



upcomillas *es*

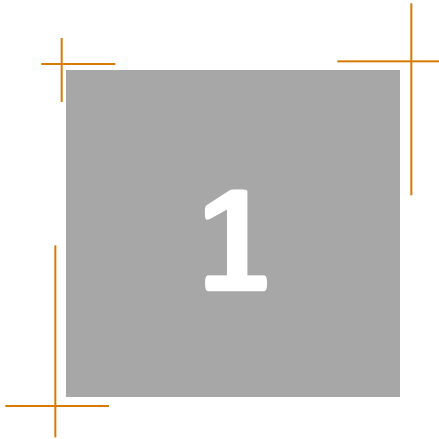
upcomillas *es*

3-Introduction to server-side Applications

Course: Developing web-based applications

Cristina Puente, Rafael Palacios

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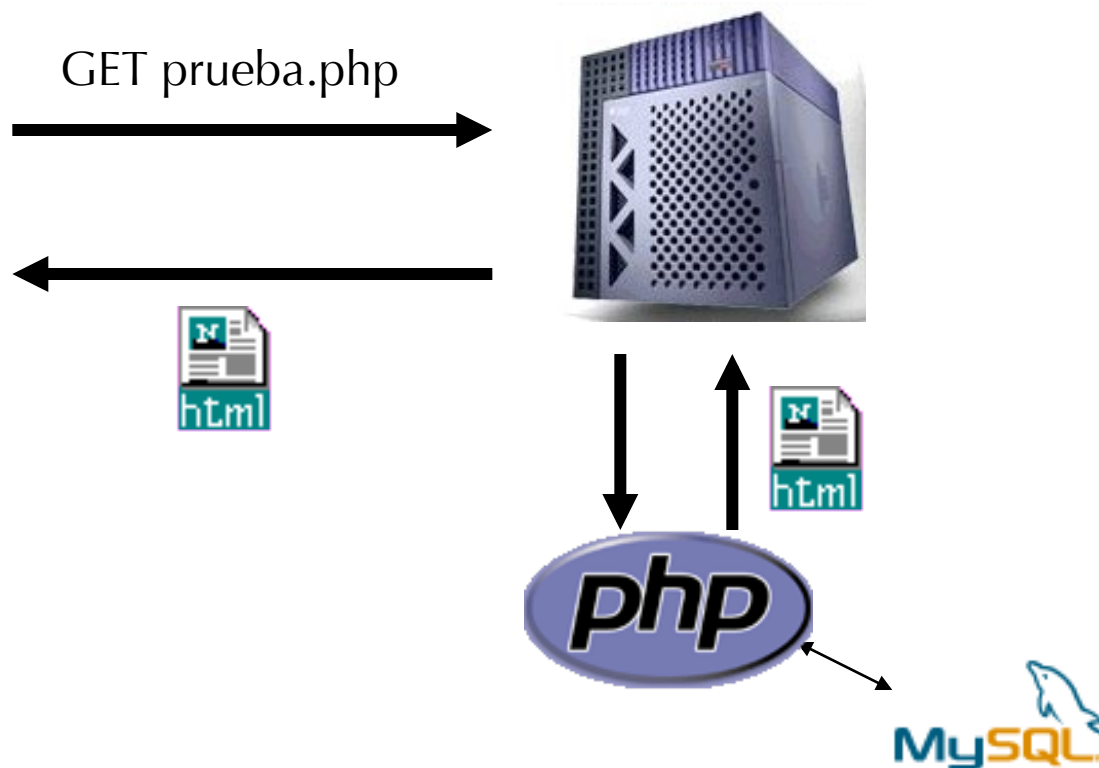
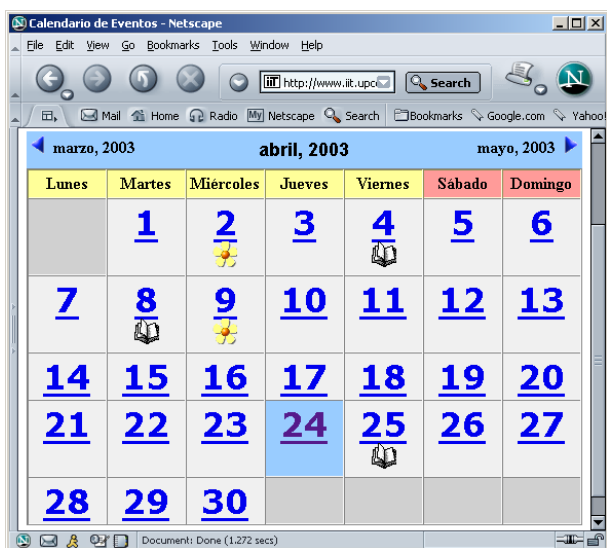


Server-side programming



Server-side

- The program runs on the server and generates pure HTML output



Server-side

- The HTML code generated is each time different
 - Depends on the input (acquired with forms)
 - Depends on the contents of the database
 - Is generated based on on-line data (Ex. IIT's solar power plant).

