



GuardIEn and Endeavor

Change Management Solutions for CA Gen

The successful management of software development projects has always required a high degree of control over the source code and other deliverables. Configuration management products like Endeavor are required to control changes to source code, to manage the movement of code through a controlled life-cycle and to provide an audit trail.

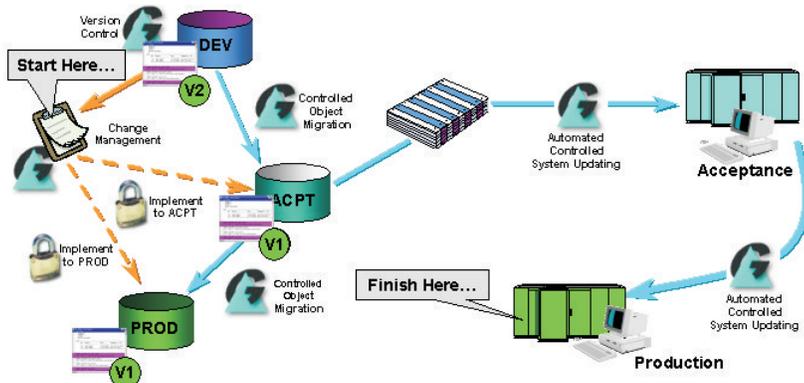
With CA Gen, the true 'source' of the system is not the generated code, but the models from which the code is generated. Therefore controls should also be applied to the objects in the encyclopaedia.

Many organisations will wish to use Endeavor for managing the implementation of CA Gen generated code. However, in common with other tools designed to manage source code, Endeavor cannot directly manage CA Gen models and objects.

Many of the CA Gen processes like object migration, code generation and impact analysis have to be performed manually. The handover of control to Endeavor is therefore performed once the source code has been generated and installed. At this point, however, most of the effort will have been expended performing the CA Gen steps. Furthermore, errors in the implementation are normally caused by forgetting to migrate, generate or install the necessary components and the resulting implementation will therefore contain these errors.

In contrast, GuardIEn has been designed to work with the CA Gen encyclopaedia. It understands how to version control CA Gen objects, migrate between models, automate impact analysis, execute the CA Gen code generators and implement the generated code. The result is that GuardIEn ensures error free implementations.

Once GuardIEn has successfully performed the CA Gen model management and code generation steps, it can automatically add the generated source to Endeavor and then use Endeavor processors and package based functions to manage the implementation and promotion of the generated code.



Overview

Many organisations, whilst recognising the specific need for a tool like GuardIEn for managing CA Gen models, still desire a single method of implementing code via Endeavor - to maximise their return on investment in Endeavor whilst benefitting from the productivity gains of deploying CA Gen.

In such circumstances, a method for connecting Endeavor to CA Gen is highly desirable. However Endeavor, in common with all source code-based configuration management tools, cannot actively control your CA Gen models and thus cannot guarantee synchronisation between CA Gen and the generated source and object code.

Furthermore, much of the CA Gen development process (object migration, impact analysis and code generation for example) cannot be automated by Endeavor.

Connect CA Gen to Endeavor

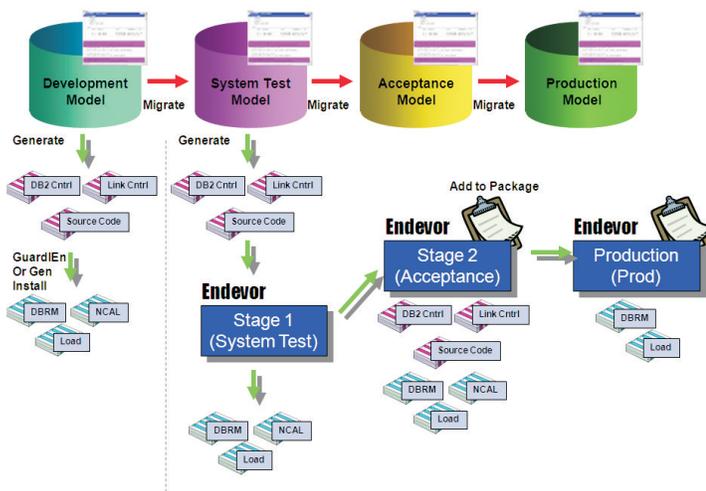
Providing a solution to the common issues associated with deploying Endeavor in an CA Gen development environment, GuardIEn:

- ◆ Guarantees generated source and object code controlled within Endeavor is synchronised with the contents of the CA Gen models (the true 'source' of the change).
- ◆ Synchronises CA Gen object migration with Endeavor package based promotion of source and object code between stages and environments.
- ◆ Prevents errors introduced by use of a manual process to manage the transition between CA Gen and Endeavor.
- ◆ Through automation of key CA Gen processes (object migration, impact analysis and source code generation), GuardIEn significantly reduces the effort required to implement changes from an CA Gen model into an Endeavor controlled environment.
- ◆ GuardIEn automates the entire development process within CA Gen. Its life-cycles are defined and maintained to your own site-specific requirements. The GuardIEn-Endeavor Interface is no exception, providing a high degree of flexibility and configuration to conform to your existing Endeavor standards.

Automated implementation with Endeavor

Using an SCL generator maintained to site-standards, GuardIEn supports the transfer of generated code into Endeavor. Endeavor processors are then used to pre-compile, compile, link-edit and bind to create the executable system. Promotion from Stage 1 to Stage 2 libraries and to subsequent environments using Endeavor Packages or per element SCL is handled.

GuardIEn checks the return codes from the Endeavor steps and provides a restart facility to enable failed elements to be resubmitted without having to back out the entire change.



Automates the Packaging of Objects

Maintains the contents of an Endeavor Package to ensure consistency and synchronisation between the changes documented within CA Gen and the executable code deployed in each Endeavor managed environment.

Available for HE and CSE

The GuardIEn - Endeavor interface is available for the CA Gen Host and Client/Server encyclopaedias. GuardIEn also interfaces to Harvest to allow the management of non MVS code.

Benefits

- ◆ Eliminates system errors attributable to poor configuration management by synchronising CA Gen changes with Endeavor packages
- ◆ Ensures that only CA Gen application objects documented and ready to be deployed can be implemented into Endeavor - unauthorised or invalid changes are not allowed to progress into an Endeavor package
- ◆ Significantly reduces the effort required to deploy CA Gen generated applications using Endeavor by automating the processes required to move an CA Gen change into Endeavor
- ◆ Enables a standard method of code deployment via Endeavor to be supported, all to existing site standards
- ◆ Provides a clear and consistent audit trail from Endeavor back to the true source of the change: the CA Gen models
- ◆ Open architecture and use of standard Endeavor interfaces ensures future proofing of support for CA Gen objects
- ◆ GuardIEn also interfaces with Harvest, thus offering true enterprise-wide management of CA Gen objects using CA's strategic configuration management tools
- ◆ IET is a Computer Associates Technology Partner

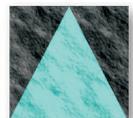
Summary

GuardIEn allows Endeavor to control and manage the implementation of CA Gen application change:

- ◆ Synchronises CA Gen model changes with Endeavor packages
- ◆ Automates the implementation of CA Gen changes via Endeavor
- ◆ Verification and authorisation mechanisms ensure that only valid CA Gen changes can progress into an Endeavor package
- ◆ Parameter driven interface allows rapid and easy implementation, conforming to site standards
- ◆ Maximises your return on investment in Endeavor by enabling the implementation of a single mechanism for code deployment



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