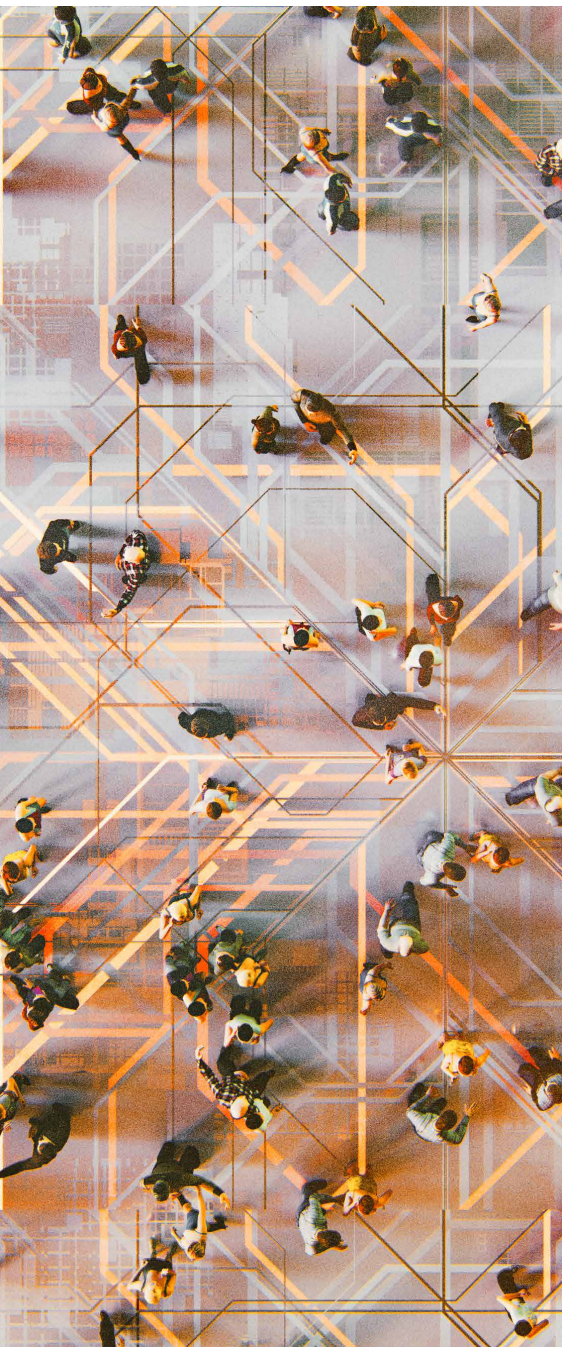


BIM2AVA



California 
AVA-Software by G&W

Model-oriented cost planning

BIM2AVA:
**Graphical quantity and cost
determination from IFC files**



BIM

BIM – Building Information Modeling – stands for model-oriented planning processes in the construction industry.

A typical application is the linking of the digital 3D Construction Model with cost planning and tendering.

Quality can be linked with quantity, and components with their partial performances, resulting in the costs.

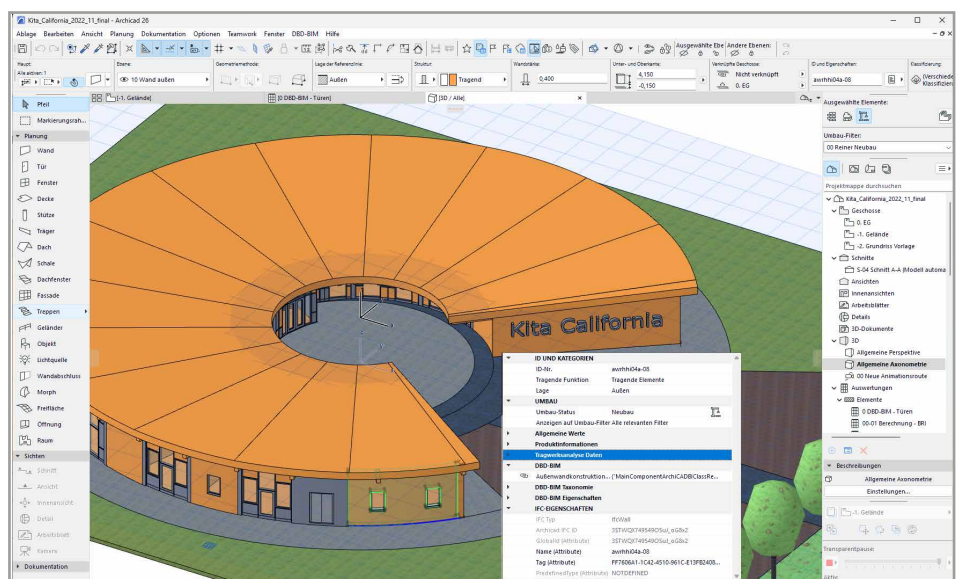
In addition to geometry data, the CAD 3D Model provides additional information on component properties in varying quality and detail for further planning.

