



# GuardIEn and Harvest

## 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 Harvest 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.

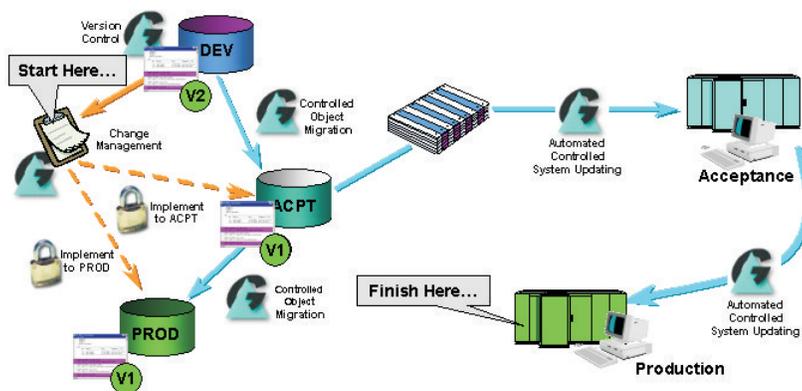
With CA Gen, the true 'source' of the system is not the generated code, but the models from which the code is generated. Therefore controls should also be applied to the objects in the encyclopaedia.

Many organisations will wish to use Harvest for managing the implementation of CA Gen generated code. However, in common with other tools designed to manage source code, Harvest 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 Harvest 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 transfer the generated source and executable code into the Harvest repository and associate it with a Harvest package. The package can then be managed by Harvest through to production.



## 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 Harvest - to maximise their return on investment in Harvest whilst benefitting from the productivity gains of deploying CA Gen.

In such circumstances, a method for connecting Harvest to CA Gen is highly desirable. However Harvest, 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 Harvest.

The perfect solution is the GuardIEn-Harvest Interface.

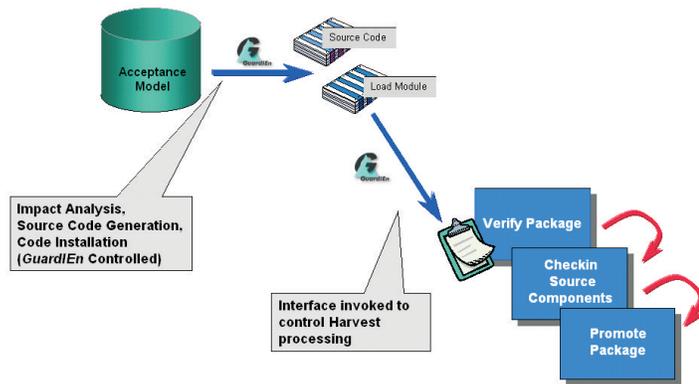
## Connect CA Gen to Harvest

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

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

## Automated implementation with Harvest

Using standard Harvest interfaces, GuardIEn supports the automated movement of changed objects from any phase in the Harvest development process to the next. For example, changed objects within an CA Gen application model might require associated source and executable code to be moved through each Harvest state to Production - according to site requirements.



### Parameter Driven

The GuardIEn-Harvest interface is entirely parameter driven, enabling your existing Harvest site standards to be supported quickly and effectively. GuardIEn then 'feeds' control and change information to Harvest as required.

### Synchronises CA Gen with Harvest Packages

GuardIEn automatically updates the contents of the Harvest packages to ensure consistency and synchronisation between the changes applied in CA Gen and the executable code deployed at each Harvest state.

Checkout processing can be invoked where required to firstly verify, and then allow the successful inclusion of an object into a Harvest package.

### Automates Application Implementation with Harvest

The interface ensures that changes sourced from CA Gen are deployed consistently via invocation of Harvest controlled processes.

### Secure deployment

Verification checking ensures that only authorised changes are allowed to progress. Any errors encountered during Harvest processing are documented and then highlighted by GuardIEn to allow resolution. Restart capabilities allow the interface step to be re-executed after errors have been corrected.

## Benefits

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

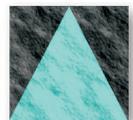
## Summary

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

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



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