



VARCHAR

XGantt Workshop 2

Web Applications Using XGantt ActiveX, .NET and ASP.NET

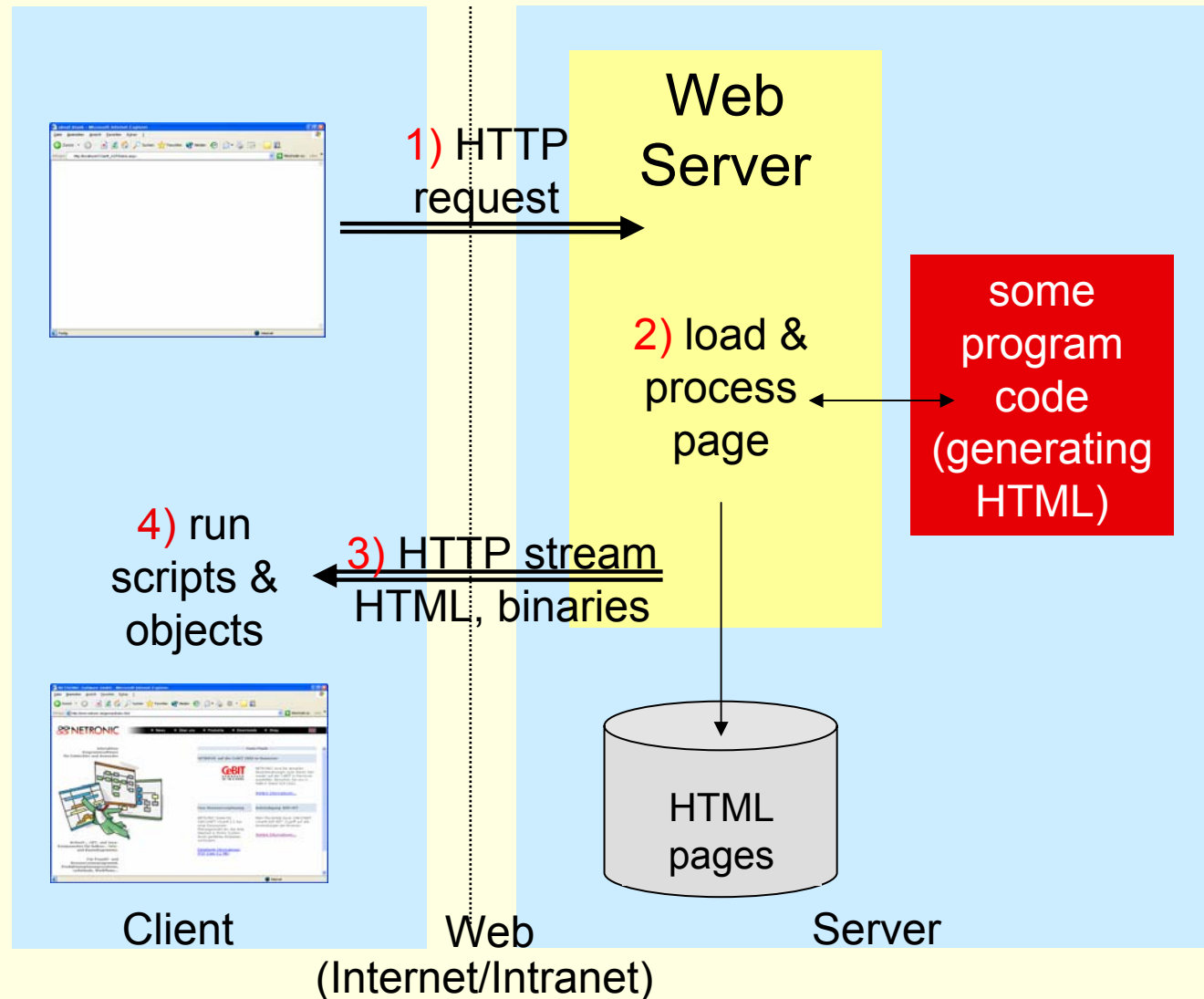
Dieter Temme
Jürgen Theis

What are Web Applications?

