



I Innovation Day Curitiba 2010

Ferramentas de Arquitetura e Desenvolvimento no Visual Studio 2010



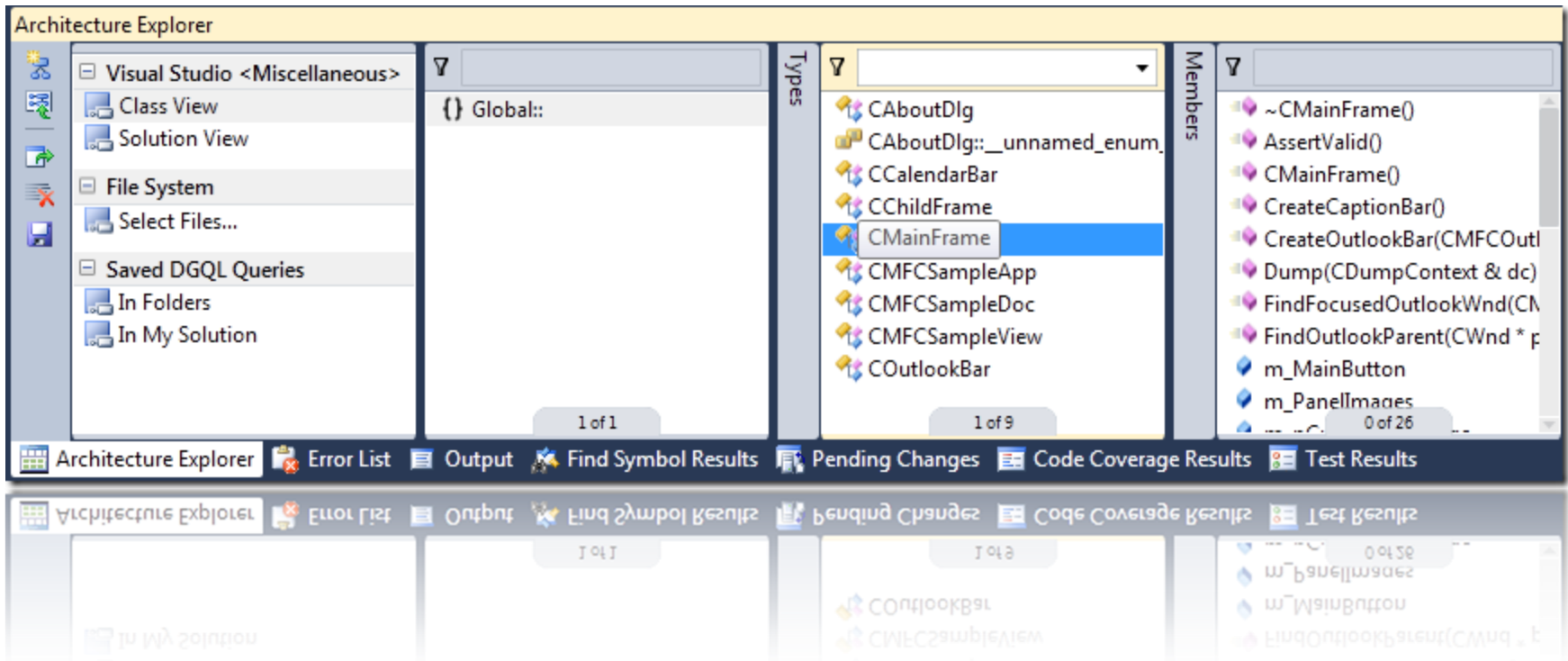
Daniel Oliveira
Supervisor de Desenvolvimento
TechResult

