
USER MANUAL

BCS - Building Cost Simulation



The app „BCS - Building Cost Simulator“ determines costs of different kinds of buildings based on **empirical values** of the app developers. Empirical values are taken from completed building projects of the last 3 to 5 years. All basic empirical values of the app are updated on a regular basis.

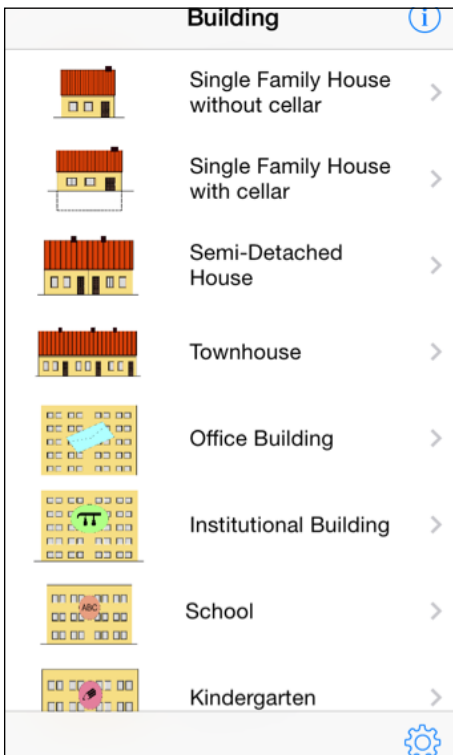
The overall results are not based on a specific project planning. They are merely an instrument of budget planning project cost simulation.

All calculated costs are gross values including VAT.

If you have any further questions concerning the building costs of a specific project, **do not hesitate to contact us via email: contact@bjm-cs.com**.


The app developers cannot guarantee the completeness, accuracy or actuality of all shown content. Also, local fluctuations of realization costs cannot be guaranteed.

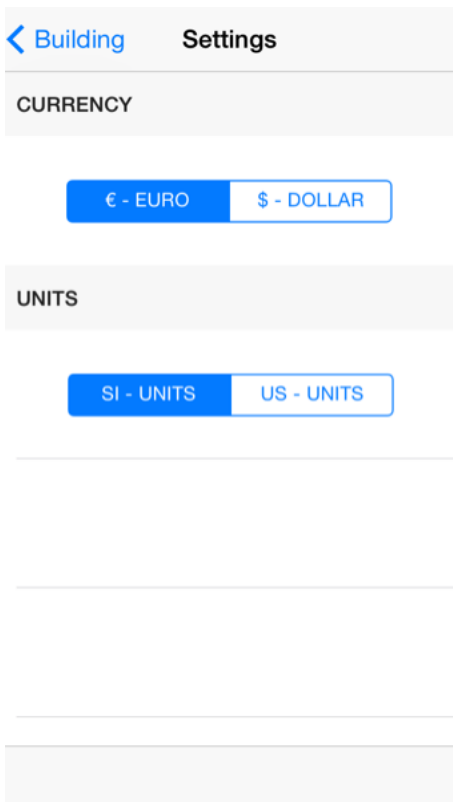
1. Screen - Main Menu



The Main Menu is used to choose from several types of buildings. Depending on your specific selection subsequent menus will help you to determine the building costs of this specific type of building.

You can choose from a variety of building types starting with a single-family house with or without a basement, but also office buildings, schools or institutional buildings are selectable.

Every screen of the app has a help icon  that opens a help view screen. Each help view explains the specific details and give background information to provide correct data.



You may need to change the units you want to use for your calculation. You can do this by touching the icon.



This screen will come up:

Building costs can be calculated using EURO or US DOLLAR.

You can also decide whether to use SI units or US units for your calculations.

Standard settings during the app start will use EURO and SI units.

2. Screen - General

Single Family House without cellar

< Building General ⓘ

Net Area: m²

Location of the building: Germany

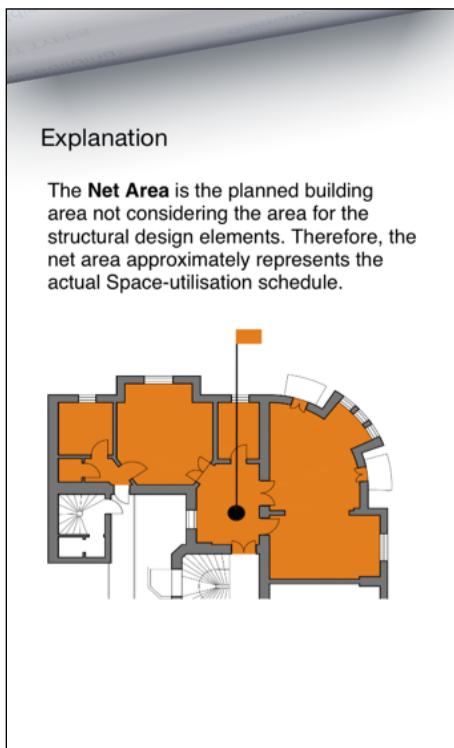
COST TYPES

- Building Development Costs
- Building Costs
- Costs of External Works
- Interior Decoration Costs
- Additional Building Costs

For further explanations an exemplary single-family house with basement is used.

