



arKItect 4.3 Release Notes

Version 4.3 includes improvements that should make users of big arKItect databases happy.

Performance is drastically improved for project/database opening, complex graphs display and in the context of high diversity. Progress bar can now be included easily for long scripts. This remains to be integrated properly in each data model and scripts, however, it is now much simpler than ever before.

Also the look and feel of the application is actualized with ribbons. In this release, about 60 bugs have been fixed corresponding mainly to usability issues.

We hope this new 4.3 version will be more comfortable and efficient than 4.2, and that our efforts for making arKItect more and more user friendly will benefit to you.

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New progress bar API available

In arKItect, for big systems engineering database with more than 10 000 artefacts (requirements, functions, flows...), some operations can last few minutes including documents generation, baseline releases... A new progress bar python API has been implemented. It was formerly available only for html generation. It is now generalized. Of course existing scripts shall be modified in order to integrate this feature.

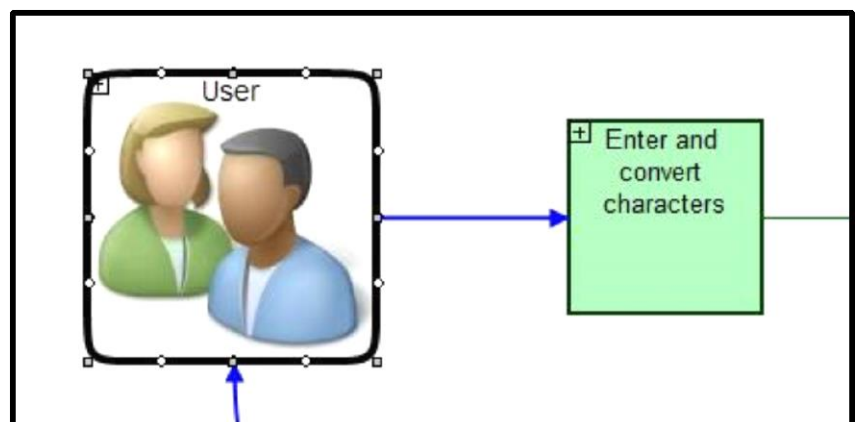


Performance Improvements

- arKItect allows managing diversity through options and variants. It's one of the key features of arKItect that makes it a unique solution on the market.
However, some customers manage really impressive mass of options and options values (up to few hundreds). This could hamper performances in arKItect 4.2 to the point where simple actions would last a few seconds.
This problem is fixed in arKItect 4.3, we succeeded of maintaining acceptable performances for model manipulations even in the contexts of hundreds options and option values.
- speed up by 50% on project loading (for projects with big number of objects)
- speed up by 50 times for some specific diagrams (for projects with large number of objects and dozens or even hundreds of options under a variant)

Improved ergonomics for drawing flows

In arKItect 4.2, it's already possible to draw a flow between two objects in the IBD by selecting source and target object gates. In this new release, we introduce a special display emphasizing gates location. This new display is activated as soon as your mouse position is close to an object layout.



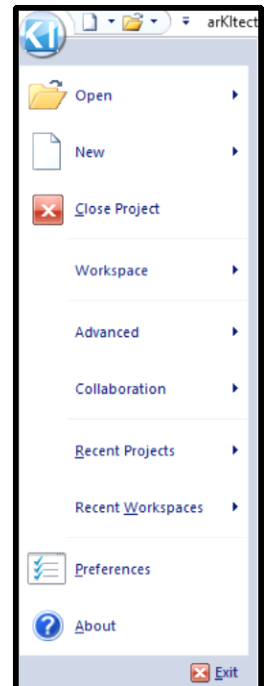


arKItekt Windows applicated, aligning with latest versions of Microsoft.

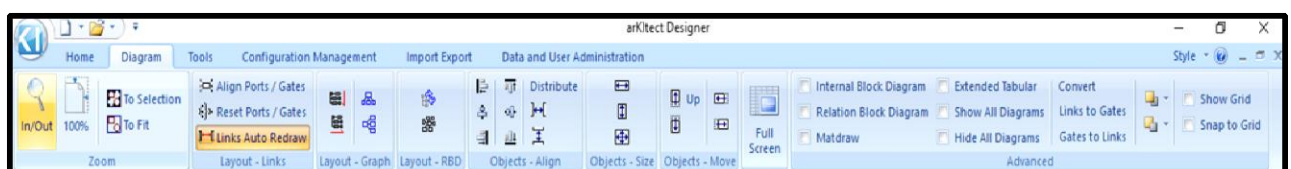
arKItekt menus are now a set of ribbons

Selecting the "KI" icon, you will get the database (Project) level operations: opening a database, creating a new one, changing workspace, setting preferences...