Agenda

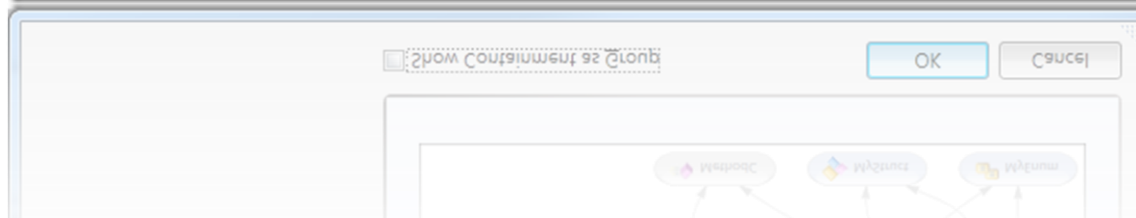
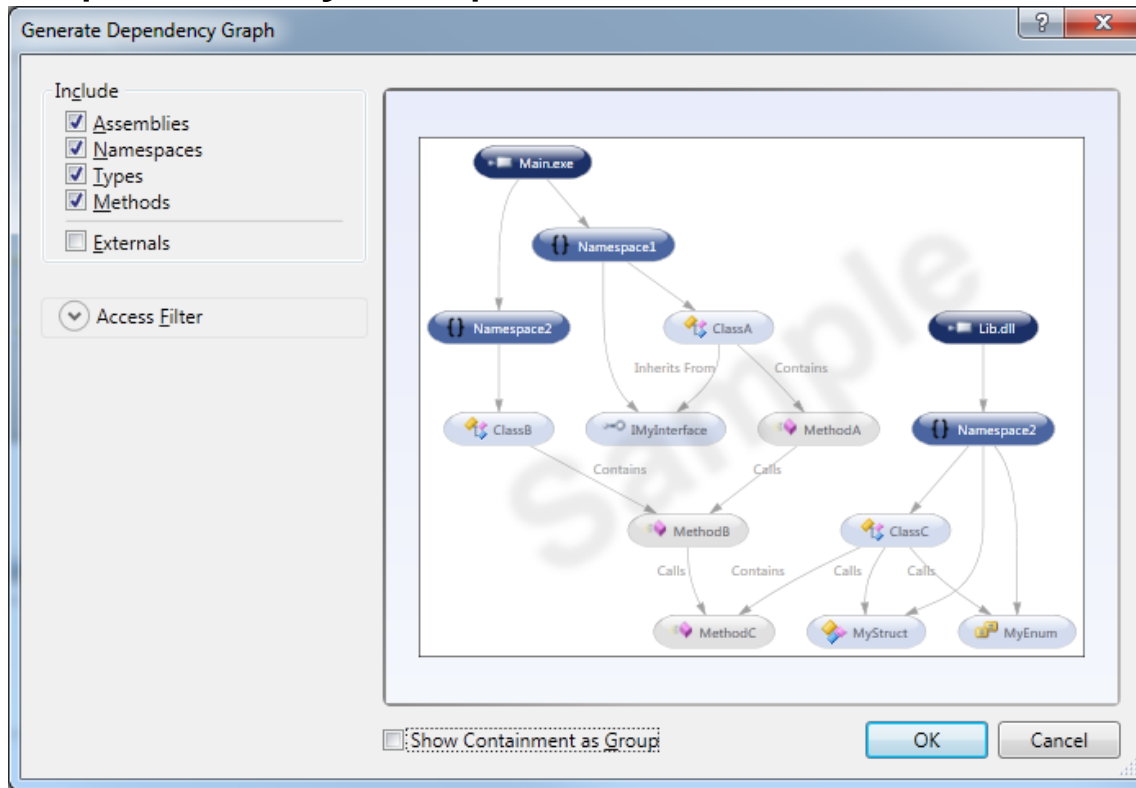
- Ferramentas de Arquitetura
 - Modelagem
 - Validação
- Ferramentas de Desenvolvimento
 - Depuração
 - Validação