When you see the second screen, the first two things you have to fill in are the location and the net area. You can choose from more than 20 different nations worldwide by selecting a certain location from the picker wheel. By touching the net area field you can type in your desired net area either using m² or ft².

A detailed explanation of the **Net Area** is given in the help view.



This is the help view of the Net area.

After filling in the Net Area you have to state the corresponding data for every cost type. You are not bound to fill them in a certain order, but you need to fully fill in the necessary information.

The keyboard disappears automatically once you pick one of the cost blocks.

Following, the cost blocks are explained one by one.

3. Screen - Building Development Costs

In this screen you have to define the distance between the building and the property boundary. If media connections are supplied only from one direction you only have to supply this one distance “a”. If, for example water comes from one direction, gas from somewhere else and electricity comes from even an other direction “a” is the sum of the single distances “a1 + a2 + a3 + ...” from the building to the property boundaries for each individual media type. If there are further media connections needed keep on adding the distances until you have the overall sum “a”.

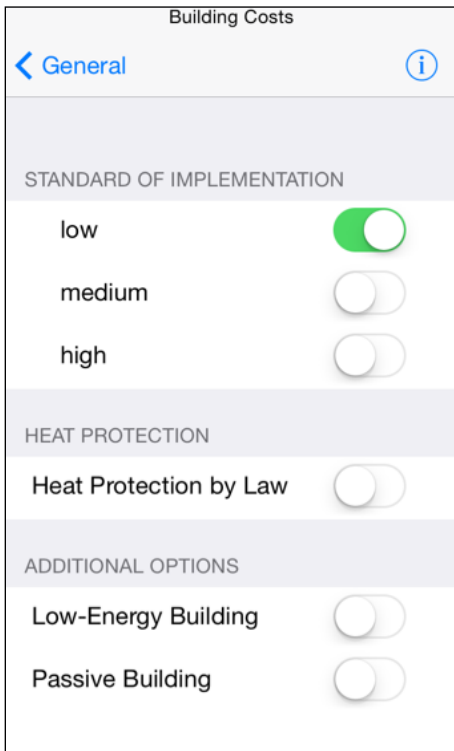
If “a” is a valid distance a corresponding cost value will appear on the top of the screen.

For extra information regarding the premises please check the corresponding switch button. Switch the button to green to enable the corresponding option. If you have to include demolition works for a current building on the premises you have to with the button to green and provide the amount in m³ or ft³.

When you are sure that every option is checked and all values are provided just return to the Generals Screen. The calculated costs for this cost type will be transferred automatically.

Keep in mind that switching the options „hillside“ and „problematic subsoil“ will not directly increase the building development costs, but costs for building construction will be increased as it may be necessary to work with special foundations or to improve the building ground.

4. Screen - Building Costs

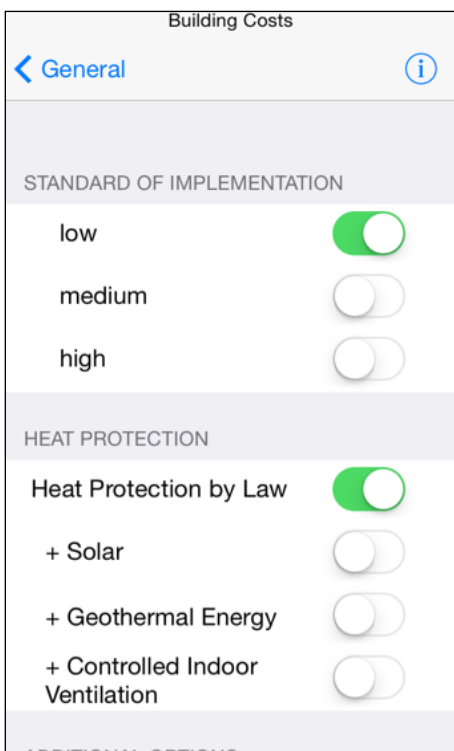


The **costs of the building** include all costs for erection of the building as well as the costs for building services necessary to operate the building, e.g. the steel and concrete structure and heating or electricity installation, respectively.