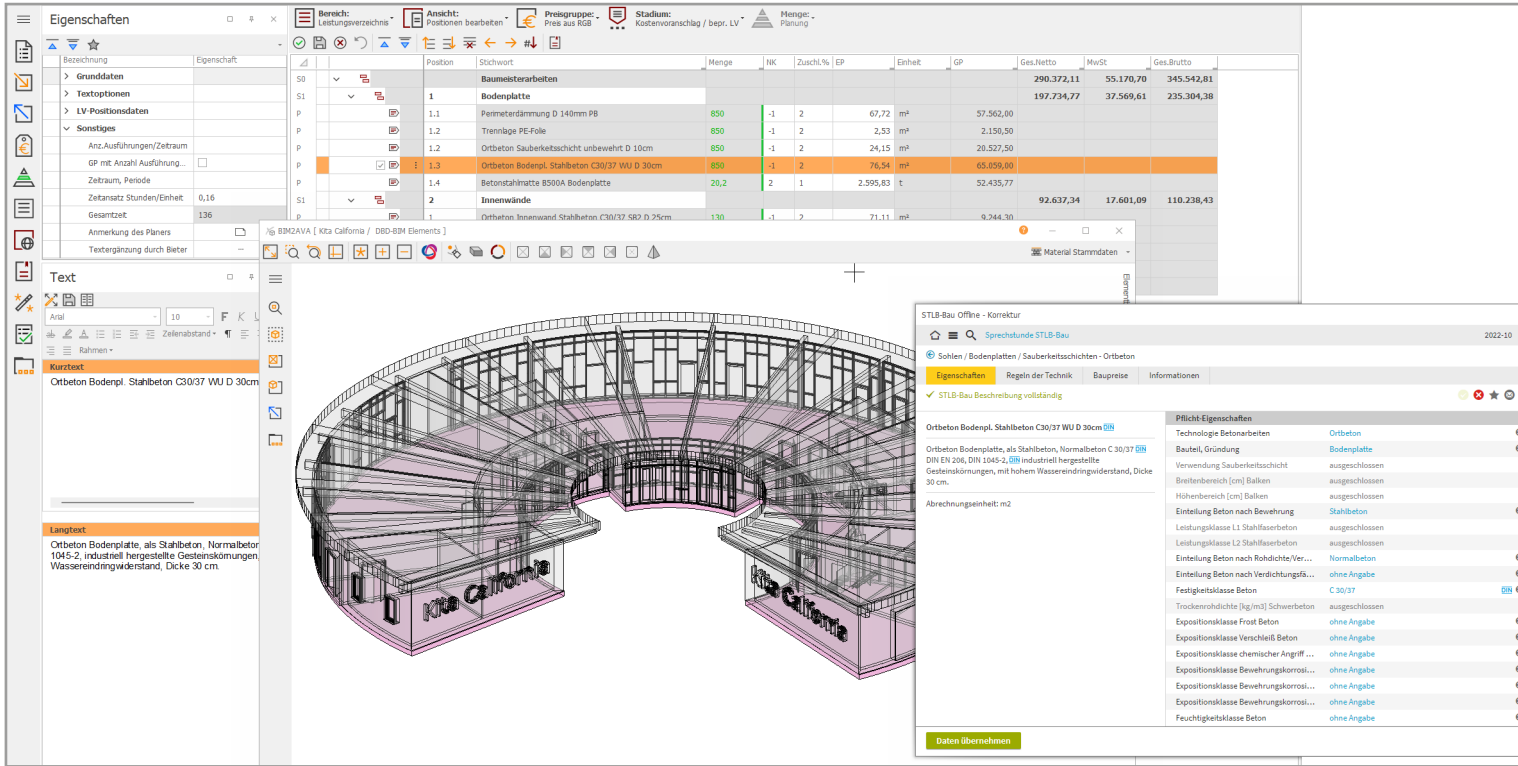
In the simplest case, besides the geometry data, information is also available about the material of which a component is made, whether it has static properties, whether it is located on the outside or inside, etc.

