School of Computer Science M.S. Thesis Defense

By Jason Madden

The Gozer Workflow System

ABSTRACT

The Gozer Workflow System (GWS) is a production workflow authoring and execution platform. It provides a high-level language and supporting libraries for implementing local and distributed parallel processes. The GWS was developed with an emphasis on distributed processing environments in which workflows (complex business processes) may execute for hours or even days. Key features of Gozer include: implicit parallelization that exploits both local and distributed parallel resources; survivability of system faults/shutdowns without losing state; automatic distributed process migration; and implicit resource management and control. The Gozer language is a highly dynamic Lisp dialect designed for the rapid development of complex scripts that can easily exploit a distributed environment as well as local parallelism. Although fundamentally object-oriented, it supports multiple programming paradigms, including functional, imperative, object-oriented and generic. Gozer runs on the Java virtual machine and incorporates ideas from languages such as Common Lisp, Scheme, and Java, among others.

Date: Wednesday, November 17, 2010

Time: 12:00 - 2:00 p.m.

Place: Devon Energy Hall (DEH) Forum room 220

Committee members: Dr. John Antonio – Chair

Dr. Rex Page

Dr. Amy McGovern