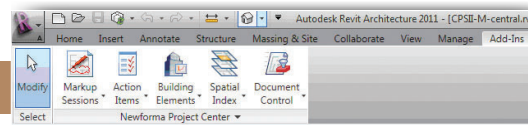


# Synchronicity!



The Newforma Add-in for Autodesk Revit

The latest version of Newforma's Project Information Management application integrates with Revit to provide synchronous data exchange with the building model

by David Chadwick, Editor of Cad User Magazine

Managing the growing tide of information - not just that which is being generated day by day at an accelerating pace, but also that which has been accumulated over the last decade or so, and which languishes in an alarming array of operating systems, project extranets and file formats on various Excel spreadsheets and even on different storage media, is a constant challenge.

But before we can manage it how do we find it? We could, of course, marshal all of the data we need and place it in one centralised server, but that involves a considerable amount of effort and raises other issues about storage, security and so on. Web-based search engines, however, can locate information at lightning speeds on hugely disparate data sources.

If we take advantage of this capability and add some tools that can index the data we have, and instead of moving it around leave it where it is, we can link it to projects, events, people and any other element of a construction project. In doing so we'll end up with a system that allows us to search the data we have in the office more readily - which is the basic premise behind Newforma Project Center.

## NEWFORMA PROJECT CENTER

Newforma Project Center is Project Information Management (PIM) software designed for architects, engineers and builders. We have already looked at the core elements of Newforma in a previous issue of the magazine. With the latest release, Newforma Project Center Eighth Edition, they have also introduced three new products: Newforma Contract Management, which handles things like submittals, RFIs, contracts, change orders, etc.; Newforma Mobile, making project information accessible while on-

the-go via any smart phone; and Newforma Add-in for Autodesk Revit, supporting model-based design workflows. There have also of course been some improvements to its core application.

The core application of Newforma Project Center consists of a number of activity centers dedicated to the management of project information. One of the most important of these is Document Control, which allows team members to manage and issue record documents for review, bidding and construction purposes. They can be accessed by project teams in a number of formats (PDF, DWG, DWF, DGN) and by external team members through the Newforma online collaboration tool, Newforma Info Exchange, or via the new Newforma Mobile product. They can subsequently be imported as new revisions of stored documents and automatically linked to the original document by their filenames or drawing number. The latest enhancements to this function allow revisions to be tracked at single sheet level, providing better audit control.

The Document Control activity center is now integrated with other activity centers more efficiently, relating documents to project tasks such as markup sessions, RFIs, change orders and action lists. It also integrates with MS Excel, allowing document register reports to be exported to Excel. And, to make it more user friendly, you can replace the somewhat cryptic filenames that abound with sheet titles and drawings numbers that are more immediately identifiable.

## MAKING THE MOST OF MEETINGS

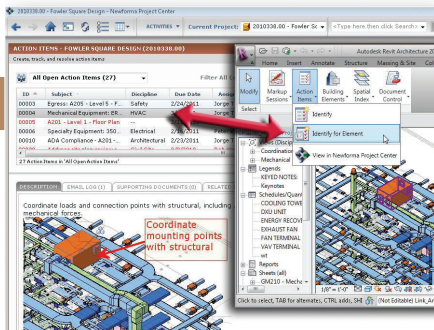
As a collaboration as well as PIM tool, a second new activity center has been added to Newforma Project Center, in the

shape of Meeting Minutes. The Meeting Minutes activity center links meetings scheduled in Microsoft Outlook with related action items and supporting documents, and tracks action items, RFIs and other open project items across a series of meetings until they are resolved.

This used to be handled using emails within applications like MS Outlook, capturing the minutes in Word, and re-exporting them as emails - but without the necessary action, or 'to-do' lists that should have accompanied them. Now, Newforma meetings, in which the convener can specify agendas, items under discussion, attach relevant project data, and also select participants, assume greater significance, being recorded in Meeting Minutes and captured as part of the project's data. Such minutes are then available for publishing as a report in PDF format and distributed to interested parties.

And then there's another new activity center, Project Images, which utilises the powerful search technology to harness the many site photos and other digital images related to a project, thereby making them easier to find. Thumbnails of the images can be filtered according to any property, including the EXIF properties attached by typical digital cameras, such as Camera Model and Date Taken. The images can also be tagged with project keywords to make them even easier to find.

