

# Integrating with Build Systems

## Integrating with MSBuild

dotTEST ships with built-in support for integration with MSBuild to simplify running it in MSBuild build scripts environments. Integration with MSBuild scripts is achieved with the following custom MSBuild task:

```
Parasoft.Dottest.MSBuild.Tasks.dll
```

Use the following code in your MSBuild script after a task is deployed:

```
<Import Project="$(MSBuildExtensionsPath)\Parasoft\Parasoft.Dottest.targets" />

  <Target Name="Demo">
    <Dottest
      Configuration="builtin://Demo"
      Solutions="C:\Devel\FooSolution\FooSolution.sln"
      Report="C:\Devel\Report"
      Out="C:\Devel\Out.txt" />
  </Target>
```

## Target File

The target file must be imported in the MSBuild script. If you use `deploy.exe`, then you can the following import statement:

```
<Import Project="$(MSBuildExtensionsPath)\Parasoft\Parasoft.Dottest.targets" />
```

Alternatively, you can import the target directly from the installation directory:

```
<Import
Project="[INSTALL_DIR]\integration\MSBuild\Parasoft.Dottest.targets\Parasoft.Dottest.targets" />
```

Targets can be directly imported from the installation directory when running multiple dotTEST installations on a single machine.

## MSBuild Task

Use `<Dottest>` task in your build file to run dotTEST. The following arguments are supported:

- Configuration: Defines configuration used during analysis. See [Configuring Test Configurations](#).
- Solutions: Defines solutions that are analyzed. See [Running Static Analysis](#).
- Projects: Defines projects that are analyzed. See [Running Static Analysis](#).
- Websites : Defines web sites that are analyzed. See [Running Static Analysis](#).
- Resources: Defines resources that are analyzed. See [Configuring the Test Scope](#).
- Report: Defines path to report. See [Reviewing Results](#).
- Settings: Path to settings file. See [Configuration Overview](#).
- NoBuild: Disables build of the tested solutions or projects.
- SolutionConfig: Solution build architecture. See [Building Solutions and Projects](#).
- TargetPlatform: Solution build architecture. See [Building Solutions and Projects](#).
- Out: Path where console output is saved.
- DottestPath: Path to `dottestcli.exe` file. Allows users to override the auto-detected `dottestcli.exe` path. This can be used to support multiple dotTEST installations on a single machine.

## Integrating with NAnt

dotTEST ships with built-in support for integration with NAnt to simplify running it in NAnt build scripts environments. Use the following code in your NAnt script after the task is deployed to NAnt:

```

<target name="analyze">
  <dottest
    config="builtin://Demo"
    report="C:\Devel\Report"
    out="C:\Devel\Out.txt">
    <solutions>
      <include name="C:\Devel\FooSolution\FooSolution.sln">
    </solutions>
  </dottest>
</target>

```

## Loading NAnt Task Library

Integration with NAnt scripts is achieved with the following custom NAnt task:

```
Parasoft.Dottest.NAnt.Tasks.dll.
```

This library must be in the same directory as NAnt.exe for the NAnt scripts to detect the dotTEST task. Alternatively, <loadtasks> can be used, which is useful for running multiple dotTEST installations on one machine

```

<project name="sampleProject" default="test">
  <target name="test">
    <loadtasks>
      <fileset>
        <include
name="[INSTALL_DIR]\integration\NAnt\Parasoft.Dottest.NAnt.Tasks.dll" />
      </fileset>
    </loadtasks>
  </target>
</project>

```

## Supported NAnt Task Arguments

- **config:** Defines configuration used during analysis. See [Configuring Test Configurations](#).
- **solutions:** Defines solutions that are analyzed. List wildcards in ANT-style format separated by semicolons to analyze two or more solutions:

```
<dottest config="builtin://Demo" solutions="C:\Devel\FooSolution\FooSolution.sln;C:\Devel\Bar\**\*.sln" />
```

You can also nest <include> elements that point to ANT-style wildcards inside <solutions> elements:

```

<dottest config="builtin://Demo" >
  <solutions>
    <include name="C:\Devel\FooSolution\FooSolution.sln">
    <include name="C:\Devel\Bar\**\*.sln">
  </solutions>
</dottest>

```

See [Running Static Analysis](#).

- **projects:** Defines which projects are analyzed. List wildcards in ANT-style format separated by semicolons to analyze two or more projects:

```
<dottest config="builtin://Demo" projects="C:\Devel\FooProjects\Qux\Qux.csproj;C:\Devel\BarProjects\**\*.csproj" />
```

You can also nest <include> elements that point to ANT-style wildcards inside <projects> elements:

```

<dottest config="builtin://Demo" >
  <projects>
    <include name="C:\Devel\Foo\Qux\Qux.csproj">
    <include name="C:\Devel\Bar\**\*.csproj">
  </projects>
</dottest>

```

See [Running Static Analysis](#).

- `websites`: Defines which web sites are analyzed. List wildcards in ANT-style format separated by semi-colons to analyze two or more websites:

```

<dottest config="builtin://Demo" websites="C:\Devel\Foo\WebSite;C:\Devel\Bar\*.WebSite" />

```

You can also nest `<include>` elements that point to ANT-style wildcards inside `<websites>` element:

```

<dottest config="builtin://Demo" >
  <websites>
    <include name="C:\Foo\WebSite">
    <include name="C:\Bar\*.WebSite">
  </websites>
</dottest>

```

See [Running Static Analysis](#).

- `resources`: Defines which resources are analyzed. Separate two or more paths to resources with a semi-colon:

```

<dottest config="builtin://Demo" resources="Foo/Bar/Baz;Foo/Qux/Garply" >

```

You can also nest `<res>` elements that point to paths inside `<resources>` elements:

```

<dottest config="builtin://Demo">
  ...
  <resources>
    <res name="Foo/Bar/Baz" />
    <res name="Foo/Qux/Garply" />
  </resources>
</dottest>

```

See [Configuring the Test Scope](#).

- `report`: Defines path to the report:

```

<dottest
  config="builtin://Demo"
  report="C:\Foo\Report" >
  ...
</dottest>

```

See [Reviewing Results](#).

- `settings`: Defines the path to settings file:

```

<dottest
  config="builtin://Demo"
  settings="C:\Foo\settings.properties" >
</dottest>

```

See [Configuration Overview](#).

- `nobuild`: Disables build of the tested solutions or projects:

```
<dottest
  config="builtin://Demo"
  nobuild="true" >
  . . .
</dottest>
```

- `solutionConfig`: Solution build architecture. See [Building Solutions and Projects](#).
- `targetPlatform`: Solution build architecture. See [Building Solutions and Projects](#).
- `Out`: Path where console output is saved.
- `DottestPath`: Path to `dottestcli.exe` file. Allows users to override the auto-detected `dottestcli.exe` path. This can be used to support multiple dotTEST installations on one machine.