



How does our software help your CA Gen project?

If you are using CA Gen to develop systems you will already know that it is one of the most solid and dependable software development platforms available today. It provides a proven development environment for producing and maintaining high performance enterprise solutions.

At the core of CA Gen development is the encyclopedia. It is within this repository that the models of your business are created and developed which are eventually converted into your final system. The encyclopedia itself stores its information in a number of inter-related tables. The most important and central of these are the objects, properties and associations tables. With such a simple core, the encyclopedia has a very powerful and flexible structure enabling it to store the many complexities of large mission critical systems in a very efficient manner.

The downside to this power and flexibility is that to actually get information out of the encyclopedia and present it in a meaningful way is not straightforward. Unfortunately as part of their day to day activities, this is exactly what a development team requires. Whatever the stage of a project - analysis and design, construction, testing and maintenance - the development team has information needs from the encyclopedia that are difficult to satisfy.

The only options available are to either run resource hungry and time consuming reports directly against encyclopedia models or worse still, to actually extract (checkout) subsets of the encyclopedia models and browse them using the CA Gen workstation toolset. Having to resort to such contentious and slow methods to merely look at the information stored in the encyclopedia - which after all represents a huge investment and is the basis for all development - has a direct and adverse effect on the overall productivity of a project.

That is where our tools come in. They give developers and administrators fast direct access into the CA Gen Encyclopedia without the need to run reports or checkout subsets. Independent evaluations have reported up to 4 hours saved per developer per week for projects using our solutions - that's a 10% increase in productivity.

How are the savings achieved?

The following list details just some of the ways that our products can help to achieve higher productivity.

Browsing objects

When designing new system enhancements, performing existing system maintenance or fixing bugs during the system test phase, to accurately determine the changes required developers need to be able to search and navigate around a model quickly and easily and browse the up-to-date structure of objects. Fast searches for objects are available in a variety of different ways from general wild card searches to queries on object IDs. Objects can also be expanded to show related objects or even the hierarchical structure of programs can be displayed. At any point in time an object can be browsed allowing a developer to see for instance, the action diagram of an action block or procedure step, the entity definition report for an entity or the interface for a procedure step. The output of a browse request comes directly from the encyclopedia, so the user is guaranteed to see the latest information in a very short time, all without the need to download.

Determining the impact of changes

When planning or performing changes to an object, determining the potential impact of those changes is a must. Going directly to the encyclopedia for this information guarantees that the user sees all of the potential impact of a change across an entire model (or group of models or even across different encyclopedia if required). The software provides impact analysis support for a wide range of objects including action blocks, entities, work sets, attributes, triggers and even the contents of aggregate sets in a matter of seconds.

Object versions and their comparison

Using different models to reflect the different phases of development provides a means to exercise control over a development environment. In a typical multi-model environment, different versions of objects can exist at the same time potentially across many different models. To see what version exists in what model can quickly become onerous for an administrator and comparing the differences between versions even more prone to errors. Support for this challenge is on hand though as by selecting any object in a model, Version and Compare features exist allowing a user not only to see exactly what versions of objects exist in which models (identified by their last updated timestamp) but also to compare different versions to see exactly what changes have been made.

Creating subsets and aggregate sets

Creating subsets and aggregates sets using the Gen supplied toolset can be a lengthy task. The cumbersome process involves the expansion to all objects of a given object type that exist in a selected model. The time required to do this is vastly reduced using Access Gen by capitalising on its ability to find required objects incredibly fast and to build lists of objects in a variety of quick and easy ways.

Avoiding downgrades

Subset checkout downgrades are a major cause of developer irritation, wasting both time and resources when required objects have already been downloaded by other people. Access Gen helps avoid downgrades by allowing users to see if anyone has any particular object (or group of objects) checked out and at what protection level.

Avoiding failed migrations

Failed migrations waste both time and resources for administrators and developers alike. The pre-migrate check feature alleviates this, it can be run prior to a migrate to determine whether that migrate will succeed or not. Reasons like forgotten work set attributes or objects checked out in the target model are reported and if possible, objects are added to the migration job automatically.

Publishing

Publishing operations to consuming models has long been a source of frustration for administrators within CBD projects. The only options available to avoid the proliferation of redundant objects from one model to another are cumbersome and resource intensive. The TSO version of Access Gen comes with a Publish action block or procedure/procedure step feature that can be used to create a 'stub' from an action block or procedure/procedure step in support of CBD type implementations. In this process the source object (operation) is migrated to the target (catalogue) model taking only those objects that are absolutely necessary (the action diagram import/export views and level one note statements), ensuring there is no proliferation of unnecessary objects in the catalogue model. The whole online process takes seconds and incorporates a high degree of automation, with all necessary pre-requisite objects migrated along with the published object. There is no requirement for an intermediate model, nor any downloads or uploads.

Object deletions

As a project moves from release to release, the development models are continually evolving as new parts to a system are added and existing parts further developed. This quite naturally leads to the proliferation of objects that are superseded by other, newer objects and therefore become suitable for deletion. Access Gen provides features that can identify redundant objects which can then be deleted from a model.

Quality assurance and code certification

The Access Gen QA Console is an automated quality assurance tool for CA Gen allowing project administrators to enforce coding standards simply and effectively via automated code reviews. It is available for both the Host and Client Server Encyclopedia and is integrated into the base Access Gen software, taking advantage of the product's existing features to identify objects for review and then output the QA review outcomes in a report or tabular format.

The software comes with a set of configurable Base checks and also the capability to construct and incorporate bespoke QA checks via a Software Development Kit (SDK) supplied with the software. The SDK will provide all of the necessary tools to create and maintain Custom QA checks using the CA Gen workstation toolset. Customers can therefore leverage their existing development skills without the need to engage specialist technical services.