TINE Web Interfaces

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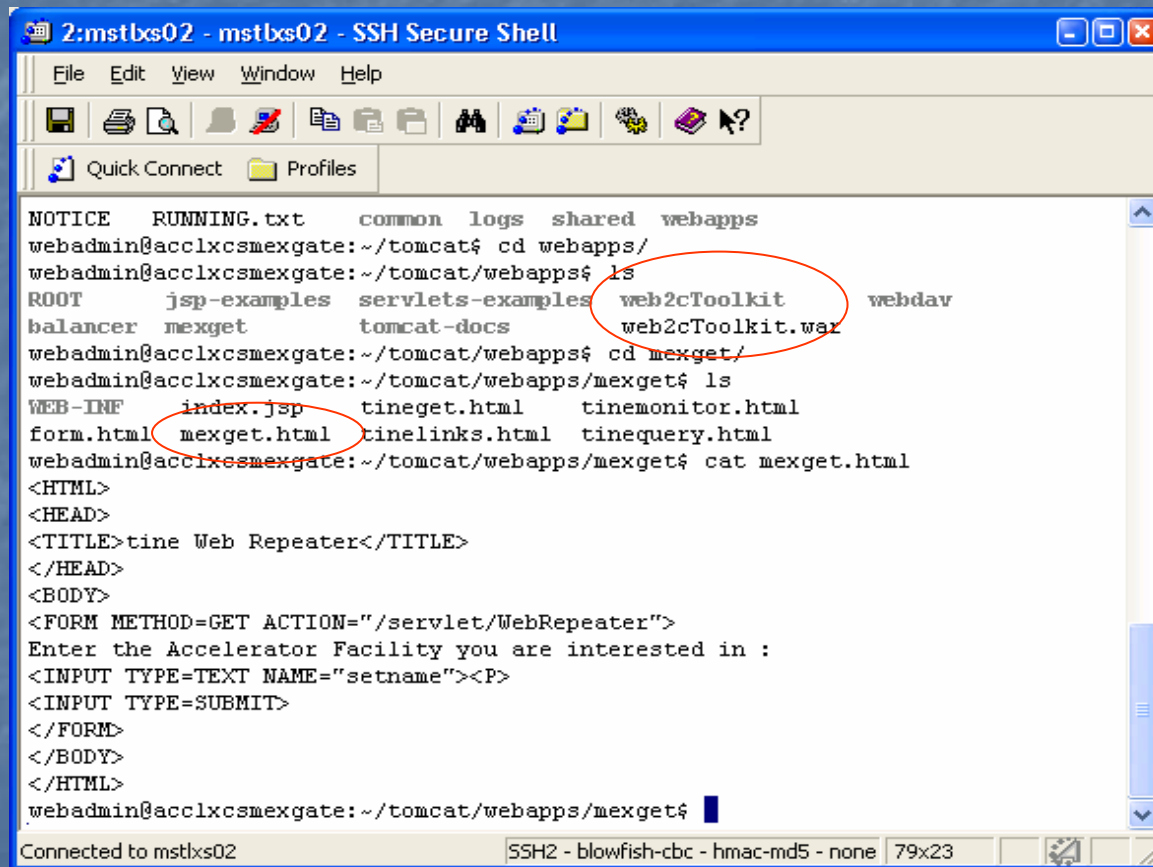G. Cox, Daresbury

