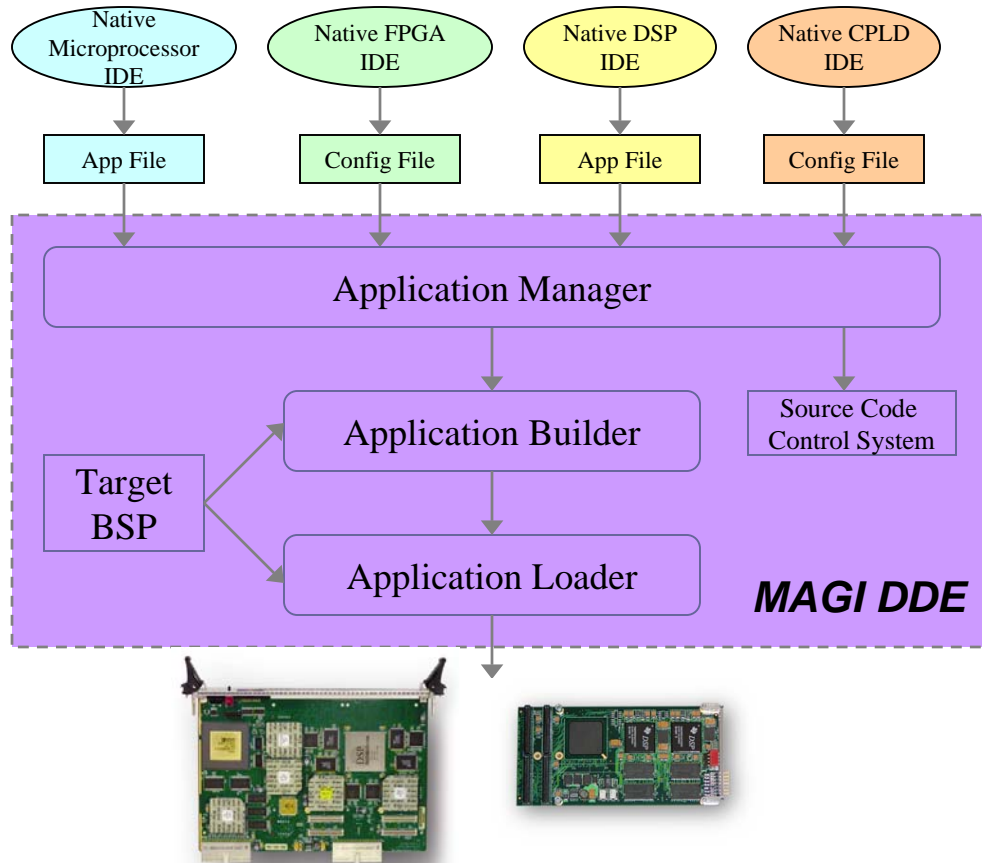




## MAGI Development & Deployment Environment



### Features

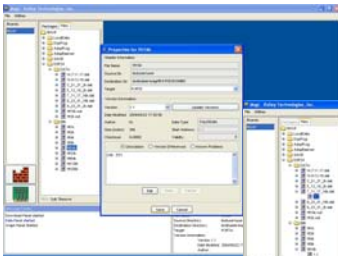
- Single Viewpoint for the Board/System
- Facilitates Code/Algorithm reuse
- Quicker, More Predictable System Integration and Algorithm Development
- Layered Architecture Provides Simplified Feature Additions and Modifications
- Easily Add New Hardware to the System

### Benefits

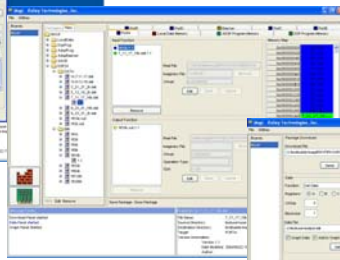
- 100% test repeatability
- Enforces algorithm and process development standards
- Algorithm and control process integration
- Distributed development work load
- Algorithm audit trail
- Fast migration to system deployment



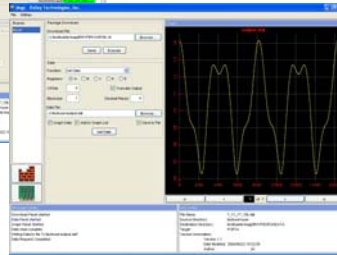
## MAGI Control Panels



**Integrated editor captures new file description elements**



**Drag and drop package builder will verify system compatibility**



**Loader screen contains hardware control panel, displays processed data**

## Description

Heterogeneous computing environments present a daunting task for System Engineers and Algorithm developers. Programming and timing needs of all processing elements contained in the system as well as system data flow must be addressed. The typical programming model for a Heterogeneous Computing platform employs a “One Board/System, Many Downloads” model. The number of download files can be in the hundreds, and when your processing needs require real-time reprogramming of the system the number of download files could increase ten fold. This programming model poses significant obstacles to repeatability and makes software and algorithm reuse nearly impossible. The solution to this complex problem lies in the combination of a Source Code Control System, Board/System element programming, and Board/System operational control. The MAGI Development and Deployment Environment (DDE) was designed and developed to meet these needs. MAGI uses a “One Board/System, One Package” model. This model addresses the complexities of managing and deploying application programs on Heterogeneous Computing platforms. The MAGI Programming model creates a “Download Package” for the Board/System. The Download Package contains all files needed to program all elements of the Board/System thus the “One Board/System, One Package” model. The MAGI Development and Deployment Environment (DDE) provides total control over the application development process, facilitating software reuse and rapid deployment of new system configurations. MAGI provides a uniform interface for the application developer to manage the application library, test new algorithms on the hardware, and provide automated system configuration for reliable, repeatable results.