EDGE ucate2007

October 29-31, 2007
Plano, Texas

Enhancing CA Gen Web Applications with JavaScript

Session # 14

October 29, 2007 4:30 p.m. – 5:30 p.m.

Farhan Shaikh, CA Inc.

Overview

- What is JavaScript?
- Why use it?
- Embedding JavaScript within CA Gen Web Applications
- Example of a CA Gen Web Application containing JavaScript
- JavaScript Limitations
- Learning JavaScript (references)

EDGE ucate2007

EDGE ucate2007

What is JavaScript?

- A scripting language designed to add interactivity to HTML pages

  Display a prompt box

- Most often used for client-side web development
- Consists of lines of executable computer code
- Executes without preliminary compilation (interpreted language)
- Usually embedded directly into HTML pages
- Pre-requisite; should have basic understanding of HTML
- Java and JavaScript are not the same

EDGE ucate2007

What is JavaScript?

- A scripting language designed to add interactivity to HTML pages

  Display a prompt box

- Most often used for client-side web development
- Consists of lines of executable computer code
- Executes without preliminary compilation (interpreted language)

  Explorer User Prompt

  Script Prompt:
  Please enter your name

  OK
  Cancel

  Harry Potter

- Usually embedded directly into HTML pages
- Pre-requisite; should have basic understanding of HTML
- Java and JavaScript are not the same

EDGE ucate2007

EDGE ucate2007

What is JavaScript?

- A scripting language designed to add interactivity to HTML pages

Display a prompt box

- Most often us   ... :lopment
- Consists of li   Hello Harry Potter! How are you today?   r code
- Executes with   ... (interpreted language)
- Usually embedded directly into HTML pages
- Pre-requisite; should have basic understanding of HTML
- Java and JavaScript are not the same

EDGE ucate2007

What is JavaScript?

- A scripting language designed to add interactivity to HTML pages
- Most often used for client-side web development
- Consists of lines of executable computer code

  `<input type="button" onclick="disp_prompt()" value="Display a prompt box" />`

- Executes without preliminary compilation (interpreted language)
- Usually embedded directly into HTML pages
- Pre-requisite; should have basic understanding of HTML
- It is not related to the Java programming language

EDGE ucate2007

EDGE ucate2007

What is JavaScript?

- A scripting language designed to add interactivity to HTML pages
- Most often used for client-side web development
- Consists of lines of executable computer code

<input type="button" onclick="disp_prompt()" value="Display a prompt box" />

```
<html>
<head>
<script type="text/javascript">
function disp_prompt()
  {
  var name=prompt("Please enter your
name","Harry Potter")
  if (name!=null && name!="")
    {
    document.write("Hello " + name + "!
How are you today?")
    }
  }
</script>
</head>
```

- Executes without preliminary compilation (interpreted language)
- Usually embedded directly into HTML pages
- Pre-requisite; should have basic understanding of HTML
- It is not related to the Java programming language

EDGE ucate2007

What is JavaScript?

- A scripting language designed to add interactivity to HTML pages
- Most often used for client-side web development
- Consists of lines of executable computer code

<input type="button" onclick="disp_prompt()" value="Display a prompt box" />

- Executes without preliminary compilation (interpreted language)
- Usually embedded directly into HTML pages
- Pre-requisite; should have basic understanding of HTML
- It is not related to the Java programming language

JavaScript = Java

EDGE ucate2007

Why use it?

- JavaScript is used in Web pages to:
  - put dynamic text into html pages
  - improve the design
  - validate forms
  - detect browsers
  - create cookies
  - react to events
  - make web pages more interactive and much more

EDGE ucate2007
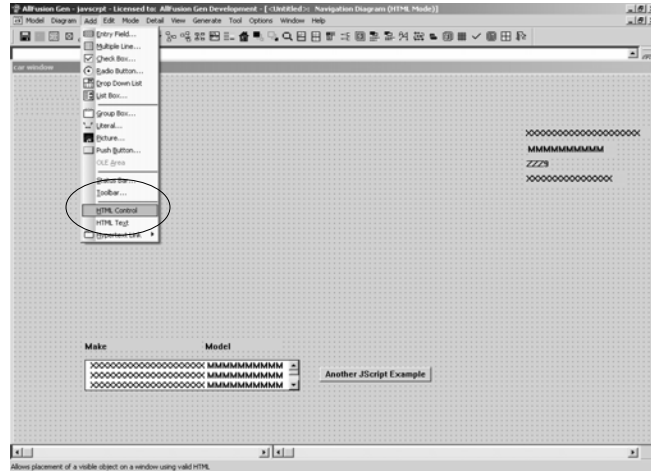
Embedding JavaScript within CA Gen Web Applications