Ferramentas de Arquitetura

- Architecture Explorer

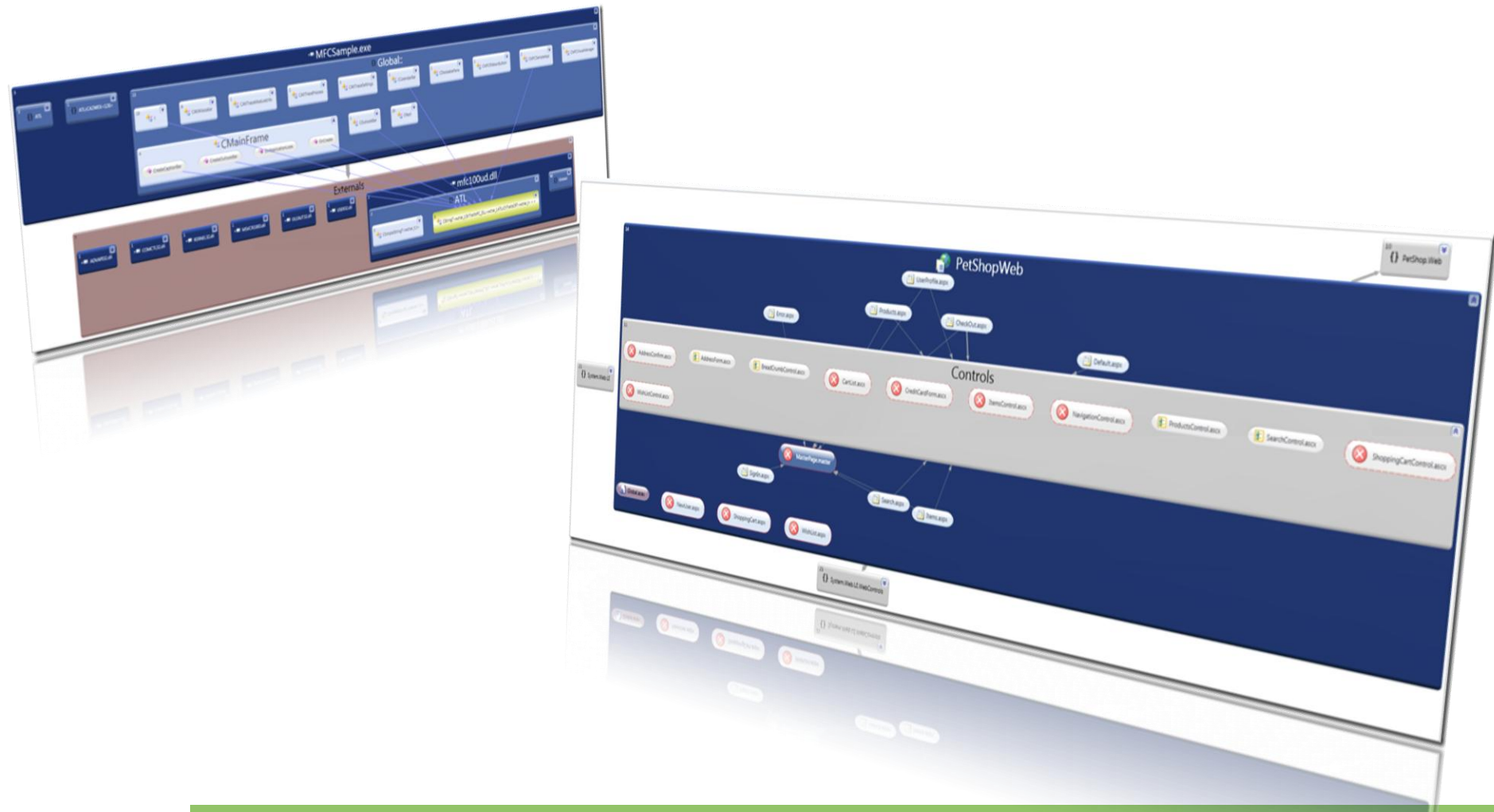


