


OCG Tools and Components



Our flexible, customizable tools add speed and efficiency to projects, and save you time and money

During the hundreds of projects that Oxford Computer Group (OCG) has completed, our consultants have developed tools and components to address areas where work is repetitious or very time-consuming. Our tools are now standard aspects of our project methodology, because they reduce development time and bring consistency to a project and make it easier to support subsequently.

These are all clear benefits to our customers. We generally only provide tools and components as part of OCG projects – we want to provide you with the best service possible, and can only do so if those tools and components are used appropriately, and if we are able to improve them continuously, even making changes to suit the needs of an individual project.

What are they?

A tool is something that helps us do our job more effectively, but which is not integral to the solution. A component enhances the solution, becomes part of the solution, and is left in place.

Cost

With a few exceptions, we charge a licence fee for our tools and components. This allows us to continue to develop more great tools and components. The cost is very modest compared to the consulting time saved, and we have been able to pass on significant savings to our customers over many years.

“OCG’s understanding of FIM/MIM and the tools they deployed enabled a smooth delivery within our tight timelines.”

**Paul Lambert, Senior IT Consultant,
Hampshire County Council**

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TOOLS

OCG Function Evaluator

Benefits:

- **Better functionality than the out-of-box version**
- **Reduces development time**
- **A free download from our website for anyone to use**

The FIM/MIM service can run processes as a result of changes to identity data – these are called workflows. So for example, when a new user is added, workflow could establish a unique account name for them, or when someone wants access to a group, a workflow could ask for the group’s owner to approve this request.

Workflows can be built up out of components called activities, and a number are provided out-of-the-box. Many simple workflows really only need something to be “calculated”, such as a date, or unique name. The workflow component that does this is called a “function evaluator” and there is one provided with FIM/MIM.

It is limited, however, and the OCG Function Evaluator provides far more functions. For example, it could establish a unique account

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name, or add a value to an existing multi-valued attribute. It can sit alongside the out-of-the-box one. We use this free component in virtually every project.

FIMalyzer/MIMalyzer

Benefits:

- **Allows you to explore the FIM/MIM configuration interactively, or as a Word report which can be saved as a PDF or web file**
- **Provides a technical specification, for effective support**

The FIMalyzer analyzes the configuration of FIM/MIM installations (it also works with ILM 2007) and presents the output either interactively, or in the form of a Word report.

The interactive feature allows you to explore the configuration in various ways, for example you can examine "Which objects use (refer to) this object?" This is very hard to do any other way.

The report can cover almost the entire configuration, effectively a detailed and accurate technical specification, including everything from the portal user interface to the code used in rules extensions. You have control over what Word styles to use for the different components on which you are reporting, and you can include your own custom text and diagrams in the report. Whenever the configuration is updated, you generate a new report (and your custom text and diagrams are included).

The report is fully cross-referenced with hyperlinks, and so can be saved in the form of a web document.

FIMigrator/MIMigrator

Benefits:

- **Saves time and frustration when rolling out changes**
- **Brings consistency to the roll-out process, and avoids some dangerous pitfalls**

Complex FIM/MIM implementations demand formal development and test environments, meaning that changes must somehow be rolled out, or migrated, from dev to test or from test to production (for example). For the sync service this is easy, but for the FIM/MIM portal and its underlying service, this process is not merely frustrating and timewasting, but can be dangerous; it can easily lead to the wrong objects being migrated, or objects being duplicated.

The FIMigrator makes this easy. It allows you to identify objects and attributes for migration, allowing you to select sets to be migrated. It keeps tracks of your migrations, and keeps track of the corresponding pairings of objects in the two systems concerned, so that future migrations become trivial. It also handles string substitutions, so that differences between systems (such as server and domain names) can be maintained easily.

If you find yourself in a situation in which systems have already become divergent, the FIMigrator provides tools to help you join up the corresponding objects in the two systems concerned and then keeps track of these for future migrations. We consider this to be the only safe and efficient way to manage migration of FIM/MIM Service configuration.

RCDC Editor

Benefits:

- **Time and frustration saved through WYSIWYG editing of RCDCs - no more editing unforgiving XML**
- **Bonus in the form of a resultant rights evaluator – how else can you test portal security?**

The user interface for editing objects in the FIM/MIM Portal makes use of Resource Control Display Configurations – or RCDCs. These are proprietary objects defined by large chunks of XML code. The out-of-the-box method for editing these is to edit the XML. To do this effectively means learning how it works, but it also means not making mistakes!

The RCDC Editor is a WYSIWYG method of creating and modifying RCDCs. You design your RCDC by adding, modifying and deleting controls, and the properties and attributes of those controls. As far as possible the editor will stop you from doing something that won't work (or at least try to warn you). When you have finished editing an RCDC, you save it in the form of XML, and load it into FIM/MIM.