Server-side languages

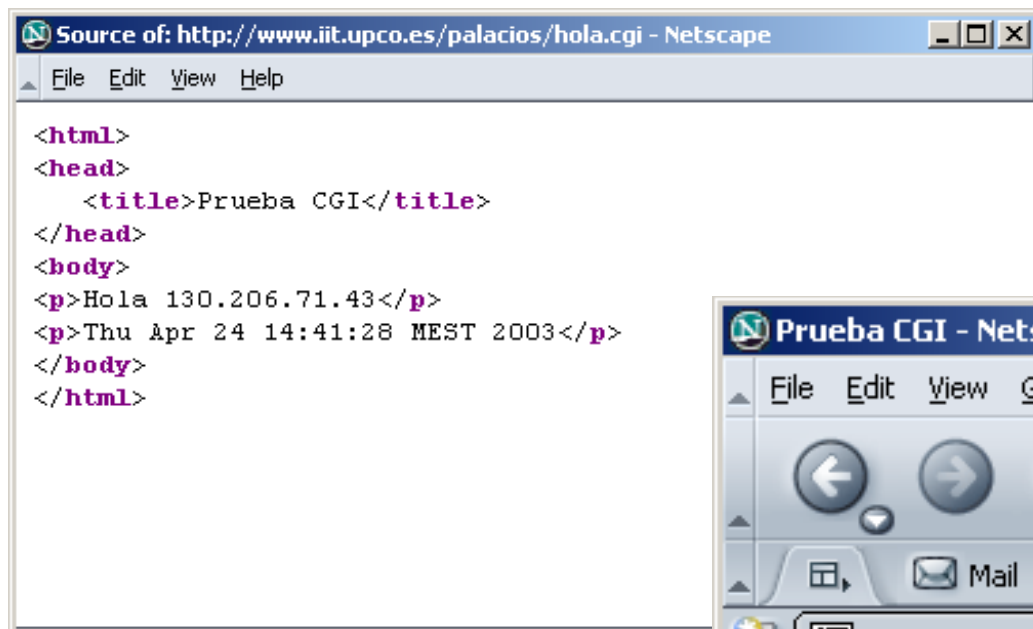
- **CGI** (common gateway interface)
 - This is not a language, it's a protocol to delegate the creation of HTML pages.
 - Can be programmed in any computing language: typically unix scripts like perl.
 - Created initially to manage form information
- **PHP** (Hypertext Preprocessor)
 - Programming language embedded in HTML code
 - Open source. Widely available for any web server
- **ASP** (Active Server Pages)
 - Restricted to Microsoft Internet Information Server
- **Servlets**
 - Java programs that run on the server.
 - In contrast with CGI, servlets can remain active and keep opened connection

