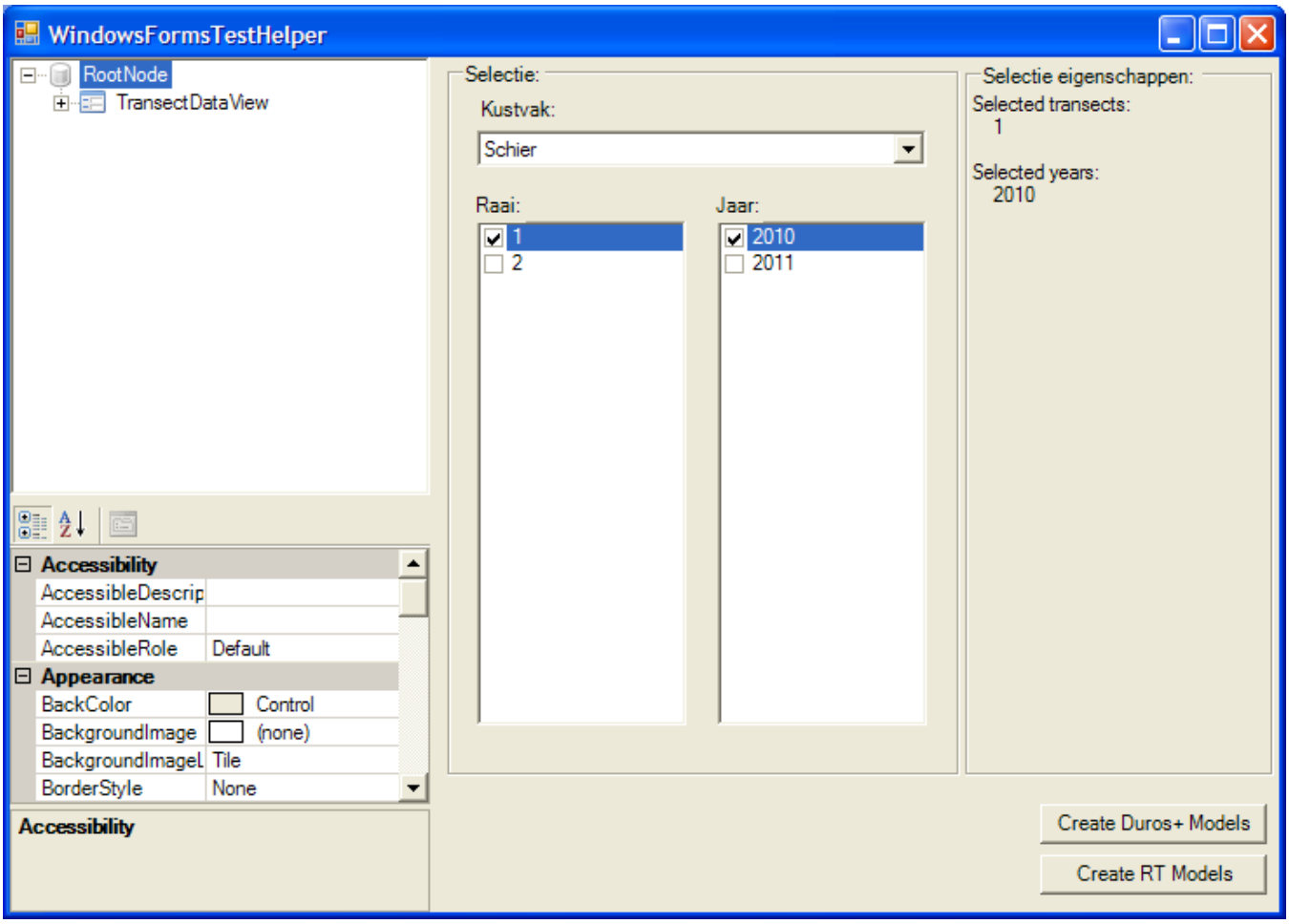
Testing Windows.Forms views

A bit ugly but we can write integration tests involving Windows.Forms controls 🙂

```
        [Test]
        [NUnit.Framework.Category("Windows.Forms")]
        public void CreateAndShowTransectDataView()
        {
            var app = mocks.Stub<IApplication>();
            var gui = mocks.Stub<IGui>();
            var project = new Project();
            app.Project = project;
            gui.Application = app;

            var provider = new DurosPlusModelViewProvider {Gui = gui};

            var transectData = DurosPlusModelMockHelper.CreateSampleTransectData();

            project.RootFolder.Add(transectData); // <-- project must contain TransectData in order to create
DurosPlus model

            var view = (Control)provider.CreateView(typeof (TransectDataView), transectData);

            // show a message box when item is added to the project
            project.RootFolder.CollectionChanged += delegate(object sender, NotifyCollectionChangedEventArgs e)
            {
                log.DebugFormat("New item has been added: {0}", e.Item);

                // assert
                e.Item.Should("check if newly added item is Duros+ model").Be.OfType<DurosPlusModel>();
            };

            // select 2 checkboxes and click on a "Create Duros+ Models" button.
