

The Solution for Graphical Quantity and Cost Estimation

Reinventing Cost Planning

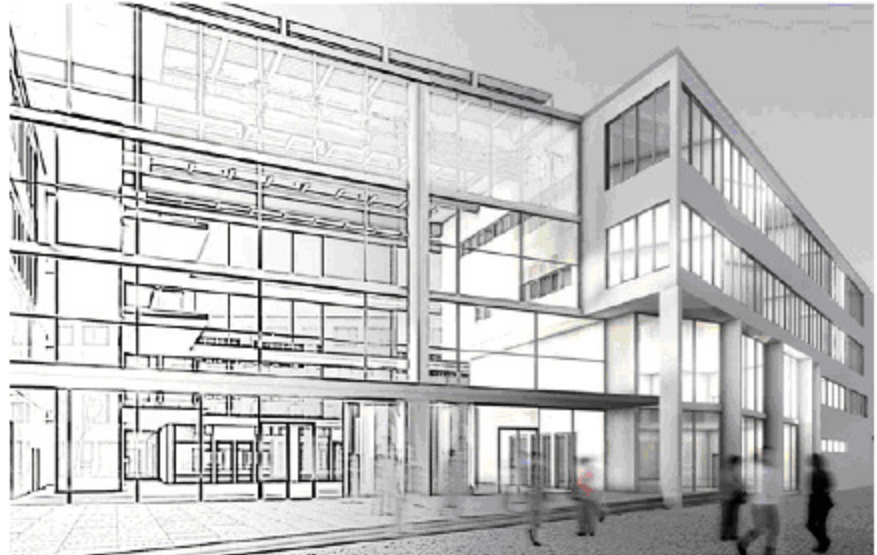
Design2Cost provides designers, contractors and construction companies with a software package that can determine quantities and costs quickly and reliably.

The Status Quo

Today, designers, contractors and their clients face pressure daily to contain costs, reduce planning times and calculate construction costs more accurately and reliably. Yet since the introduction of CAD as a design instrument, not much has changed in the field of cost estimation and quantity takeoffs. In most cases, CAD has been seen as the equivalent of replacing the traditional scale rule with an electronic ruler.

The Innovative Solution

Design2Cost from Nemetschek effectively answers the demands of all members in the design and construction process – people who, for different reasons, share a common objective: the determination of exact costs. Thanks to its ability to produce exact and high quality cost calculations, designers can now support clients in their decision making, in terms of both esthetical appearance and financial investment. Contractors can rapidly produce detailed bids while simultaneously minimizing the risk of inaccuracy and costly mistakes.



Modular System

Design2Cost is an integrated system based on a combination of three components: Content - Tools - Methods enabling the user to work with a library of numeric and graphic construction elements.

The Graphic Platform

Based on the Allplan CAD software the Design2Cost solution was conceived to integrate into current environments whether design or construction– independent of the CAD and the TAI software used.

This flexible system allows you to work on scanned drawings, 2D drawing files or directly in 3D model files. Design2Cost can be used with graphical data from almost any CAD system.

The Numerical Database

This flexible construction database with CAD libraries and construction elements contains predefined components with the corresponding work elements and prices.



Highlights

- ▶ Speed: cost calculation times reduced by up to 70%
- ▶ Simplicity: intuitive, easy to use 3D elements open up a 3D world
- ▶ Reliability: the graphical quantity takeoff is precise and verifiable
- ▶ Quality: combination of esthetic design and financial competence
- ▶ Flexibility: ease of customization

The Design2Cost solution allows construction element descriptions to be customized and associated with bill entries, prices and calculation rules.

National and international element catalogs can be imported via an XML-Interface. The mapping of construction elements to various catalogs allows the generated quantity takeoff to be imported into other TAI solutions making further downstream processing possible.

Construction Elements are localized and created specifically in accordance with local construction practice and calculation rules.

Quantities can be computed for both drawn and un-drawn or inferred elements. For example, the amount of concrete needed for a concrete foundation, can be calculated from the drawn object. The reinforcement however can be estimated using an associated formula.

Wizards Facilitate Workflow

User-oriented graphic wizards support the correct graphical representation in plans and visualizations, as well as providing the link to the quantity calculation.

The graphic wizards vary according to the different construction types. This intuitive methodology enables the simple selection and placing of construction elements on a drawing to create a building model.

The user essentially replaces the scale rule and highlighter with software, which makes it possible to work economically and efficiently.

Compare and Visualize Costs

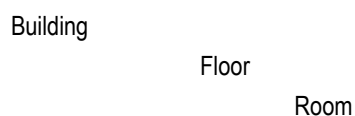
Design2Cost provides the user with tools which allow the user to compare design changes both graphically and numerically in terms of both quantities and costs.

Relevant key ratios such as cost per room, cost by DIN or service areas, as well as lists of the most expensive items can be determined quickly using Design2Cost.

At the same time, Design2Cost users can provide their clients with visualizations of the different design options (e.g. changing the floor covering from tiles to parquet), together with the corresponding effects on the building cost.

Variations and changes to a project are automatically updated and the cost calculation amended.

Analysis and Cost Controls allow the graphic design to be grouped by construction topology and to visualize any element of the measurement graphically. All graphic elements can be identified both on the drawing and in the quantity takeoff. The user can define the building topology and extract data using the same structure for example:



Design2Cost's flexible nature allows the user to supplement the standard content with his own objects. The user therefore has the flexibility to adapt the system to their own methods and practice.

The Design2Cost Solution has been certified by the German TÜV.

The Most Important Benefits

Speed: cost calculation times reduced by up to 70%

Simplicity: intuitive, easy to use 3D elements open up a 3D world

Reliability: the graphical quantity takeoff is precise and verifiable

Quality: combination of esthetic design and financial competence

Flexibility: ease of customization

Nemetschek Design2Cost harnesses more than 16 years of experience in quantity take-off and cost estimation in the construction industry.

The new Design2Cost solution allows cost estimation to be carried out quicker and easier: as early as the design phase, but also during the construction phase itself. The benefit is, it takes no longer than previously required for a rough estimate, and yet can be performed with the accuracy found normally only in the calculation phase.

The effects a change request (e.g. the addition or removal of a wall) has on costs can now be determined at the push of a button. Animations can be created easily and accurately at any time.

And with the help of practical wizards, you can draw buildings, create plans and determine the corresponding quantities with just a few clicks of the mouse