CGI example

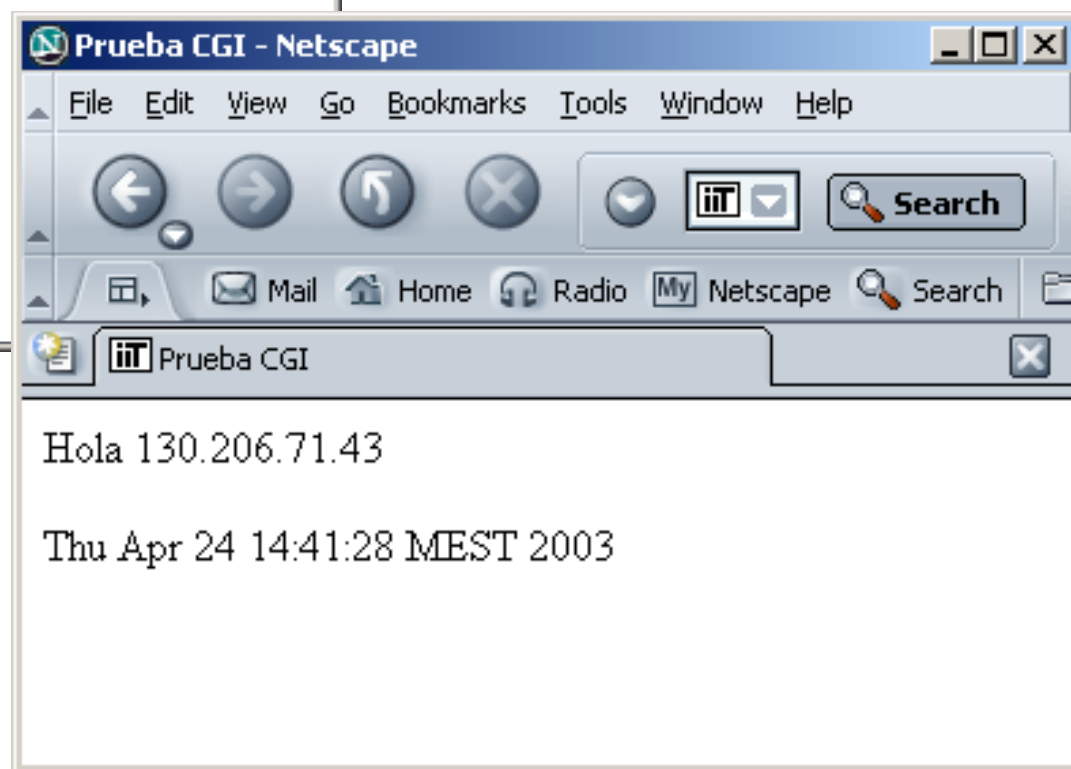
- Program designed to run in the server
- Typically written in C, perl, sh, python...

```
#!/bin/sh
HORA=`date`
echo "Content-type: text/html"
echo ""
echo "<HTML>"
echo "<head>"
echo "  <title>Prueba CGI</title>"
echo "</head>"
echo "<body>"
echo "<p>Hola $REMOTE_ADDR</p>"
echo "<p>$HORA</p>"
echo "</body>"
echo "</html>"
```

CGI example 2



```
Source of: http://www.iit.upco.es/palacios/hola.cgi - Netscape
File Edit View Help
<html>
<head>
  <title>Prueba CGI</title>
</head>
<body>
<p>Hola 130.206.71.43</p>
<p>Thu Apr 24 14:41:28 MEST 2003</p>
</body>
</html>
```



PHP example

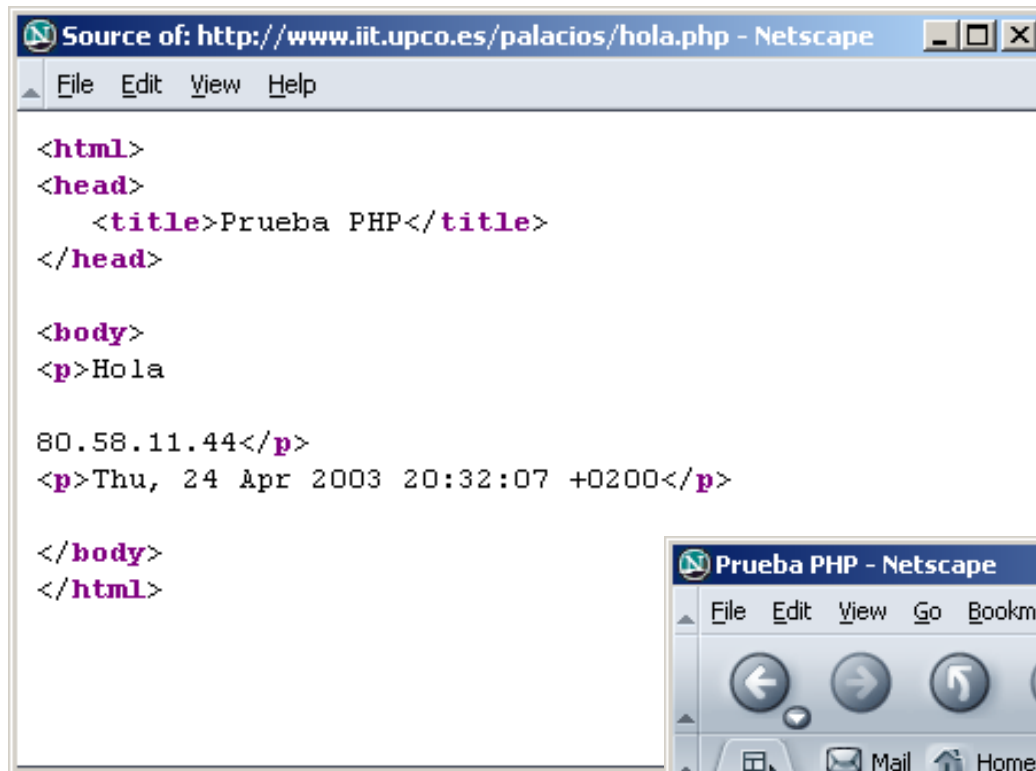
- PHP code is embedded in HTML code
 - The browser cannot see the PHP code because it is executed on the server before sending the page to the client
 - It has modules for accessing databases easily
-
- Designing PHP applications
 1. Design your resulting web page using an HTML editor
 2. Replace dynamic information for php code
 3. It must be tested in the server