Ideally, component classifications are already stored in the CAD building model, which automatically find a counterpart on the commercial side.

A key advantage of the BIM methodology is that up-to-date project information in the best possible quality is always available – including during revisions.

Compared to the traditional planning process, a BIM-led process is faster, more transparent and more secure.





Graphical quantity and cost determination from IFC files in the BIM process

With BIM2AVA, the 3D Building Model of each CAD is used in the OpenBIM process to create the commercial building model in **CaliforniaX**.

Thanks to the bidirectional connection, each component viewed on the 5D side can be located directly in the 3D model and vice versa.

The automatically generated Rooms and Building Schedule provides precise quantity determination for components and services.

In the Rooms and Building Schedule, all the components and rooms contained in the BIM model are logically grouped with the properties stored in the IFC file and mapped as component elements.

For similarly specified BIM objects such as walls, ceilings, windows, etc., component variants are automatically created. In this way, the planners can still specify the qualities of the components in detail.

This working method corresponds to the component element method with construction cost elements, but is significantly more effective due to the automated process.

You can automatically simulate different cost situations by exchanging all or some component variations or elements.

BIM2AVA enables fast, precise quantity and cost determination that also correctly takes into account changes in planning as well as "real" cost structuring with automated creation of the bills of quantities from the partial performances of the components.

The generated bills of quantities retain their connection to the 3D building model, so that the localization of the quantity estimates also remains comprehensible in the bills of quantities.

In this way, tenderers can find out where the service needs to be included.



BENEFITS WITHOUT LIMITATIONS

BIM2AVA enables the use of user-defined component characteristics, so-called private properties.

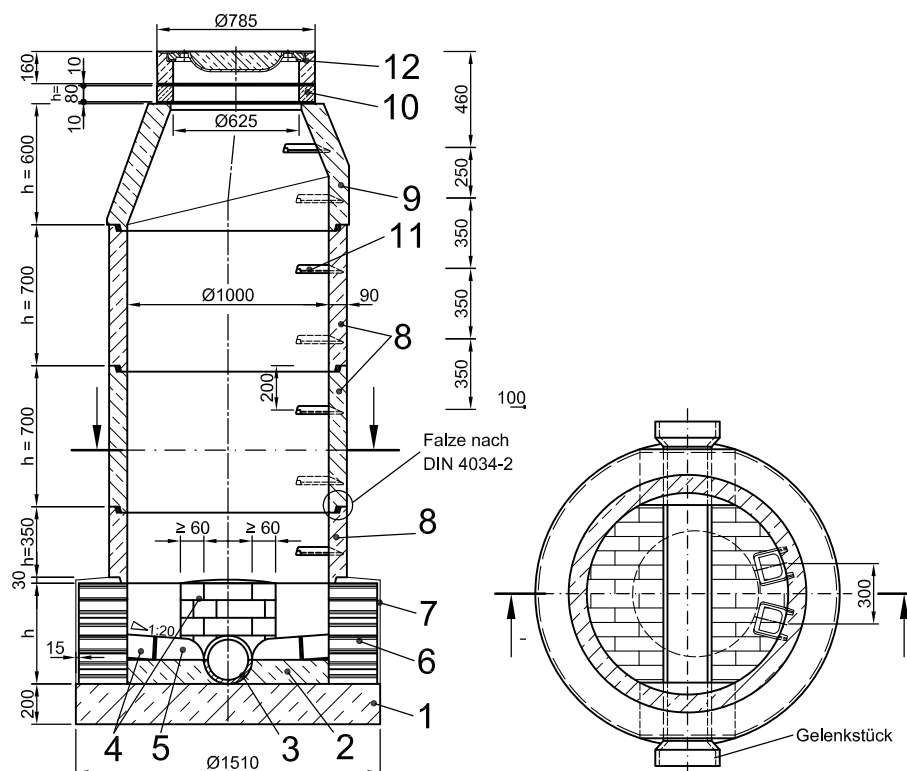
This means that, in addition to the usual CAD properties – such as length, width, material, etc. – characteristics for cost units, construction phases and article numbers, etc. can also be transferred to BIM2AVA and used for cost planning.