- Dependency Graph

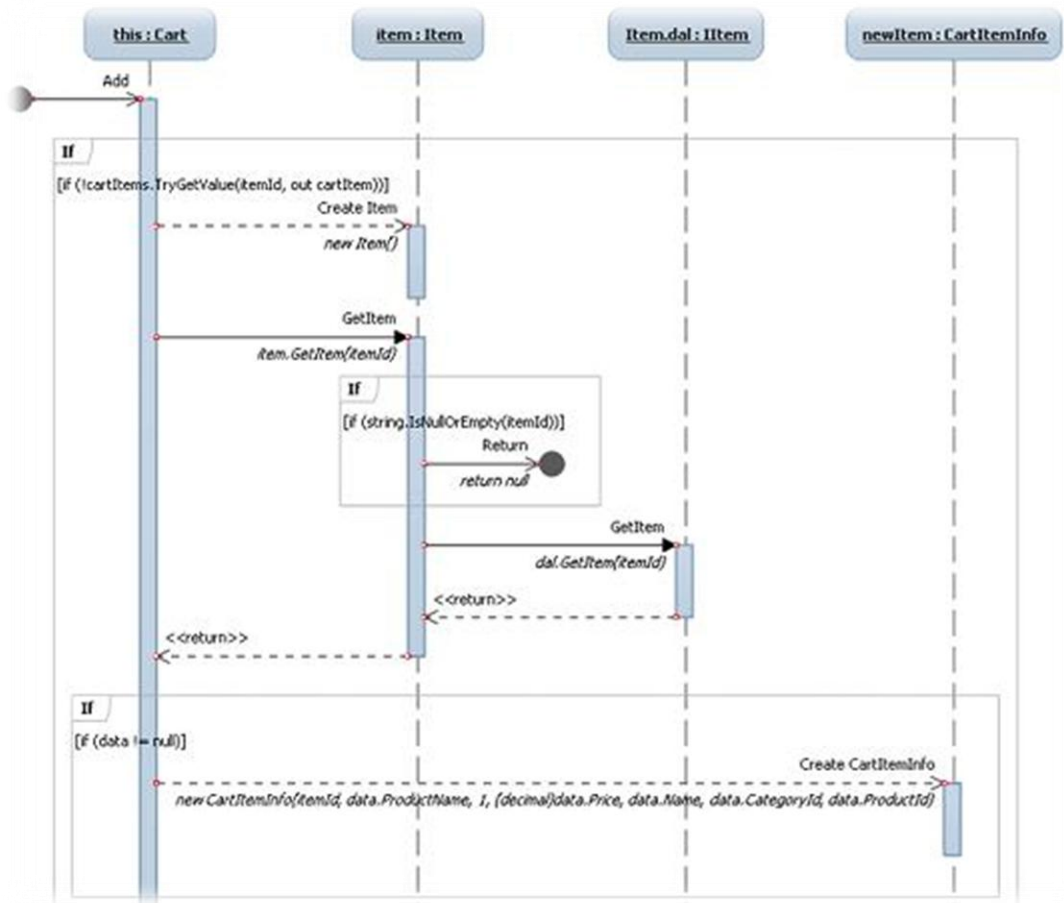
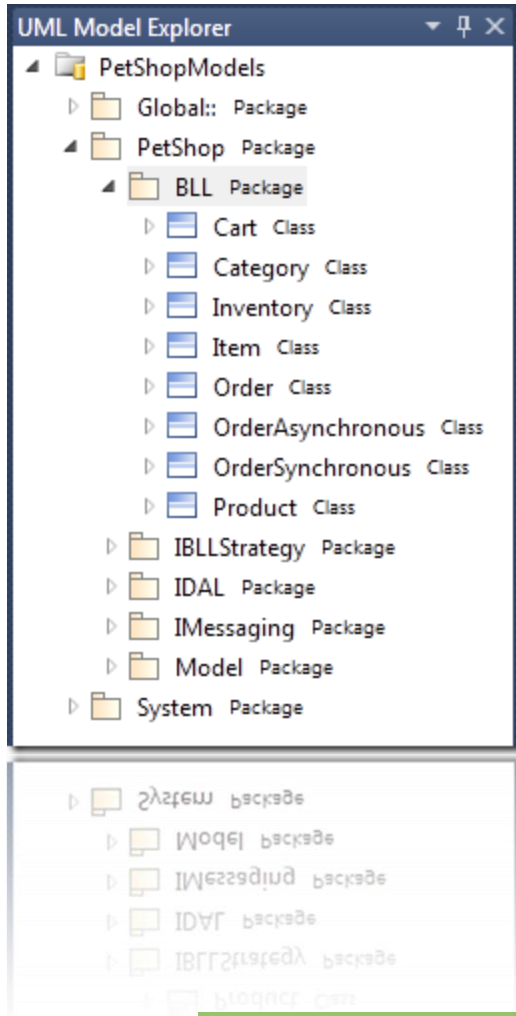


