

# “Управление жизненным циклом разработки корпоративных приложений

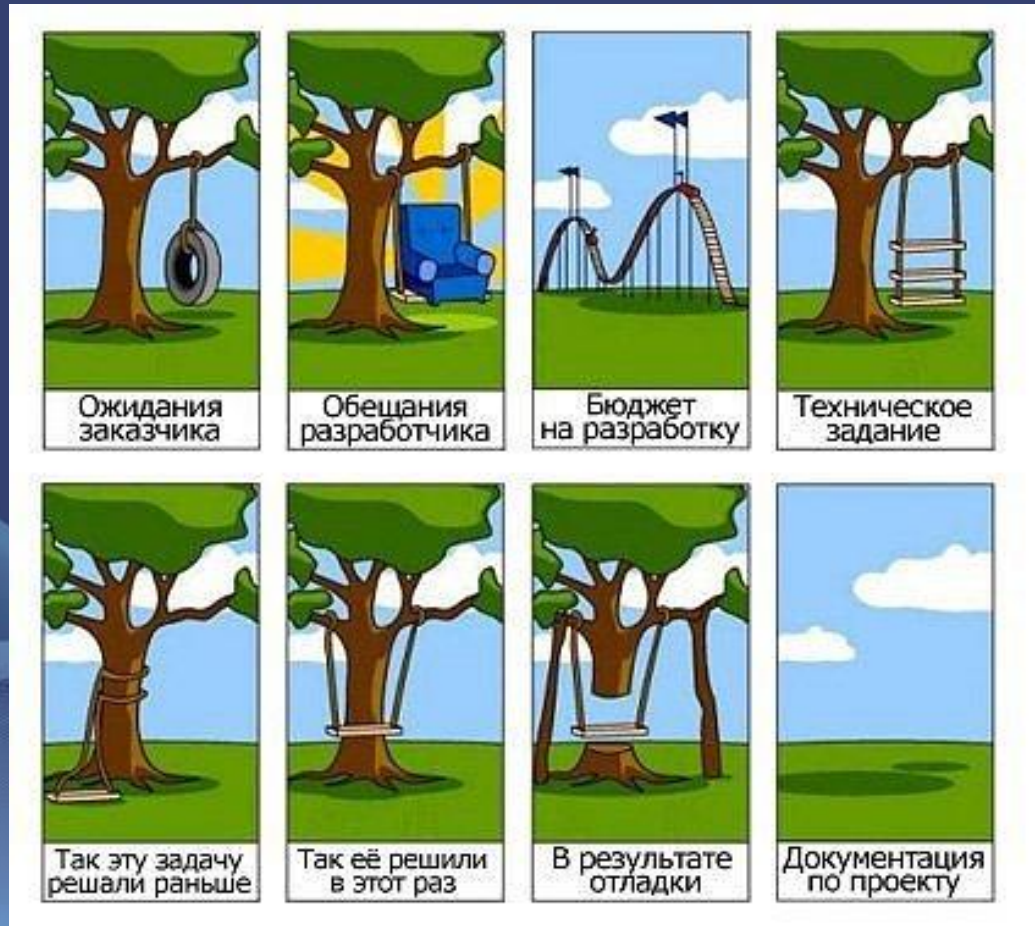
Докладчик:ст. гр. М42д Василенко А.П.

# Содержание

- Основные этапы разработки приложений
- Требования к корпоративным системам
- Доп. инструменты разработки
- Тестирование и сопровождение

# Основные этапы проектирования

1. Анализ требований
2. Проектирование
3. Реализация
4. Тестирование
5. Сопровождение



# Анализ требований

Разработки требований  
Выявление  
Анализ  
Спецификация  
Проверка  
Управления требованиями

Вход:

**Бизнес - требования**  
**Пользовательские требования**  
**Функциональные требования**

Выход:

**Документ**  
**Данные в автоматизированной системе управления требованиями**

# Проектирование

## Структура

Presentation(UI)

Presentation Logic

Domain Logic(Business logic)

