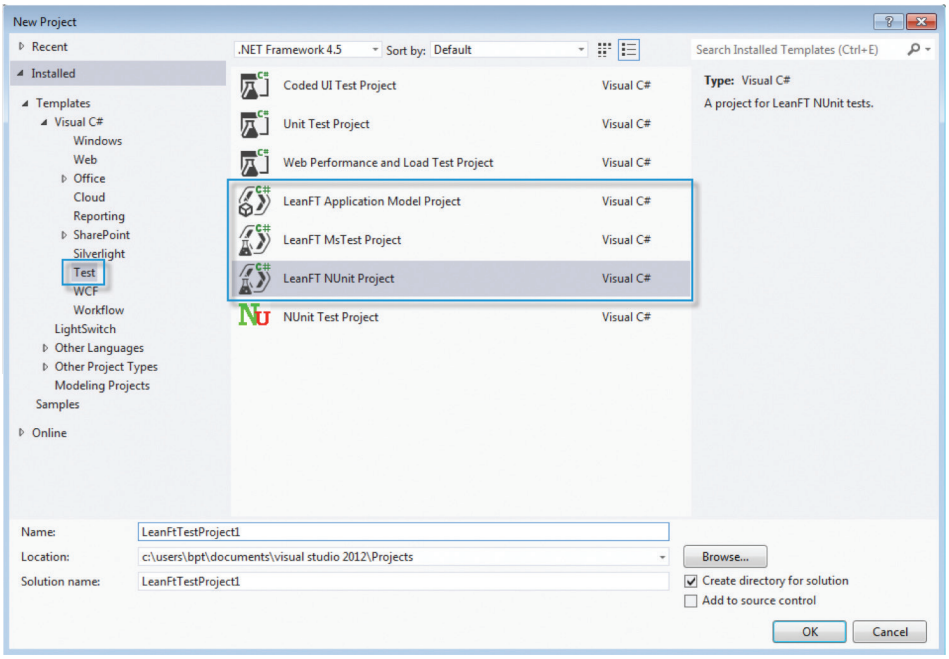
Data sheet

HP Lean Functional Testing

Built specifically for continuous testing and continuous integration

Advantages

- Developer-friendly: perfect for developers/testers, test automation engineers, continuous testing, Agile, and DevOps teams
- Supports "shift left" initiatives aimed at incorporating testing into the development cycle earlier
- Simplifies the process of building robust, stable tests that deal well with changes in the application under test (AUT)
- Encourages dev-QA collaboration through a standard, modern development environment that is supported in the development and QA ecosystems
- Supports the most common AUT technologies and popular development languages
- Adopts HP UFT concepts, tools, and technologies for robust software testing that easily accommodates changes to the application



At a glance

HP Lean Functional Testing (LeanFT) is a powerful yet lightweight functional testing software solution built specifically for continuous testing and continuous integration. By supporting the most common AUT technologies, integrating with standard IDEs, and leveraging HP Unified Functional Testing (UFT) capabilities, LeanFT brings a new level of productivity and collaboration to Agile and DevOps testing teams.

Integration that facilitates collaboration

HP LeanFT is designed to increase not only the efficiency of individual testers and teams, but also the level of coordination and cooperation between teams. It does this by providing integration on multiple levels. For example:

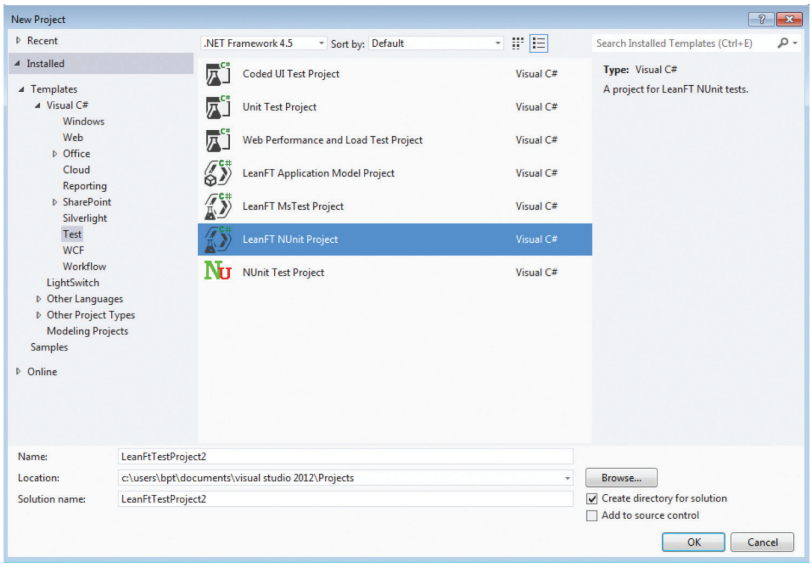
- **LeanFT fully integrates with and provides plug-ins for standard IDEs,** so dev and QA teams can share the same IDE. Tests are authored using popular languages such as Java and C#, and can be authored in the context of any framework. LeanFT plug-ins extend the IDEs with project templates for standard unit-testing solutions (NUnit, MSTest, and Junit), LeanFT tools such as the Object Identification Center, or application models that enable modeling of the AUT and its objects.
- **LeanFT supports the most common AUT technologies,** including Windows Standard, web, .NET Windows Forms, WPF, SAP, mobile, Java, and Insight Image Recognition.
- **LeanFT provides comprehensive, detailed execution reports** so you can quickly understand the results of your test. LeanFT provides a lightweight HTML report that details the test execution flow and tracks failures at each step.

