

TINE Web Interfaces

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TINE WebMex

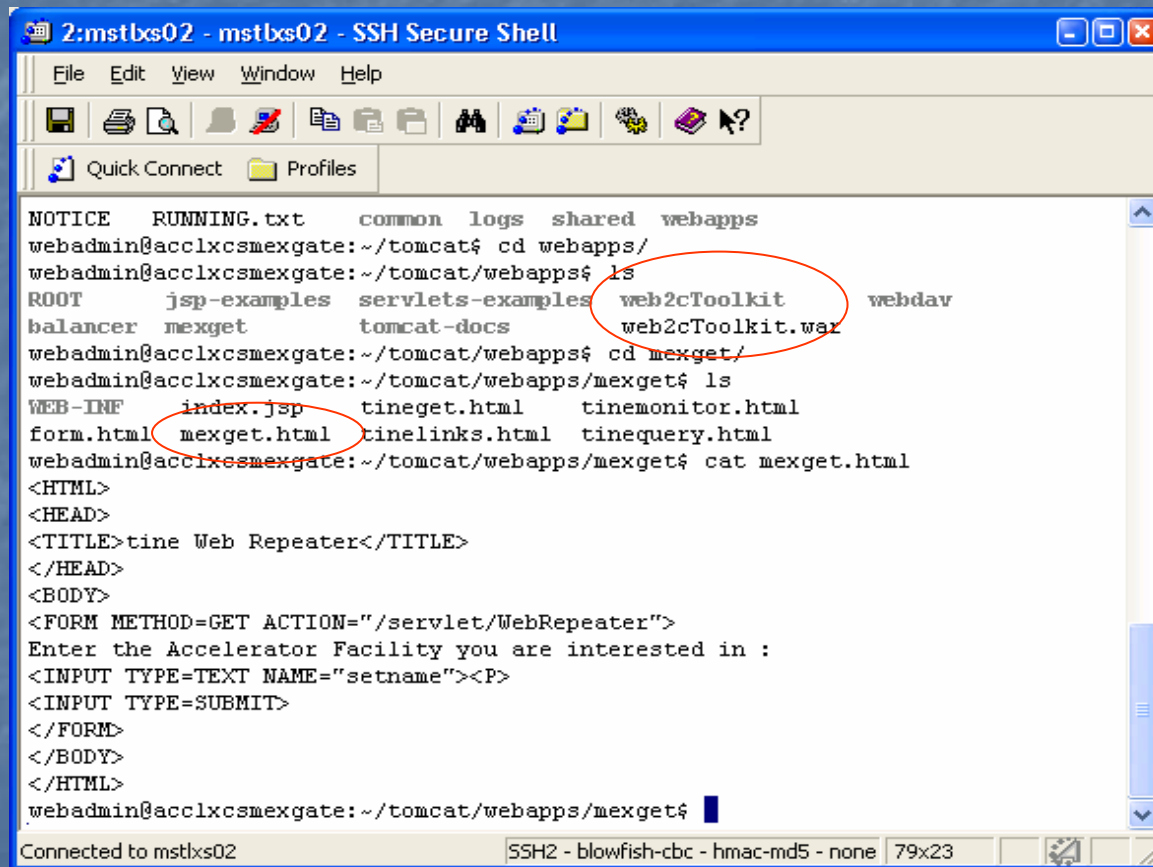
- a la "NetMex" (MEX = Machine-Experiment data eXchange)
- Tine Webmex servlet runs on Webserver (e.g. Tomcat) in the DMZ
 - Access control parameters via TINE java API.
 - Provides information via http
- Gateway server on other side of DMZ issues http get()s at 1 Hz.