Ferramentas de Arquitetura

- Dependency Graph

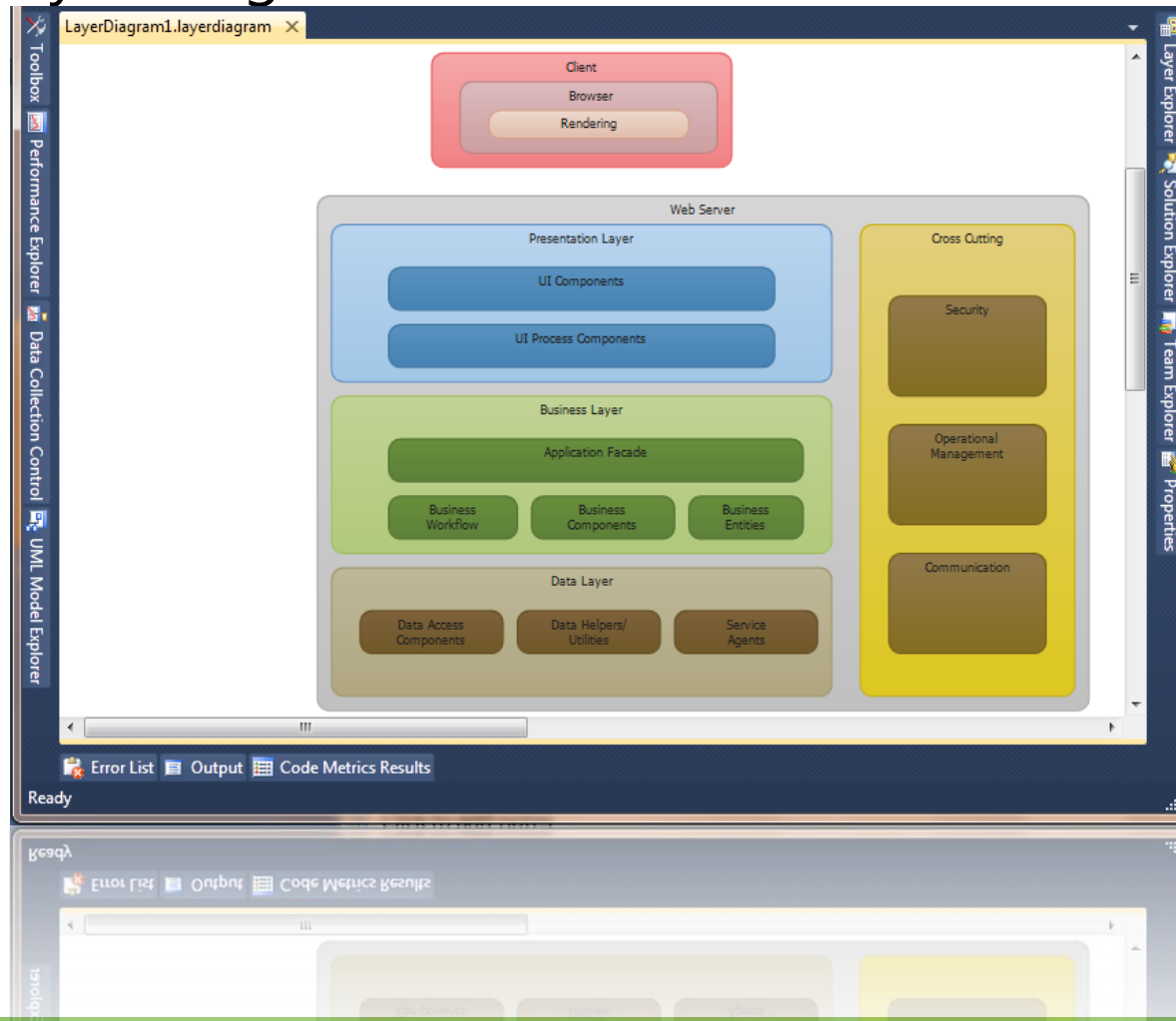


■ UML Support



Ferramentas de Arquitetura


- Layer Diagram



Demo

■ Intellitrace

1 Today




The diagram shows a workflow where an application (Tailspin Toys) is combined with instrumentation code to produce a log file. The instrumentation code includes:

```
Debug.WriteLine("Creating SQL: ");
Debug.WriteLine(sb.ToString());

Debug.WriteLine("Params: ");
foreach (var p in paramQueue) {
    Debug.WriteLine(p.Key + " = " + p.Value);
}
```

2 IntelliTrace



The diagram shows the IntelliTrace workflow where an application is combined with IntelliTrace to produce a record of execution. The record includes:

- Record
- Playback
- Rewind

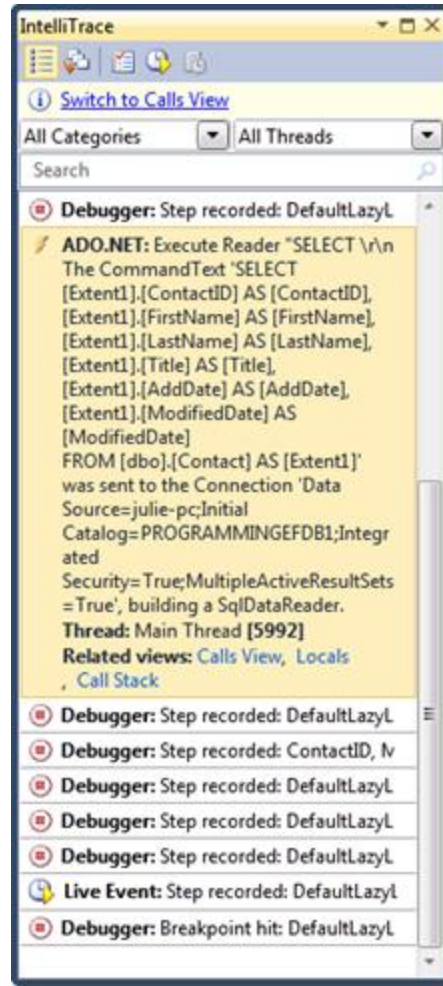
The IntelliTrace record shows a list of events such as:

- ASP.NET: SaveStateComplete /default.aspx
- ASP.NET: GET /Home.aspx
- ADO.NET: Execute NonQuery "DEL"
- ADO.NET: Execute NonQuery "In"
- Tracing: "Creating SQL: "
- Tracing: "SELECT Jobo1(Customers)"