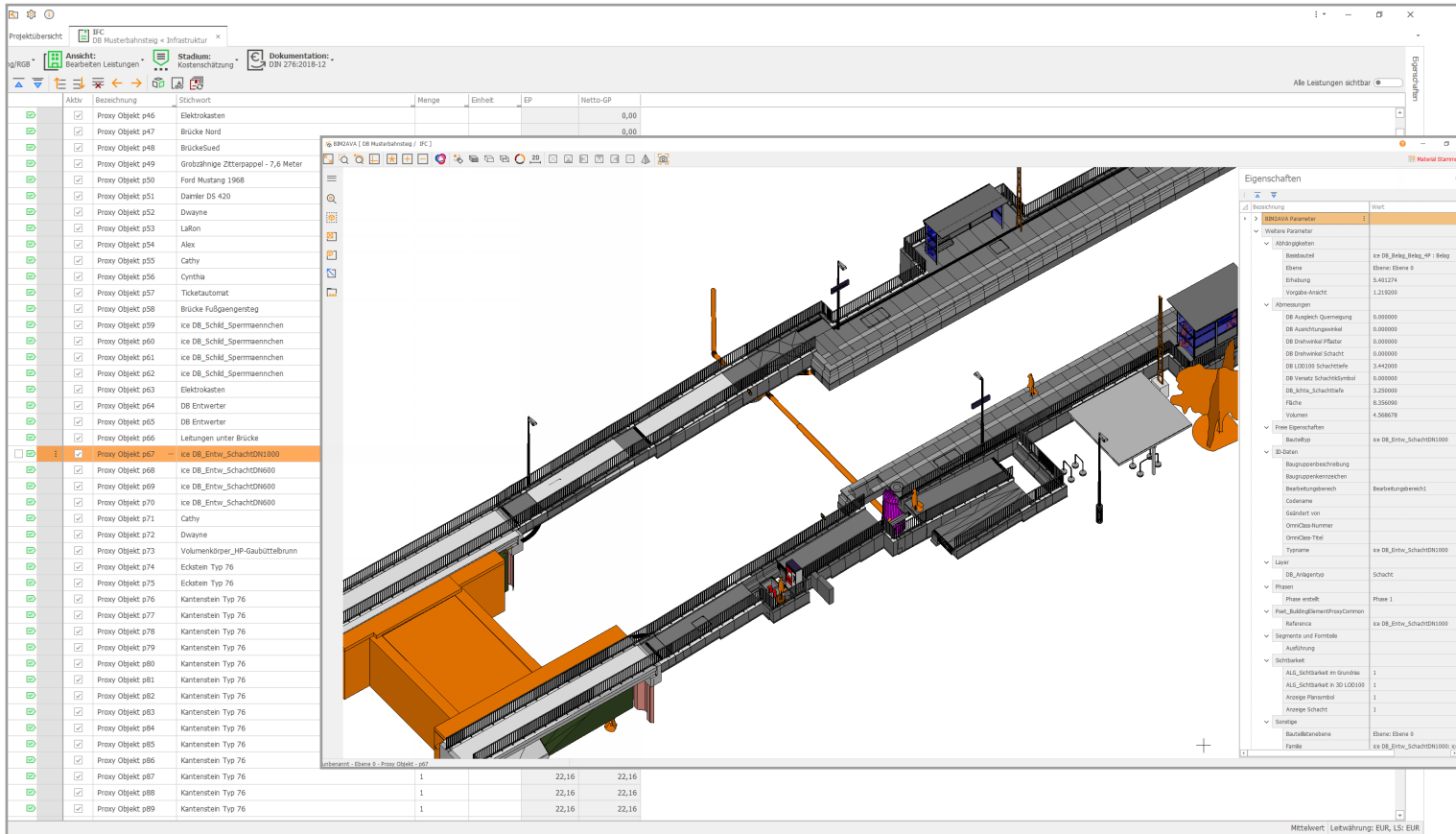
This enables the “rigid” building model to become flexible and allows for the simple and visual assignment of required parameters as early as the CAD planning stage.