Data Interface(Data Align Level)

Data source(Data Layer)

Test-Driven Development(TDD)

Feature Driven Development(FDD)

Dynamic System Development(DSD)

Model Driven Development (MDD)



# Требования к информационным корпоративным системам

- Надежность
- Целостность данных
- Гибкость
- Безопасность
- Масштабируемость
- Модульность
- Открытость
- Простота в изучении
- Поддержка внедрения и сопровождения со стороны разработчика

# Дополнительные инструменты разработки

## *BugTracker*

BugTracker .NET

*Jira*

MantisBT

*Redmine*

## *Version Control System(VCS)*

SVN

*HG + Mercurial*

TFS

## *Nightly Builds*

CCNET

## *Documents Repository*

Windows SharePoint Services

*Tiki*

*Git*

# BugTracker

MantisBT([www.mantisbt.org/](http://www.mantisbt.org/))



Anonymous | [Login](#) | [Signup for a new account](#)

2009-02-01 03:44 EST



[Main](#) | [My View](#) | [View Issues](#) | [Change Log](#) | [Roadmap](#) | [Docs](#) | [Wiki](#) | [ManTweet](#) | [Repositories](#)

## Unassigned [^] (1 - 10 / 2006)

<a href="#">0010092</a> —	Logging of user action (login, download, ...) feature - 2009-01-30 09:55
<a href="#">0009394</a> —	MantisConnect Webservice crashes when trying to get issue information api soap - 2009-01-30 07:43
<a href="#">0010094</a> —	EMail generation if not assigned bugtracker - 2009-01-30 07:02
<a href="#">0010091</a> —	CHANGE STATUS TO: Assigned vs ASSIGN TO ?? customization - 2009-01-29 23:37
<a href="#">0004640</a> —	New custom field types: "Version", "User" custom fields - 2009-01-29 22:52
<a href="#">0003790</a> —	Additional Custom-Field-Type "users" custom fields - 2009-01-29 22:49
<a href="#">0010065</a> —	Custom field "date" not saved silently custom fields - 2009-01-29 08:22
<a href="#">0006418</a> —	Change Resolve status and Assignment at the same time feature - 2009-01-29 05:41
<a href="#">0007104</a> —	Auto assign on resolve bugtracker - 2009-01-29 05:39
<a href="#">0007150</a> —	Automatic reassignment on status transition feature - 2009-01-29 05:39

