GOAL   AND STATUS OF THE TLSE PLATFORM

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The TLSE Web portal is an expert site that provides an easy access to a set of tools allowing comparative performance analysis of sparse matrix packages either on user provided problems or on particular matrices from matrix collections also available on the site. We will describe some of the tools used within the Project, some of them being specifically designed for the Project.

When making available a large amount of software over a computational Grid, facilitating its deployment and its exploitation becomes crucial. Within the GRID-TLSE Project, we use a software component approach based on a high level semantic description of the scientific computing services. This approach allows the automatic discovery and the exploitation of new services through the concept of *scenario*.

The scenarios - based on meta-data   that describe the sparse solvers – are used to specify the expertise process through a user-friendly graphical interface called ***GEOS*** (for Graphical Editor of Scenarios). They are used by the sparse linear algebra experts to specifythe sequence of operations satisfying a user request. These scenarios are interpreted by the expert engine - called *Weaver* - that generates and   manages   the workflows executed over the Grid. They are inherently dynamic since the expertise processes often require the execution of several steps, each step depending upon the results produced by the previous steps. At each step the execution of several softwares over the Grid is performed.

The final version of the project is currently be intensively tested and some components of the Web portal are used within the CNRS / JSP REDIMPS Project between JAEA and academic partners of the GRID-TLSE Project and within the ANR LEGO and SOLSTICE Projects.