In this way, components that are initially identical suddenly take on different meanings, making it possible to adjust and control cost planning.

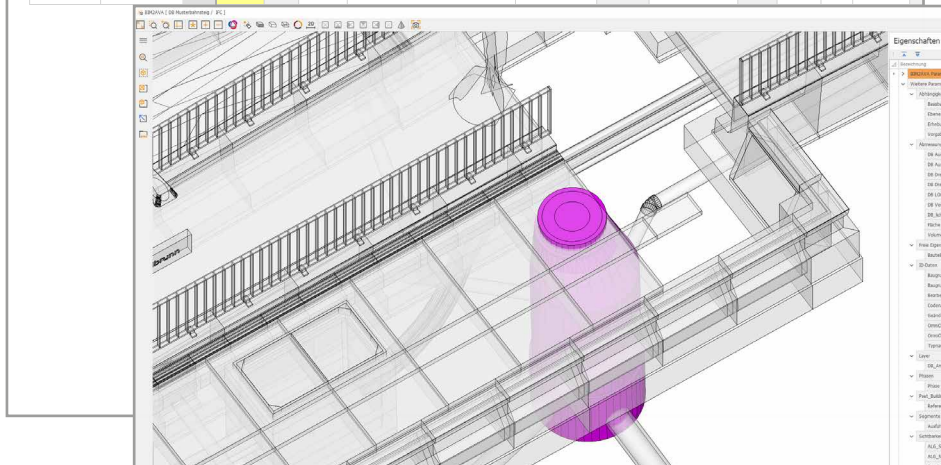
As a result, costs can be “graphically” distributed to construction phases, cost units, etc. already during the planning phase.

Also, thanks to the transparent update process, planning changes and shifts in cost components remain transparent and comprehensible.





		A	Aktiv	Position	Bemerkung	Formel/Ansatz	Ergebnis	Adresse	Global	Einheit	EP	Netto-GP	K
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					Abmessungen.Volumen	4,568678	4,569	Abm_Volumen		m³			
					ice DB_Entw_SchachtDN1000	1	1			St			



BIM2AVA also provides a wide range of functions for the effective processing of IFC data. For example, the status control visually displays the current processing status of the components and variants, while filter functions reduce the amount of information down to the content that is really needed.

By reusing previously defined assignments of quantities and qualities, BIM2AVA "learns" with each new project and reduces further processing to a minimum.

With BIM2AVA, you gain time, transparency and cost certainty – from the famous "first number" through to the billed project.

BIM2AVA CONNECTS

BCF – PostIts for IFC Files

BCF (BIM Collaboration Format) is a standardized, open file format that allows text comments, snapshots, etc. to be added to the IFC model to improve communication between stakeholders. In this way, the communication is separated from the actual model.

The integrated BCF Manager allows cost planners to easily clarify ambiguities in the model.

The affected situation is marked, provided with screenshots, viewpoints and comments, and sent by e-mail directly from BIM2AVA.

The recipients are then guided to the affected area in their CAD systems (as long as the systems support the BCF format) and can send back a response.

