and Component Based Development
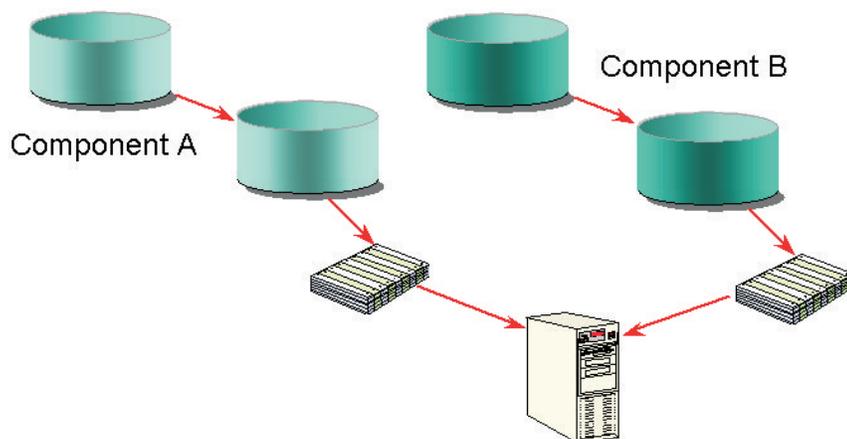
Process & Change Management for CA Gen CBD

CA Gen's proven repository technology provides significant benefits in today's constantly changing development environment by allowing technical independence - design once and then implement onto your chosen operating platforms.

However, without adequate controls imposed on the CA Gen encyclopaedia, it is all too easy to lose track of model changes and any resultant impact on the generated source and object code.

GuardIEn, the world's only Process Management tool specifically designed for CA Gen, provides rigorous and highly automated implementation controls, ensuring that changes to CA Gen models are synchronised with the executable application.

The increasing use and popularity of Component Based Development (CBD) techniques, whilst facilitating improvements in CA Gen developer productivity and reducing application 'time to market', can create significant challenges in ensuring the consistent, rigorous and timely implementation of system change.

GuardIEn provides specific support for CBD techniques and methods to maximise your investment in CA Gen and to ensure that full benefits are derived from CBD deployment.

See it ALL

GuardIEn provides comprehensive information on AllFusion Gen (and external) objects. It makes it easier for existing or prospective consumer applications to assess what components are available centrally, the state of the component in the development cycle and which other applications are consuming them.

CBD encourages application development outside the 'traditional' single AllFusion Gen model architecture. A CBD application can be assembled from potentially hundreds of models, each containing many objects that need to be controlled. This can cause problems when attempting to assess the impact of a component change or when attempting to see what components are used by an application.

GuardIEn simplifies this task by viewing and relating AllFusion Gen objects ACROSS models and even ACROSS multiple encyclopaedia. Powerful usage and reporting tools ease the assessment of specification and component changes and provides rapid impact analysis for the consuming application(s).

When combined with the XOS add-on to manage external objects, GuardIEn has a unique ability to view and control ALL objects, wherever they are located thus improving the speed, effectiveness and assessment of all aspects of component change.

The figure below illustrates the GuardIEn multi-model impact analysis facility that has been designed specifically to allow CBD users to perform impact analysis across model (and CSE) boundaries.

Component Assembly from multiple models

Version it ALL

GuardIEn enables the explicit definition and tracking of object versions together with the controlled progression of changes through the development life-cycle. For CBD, this ensures that relevant changes are consistently highlighted and then distributed to all consuming models that require the component change, even if the consuming models are located across many encyclopaedias.

Version control also ensures that only valid changes are distributed from the correct source models to the consuming applications that require them, thus preventing invalid or incomplete changes from being deployed.

Change it ALL

GuardIEn's change management facilities provide a central source of change information relating to component development and enhancement. This enables consuming applications to see the current development status of a component and therefore make reasoned judgements about what 'version' or 'revision' of the component it is appropriate to deploy.

Implement it ALL

With CBD, the source of the application will almost certainly be distributed across multiple CA Gen models. One of the key challenges is ensuring that the executable code is synchronised with the many CA Gen models. This is particularly crucial when attempting to resolve emergency fixes.

GuardIEn, with its automated facilities for system implementation, ensures the rapid and timely deployment of component change. From a CBD perspective, changes are firstly distributed consistently via object migration, generated from the appropriate implementation model and then correctly installed by all consuming applications that require the change.

GuardIEn provides a 'specification migrate' facility that will automatically convert an implementation action block into a 'stub' specification action block as part of the migration from the development model to specification and catalog models. This removes the need to manually download and 'stubify' the action block.

GuardIEn contains integrated implementation tools that are able to manage the generation and implementation of applications that are distributed across many CA Gen models. It can be configured to support dynamic or static linking and also to avoid the generation of code from specification models.
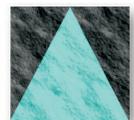
Benefits

◆ Significantly reduces the effort required to manage a CBD development project by providing CBD specific automation, powerful reporting and auditing

◆ Eliminates system errors attributable to poor configuration management across the entire CBD development environment by synchronising and automating the migration, impact analysis and implementation of ALL aspects of the CBD application, irrespective of source and executable location

◆ Provides a mechanism to ensure the integrity of all objects (even those external to CA Gen) that make up a CBD application through object level version control and an integrated change management facility

◆ Provides rapid impact analysis of CBD component change across model and even encyclopaedia boundaries - including assessment of external object change - to ensure timely and effective development and deployment

◆ Specification Migrate tools greatly reduce the effort required to maintain specification and catalog variants of shared objects

◆ GuardIEn's flexibility enables all 'flavours' of CBD development architecture to be defined and controlled

◆ Open architecture enables integration with existing library management tools and other products

Summary

GuardIEn can control your entire CA Gen CBD application:·

◆ **View all component objects to simplify CBD component assessment and deployment**

◆ **Perform impact analysis on all aspects of your CBD application irrespective of location across models, encyclopaedia or type of object (internal or external)**

◆ **Version control objects and distribute changes to consuming applications, including 'specification migrates'**

◆ **Ease assessment and consumption of component versions via integrated change management and reporting facilities**

◆ **Automate implementation of component change within consuming applications and ensure that models are synchronised with executable code**

◆ **Complete flexibility to control the type of CBD development architecture chosen**

◆ **Enable the development of interfaces to third party source code management tools as required**

For more information, call
+44 1225 863060
e-mail information@iet.co.uk,
or visit us at www.iet.co.uk

Information Engineering Technology

Distribute Shared Deliverables

Distribute Migrates are used to migrate shared/common Deliverables from this Project to other Models in the same Project, or to other Projects.

Select a 'From' Model... `DPCBC1`
...and/or a 'From' Role:
Select a 'To' Environment: `DEV`

Optionally, use the following fields to further filter selection:

From Env (there must exist a Version in Completed State for this Env)
To Role

☑ Allow Migrate From Non Owning Projects
☑ Show all From Candidates (new objects / first-time receives)

< Back   Next >   Cancel