

.NET Framework and IDE Walkthrough

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Administration

- Course website is up
 - Work in progress
 - Keep checking for updates
- Office hour suggestion sheet
 - Mark the day/time slot(s) that you prefer

Administration

- First assignment will be posted Friday
 - Due next Friday
- 3 assignments total
 - Assigned on Friday, due next Friday

Question From Last Lecture

- Can argument to the Main(..) function be of a type other than a string array ?
 - Apparently not! Shell sends parameters to application as a string
 - But you can parse the string input to another type

Today's Agenda

- A short walkthrough of a C# IDE
 - I will use Monodevelop
 - Microsoft Visual C# 2008 Express is much better!
 - <http://www.microsoft.com/express/vcsharp/Default.aspx>
 - For our purposes they are similar
 - Still .. I would recommend Visual C# Express
- .NET framework, CLR, CTS, CLS

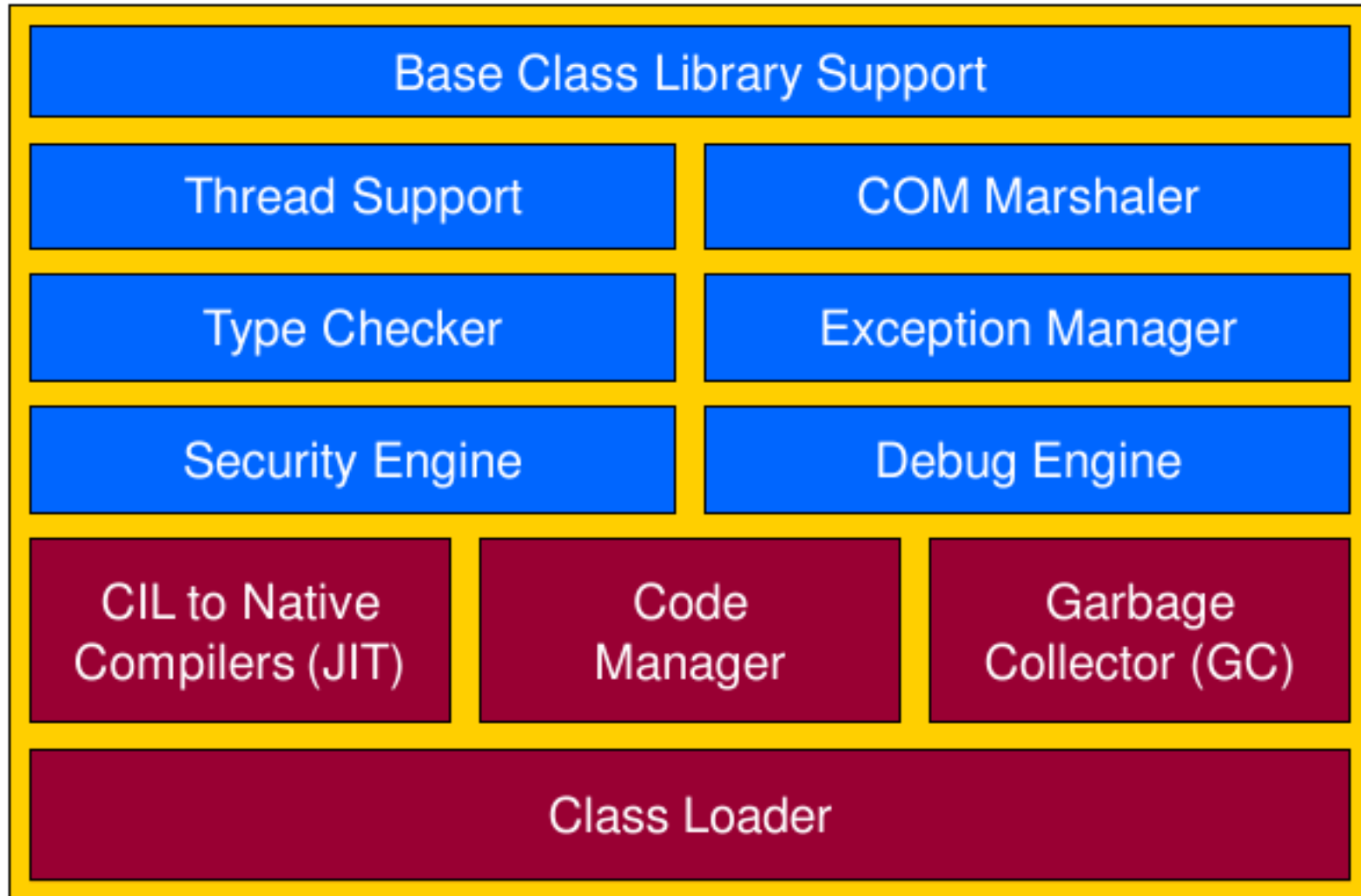
IDE Walkthrough

- Using a wizard to create a C# program
- Build & run
- Intellisense feature
- Debugging

Parts of .NET

- A Common Language Runtime (CLR)
 - Virtual Machine like Java
 - C# compiles into Common Intermediate Language
 - All .NET languages compile into CIL
 - e.g. C#, F#, VB.net, IronPython ..etc
 - CIL runs on CLR
- A Common Type System (CTS)

What is the CLR ?



What is the CTS ?

- A set of common types
 - Any language that runs in the CLR should implement
 - No syntax specified
 - Languages often define type aliases
- Examples:
 - CTS defines `System.Int32` – 4 byte integer
 - C# defines `int` as an alias of `System.Int32`
 - `string` → `System.String`
 - `object` → `System.Object`