- Embed JavaScript within HTML Code
- Open a model in the Toolset
- Go to Design->Navigation Diagram
- Open a window in HTML mode
- Click Edit->Add HTML Control or HTML Text
- Type in the HTML Code containing JavaScript

EDGE ucate2007

EDGE ucate2007

Embedding JavaScript....

• Open a model in the Toolset
• Go to Design->Navigation Diagram

Embedding JavaScript....

• Open a window in HTML Mode
• Go to Mode->Edit-> HTML

Embedding JavaScript….
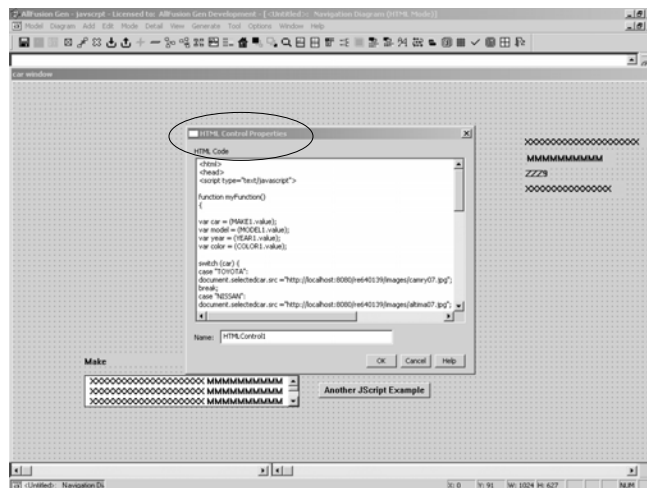
• Add HTML Control
• Go to Add->HTML Control
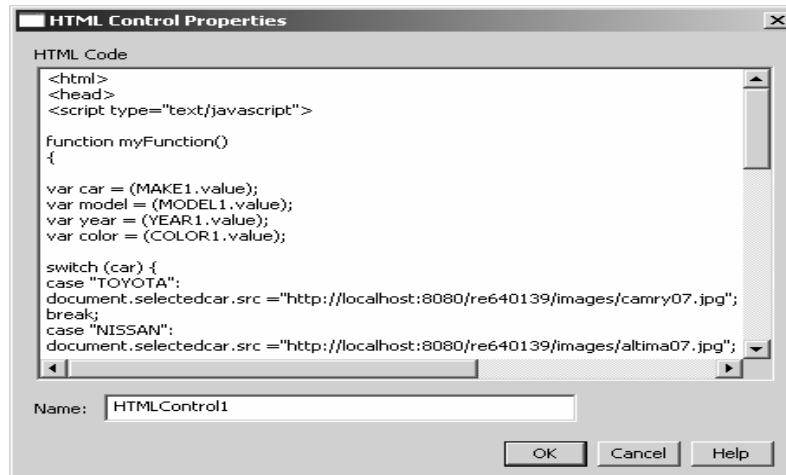

Embedding JavaScript….

• HTML Control Properties dialog
• Type in the HTML Code containing JavaScript

Embedding JavaScript....

HTML Control Properties

HTML Code

```
<html>
<head>
<script type="text/javascript">

function myFunction()
{

var car = (MAKE1.value);
var model = (MODEL1.value);
var year = (YEAR1.value);
var color = (COLOR1.value);

switch (car) {
case "TOYOTA":
document.selectedcar.src ="http://localhost:8080/re640139/images/camry07.jpg";
break;
case "NISSAN":
document.selectedcar.src ="http://localhost:8080/re640139/images/altima07.jpg";
```
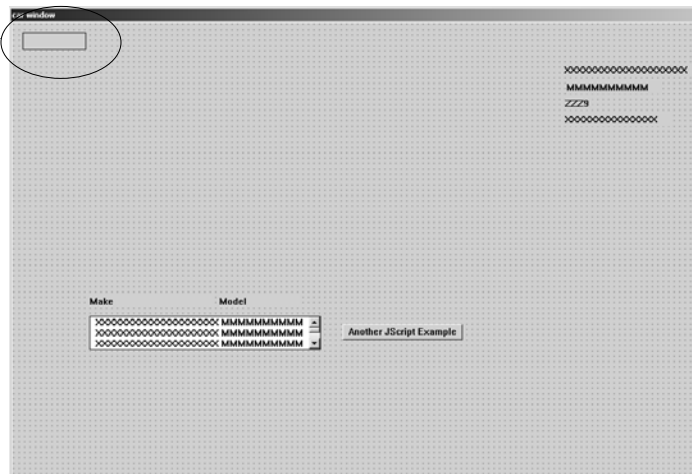
Name: `HTMLControl1`