            var groupBoxSelection = (GroupBox)view.Controls["groupBoxSelection"];
            var checkedListBoxTransect = (CheckedListBox)groupBoxSelection.Controls["checkedListBoxTransect"];
            var checkedListBoxYear = (CheckedListBox)groupBoxSelection.Controls["checkedListBoxYear"];
            var buttonCreateDurosPlusModels = (Button)view.Controls["buttonCreateDurosPlusModels"];

            // do something after form is displayed
            Action<Form> formShownAction = delegate
            {
                checkedListBoxTransect.SetItemChecked(0, true);
                checkedListBoxYear.SetItemChecked(0, true);
                buttonCreateDurosPlusModels.PerformClick();
            };

            WindowsFormsTestHelper.ShowModal(view, formShownAction);
        }
```

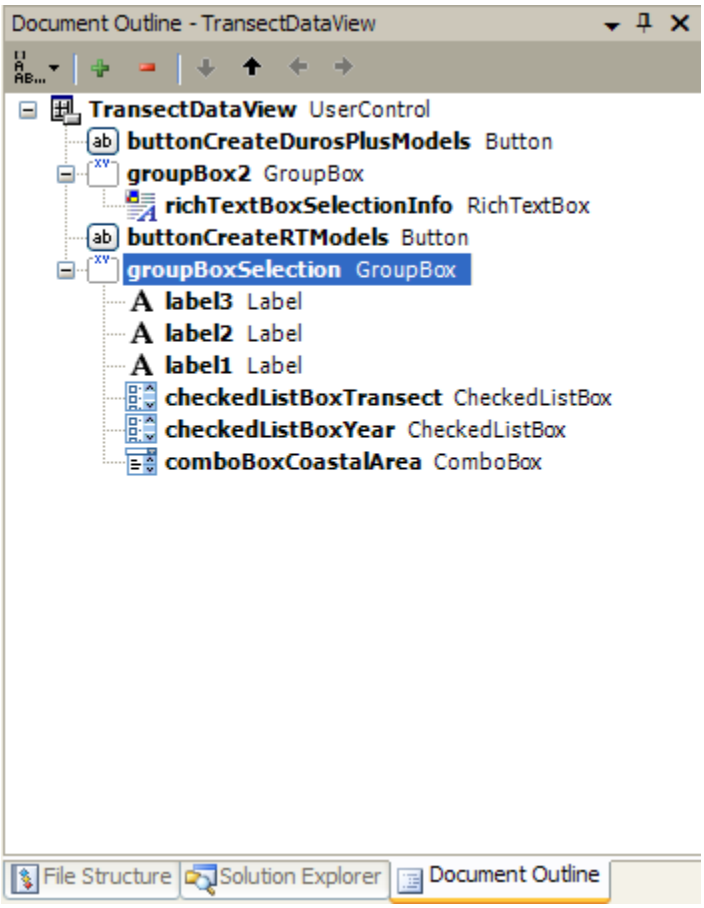
After test runs:

- 2 checkboxes are checked
- button is clicked
- model is created and added to the project
- assert checks if added item is of a proper type



Some tips on how to use it:

- Make sure to name all controls on the form correctly
- Use **Document Outline** in Visual Studio to check names of controls, **make sure names are readable and intuitive**!



Probably we should refactor WindowsFormsTestHelper a little to make it more usable. Add any ideas as comments to the current blog post.