForms example (Fibonacci sequence)
- JeremyBytes
 - <http://www.jeremybytes.com/Demos.aspx>
 - Contains downloadable code and full walkthrough
 - Email: jeremy@jeremybytes.com