WebRepeater Servlet:

(Currently dedicated to DESY machines)

```
// ??  
}  
  
public String getDorisPayload()  
{  
    String payload = "";  
    String link;  
  
    link = "/DORIS/DORISDATA/#0/DoDCCur";  
    payload += getLinkPayload(link) + "<p>";  
    link = "/DORIS/DORISDATA/#0/DoDCTau";  
    payload += getLinkPayload(link) + "<p>";  
    link = "/DORIS/DORISDATA/#0/DoEnergy";  
    payload += getLinkPayload(link) + "<p>";  
    link = "/DORIS/DORISDATA/#0/DoSTATE";  
    payload += getLinkPayload(link) + "<p>";  
    link = "/DORIS/DORISDATA/#0/DoTVText";  
    payload += getLinkPayload(link) + "<p>";  
    link = "/DORIS/DORISDATA/#0/DoBLBeamPos.X";  
    payload += getLinkPayload(link) + "<p>";  
    link = "/DORIS/DORISDATA/#0/DoBLBeamPos.Y";  
    payload += getLinkPayload(link) + "<p>";  
    link = "/DORIS/DORISDATA/#0/DoBLMonPos.X";  
    payload += getLinkPayload(link) + "<p>";  
    link = "/DORIS/DORISDATA/#0/DoBLMonPos.Y";  
    payload += getLinkPayload(link) + "<p>";  
  
    return payload;  
}
```

mexget.html



```
2:mstbs02 - mstbs02 - SSH Secure Shell
File Edit View Window Help
Quick Connect Profiles
NOTICE RUNNING.txt common logs shared webapps
webadmin@acclxcsmexgate:~/tomcat$ cd webapps/
webadmin@acclxcsmexgate:~/tomcat/webapps$ ls
ROOT      jsp-examples  servlets-examples  web2cToolkit  webdav
balancer  mexget        tomcat-docs        web2cToolkit.war
webadmin@acclxcsmexgate:~/tomcat/webapps$ cd mexget/
webadmin@acclxcsmexgate:~/tomcat/webapps/mexget$ ls
WEB-INF  index.jsp  tineget.html  tinemonitor.html
form.html  mexget.html  tinelinks.html  tinequery.html
webadmin@acclxcsmexgate:~/tomcat/webapps/mexget$ cat mexget.html
<HTML>
<HEAD>
<TITLE>tine Web Repeater</TITLE>
</HEAD>
<BODY>
<FORM METHOD=GET ACTION="//servlet/WebRepeater">
Enter the Accelerator Facility you are interested in :
<INPUT TYPE=TEXT NAME="setname"><P>
<INPUT TYPE=SUBMIT>
</FORM>
</BODY>
</HTML>
webadmin@acclxcsmexgate:~/tomcat/webapps/mexget$
```

Connected to mstbs02 SSH2 - blowfish-cbc - hmac-md5 - none 79x23

http://webmex.desy.de:8080/mexget.html

The screenshot shows a Microsoft Internet Explorer browser window with the address bar containing `http://webmex.desy.de:8080/servlet/WebRepeater?setname=doris`. The page content consists of several lines of technical data:

DC Current = 133.45514, mA at Sat Sep 22 17:17:17 CEST 2007

DC Lifetime = 18.832163, hr at Sat Sep 22 17:17:17 CEST 2007

Doris Beam Energy = 4.4423137, GeV at Sat Sep 22 17:17:18 CEST 2007

DORIS Declared State = Sync Run, at Sat Sep 22 16:18:04 CEST 2007

DORIS TV Text = SYNCHROTRON RADIATION RUN at Sat Sep 22 17:17:18 CEST 2007

BLine Beam X = 0.0,0.0,0.0,0.0,0.0,-0.02807617,-0.015869139,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,-0.03662109,0.035400387,-0.07324218,0.19042967,1.7504882,-0.10375976,-0.007324218,-1.9201658,0.0,0.0,0.0,0.002441406,-0.002441406,0.001220703,0.2453613,0.0,0.0,0.0,0.0,0.0, mm at Sat Sep 22 17:17:18 CEST 2007

BLine Beam Y = 0.17578124,0.0,0.0,0.0,0.0,0.035400387,-0.02807617,0.06835937,0.0,-0.045166012,0.0,0.037841793,0.020751951,0.051269528,-0.015869139,0.079345696,0.09521484,0.0,0.0,0.001220703,0.0,0.001220703,-0.002441406,-0.010986327,0.018310545,0.018310545,-0.43090817,-0.003662109,0.034179684,0.051269528,0.0,0.0,0.0,0.002441406,0.017089842,-0.034179684,0.0,0.0,0.0,0.023193358,-0.015869139, mm at Sat Sep 22 17:17:18 CEST 2007