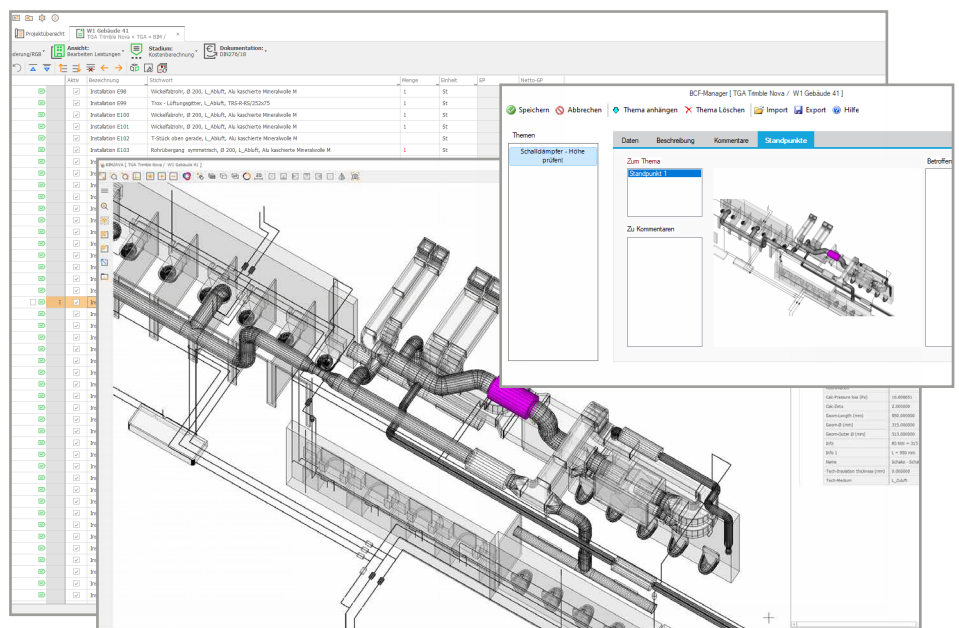
Once again, a transparent and comprehensible process.