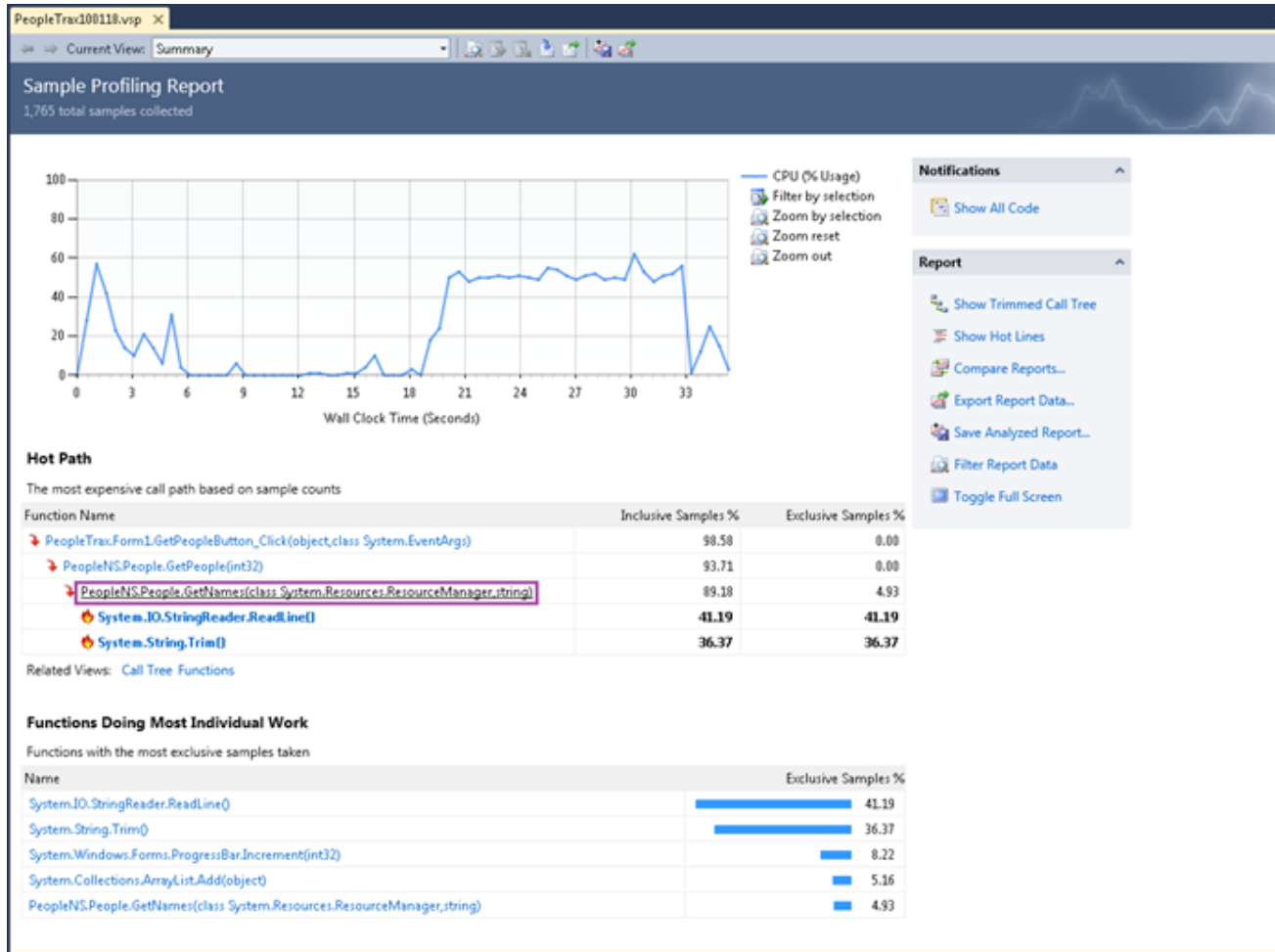
The IntelliTrace record also includes a code snippet:

```
/// Adds a product to the
/// </summary>
public void AddItem(Product
    AddItem(product, 1);
}
/// </summary>
```

