HPEC 2004

Implementing Modal Software in Data Flow for Heterogeneous Architectures

James Steed, Kerry Barnes, William Lundgren
Gedae, Inc.
How Do We Program Modal Software in Data Flow?

- Modal software breaks data streams into finite length segments
- Extra processing at the beginning and end of segments
How Do We Program This Heterogeneous Architecture?

• Gedae is a powerful programming tool for boards of Power-PCs.

• The Gedae-RTL language extension to Gedae allows mapping processing to FPGAs.
Gedae Language Features

Segmentation
- Reset and EndOfSegment Methods
- Exclusivity
- External State

Gedae-RTL
- Seven Functions
- Language Support Package

The Gedae language allows specification of a complete modal software system and implements it on heterogeneous hardware.