



Acop.Net

The best ACOP there's ever been ...

[ACOP]

- **ACOP**
 - (Advanced Component Oriented Programming)
- Acop *ActiveX* since 1997
- Acop *java* since 2002
- Acopbeans (*java*) since 2007
- Acop **.NET** chart since 2014

- Now : large variety of Acop **.NET**
smart components ...

Visual Studio

Your fastest way to make a rich client ...

The screenshot displays the Visual Studio IDE with a project named 'SineServerClient'. The main window shows a design view of a form with a chart and a data table. The chart plots a sine wave over time. The data table has columns for 'Description', 'Readback', and 'Feedback'. A 'Link Properties' dialog box is open, showing configuration for a 'TINE' link. The 'Output' window shows the application running successfully. The 'Server Explorer' shows the project structure. The 'Toolbox' contains various controls like 'AcopButton', 'AcopChart', etc. The 'Solution Explorer' shows the project files. The 'Properties' window shows the 'Acop.Transport' and 'AddressEditor' properties.

Descripi	Readback	Feedback
description	value 1	value 1
description	value 2	value 2
description	value 3	value 3
description	value 4	value 4
description	value 5	value 5
description	value 6	value 6
description	value 7	value 7
description	value 8	value 8
description	value 9	value 9
description	value 10	value 10

Property	Value
Protocol	TINE
Context	TEST
Subsystem	
Server	SineServer
Device	SineGen0
Property	Amplitude
Additional Flags	NONE
Input Value	
Error Value	
Capacity	0
Interval	1000
Auto-Scale	
Auto-Attach	<input checked="" type="checkbox"/>
Auto-Update	<input checked="" type="checkbox"/>
Auto-Trend	<input type="checkbox"/>
Grouped Links	<input type="checkbox"/>

```
Show output from: Debug
'SineServerClient.vshost.exe' (CLR v4.0.30319: SineServerClient.vshost.exe): Loaded 'Z:\Projec
'SineServerClient.vshost.exe' (CLR v4.0.30319: SineServerClient.vshost.exe): Loaded 'C:\Windo
'SineServerClient.vshost.exe' (CLR v4.0.30319: SineServerClient.vshost.exe): Loaded 'Z:\Projec
'SineServerClient.vshost.exe' (CLR v4.0.30319: SineServerClient.vshost.exe): Loaded 'Z:\Projec
'SineServerClient.vshost.exe' (CLR v4.0.30319: SineServerClient.vshost.exe): Loaded 'Z:\Projec
'SineServerClient.vshost.exe' (CLR v4.0.30319: SineServerClient.vshost.exe): Loaded 'C:\Windo
The thread 0x3330 has exited with code 0 (0x0).
The thread 0x3bd8 has exited with code 0 (0x0).
The program '[12184] SineServerClient.vshost.exe' has exited with code 0 (0x0).
```

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- RAD tool for rich clients
 - **.NET**: you have your choice of many high level languages
 - C#, VB, C++, ...
 - Can also *configure* simple panel-style applications ...
 - and program when you need to ...
 - in your favorite language ...
 - ACOP Chart already offers FFT, Gaussian fits, etc. but ...
 - Use (e.g.) **Math.NET** for higher level mathematics (matrix inversion, etc.)

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- For those who remember the original ‘chart’ ...
 - the .NET chart basically has the same features and interface
 - *with many improvements ...*
 - If you’re programming and you *‘just want a link to something’*
 - **don’t** use a chart and make it invisible !
 - use the ‘AcopLink’ component !

SmarPodClient - Microsoft Visual Studio

File Edit View Project Build Debug Team Tools Test Analyze Window Help

Debug Any CPU Start

Toolbox

Search Toolbox

- NotifyIcon
- NumericUpDown
- PictureBox
- ProgressBar
- RadioButton
- RichTextBox
- TextBox
- ToolTip
- TreeView
- WebBrowser

Containers

Menus & Toolbars

Data

Components

Printing

Dialogs

- Pointer
- ColorDialog
- FolderBrowserDialog
- FontDialog
- OpenFileDialog
- SaveFileDialog

WPF Interoperability

General

- Pointer
- AcopButton
- AcopChart
- AcopCheckBox
- AcopChooser
- AcopComboBox
- AcopGauge
- AcopInputBox
- AcopLabel
- AcopLink
- AcopSlider
- AcopSpider

tine.cs Form1.cs SmarPodClient AcopTransport.cs Form1.cs [Design]

Form1

status bit	value
description	valu...
description	valu...
description	valu...
description	valu...
description	valu...
description	valu...
description	valu...
description	valu...

Axis	Position	Target
descri...	value 1	value 1
descri...	value 2	value 2
descri...	value 3	value 3
descri...	value 4	value 4
descri...	value 5	value 5
descri...	value 6	value 6

sp1

Online

Apply Target Positions

00.000 unit

Print MCSW7DUVAL02 Acop.net 2.0.0 8/31/2017 11:17:21 AM

acopStatusBar1 SetTargetLink

Output

Show output from: Debug

```
'SmarPodClient.vshost.exe' (CLR v4.0.30319: SmarPodClient.vshost.exe): Loaded 'Z:\Projects\Sei
'SmarPodClient.vshost.exe' (CLR v4.0.30319: SmarPodClient.vshost.exe): Loaded 'Z:\Projects\Sei
'SmarPodClient.vshost.exe' (CLR v4.0.30319: SmarPodClient.vshost.exe): Loaded 'C:\Windows\Micr
The thread 0x2718 has exited with code 0 (0x0).
The thread 0x2f18 has exited with code 0 (0x0).
The thread 0x19e0 has exited with code 0 (0x0).
The thread 0x4254 has exited with code 0 (0x0).
```

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- Notes:

- Your application is NOT an XML file.
 - it's a .NET executable!
 - you have a .sln and code modules (even if you didn't write them).
 - you can run your application with mono on Linux and Mac.

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- Things to remember:
 - Visual Studio is itself a 32-bit application.
 - *most of our Windows hosts are 64-bit !*
 - The TINE interface uses interoperability to the native libraries.
 - *specifically: **tinemt***
 - Windows: *tinemt.dll*
 - Linux: *libtinemt.so*
 - Mac: *libtinemt.dylib*

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- Things to remember:
 - Visual Studio is by far the easiest and fastest way to make applications
 - but you can use mono developer on Linux or Mac.
 - Get VS 2015 community edition for free
 - \\tempstorage\tempdata\$\100_Tage\libs\
 - => VS2015 Community\vs2015.3.com_enu
 - => vs_community.exe
 - Install the tine windows package
 - <http://tine.desy.de> -> downloads -> Windows Setup Installer -> Daily Build
 - <http://adweb.desy.de/mcs/tine/TineArchive/setup.exe>
 - Make life comfortable with templates ...

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- *It's demo time ...*

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- *Coming soon:*

- shapes
- status register
- video
- Calendar ?
 - which can push chosen time ranges into other controls

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- Feedback welcome
- Interest in a 'Schulung' ?