Scope

- What is a viewer?
- ITxViewerControl interface
- Creating a Viewer step by step
- Using the Viewer
What is a Viewer?

- A window that usually displays data and state of objects
- In contrast to a Command, a Viewer usually remains open longer, while jobs are performed with other tools
- Viewers are integrated into Engineering applications, e.g. they can be docked, collapsed etc.
- Examples for viewers: Graphic Viewer, Collision Viewer, Object Tree
ITxViewerControl interface

- All the .net viewers implements this interface. (like TxForm is base for all forms).

- Provides properties for viewer definition:
  - **Name**, **Description** and **Menus** (the collection of context menus associated with the viewer)

- Provides methods for performing initialization and cleanup of the viewer object - **Initialize()** and **Uninitialize()**

- Provides an event to be raised by the viewer when a context menu should be displayed - **MenuDisplayRequested**
Creating a Viewer


2) Set output path to `<Installation Dir>\DotNetViewers`.

3) Add a **user control** to your project (from Project menu choose Add > Add User Control…). A class deriving from `System.Windows.Forms.UserControl` is automatically created.
Creating a Viewer

4) Define the file & class name for the viewer.

5) In the Solution Explorer, select the newly created file, and select “View Code”
Creating a Viewer

6) Add using section:

```csharp
using Tecnomatix.Engineering.Ui;
using Tecnomatix.Engineering;
```

7) Inherit from `TxViewerUserControl`, and `ITxViewerControl` instead of `userControl`.

```csharp
public class MyViewer : TxViewerUserControl, ITxViewerControl
{
}
```
8) Implement `ITxViewerControl`

```csharp
public partial class MyViewer : TxViewerUserControl, ITxViewerControl
{
    public MyViewer()
    {
        InitializeComponent();
    }

    public void Initialize()  // put here your initialization code. e.g. registration to document load event...
    public event TxViewerControl_MenuDisplayRequestedEventHandler MenuDisplayRequested;
    public void Uninitialize() // put here your exit code. e.g. un-registration to document load event...
    public string Description
    {
        get { return "Viewer description"; }
    }
    public ITxViewerMenusCollection Menus
    {
        get { return null; }
    }
    public string ViewerName
    {
        get { return "Viewer Name"; }
    }
}
```
Creating a Viewer

9) Switch back to designer view.

10) Edit your viewer to hold your viewer’s content. You can add any TxControl as well as any other .net control.
Creating a Viewer

11) Compile your code.

12) Register the viewer

- Run `<Installation Dir>\ViewerReg.exe`.
- Browse to the assembly of the new viewer.
- Select the viewer to be added from the classes list.
- Select products to which the viewer should be added.
- Select or create an xml file.
- Select Register.
Using the Viewer

Run the Application. Select the “View” menu, and select your viewer.