Overview

Server Side Graphics
- XGantt ASP.NET

Client Side Graphics
- XGantt .NET
- XGantt ActiveX



Possible Scenarios Using XGantt

Overview

Server Side Graphics

- XGantt ASP.NET

Client Side Graphics

- XGantt .NET
- XGantt ActiveX

- **Server Side Graphics**

- XGantt running on server side
- platform independent on client side
- „screen shots” as image files or streams
- interaction less comfortable

- **Client Side Graphics**

- XGantt running on client side
- full interaction capabilities
- huge data transfer (application data, the control itself and its settings)

Server Side Graphics Using XGantt ASP.NET

Overview

Server Side Graphics

- **XGantt ASP.NET**

Client Side Graphics

- XGantt .NET

- XGantt ActiveX

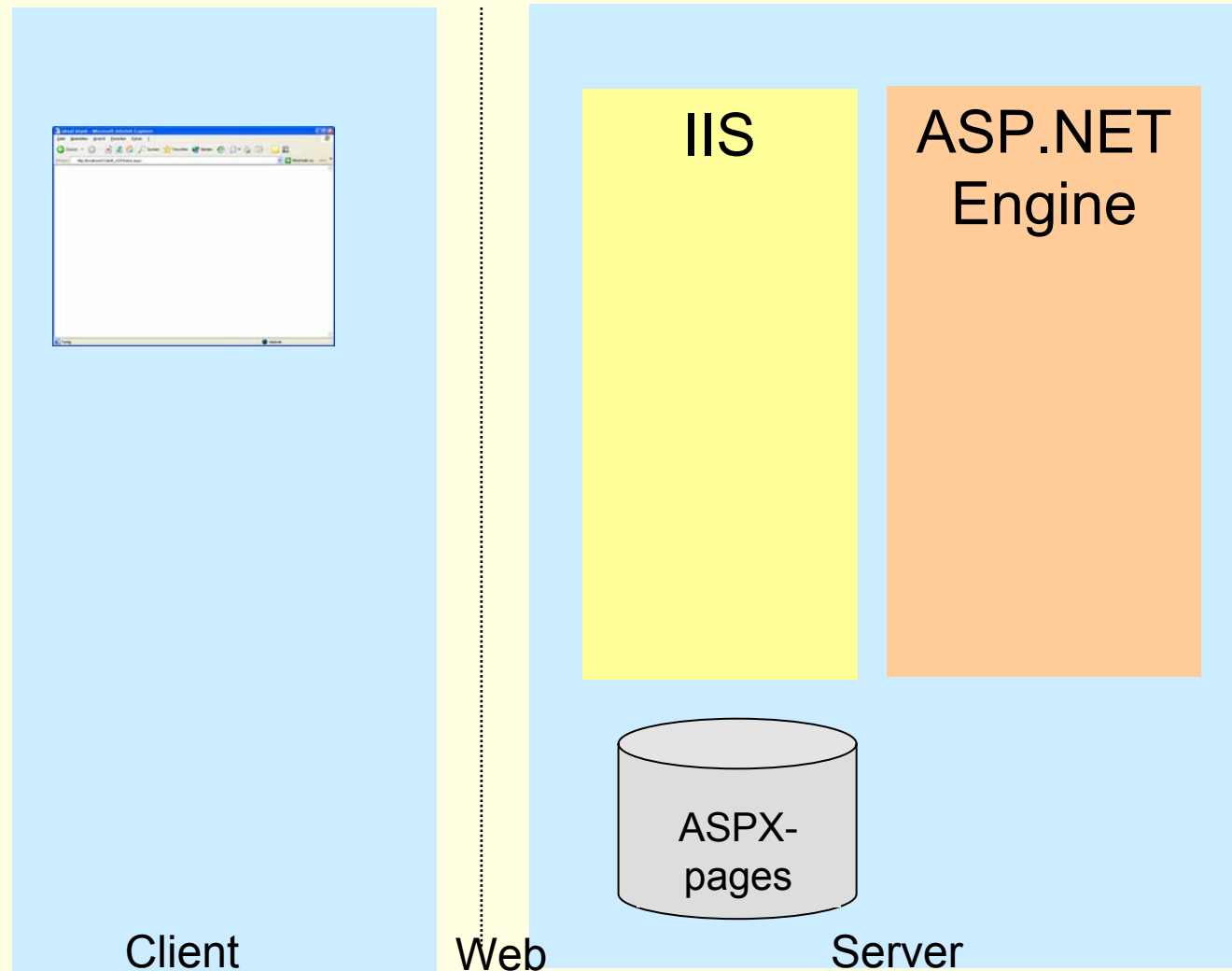
- **XGantt ASP.NET is a web server control**
- **Requirements on server side**
 - MS Windows 2000 Server or MS Windows Server 2003
 - Internet Information Server 5.0 or higher
 - .NET Framework 1.1
- **Requirements on client side**
 - any HTML browser running JavaScript
 - **nothing else!**