[OK] [Cancel] [Help]

Once done click OK

EDGE ucate2007

Embedding JavaScript....

• HTML Control
• Double click the
rectangular box
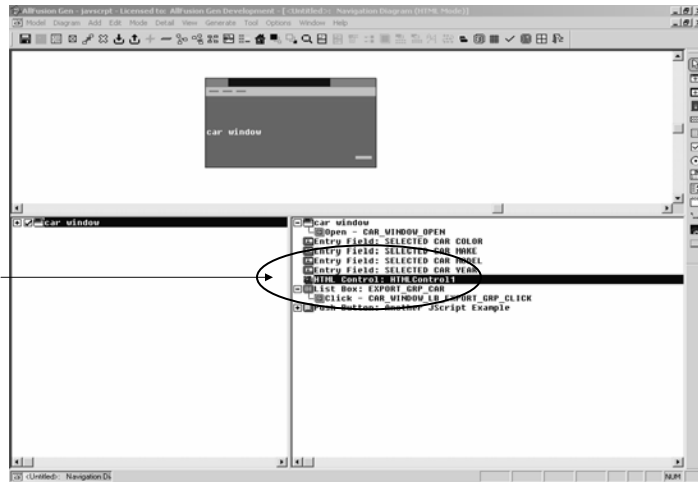to bring up the
properties dialog
again and edit
Code

cs window

XXXXXXXXXXXXXXXXXXXX
MMMMMMMMMM
ZZZ9
XXXXXXXXXXXXXXX

Make   Model
XXXXXXXXXXXXXXXXXXXXX MMMMMMMMMM
XXXXXXXXXXXXXXXXXXXX MMMMMMMMMM   [Another JScript Example]
XXXXXXXXXXXXXXXXXXXX MMMMMMMMMM

EDGE ucate2007

EDGE ucate2007

Embedding JavaScript....
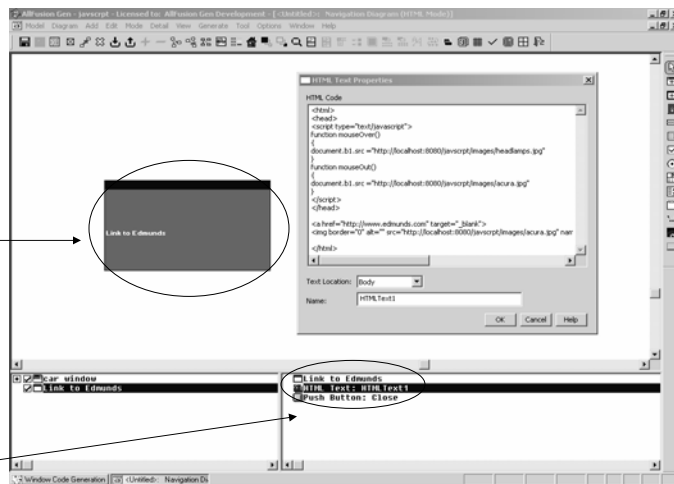
HTML Control
Properties dialog
can also be
brought up by
double clicking
here

Embedding JavaScript....