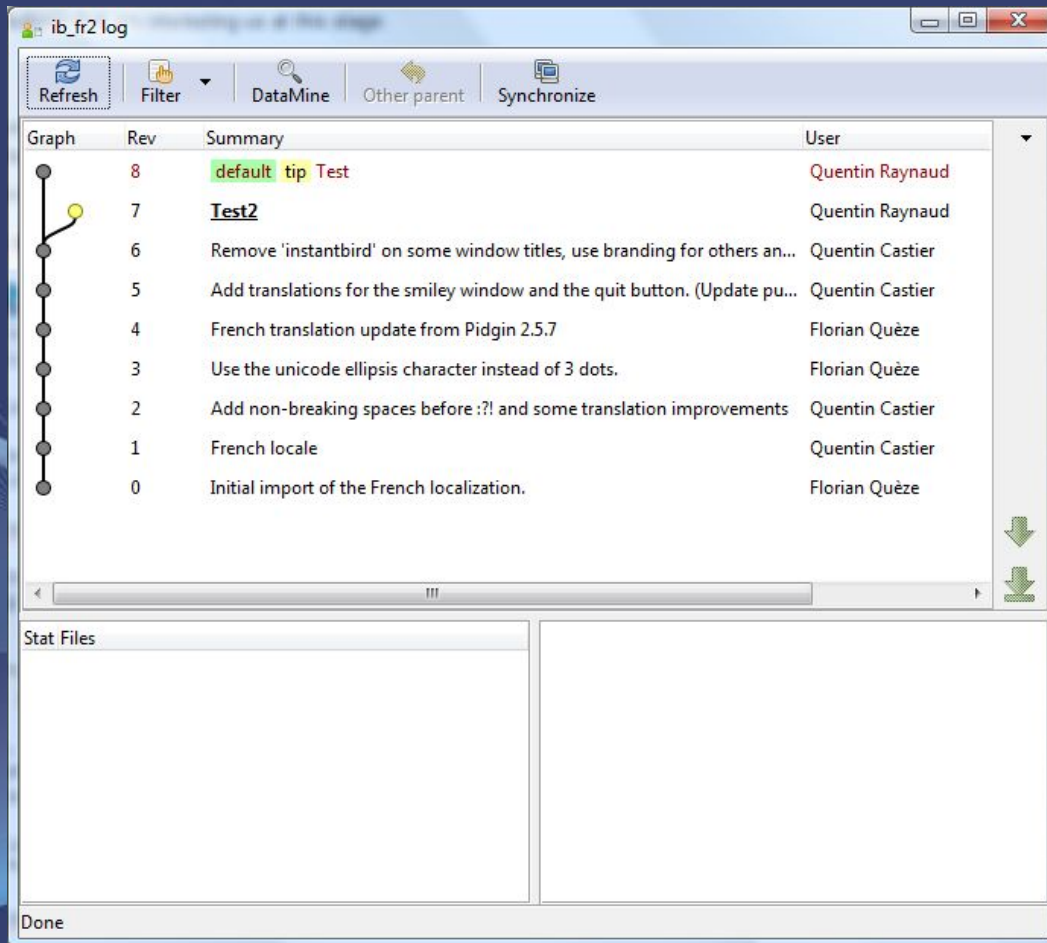
## Resolved [^] (1 - 10 / 254)

<a href="#">0010093</a> —	(phpmailer) class.phpmailer.php => private \$smtp is accessed by mantis email - 2009-01-31 14:37
<a href="#">0010056</a> —	Category national character upgrade - 2009-01-30 14:30
<a href="#">0009455</a> —	Database configuration does not correctly deal with array administration - 2009-01-30 11:18
<a href="#">0010089</a> —	Updating version field does not trigger history note administration - 2009-01-28 03:55
<a href="#">0008628</a> —	The "Show Content" link on attached tx file doesn't show text webpage - 2009-01-28 03:47
<a href="#">0007790</a> —	Links protected by brackets are not processed properly bugtracker - 2009-01-27 12:27
<a href="#">0009216</a> —	Problems with Russian language localization - 2009-01-27 11:40
<a href="#">0007144</a> —	Unable to set realname because of existing username administration - 2009-01-25 14:21
<a href="#">0010078</a> —	logging into the site with out entering login details security - 2009-01-24 12:44
<a href="#">0010073</a> —	Form Validate in JavaScript javascript - 2009-01-22 14:43



# Version Control System(VCS)

TortoiseHG([mercurial.selenic.com/](http://mercurial.selenic.com/))