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)

mexget.html

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

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,-0.02807617,-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,-0.03662109,0.035400387,-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 = 0.17578124,0.0,0.0,0.0,0.0,0.0,0.035400387,-0.02807617,0.06835937,0.0,-0.045166012,0.0,0.0,0.037841793,0.020751951,0.051269528,-0.015869139,0.079345696,0.09521484,0.0,0.0,0.0,0.001220703,0.0,0.0,0.001220703,-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,-2.910156,2.528076,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,0.0,1.4184569,4.0795894,-2.750244,-0.99609363,2.0935056,-1.0363768,6.2133784,2.8955076,0.0,0.0,-8.28369,-4.766845,2.5549314,1.3964843,0.0,0.0,0.0,0.0,0.0, 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,-1.2353514,3.5034177,11.071776,0.0,0.2893066,0.0,-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);
   ccerr(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);
}
```
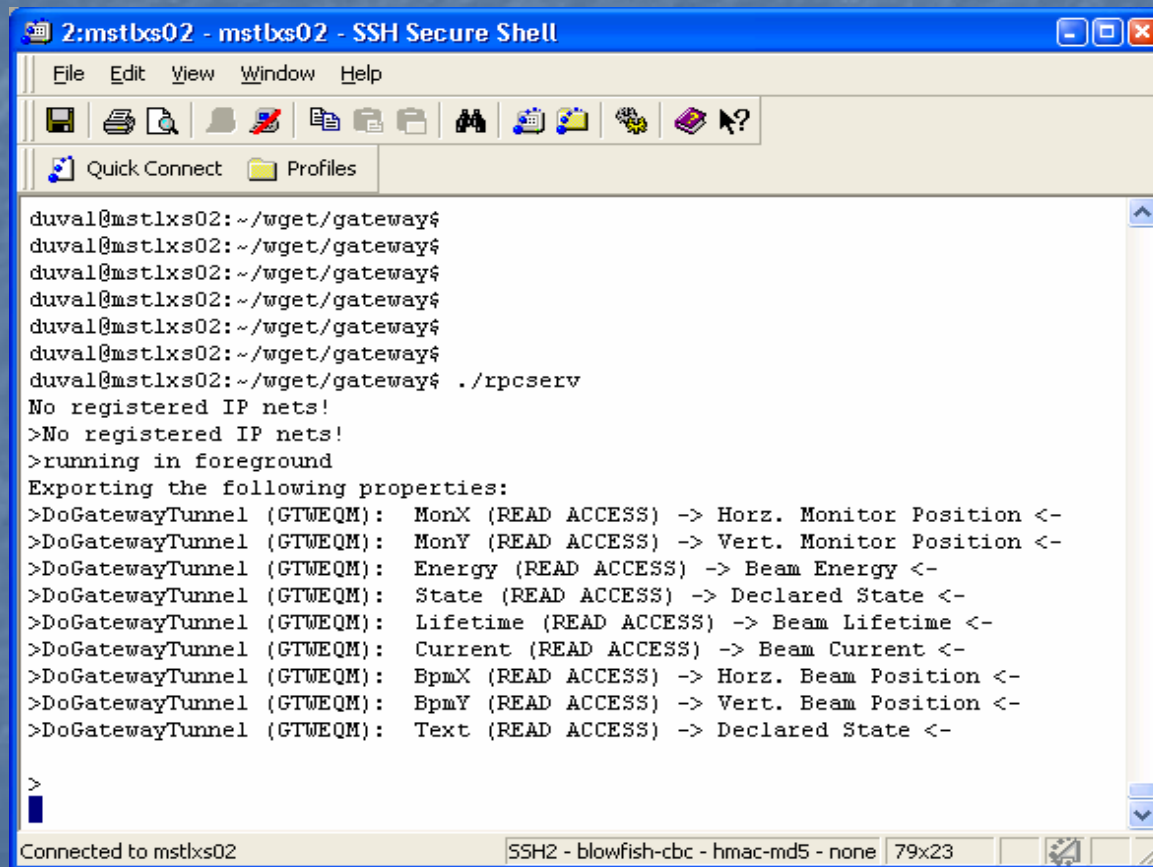
Initialize the url strings

Connect to web server

Send the Request

Get the Reply

Parse the Results

Repeat @ 1Hz !

Tine Web Gateway Server for DORIS

TINE PHP Interface
(Graham Cox, Daresbury)

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