BLine Monitor X = -0.63232416,-1.553955,0.0,0.0,-2.910156,2.528076,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,1.4184569,4.0795894,-2.750244,-0.99609363,2.0935056,-1.0363768,6.2133784,2.8955076,0.0,0.0,-8.28369,-4.766845,2.5549314,1.3964843,0.0,0.0,0.0,0.0, mm at Sat Sep 22 17:17:18 CEST 2007

BLine Monitor Y = 3.4045408,1.0498046,-1.566162,4.702148,0.95703113,3.4350584,1.7407225,-2.4182127,0.99731433,0.023193358,-4.068603,0.6384277,1.4184569,-0.9814452,-1.2353514,3.5034177,11.071776,0.0,0.0,2.893066,0.0,-2.2338865,-1.5234374,-0.8349609,-2.207031,-0.5249023,-1.5075682,-1.9030759,3.990478,1.0803221,0.0,-0.4895019,-0.7348632,-1.2304686,0.23803708,0.0,3.0029294,0.04760742,0.4882812, mm at Sat Sep 22 17:17:18 CEST 2007

Webmex Gateway Server

```
if (!initDone)
{
  // fill in the destinations :
  filename[0] = 0;
  strcat(filename, "/servlet/WebRepeater?setname=DORIS");
  sprintf(url, "GET %s HTTP/1.0\n\n", filename);
  sprintf(hostname, "mexgate.desy.de");
  // fill in the server sockaddr:
  memset(&serverAddr, 0, sizeof(serverAddr));
  serverAddr.sin_family = AF_INET;
  serverAddr.sin_port = htons(port);
  if ((host=gethostbyname(hostname)) == NULL &&
      (host=gethostbyaddr(hostname, strlen(hostname), AF_INET)) == NULL)
  {
    {
      perror("gethostbyname");
      feclog("cannot find host %s", hostname);
      exit(1);
    }
  }
  memcpy(&serverAddr.sin_addr, host->h_addr, sizeof(struct in_addr));
  initDone = -1;
}
if ((sck=socket(AF_INET, SOCK_STREAM, 0)) < 0 )
{
  perror("socket");
  feclog("cannot get tcp socket !");
  return tcp_socket_error;
}
if (connect(sck, (struct sockaddr *)&serverAddr, sizeof(serverAddr)) < 0)
{
  perror("connect");
  feclog("cannot connect to host %s", hostname);
  cerr << tcp_connect_error;
}
n = write(sck, url, strlen(url));
for (i = 0, n = 0; i < 3; i++)
{
  n += read(sck, &buf[n], 4096-n);
  p = getContentSize(buf);
  if (n >= p) break;
}
if (n > 0)
{
  if (n > 4095) n = 4095;
  buf[n] = 0;
  for (i=0; i<nDorisRecords; i++)
  cc = parseOutput(dorisRecords[i].tag,
                  buf,
                  dorisRecords[i].siz,
                  dorisRecords[i].fval,
                  dorisRecords[i].ival,
                  dorisRecords[i].sval,
                  dorisRecords[i].ts);
}
}
```