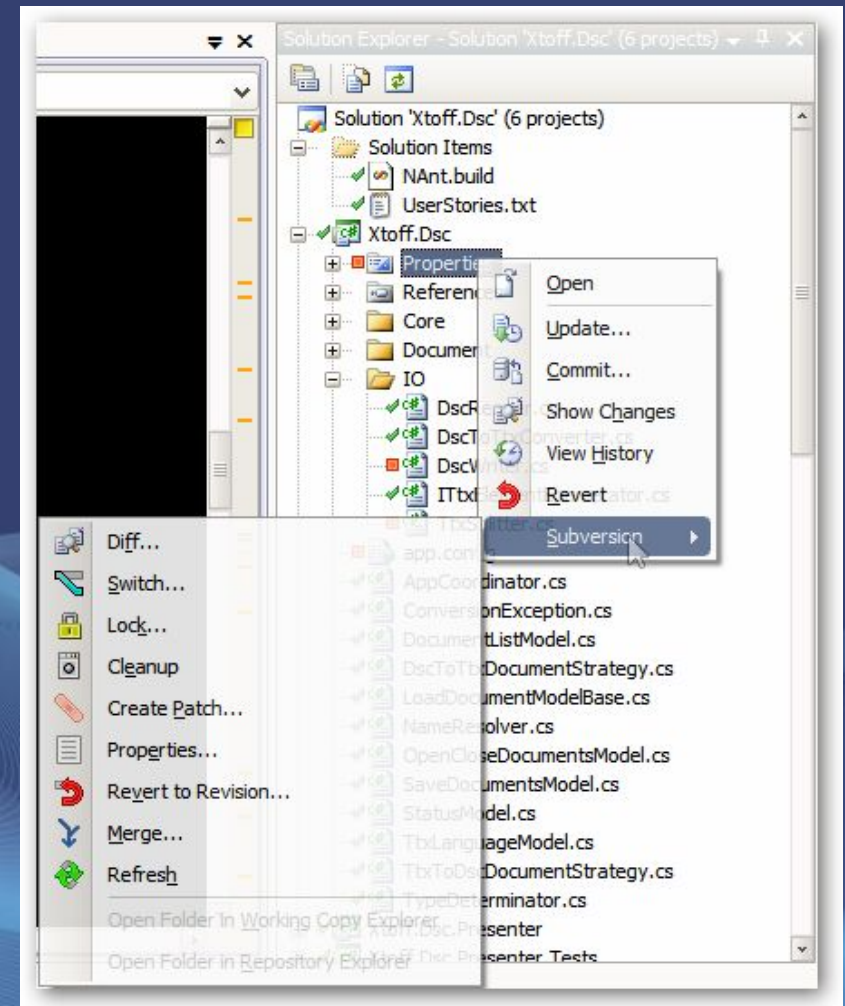
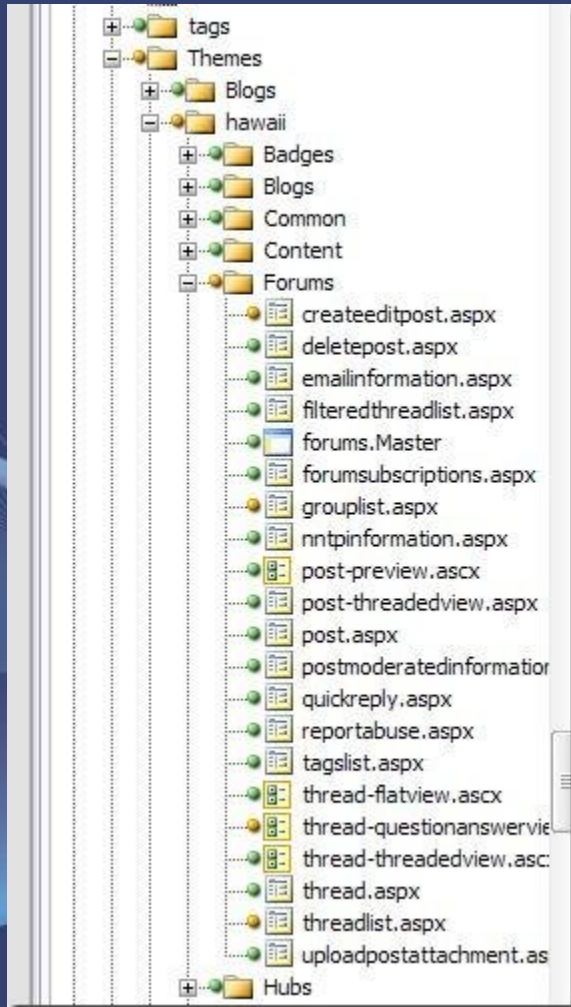
The screenshot shows the TortoiseHG 'ib\_fr2 log' window. The window has a toolbar with buttons: Refresh, Filter, DataMine, Other parent, and Synchronize. Below the toolbar is a table with columns: Graph, Rev, Summary, and User. The table lists commit history from revision 0 to 8. Revision 8 is highlighted with a yellow dot in the Graph column. Below the table is a 'Stat Files' section and a 'Done' status bar.