PHP example

```
<html>
<head>
  <title>Prueba PHP</title>
</head>

<body>
<p>Hola
<b?php
$direccion=getenv("REMOTE_ADDR");
print "$direccion</p>\n";
print "<p>".date('r')."</p>\n"; //RFC-2822 formatted date
?>
</body>
</html>
```

PHP example 2

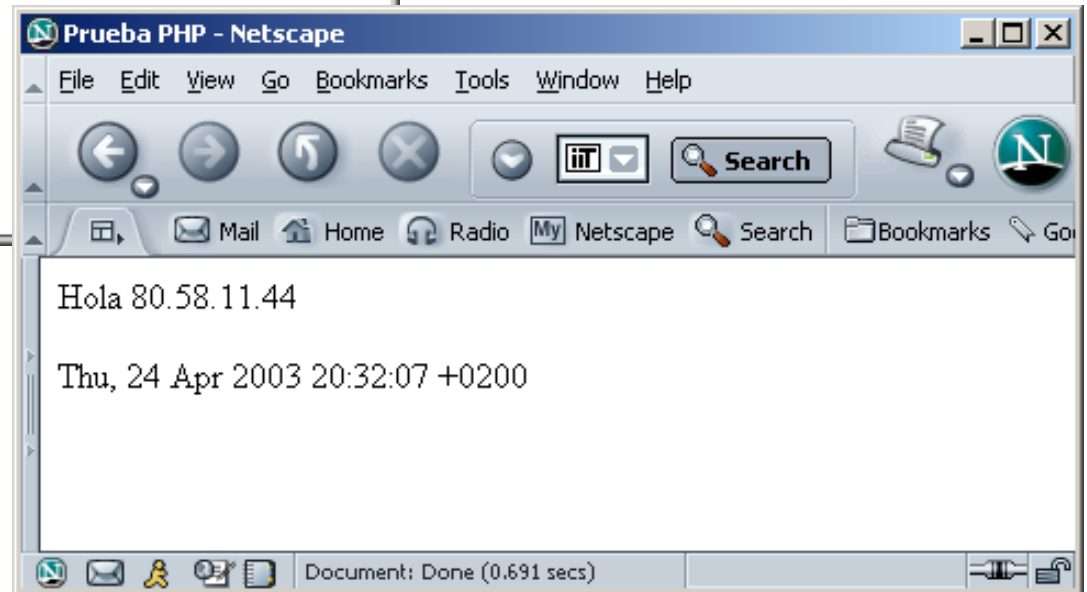


```
<html>
<head>
  <title>Prueba PHP</title>
</head>

<body>
<p>Hola

80.58.11.44</p>
<p>Thu, 24 Apr 2003 20:32:07 +0200</p>

</body>
</html>
```



PHP + MySQL

```
<html>
<head>
  <title>Prueba PHP</title>
</head>

<?php
function Conectar($username, $password)
{
  $conn=mysql_connect(localhost, "$username", "$password");
  mysql_select_db(events,$conn);
  return $conn;
}

function Desconectar($conn)
{
  mysql_close($conn);
}

function EventosHoy($conn,$hoy)
{
  $query = "SELECT * from events where dia='$hoy' order by inicio";
  $result = mysql_query($query,$conn);
  if ($row=mysql_fetch_array($result)) {
    while ($row) {
      print "      <tr><td>".substr($row["inicio"],0,5)."-".substr($row["fin"],0,5)."</td>\n";
      print "      <td width='100%'>".$row["tit"]."</td></tr>\n";
      $row=mysql_fetch_row($result);
    }
  } else {
    print "      <tr><td></td><td>No hay eventos hoy</td></tr>\n";
  }
}
?>

<body>
<table cellpadding="2" cellspacing="2" border="1" width="100%">
  <tbody>
    <tr>
      <td valign="top" rowspan="1" colspan="2" bgcolor="#ccccff"><b> Eventos para hoy</b><br>
      </td>
    </tr>
  </tbody>
</table>
<?php
$conn=Conectar("roevents","iit");
$hoy=date("Y-m-d");
EventosHoy($conn,$hoy);
Desconectar($conn);
?>
  </tbody>
</table>
</body>
</html>
```