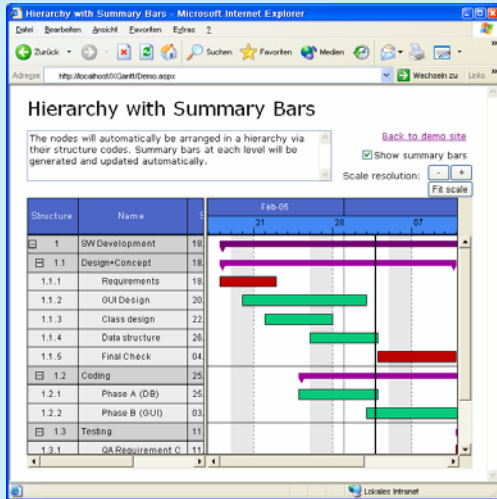
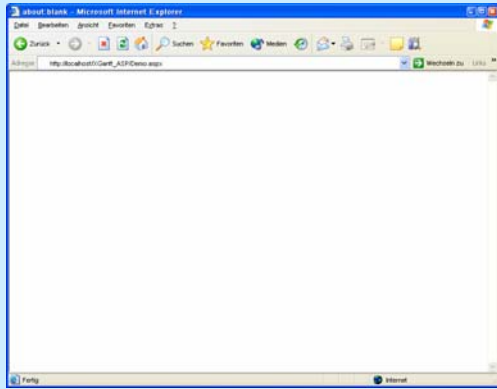
Concept - Requesting ASPX Pages

Overview

Server Side Graphics - XGantt ASP.NET

Client Side Graphics - XGantt .NET - XGantt ActiveX





IIS

ASP.NET Engine

1) request
ASPX page

? 2) request
ASPX page

3) load & parse
page

4) load, compile
& run

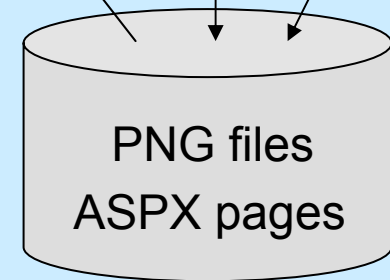
8) unload page
(XGantt kernel
resides in session
state)

**XGantt
ASP.NET**

5) save image
(„screen shots“)

6) generate
HTML

7) HTTP
response



Demonstration of XGantt ASP.NET

Overview

Server Side Graphics
- **XGantt ASP.NET**

Client Side Graphics
- XGantt .NET
- XGantt ActiveX

- What are we talking about?
Some samples (XGantt ASP.NET 3.1): [▶▶](#)

Details:

- Configuration at design time
- Setting access rights to the ASP.NET user account
- Loading data [▶▶](#)
- SmartNavigation [▶▶](#)
- Editing using standard web server controls [▶▶](#)

Limitations

Overview

Server Side Graphics

- **XGantt ASP.NET**

Client Side Graphics

- XGantt .NET

- XGantt ActiveX

- **Reduced interaction capabilities**
 - no internal dialogs at runtime
 - no in-place editing
 - no drag&drop
 - no context menus
 - no tool tips while moving cursor
- **Reduced set of events**
- **Reduced printing capabilities**
 - printing by some PDF printer drivers (win2pdf and pdf995)
 - no print preview
 - no paging à la XGantt .NET

Benefits

Overview

Server Side Graphics
- XGantt ASP.NET

Client Side Graphics
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- **Thin client**
 - no .NET framework needed
 - no installation required
 - hardly any code to be downloaded
- **Server side programming only**
- **API very similar to API of XGantt .NET (WinForms Edition)**
- **Easy configuration of look-and-feel through powerful property pages**