Graph	Rev	Summary	User
●	8	default tip Test	Quentin Raynaud
●	7	Test2	Quentin Raynaud
●	6	Remove 'instantbird' on some window titles, use branding for others an...	Quentin Castier
●	5	Add translations for the smiley window and the quit button. (Update pu...	Quentin Castier
●	4	French translation update from Pidgin 2.5.7	Florian Quèze
●	3	Use the unicode ellipsis character instead of 3 dots.	Florian Quèze
●	2	Add non-breaking spaces before :?! and some translation improvements	Quentin Castier
●	1	French locale	Quentin Castier
●	0	Initial import of the French localization.	Florian Quèze

# Version Control System(VCS)

VisualSVN([www.visualsvn.com](http://www.visualsvn.com))

AhkhSVN([ankhsvn.open.collab.net/](http://ankhsvn.open.collab.net/))



# Nightly Builds Server (CCNET)

CCNET - CruiseControl.NET (<http://ccnet.thoughtworks.com/>)

Server	Project Name	Last Build Status	Last Build Time	Next Build Time	Last Build Label	CCNet Status	Activity	Messages	Admin
local	<a href="#">Build</a>	Success	2009-12-17 11:08:53	2009-12-17 11:47:21	728	Running	Sleeping		<input type="button" value="Force"/> <input type="button" value="Stop"/>
local	<a href="#">Coverage</a>	Exception	2009-10-28 14:08:46	Force Build Only	1	Running	Sleeping		<input type="button" value="Force"/> <input type="button" value="Stop"/>
local	<a href="#">Deploy-To-Development</a>	Success	2009-12-17 10:31:03	Force Build Only	89	Running	Sleeping		<input type="button" value="Force"/> <input type="button" value="Stop"/>
local	<a href="#">Deploy-To-Production</a>	Failure	2009-10-10 17:19:09	Force Build Only	1	Running	Sleeping		<input type="button" value="Force"/> <input type="button" value="Stop"/>
local	<a href="#">Document</a>	Failure	2009-11-02 15:54:55	Force Build Only	53	Stopped	Sleeping		<input type="button" value="Force"/> <input type="button" value="Start"/>
local	<a href="#">FxCop</a>	Failure	2009-10-04 20:55:50	Force Build Only	13	Running	Sleeping		<input type="button" value="Force"/> <input type="button" value="Stop"/>
local	<a href="#">Metrics</a>	Success	2009-10-22 15:23:40	Force Build Only	49	Running	Sleeping		<input type="button" value="Force"/> <input type="button" value="Stop"/>
local	<a href="#">Test</a>	Failure	2009-10-22 14:11:05	Force Build Only	3	Running	Sleeping		<input type="button" value="Force"/> <input type="button" value="Stop"/>



# Nightly Builds Server (CCNET)

CCNET - CruiseControl.NET (<http://ccnet.thoughtworks.com/>)

The screenshot displays the CCNET web interface with a table of build projects. A CCTray window is overlaid on the table, showing a detailed view of the build projects.

Server	Project Name	Last Build Status	Last Build Time	Next Build Time	Last Build Label	CCNet Status	Activity	Messages	Admin
local	Build	Success	2009-12-17	2009-12-17	728	Running	Sleeping		Force
local	FxCop	Failure	2009-10-04 20:55:50	Force Build Only	13	Running	Sleeping		Force Stop
local	Metrics	Success	2009-10-22 15:23:40	Force Build Only	49	Running	Sleeping		Force Stop
local	Test	Failure	2009-10-22 14:11:05	Force Build Only	3	Running	Sleeping		Force Stop

Project	Activity	Detail	Last ...	Last Build Time
DigiNavigation main build	Sleeping	Next build check: 13:33:30	19	24/02/2009 14:49:30
SSE-Documentation	Sleeping	Next build check: 01:00:00	20	23/02/2009 14:26:39
SSE-NightlyBuild	Sleeping	Next build check: 03:00:00	59	25/02/2009 03:00:00
SSE Main build	Sleeping	Next build check: 13:33:28	349	24/02/2009 17:27:22