- "Home" is covering the functions you need to use all the time. Normally, common commands are available from this menu without switching to another ribbon. For instance, you navigate in the different views from "Home" and you can change your arKItekt windows layout from this menu.
- "Diagram" includes everything about organizing presenting data in arKItekt graphical views.
- "Tools" is about all python applications that are made available in your project. It also includes tracing tools and error reporting helping you develop and debug new applications.
- "Configuration management» includes all available functions to manage revisions of project or objects or also diversity through options and variants.
Import/Export already exists in 4.2
- "Data and User Administration" gathers all functions related access rights.



New home ribbon

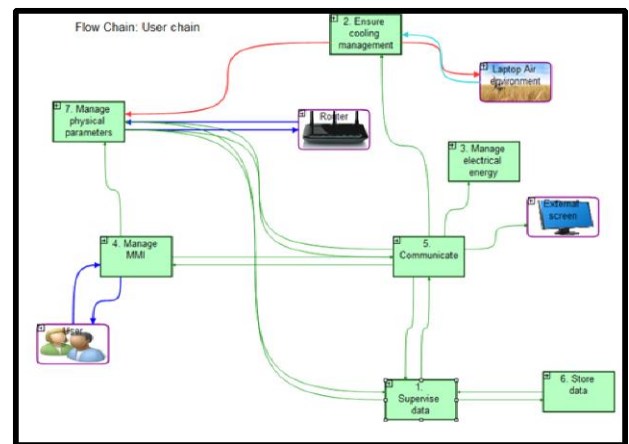
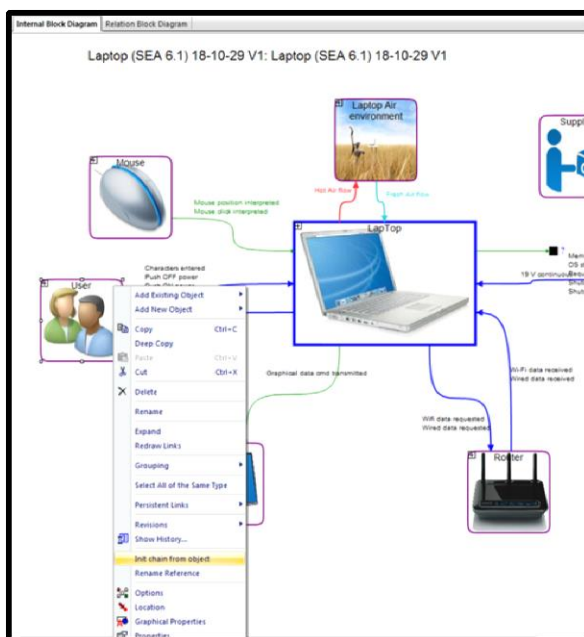


New diagram ribbon



Generic chains improvement

Feature "init chain from object" will allow initiating a functional chain with the RBD view of an object. This feature is very useful to initiate an impact analysis for instance.



Hints:

a. Fast MSWord export API

New library for MS Word™ documents export. It's now possible to generate a Word document as an XML file. This is not compatible with the use of templates however performances are disruptive w.r.t. usual OLE mechanism with which MS Word™ application is launched and communicates with arKitect.

b. New shortcuts

New shortcuts to enable fast access:

- Ctrl+W - Change Workspace
- Ctrl+S - Copy Project
- Ctrl+Shift+'>' - Go Next
- Ctrl+Shift+'<' - Go Previous
- Ctrl+Shift+'Up' - Go Parent
- Ctrl+Shift+L - Object Location
- Ctrl+Shift+O - Object Options
- Ctrl+Shift+P - Object Properties
- Ctrl+Shift+D - Palette
- Ctrl+Shift+H - History
- Ctrl+Shift+W - Show(Activate) Treeviews
- Ctrl+Shift+C - Options Manager
- Ctrl+Shift+V - Variants Manager
- Ctrl+Shift+S - Variants Summary



c. Libraries update

Along with Python version we have updated Qt and PyQt libraries, now we use Qt 4.8.7 and PyQt 4.12.3. These include different bug fixes.

Starting from this version of arKItect we use VC++ compiler v19.00 for building our platform while up to 4.3 we have been using VC++ compiler v15.00.

This is a drastic change allowing for easier future developments due to new standards being implemented in C++ for the client platform.

Bug Fixing:

a. MSC Bug Fixing

Opening an MSC diagram for the first time in a session could take more than 10 seconds in arKItect 4.2. This has been fixed in this release.

b. New python version

All python libraries have been recompiled with Python 2.7.14 which is the latest 2.7 version before switching to 3.x. This enables seamless integration of geolocalization display for instance.

c. Model Gateway

A weakness occurred when applying Model Gateway and Extended tabular views to chains. Chains are special objects in arKItect and necessitate a specific management for every transverse features. Some unexpected behavior had been overlooked in 4.2 and has now been fixed.

Empty fields could be changed into fields with a space character. This led to bad performance or unexpected behaviors in some cases and has been fixed.