- **LeanFT adopts many HP Unified Functional Testing (UFT) concepts, tools, and technologies.** For example, LeanFT incorporates the UFT concepts of test objects and descriptions, and uses the object identification mechanisms and UFT object repositories that can be migrated to LeanFT. This means LeanFT enables the creation of robust tests that deal well with changes in the tested application, and UFT knowledge and assets can be leveraged when using LeanFT, so teams are able to ramp up on this new offering quite easily.
- **LeanFT provides a powerful SDK** for .NET and Java with a comprehensive, documented, user-friendly API that is unique for each object type. With the SDK no adjustments to the script are necessary and it provides out-of-the-box, cross-browser compatibility for leading browsers.

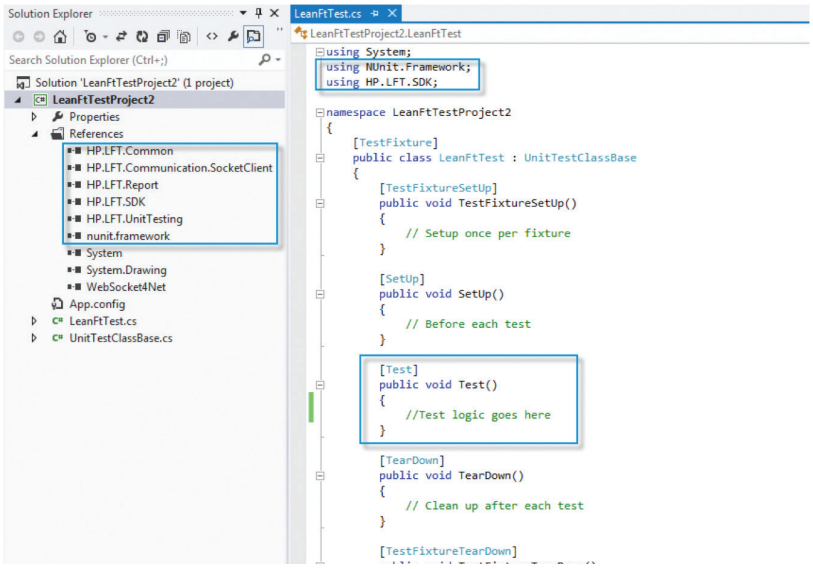
HP LeanFT: how it works

An end-to-end usage flow

1 **In the IDE, create a functional testing project.**



2 **A project is created with the LeanFT and testing framework libraries already referenced.**



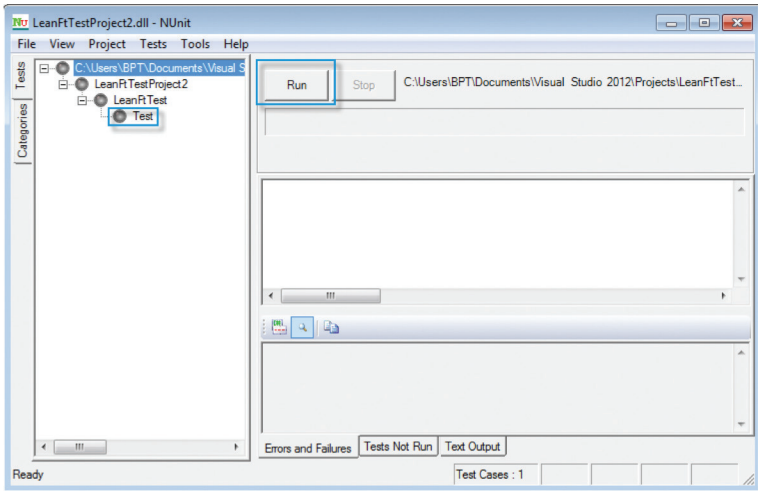
3 Implement the test using the LeanFT library.

```
[Test]
public void Test()
{
    IBrowser browser = BrowserFactory.Launch(BrowserType.InternetExplorer);
    browser.Navigate("hp.com");

    ILink shopNowLink = browser.Describe<ILink>(new LinkDescription {TagName = @"A",InnerText = @"Shop now"});
    shopNowLink.Click();

    string priceElementXPath = "//*[@id=\"modelBox_143001\"]/div[2]/div[2]/div/div[1]/span[2]";
    IWebElement priceElement = browser.Describe<IWebElement>(new XPathDescription(priceElementXPath));
    string price = priceElement.InnerText.Replace(" ", "");

    Assert.AreEqual("$99.99", price);
}
```

4 Add additional classes/tests.

5 Build the project.

6 Execute the tests with the testing framework's runner, to make sure the tests run as expected.



7 Check the source into software configuration management (SCM).

8 Execute the tests either from the CI system or from ALM.

Table 1. System requirements

Processor	1.6 GHz or faster x86-bit or x64-bit processor
Memory	2 GB
Hard disk	600 MB available disk space
Operating system	Windows® 7
.Net framework	4.5
LeanFT plug-in OS	Windows 7, Windows 8, Windows Server™ 2008 R2, or Windows Server 2012
Visual Studio supported versions	Visual Studio 2012 (all editions but express; recommended is ultimate edition) Visual Studio 2013 (all editions but express; recommended is ultimate edition)
Eclipse supported versions	Eclipse Kepler 4.3; IDE for Java developers edition Eclipse Luna 4.4; IDE for Java developers edition

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