The RCDC Editor has another clever trick. Its interactive Resultant Rights Evaluator allows you to select sample users and target objects, and see which attributes of those objects the users concerned will be allowed to read and/or write using color to show the differences. There really is no other way to do this apart from repeatedly logging on as different users to see what they get.

Our consultants can't imagine going back to XML editing!

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COMPONENTS

BRIX

Benefits:

- **Allows non-programmers to create complex workflows**
- **Reduces development time**

Most workflows are far too complex to be created with OOB activities – even if we include the OCG Function Evaluator.

Examples of such workflows could be: sending a notification to the owner of a group when changes are made to that group, or getting an approval from the owner of a role to add that role to a user.

Creating workflows to do these jobs is surprisingly complicated, and hence very time consuming to develop and test.

BRIX is a set of workflow activities (or building bricks) that each achieve nothing useful on their own, but can be strung together to create complex workflows. Each activity (brick) performs a clearly identified and often required task, and leaves data in a suitable format for the next brick to pick up.

As an example, if we are interested in group membership changes, we could have a workflow in which the first brick goes and finds which group just got changed, the next might generate a list of those affected, the next might go and find all their email addresses, and another might send a notification email to all of them (using an email template which is also part of BRIX).

The beauty of BRIX is that any of our consultants can create workflows by stringing together these activities, without the need for deep workflow development capability. Of course, we may need to write some code to satisfy a previously unseen need, and that may be the genesis of another brick. BRIX already has more than 30 activities (bricks).

"BRIX are brilliant. Now I can produce complex workflows with ease!"

Steve, OCG consultant

"I hate having to say "No, sorry, you can't do that in the FIM Portal", but with the OCG FIM/MIM UI, I don't have to."

Dave, OCG consultant

FIM/MIM UI

Benefits:

- **A customizable user interface for the FIM/MIM Service**
- **Advanced & flexible validation, interactivity & layout**
- **Compatible and co-existent with the FIM/MIM portal**

The FIM/MIM Portal user interface makes use of forms called Resource Control Display Configurations (RCDCs) – these can be modified, but with considerable limitations. The OCG FIM/MIM UI offers an alternative interface which is highly customizable, and can be used as a replacement for, or in conjunction with, the native FIM portal. Features include:

- Pre-defined FIM/MIM UI form templates for quick and easy implementation, and a comprehensive and intuitive framework to create additional individual UI components.
- Forms to display additional data structures such as OU trees, DFS file structures, SharePoint organizations or Active Directory topology structures.
- Works with a range of browsers (Internet Explorer, Safari, Firefox or Chrome), integrated into SharePoint, or standalone.
- Dynamic queries of databases, web services or directories allowing interactivity such as creation of a unique names.
- Integration with Azure Active Directory.
- Inherit organizational attributes when creating users (e.g. home drives, Exchange mail box stores or address information).

FIM/MIM UI can be extended to support Role Based Access Control.

- Automatic import of permissions and OU substructures from target systems (such as SAP).
- Support for multiple OU structures, with multiple assignment of users to OUs.

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- Roles assigned directly or through OU structures (with inheritance).
- Support for segregation of duty (SOD) rules between roles and/or permissions.
- Static compliance reporting (on existing compliance violations within the company)
- Attestation workflows, for role owner to perform a cyclic review of assigned permissions.

Delta Generator

Benefits:

- **Provides delta import capabilities to SQL Server and other sources**
- **Provides multiple table capability for SQL sources**
- **Can dramatically improve performance**

Some out-of-the box management agents (connectors) support "delta import" meaning that it is not necessary to read all source data during each sync cycle. This massively improves performance in larger (or more complex) environments.

Some, however, do not: notably the SQL ones (eg SQL Server and Oracle). The Delta Generator is an MA that can handle such sources using delta imports. Better still, no coding as such is required.

We use the Delta Generator in all but the simplest of implementations, and we have seen performance improvements measured as orders of magnitude.

SAP Identity Pack

Benefits:

- **A powerful and flexible way to connect to SAP, without overwhelming amounts of code**

Of all the systems we have to connect to, SAP is perhaps the most complex in that there are so many ways of doing so. There is an out-of-the box SAP Management Agent (connector), but it only covers a limited set of circumstances.

The most powerful technique is to communicate with SAP via its NCo 3 connector, but this is time consuming, and typically each time anyone connects to an SAP system, they end up writing a lot of code.

The OCG SAP Identity Pack significantly reduces this effort by interrogating the SAP system and generating a lot of code automatically (this analysis includes both out-of-the-box SAP components and custom components). It standardizes the approach, reduces the chance to introduce errors, and thus improves supportability. We believe it is the most flexible and powerful approach, without being too code-heavy.

"Over the years I've used most of these tools and components in a variety of projects, and they continue to impress me as much as they do our clients."

Matthew, OCG consultant

Want to know more about our tools and components and how they could work for you?

Call us today +1 877 862 1617