The planned **Standard of Implementation** is to be chosen from one of the predefined scopes (low, medium, high), where the scope mainly refers to the quality of the used surface materials.

The **Heat Protection by Law** of the building defines the building related minimum standard, which cannot be violated. The Heat Protection by Law can be complemented with different types of alternative energy.

You will find an additional sub menu to choose the corresponding alternative energies, which are to be used.



Solar Thermal Energy - This means the use of the energy of the sun by transforming it into usable heat energy.

Technically, this is done with solar collectors, which use a heat transfer medium to collect the energy coming from the sun and transferring it into a heat buffering system using heat exchangers. The heat buffering system is used to support the primary heating system and/or to supply hot water.

Geothermal Energy - This means the use of terrestrial heat of the Earth's crust by transforming it into usable heat energy.

Technically, this is done with geothermal collectors, which use a heat transfer medium to collect the energy of the Earth's crust. The heat transfer medium is then used within a heat pump, which can transform the collected energy either to be used for heating or cooling purposes.

Controlled Indoor Ventilation - This means the use of the building heat coming from the daily operation.

Technically, this is done using a ventilation system with an integrated heat recovery system. Such a system is using the heat of the exhaust air to preheat the supply air utilizing a heat exchanger.

Low-Energy Building - This means a type of building, which undercuts certain minimum values of the Heat Protection by Law. These buildings are very thoroughly insulated and equipped with a ventilation system for supply air and exhaust air.

Passive Building - This means a type of building, which does not use a classic type of heating system. The building is very highly and thoroughly insulated and equipped with a ventilation system for supply air and exhaust air.

The app does only allow alternative energy types to be added to the heat protection by law. If you choose a Low-Energy Building or a Passive Building you do not need to add alternative energy types as they are per definition already considered for this type of buildings.

5. Screen - Costs of External Works

Costs of External Works

[← General](#)

STANDARD OF IMPLEMENTATION

low

medium

high

EXPLANATION

The **costs for External Works** include all types of costs for the preparation and decoration of the property and around the building, e.g. modelling of the terrain, cultivating the area, lighting and benches,

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6. Screen - Interior Decoration Costs

Interior Decoration Costs

[← General](#)

BUDGET

€

EXPLANATION

The **costs of Interior Decoration** include all types of costs for the initial fitting-out of the building, e.g. considering a school that would include tables, chairs, desks, etc. or considering a one family house that would include furniture, lighting, kitchen, etc. .

Please state the actual planned budget here.

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Please state the actual planned budget here.

7. Screen - Additional Building Costs

Additional Building Costs

< General

STANDARD OF IMPLEMENTATION

low

medium

high

EXPLANATION

The **Additional Building Costs** include all types of costs for the engineering of the building, necessary approvals, expert reports and reviews until the start of operations.

The planned **Standard of Implementation** is to be chosen from one of the predefined scopes (low, medium, high), where the scope mainly considers an estimation of how many engineering personal will be involved in the project, e.g.

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Example:

Architect + max. 2 technical planner,
no expert reports or approvals

➔ low

Architect + max. 3 technical planner,
max. 2 expert reports or approvals

➔ medium

Project Manager, Architect + Technical Planner,
more than 2 expert reports or approvals

➔ high

8. Screen - Analysis

General

Cost summary

Development of the Building	0,00	€
Building		
Structural Design	0,00	€
Building Services	0,00	€
External Works	0,00	€
Interior Decoration	0,00	€
Add. Building Costs	0,00	€
Overall Costs	0,00	€

Your Selections:

Type of Building: Single Family House without cellar	
Location of the building:	Germany
Net Area:	0 m ²
Development (Optionen: sloping site)	
Building Standard	low

↑

At this point all screens were discussed and the corresponding costs have been automatically transferred to the first screen „General“.


You can skip cost types, if your project does not have a certain cost type. For example, you can simulate only the building costs without adding any costs for External Works, Building Development or Additional Building Costs.


In the screen „Analysis“ you will find a summary of all cost types and their respective options.

General

Cost summary

Development of the Building	0,00	€
Building		
Structural Design	0,00	€
Building Services	0,00	€
External Works	0,00	€
Interior Decoration	0,00	€

 Mail

 Print

Cancel

You can choose to forward the complete cost analysis via Email or you can print it out.

Enjoy using the app. We are happy to receive suggestions and comments about the app. Just email us: contact@bjm-cs.com