Initialize the url strings

Connect to web server

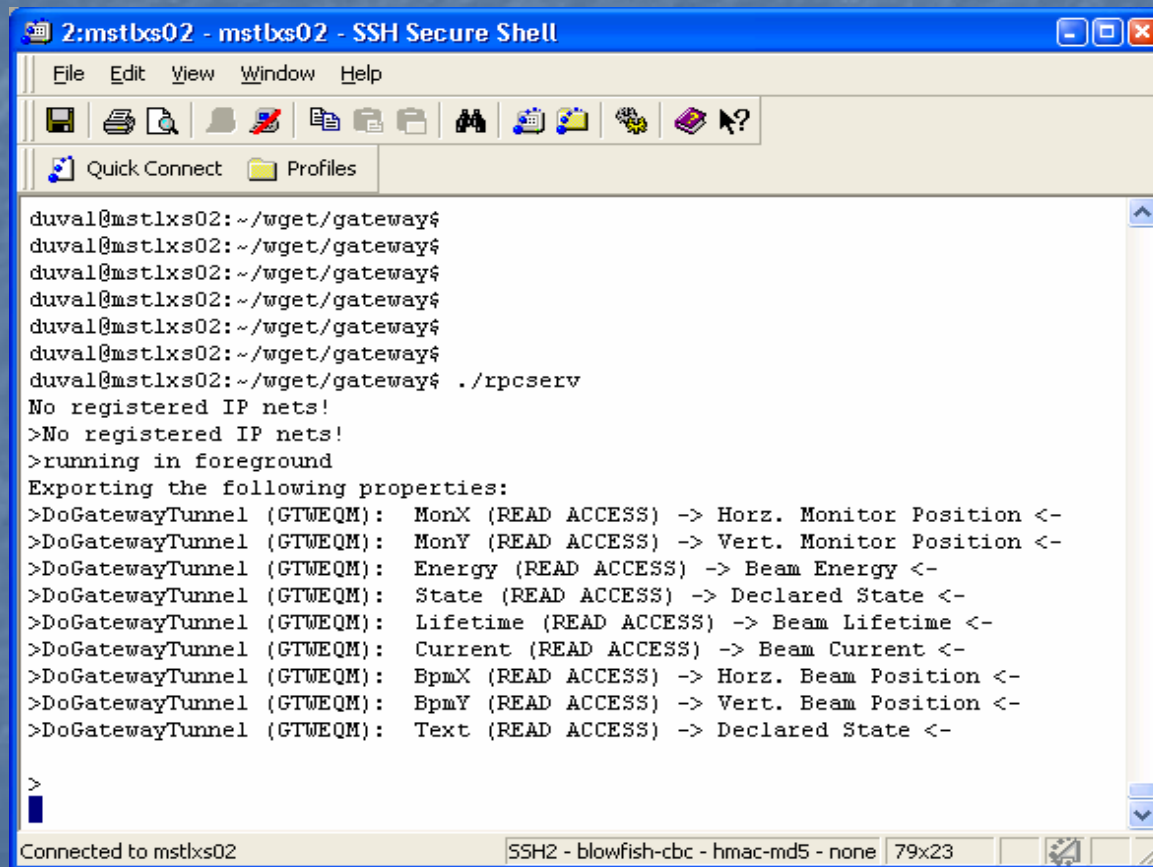
Send the Request

Get the Reply

Parse the Results

Repeat @ 1Hz !

Tine Web Gateway Server for DORIS



```
2:mstlxs02 - mstlxs02 - SSH Secure Shell
File Edit View Window Help
Quick Connect Profiles
duval@mstlxs02:~/wget/gateway$
duval@mstlxs02:~/wget/gateway$
duval@mstlxs02:~/wget/gateway$
duval@mstlxs02:~/wget/gateway$
duval@mstlxs02:~/wget/gateway$
duval@mstlxs02:~/wget/gateway$
duval@mstlxs02:~/wget/gateway$ ./rpcserv
No registered IP nets!
>No registered IP nets!
>running in foreground
Exporting the following properties:
>DoGatewayTunnel (GTWEQM): MonX (READ ACCESS) -> Horz. Monitor Position <-
>DoGatewayTunnel (GTWEQM): MonY (READ ACCESS) -> Vert. Monitor Position <-
>DoGatewayTunnel (GTWEQM): Energy (READ ACCESS) -> Beam Energy <-
>DoGatewayTunnel (GTWEQM): State (READ ACCESS) -> Declared State <-
>DoGatewayTunnel (GTWEQM): Lifetime (READ ACCESS) -> Beam Lifetime <-
>DoGatewayTunnel (GTWEQM): Current (READ ACCESS) -> Beam Current <-
>DoGatewayTunnel (GTWEQM): BpmX (READ ACCESS) -> Horz. Beam Position <-
>DoGatewayTunnel (GTWEQM): BpmY (READ ACCESS) -> Vert. Beam Position <-
>DoGatewayTunnel (GTWEQM): Text (READ ACCESS) -> Declared State <-
>
Connected to mstlxs02 SSH2 - blowfish-cbc - hmac-md5 - none 79x23
```

TINE PHP Interface

(Graham Cox, Daresbury)

- Dynamic html (Apache, not Tomcat !)
- Server-side Scripting
- Command Line Interface
- Stand-alone Graphical Applications