PHP + MySQL

```
<html>
<head>
  <title>Prueba PHP</title>
</head>

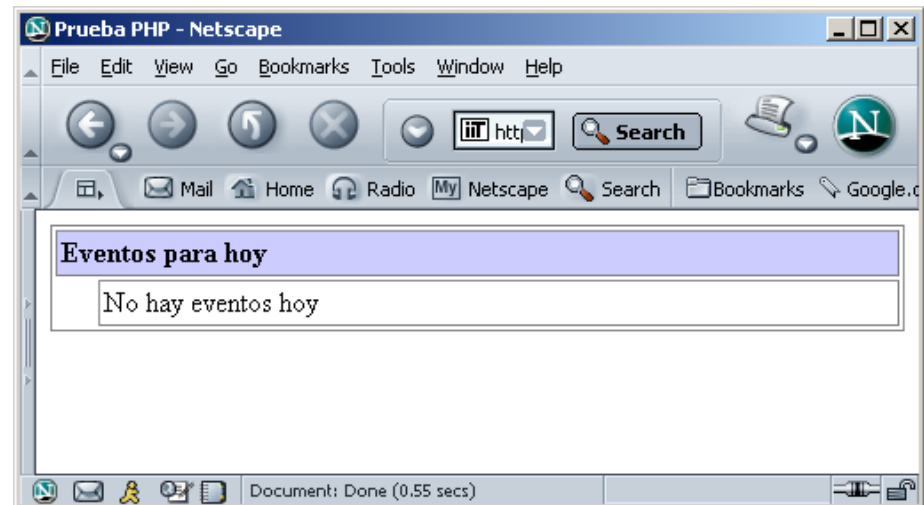
<body>
<table cellpadding="2" cellspacing="2" border="1" width="100%">
  <tbody>
    <tr>
      <td valign="top" rowspan="1" colspan="2" bgcolor="#ccccff"><b> Eventos para hoy</b><br>
      </td>
    </tr>

    <tr><td></td><td>No hay eventos hoy</td></tr>

  </tbody>
</table>
</body>
</html>
```