Existing features have also been enhanced. The online Info Exchange collaboration tool widens access for both internal and external team members, adding mobile devices such as iPads and other tablets to keep up to date with the project. According to more rigorous access controls ('permission sets') members can directly open files on their device, instead of having to download



Newforma's project information management software connects design and constructability challenges in the model to action items and markups managed. (Models provided courtesy of HOK, Inc.)

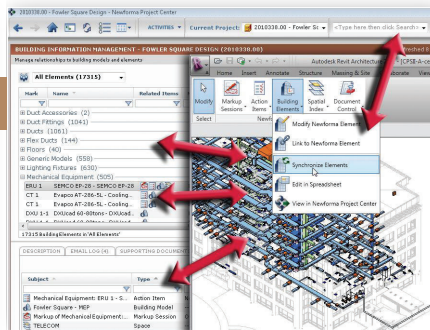
them first and then open them, synchronising them with local project folders. This allows just those files that have been changed to be updated automatically in the background, instead of having to publish entire folders.

### REVIT INTEGRATION

The Newforma Add-in for Autodesk Revit adds a toolbar to Revit, enabling Newforma to manage the data held in a Revit Architecture, Structure or MEP model more effectively, as well as integrating it with the tasks and processes captured by Newforma Project Center. Likewise Building Information Management and Spatial Index activity centers have been added to provide project teams with a simple interface for editing sheets, spaces and properties from a Revit model.

With the links in place, spatial information, sheets, building elements and all of their associated properties can be synchronised, using the Newforma toolbar in Revit. Although elements in Revit and in the Newforma Document Control activity center are mapped to correspond with each other, revisions are still published to project folders in standard file formats. What you are doing though is creating the links that enable attributes to be modified bilaterally.

This also includes the Excel integration in the new Document Control activity center, enabling users to modify Revit sheet data in Excel - considerably easier than doing it in Revit itself - and using the Synchronise



Connecting Revit building element information to external project data such as specifications, emails and warranties

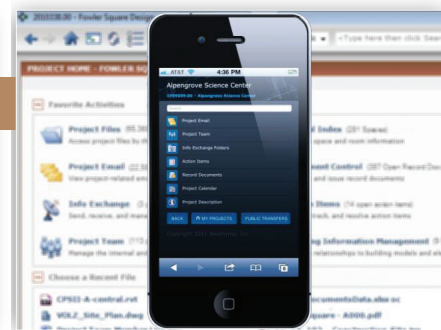
Sheets command to synchronise the data between Newforma and Revit.

Being able to synchronise between Revit and Newforma provides a very useful tool for Facilities Management. Newforma can actually be used to access individual spaces and elements within a Revit building model, and synchronise them with a spatial index in Newforma Project Center.

Spaces in the Revit model can be assigned with any number of parameters - fittings, function, occupancy - which, using the Synchronise Spaces option in Revit, can populate the Newforma Project Center spatial index.. Creating the link between the two applications opens up further opportunities; clicking on individual items in the spatial index to highlight instances in the Revit model, colour coding space plans to correlate with 'to-do' lists, locating 'snagging list' items and so on. Once the entire list of building elements from a Revit building model are synchronised within Newforma, and, of course, Excel, it can be used to modify or customise non-geometric parameters of any set of elements - even by team members without a Revit licence.

### NEWFORMA CONTRACT MANAGEMENT

Not a new feature of Newforma but enhanced with the latest version, Newforma Contract Management provides new activity centers to handle contracts, change orders and proposals, tagging lists, etc. and includes RFI and



Newforma Mobile

Submittals which have been moved into the product from the core application. The new product, Newforma Contract Management is better able to standardise tasks, providing a much improved workflow and logging all Contract Management activity. The CM module can also be customised, adding parameters to produce reports on contract status, current values and contract completion dates, all of which can be accessed through the Newforma Info Exchange facility.

### NEWFORMA MOBILE

You may have noticed the proliferation of mobile devices of all types, smart phones, blackberries, iPhones and so on. Team members on the road can gain access to any information within Newforma Project Center - contact data, action items, meeting minutes, RFI's change orders and so on - and can send or view emails, make calls or pick up relevant contact information prior to joining meetings. There are, of course, slight differences in how Newforma is accessed, but these relate to the capabilities of the remote devices and the need to reformat the data for display on smaller screens.

PIM, therefore, is every bit as relevant to the building industry as BIM. Newforma is a very handy tool for bringing together and making accessible the vast amount of information that comes with a building model, in a format that suits the needs of the project team.

[www.newforma.com](http://www.newforma.com)