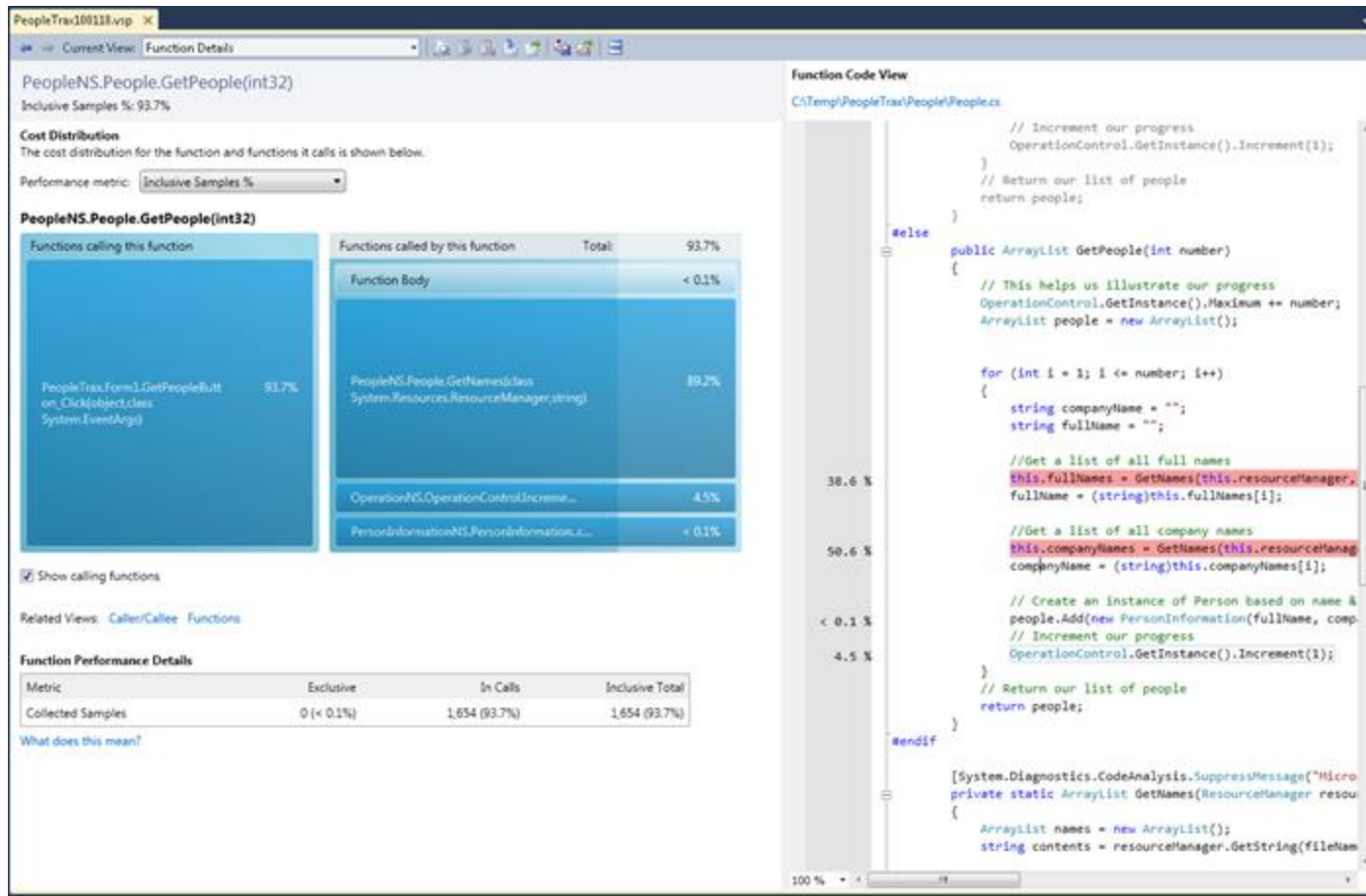
- Intellitrace



■ Profiler



- Profiler



PeopleNS.People.GetPeople(int32)
Inclusive Samples %: 93.7%

Cost Distribution
The cost distribution for the function and functions it calls is shown below.

Performance metric: **Inclusive Samples %**

PeopleNS.People.GetPeople(int32)

Functions calling this function	Functions called by this function	Total:	
PeopleTrax.Form1.GetPeopleButton_Click(object, class: System.EventArgs)	Function Body		93.7%
	PeopleNS.People.GetName(class: System.Resources.ResourceManager, string)		< 0.1%
	OperationNS.OperationControl.Increase...		4.5%
	PersonInformationNS.PersonInformation.L...		< 0.1%

Show calling functions

Related Views: [Caller/Callee](#) [Functions](#)

Function Performance Details

Metric	Exclusive	In Calls	Inclusive Total
Collected Samples	0 (< 0.1%)	1,654 (93.7%)	1,654 (93.7%)

[What does this mean?](#)