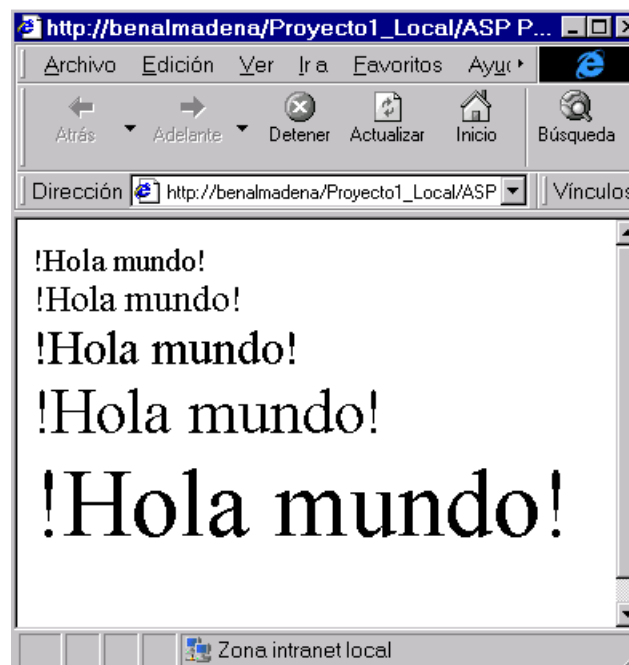
Código Generado



ASP example

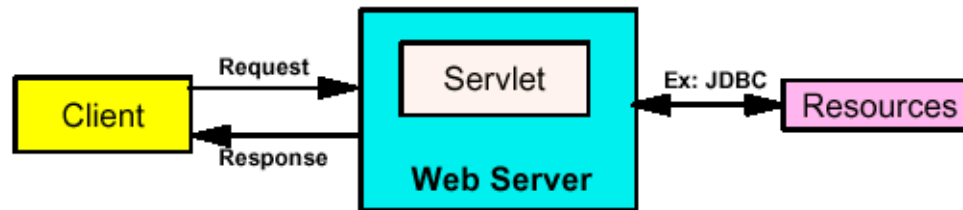
ASP is also HTML embedded

```
<%@ Language=VBScript %>
<HTML>
<HEAD>
<META NAME="GENERATOR" Content="Microsoft Visual Studio 6.0">
</HEAD>
<BODY>
<%for i =3 to 7%>
<FONT SIZE= <%=i%>>
!Hola mundo!<BR>
<FONT>
<%Next%>
<P>&nbsp;</P>
</BODY>
</HTML>
```



Servlet example

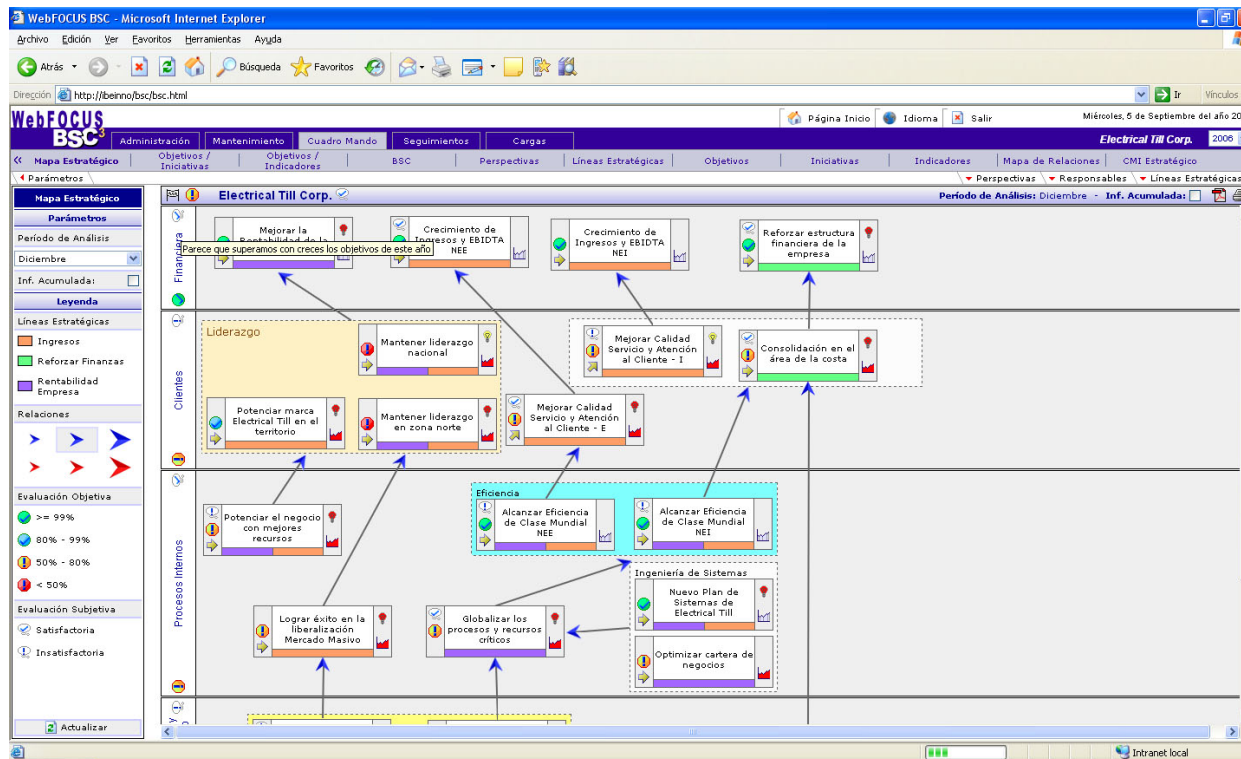
- Is a program that runs continuously
- It does not need to stop and restart on each query



WebFOCUS

- Professional tool to manage large databases
- More efficient (less latency) than PHP or ASP
- Compatible with all database servers
- Useful for large applications (CRM, Balance Scorecard...)

WebFOCUS





Escuela Técnica Superior de Ingeniería ICAI

Alberto Aguilera 25

28015 Madrid

Tel +34 91 542 28 00

Fax + 34 91 542 31 76

lwww.icaí.upcomillas.es

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