• In case of
HTML Text, it is
not visible on the
window in the
form of a box
• Make sure the
Window is closed
and only the
window
box is visible
• HTML Text
Properties dialog
can _only_ be
brought up by
double clicking
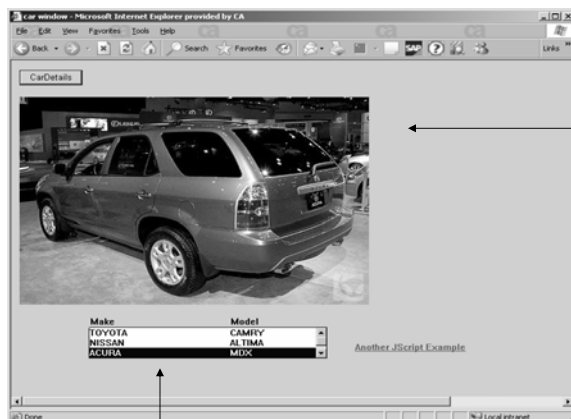here

Example of a CA Gen Web Application containing JavaScript

Picture being shown
through JavaScript code

CA Gen List box

Example of a CA Gen Web Application containing JavaScript

Picture being shown
through JavaScript code

CA Gen List box

Example of a CA Gen Web Application containing JavaScript

Picture being shown through JavaScript code

CA Gen List box

Example of a CA Gen Web Application containing JavaScript

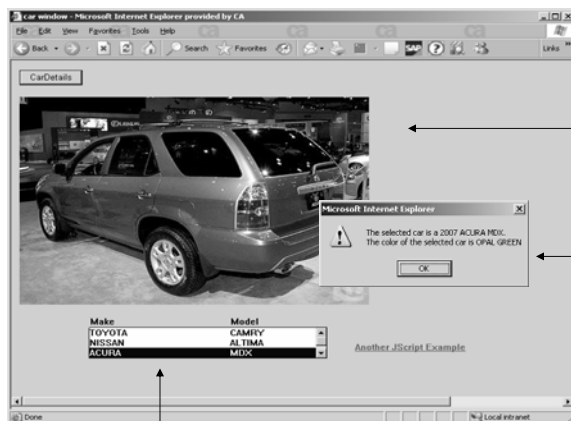Picture being shown through JavaScript code

Pop up dialog generated through JavaScript code

CA Gen List box

JavaScript Limitations

Below are some JavaScript Limitations

- JavaScript code cannot:
  - use printers or other devices on the user's system or the client-side LAN
  - <u>directly</u> access files on the user's system or the client-side LAN
  - <u>directly</u> access files on the Web server
  - implement multiprocessing or multithreading

EDGE/ucate2007

Learning JavaScript (references)

- http://www.w3schools.com/js/default.asp
- JavaScript Bible, Sixth Edition

  by Danny Goodman and Michael Morrison
- Google
- Yahoo
- Wikipedia.org

EDGE/ucate2007

EDGE/ucate2007

Appendix

Sample JavaScript code

```
<html>
<head>
<script type="text/javascript">
function disp_alert()
{
alert("I am an alert box!!")
}
</script>
</head>
<body>

<input type="button" onclick="disp_alert()"
value="Display alert box" />

</body>
</html>
```
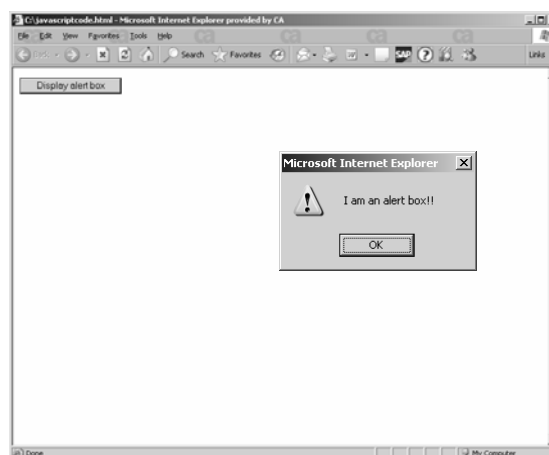
• Copy and paste this code in a text editor such as Notepad and save the file as a .html file
• Execute the html file by double clicking on it
• The Browser should come up with a button "Display alert box"
• Click the button and a an alert box will pop up

EDGE ucate2007

Appendix (cont)

C:\javascriptcode.html - Microsoft Internet Explorer provided by CA

File Edit View Favorites Tools Help

Search   Favorites

Links

Display alert box

Microsoft Internet Explorer

I am an alert box!!

OK

Done   My Computer

EDGE ucate2007

EDGE ucate2007

EDGE Needs Your Feedback!

- Please complete the conference evaluations
- Your feedback/suggestions are necessary to continue to bring you top-notch events

- Thank You for Coming – See you in 2008!

EDGE ucate2007

EDGE ucate2007