Function Code View
C:\Temp\PeopleTrax\People\People.cs

```
// Increment our progress
OperationControl.GetInstance().Increment(1);
}
// Return our list of people
return people;
}
}

else
public ArrayList GetPeople(int number)
{
// This helps us illustrate our progress
OperationControl.GetInstance().Maximum += number;
ArrayList people = new ArrayList();

for (int i = 1; i <= number; i++)
{
string companyName = "";
string fullName = "";

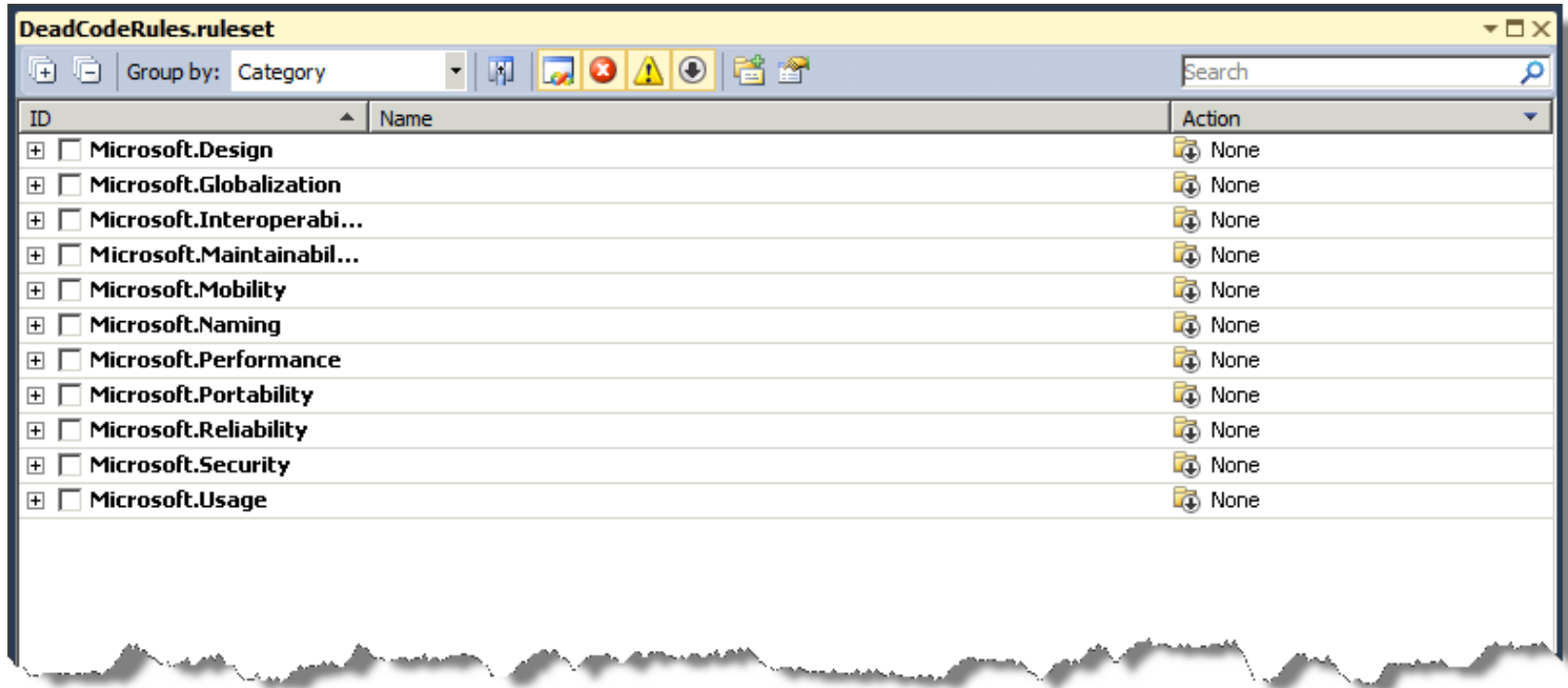
//Get a list of all full names
this.fullNames = GetNames(this.resourceManager,
fullName = (string)this.fullNames[i];

//Get a list of all company names
this.companyNames = GetNames(this.resourceManager,
companyName = (string)this.companyNames[i];

// Create an instance of Person based on name &
people.Add(new PersonInformation(fullName, comp
// Increment our progress
OperationControl.GetInstance().Increment(1);
}
// Return our list of people
return people;
}
}

[System.Diagnostics.CodeAnalysis.SuppressMessage("Micro
private static ArrayList GetNames(ResourceManager resou
{
ArrayList names = new ArrayList();
string contents = resourceManager.GetString(fileName
```

- Code Analysis



Demo



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Obrigado!