Buttons: Force Build, Show Queues



# *Documents Repository*

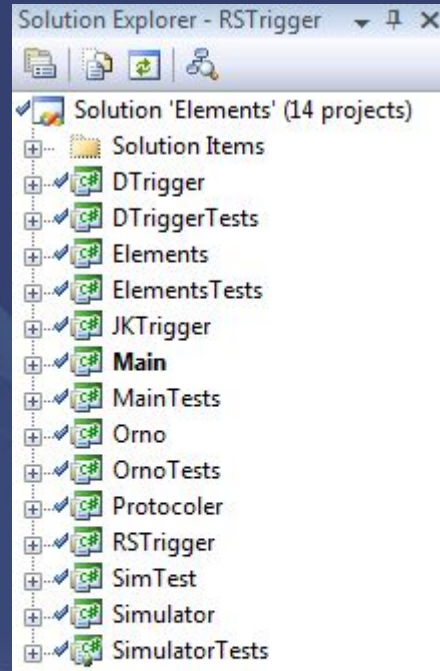
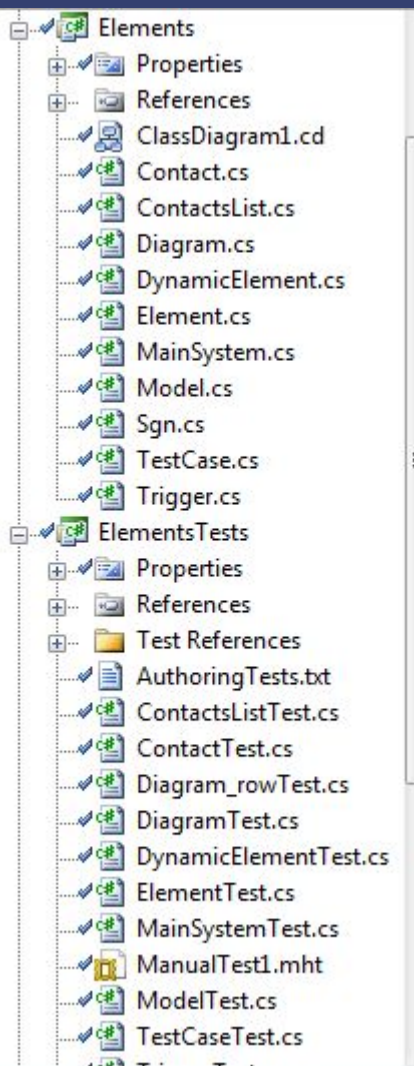
Tiki  
Windows SharePoint Services

# Testing

Функциональное и регрессионное тестирование (functional and regression testing)  
Тестирование прототипа (prototype testing)  
Тестирование графического интерфейса пользователя (GUI testing)  
Тестирование безопасности (security testing)  
Тестирование доступности (accessibility testing)  
Тестирование удобства пользования (usability testing)  
Тестирование совместимости с различными Интернет-браузерами (cross browser testing)  
Тестирование баз данных (database testing)  
Техническое тестирование (technical testing)  
Тестирование процедур установки и механизмов лицензирования (installation and licensing testing)  
Тестирование VoIP-приложений (VoIP testing)  
Тестирование приложений для мобильных устройств (mobile applications testing)  
Тестирование документации (documentation testing)  
Модульное тестирование (unit testing)

# Unit Testing

Gallio MbUnit  
Rhino Mocks  
Nunit  
NUnitAsp



```
/// <summary>  
[TestMethod()]  
public void AddTest()  
{  
    ContactsList target = new ContactsList(); // TODO: Initialize to an appropriate value  
    Contact contact = null; // TODO: Initialize to an appropriate value  
    target.Add(contact);  
    Assert.Inconclusive("A method that does not return a value cannot be verified.");  
}
```