Future Developments

Overview

Server Side Graphics

- **XGantt ASP.NET**

Client Side Graphics

- XGantt .NET

- XGantt ActiveX

- **Upgrade to the features of each latest .NET edition**
- **Next steps**
 - **Replace writing PNG-files by streaming**
 - **Enhance interactivity by real scroll bars, in-place-editing, ...**
 - **Improve PDF printing facility**

Decision Matrix – Server Side vs. Client Side Graphics

Application Type	Server Side Graphics	Client Side Graphics	
XGantt Edition	ASP.NET	.NET	ActiveX
Server OS	Windows Server + .NET 1.1	Any	
Client OS	any	Windows + .NET 1.1 (SP1!)	Windows
Web Server	IIS 5.0 or higher	Any	
Web Browser	any + JavaScript	Internet Explorer	
To Do on Server Side	ASP.NET web page	PHP, Perl, ASP, ASP.NET, JSP, or Java servlet...	
To Do on Client Side: HTML Code with...	nothing	embedded in .NET control	VBScript or embedded in ActiveX control
Interactivity	limited	Full	

Decision Matrix – Server Side vs. Client Side Graphics

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To Do on Client Side: HTML Code with...	nothing	embedded in .NET control	VBScript or embedded in ActiveX control
Interactivity	limited	full	

Client Side Graphics Using XGantt .NET

Overview

Server Side Graphics
- XGantt ASP.NET

Client Side Graphics
- **XGantt .NET**
- XGantt ActiveX

- **Demonstration** [▶▶](#)
- **Requirements on server side**
 - Any server OS with any web server (e.g. LAMP or Windows/IIS/SQLServer/ASP)
- **Requirements on client side**
 - Setting of .NET runtime guidelines
 - Setting of IE security zones

Client Side Graphics Using XGantt .NET – To Do

Overview

Server Side Graphics
- XGantt ASP.NET

Client Side Graphics
- **XGantt .NET**
- XGantt ActiveX

- **Client application**
 - A Must: Wrapping control, because no .NET events in IE scripting yet
 - HTML page [▶▶](#)
 - XGantt event handling:
 - change requests on any interactive data change
 - update requests in recurrent intervals
- **Server application**
 - Configuration file for assembly download [▶▶](#)
 - Response to all HTTP requests

Client Side Graphics Using XGantt .NET - Help

Overview

Server Side Graphics
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Client Side Graphics
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- XGantt ActiveX

- **Additional Links**

- [MSDN KB 831138](#)
(why to use .NET 1.1 SP1)
- [MSDN KB 313892](#)
(view .NET logs in IE)

- **Helpful tools**

- 'gacutil /cdl' (clear .NET download cache)
- [www.tmgdevelopment.co.uk/
versioncheck.htm](http://www.tmgdevelopment.co.uk/versioncheck.htm) (.NET version checker)

- **Directory for .NET download cache**

c:\Windows\Assembly\Download

Client Side Graphics Using XGantt ActiveX

Overview

Server Side Graphics
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Client Side Graphics
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- **XGantt ActiveX**

- **Demonstration** [▶▶](#)
- **Requirements on server side**
 - Any server OS with any web server (e.g. LAMP or Windows/IIS/SQLServer/ASP)
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 - Setting of IE security zones

Client Side Graphics Using XGantt ActiveX – To Do

Overview

Server Side Graphics
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Client Side Graphics
- XGantt .NET
- **XGantt ActiveX**

- **Client application**
 - Recommendation: Wrapping control
 - Benefits: no download of INI and IFD files, no “spaghetti code”
 - But: resulting CAB file must be signed!
 - HTML page
 - XGantt event handling:
 - change requests on any interactive data change
 - update requests in recurrent intervals
 - Attention: XGantt events not compatible with JavaScript!
- **Server application**
 - Response to all HTTP requests

Client Side Graphics Using XGantt ActiveX - Help

Overview

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- **Helpful Microsoft tools**
 - cabarc (for packaging CAB files)
 - signcode (for signing OCX and CAB files:
need to buy a signature e.g.
at VeriSign!)
 - lpktool (make lpk files for licensed ActiveX
controls in HTML pages)
 - cdlllogvw (Code Download Log Viewer)



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**Thank you for
your attention.**

Any questions?