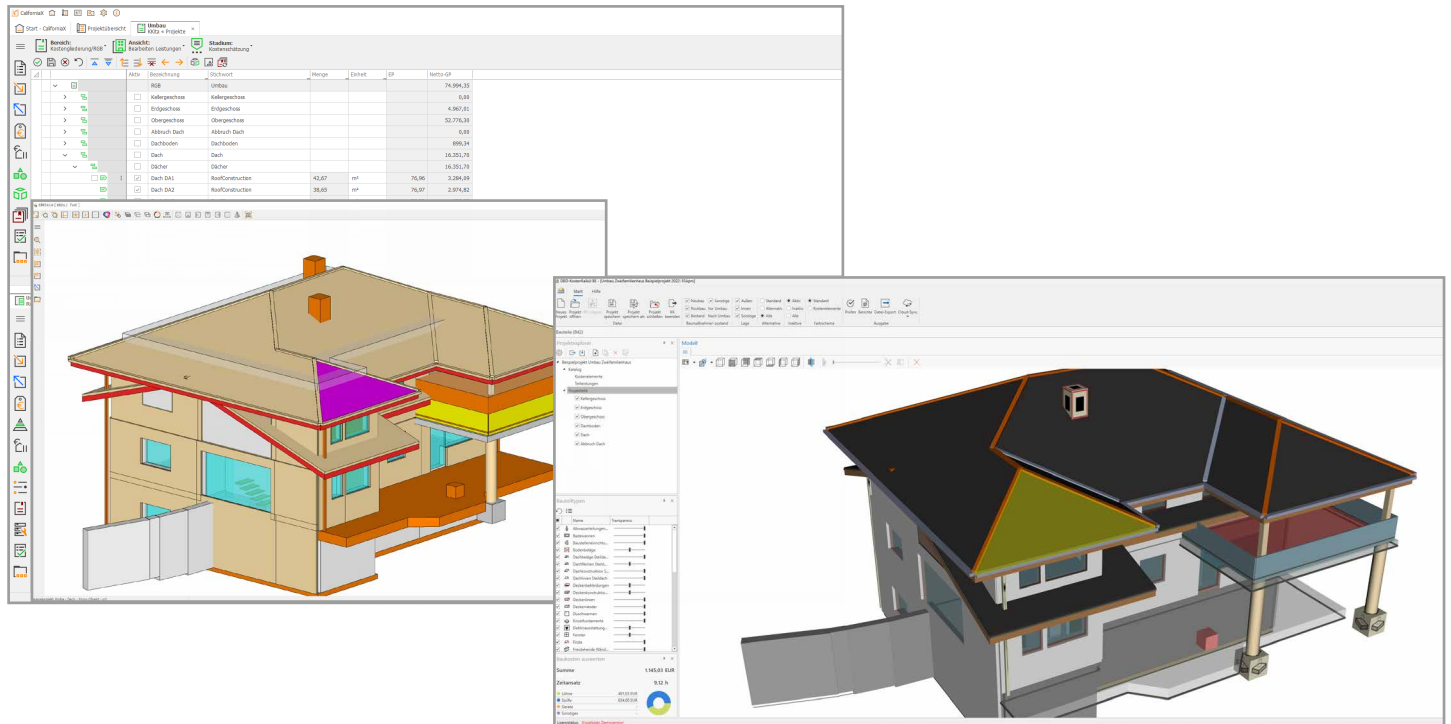
DIN SPEC 91350 / BIM-LV-Container

In addition to the IFC, CPIXML and ELITECAD import formats, BIM2AVA supports the interface format BIM-LV-Container in accordance with DIN SPEC 91350, DIN in preparation. It allows components from other software solutions that have already been specified with trade-oriented partial services, e.g. from DBD-KostenKalkül, to be used.

BIM2AVA uses open standards such as IFC, GAEB, ÖNORM, DATANORM etc. You alone decide which texts and standards you want to use. As a result, you remain independent of manufacturers and suppliers, allowing you to determine the right approach for the respective project at any time.

CaliforniaX provides you with various interfaces, ranging from GAEB, Heinze, Sirados to Dynamische BauDaten and Excel.





The key functions

- Direct processing of CAD data in **CaliforniaX's** commercial building model
- Import of the 3D model via IFC 2x3, IFC 4, CPIXML, ELITECAD, BIM-LV-Container including with several included BOQs
- Transparent updating of plan changes in the BIM model
- Component-oriented representation of demolition, existing and new construction status
- BCF Manager for model-based communication
- Status control
- Free determination and naming of automatically generated BOQs
- User-defined filters for component selection, generation rules, etc.
- Deduction rules taken into account
- Free definition of quantity calculation rules
- Coupling of drawing elements and sampling
- Automatic reuse of the model for BOQ issuing and cost documentation.

The benefits for you

- Automatic creation of room/building schedules
- Takeover of the complete building structure for geometry-oriented quantity and cost determination
- Automatic creation of component variants according to your specifications
- Qualities and costs can be assigned to the components in groups
- Simultaneous display of the structure sorted by geometry, trades, DIN 276 and Unifomat, no manual resorting
- Verifiable update process with plan changes, including at an advanced stage of the construction process
- High degree of automation possible thanks to predefined component variants for standardized construction
- The priced BOQ, the resorting according to DIN 276 and the cost overview of all planning phases are all automatic results in **CaliforniaX**.

Note:

The working method described here requires the following modules: KOS, BIM, RGB, LVE

We recommend package 4 with the modules: KOS, BIM, RGB, LVE, AUF, PRO, DAT with the BPO add-on module

Send us your
inquiry!



G&W Software AG

Munich Head Office
Rosenheimer Straße 141 h
81671 München
Tel. +49 89 51506-4
info@gw-software.de

Berlin Office
Tel. +49 30 420247-7
info@gw-berlin.de

Essen Office
Tel. +49 201 61354-0
info@gw-essen.de

gw-software.de
 GWSoftware
 GundWSoftware
 gw_software
LinkedIn: G&W Software AG

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Bundesverband Bausoftware e.V.
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