# Unit Testing.MBUnit

```
[Test]
public void SettingValueRaisesEvent()
{
    bool eventRaised = false;
    Parameter param = new Parameter("num", "int", "1");
    param.ValueChanged +=
        delegate(object sender, ValueChangedEventArgs e)
        {
            Assert.AreEqual("42", e.NewValue);
            Assert.AreEqual("1", e.OldValue);
            Assert.AreEqual("num", e.ParameterName);
            eventRaised = true;
        };
    param.Value = "42"; //should fire event.
    Assert.IsTrue(eventRaised, "Event was not raised");
}
```



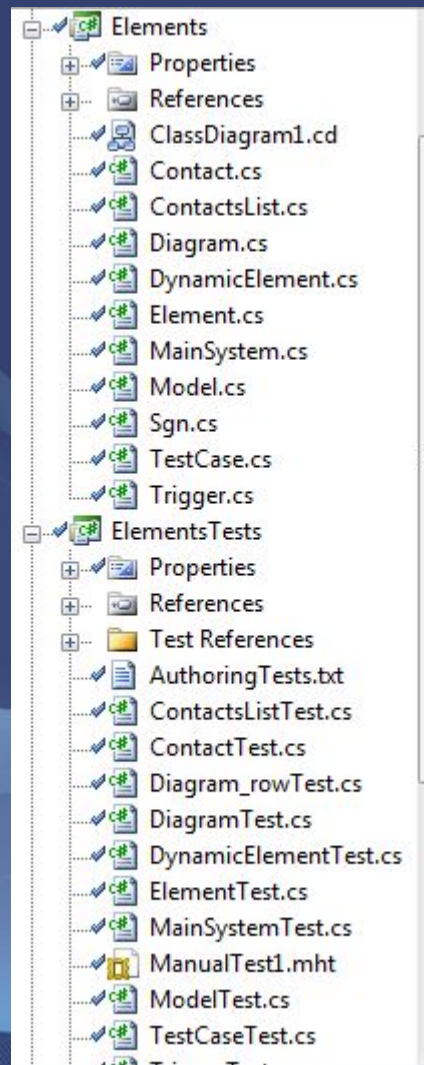
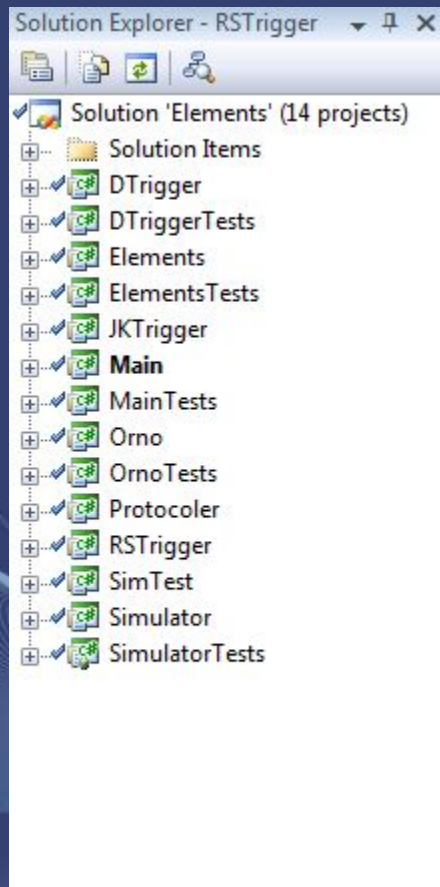
# Unit testing. *NUnitASP*

```
[Test]
public void TestExample()
{
    // First, instantiate "Tester" objects:
    LabelTester label = new LabelTester("textLabel");
    LinkButtonTester link = new LinkButtonTester("linkButton");

    // Second, visit the page being tested:
    Browser.GetPage("http://localhost/example/example.aspx");

    // Third, use tester objects to test the page:
    Assert.AreEqual("Not clicked.", label.Text);
    link.Click();
    Assert.AreEqual("Clicked once.", label.Text);
    link.Click();
    Assert.AreEqual("Clicked twice.", label.Text);
}
```

# Unit Testing



# The End

**СПАСИБО ЗА ВНИМАНИЕ!**

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