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Additional slides

Server Side Graphics

Using XGantt ActiveX - Requirements

Overview

Server Side Graphics
- XGantt ASP.NET

Client Side Graphics
- XGantt ActiveX
- **XGantt .NET**

• **Server side**

- MS Windows 2000 Server or MS Windows Server 2003
- Web server with direct or indirect support for OLE automation objects (ASP, ASP.NET, PHP, Perl, CGI...)

• **Client side**

- Any HTML browser running JavaScript
- **Nothing else!**

Server Side Graphics

Using XGantt ActiveX - Details

Overview

Client Side Graphics
XGantt ActiveX
XGantt .NET

Server Side Graphics
XGantt ActiveX
XGantt ASP.NET

- No configuration at design time
- Using XGantt as OLE automation object
- Loading data
- Using ASP: Control can reside in Session data
- Setting access rights to the ASP user account
- Editing at run time ONLY by standard web server controls (but much more programming effort necessary than by using XGantt ASP.NET Edition)

Loading Data (Excerpt of WebForm1.aspx.cs)

```
private void Page_Load(object sender, EventArgs e)
{
    if (this.Page.Session.IsNewSession)
    {
        //Load data
        VcGantt1.InsertNodeRecord (" 1;SW Develo.;" +dateString + ";" +.....);
        VcGantt1.InsertNodeRecord (" 2;Design;" +dateString + ";" +.....);
        VcGantt1.InsertNodeRecord (" 3;Requirem.;" +dateString + ";" +.....);
        VcGantt1.InsertNodeRecord (" 4;GUI Design;" +dateString + ";" +.....);
        ...
        VcGantt1.EndLoading();
    }
    ...
}
```

SmartNavigation (Excerpt of WebForm1.aspx)

```
<%@ Register TagPrefix="cc1" Namespace="NETRONIC.XGantt.Web"
           Assembly="NETRONIC.XGantt.Web" %>
<%@ Page SmartNavigation=„true“ language="c#"
           Codebehind="WebForm1.aspx.cs" AutoEventWireup="false"
           Inherits="WebApplication1.WebForm1" %>
<!DOCTYPE HTML PUBLIC "-//W3C//DTD HTML 4.0 Transitional//EN" >
<HTML>
...
</HTML>
```

Editing Data (Excerpt of WebForm1.aspx.cs)

```
private void VcGantt1_VcNodeLeftClicking(object sender,
                                           NETRONIC.XGantt.Web.VcNodeClickingEventArgs e)
{
    this.Session.Remove("ClickedObject");
    this.Session.Add("ClickedObject", e.Node);
    TextBox1.Text=(String)e.Node.get_DataField(1);
}
```

```
private void TextBox1_TextChanged(object sender, System.EventArgs e)
{
    Object obj = this.Session["ClickedObject"];

    if (obj!=null)
        if (obj.GetType().ToString()=="NETRONIC.XGantt.Web.VcNode")
        {
            ((VcNode)obj).set_DataField(1, TextBox1.Text);
            ((VcNode)obj).Update();
        }
}
```

◀ back

Object Definition (Excerpt of index.html)

```
<object id="XDependentDummy" width=0 height=0  
standby="Please wait while loading the diagram prerequisites..."  
classid="CLSID:544C9013-D784-472f-8EA6-BDF86ECF0427"  
codebase="xdependent.cab#version=7,1,0,0" >
```

Diagram prerequisites didn't load!

```
</object >
```

```
<object id="MultiLineTable1" width=100% height=70%  
standby="Please wait while loading the diagram..."  
classid="WebClientSideGraphics.dll  
#WebClientSideGraphicsApplication.WebClientSideGraphics"  
style="font:normal 8pt Arial"  
>
```

```
<param Name="ServerURL"  
Value="localhost/csg/server/asp/server.asp" />
```

```
<param Name="UpdateInterval" Value="15000" />
```

User control didn't load!

```
</object >
```

Configuration.xml

```
<configuration>  
  <system.windows.forms jitDebugging="true" />  
  <runtime>  
    <assemblyBinding xmlns="urn:schemas-microsoft-com:asm.v1">  
      <probing privatePath="" />  
    </assemblyBinding>  
  </runtime>  
</configuration>
```