



Building Circularity Index (BCI)

Planon Software Suite

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About this Document

Intended Audience

This document is intended for *Planon Software Suite* users.

Contacting us

If you have any comments or questions regarding this document, please send them to: support@planonsoftware.com.

Document Conventions

Bold

Names of menus, options, tabs, fields and buttons are displayed in bold type.

Italic text

Application names are displayed in italics.

CAPITALS

Names of keys are displayed in upper case.

Special symbols

	Text preceded by this symbol references additional information or a tip.
	Text preceded by this symbol is intended to alert users about consequences if they carry out a particular action in Planon.

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About Building Circularity Index (BCI)

BCI stands for the *Building Circularity Index* and is a scientific measuring instrument to determine the circular potential of a new or existing building. The BCI tool is a collaboration between Planon and BCI Building and is currently only available for the Dutch market. The BCI tool brings together various recognized measurement methods for environmental impact and circularity in one integrated tool. It provides insights into various performance metrics, including:

- [Environmental Performance Buildings](#)
- [Environmental Cost Indicator](#)
- [Paris Proof Indicator](#)
- [Global Warming Potential](#)
- [Construction Stored Carbon](#)
- [Material Circularity Index](#)
- [Disassembly potential](#)
- [Building Circularity Index](#)



IMPORTANT: The **Building Circularity Index** solution is designed to work seamlessly in conjunction with Platform Apps. Without the presence of Platform Apps, the building circularity calculations cannot be performed. Platform Apps are an essential component for performing building circularity calculations and serve as the interface for accessing building parts data.

Main features

The BCI solution enables you to:

- Simultaneously calculate building environmental performance, the Building Circularity Index (BCI), and Construction Stored Carbon (CSC) through intelligent database connections.
- Create and manage multiple scenarios for your building(s) to assess various environmental and circularity metrics.
- Instantly perform calculations when adding or modifying products and elements.
- Gain insights into the environmental impact of products during selection, with sorting and filtering based on key values.

- Identify reused and reusable products easily for sustainable material choices.
- Organize and edit elements and products within scenarios in a structured manner.
- Generate various scenarios for flexible assessment of building configurations.

TSIs and business objects

The BCI solution has the following TSIs and business objects:

TSIs

- **Building circularity indexes:** this is the TSI where you can create calculations.
- **Standard building parts:** this is the TSI where standard building parts, mapping and supporting data can be managed.
- **Calculation accounts:** in this TSI, you can manage calculation methods.

Business objects

- Building Circularity Index - flexible settings
- Building Circularity Index settings
- Building elements
- Building height
- Building objects
- Building object statuses
- Building parts
- Building part classes
- Building part statuses
- Building scenarios
- Building scenario history
- Building scenario statuses
- Building standards
- Calculation accounts
- Calculation goals
- Calculation methods
- Calculation types
- Construction types

- Declaration categories
- Development phases
- Disassembly
- Disassembly types
- Energy usage
- Layers of Brand
- Mapping standard building parts
- Object functions
- Product classes
- Product databases
- Scenario category results
- Standard building parts
- Standard building part statuses
- Standard product results
- Translations - disassembly
- Translations - Object function
- Types of project

Concepts

The following topics describe the concepts that are key to understanding the functionality.

Building circularity criteria

Building circularity criteria refer to the general principles and standards that promote sustainability throughout the entire lifecycle of a building. These criteria encompass aspects such as material use, energy efficiency, waste reduction, and social considerations, aiming to develop buildings that align with the principles of a circular economy.

Building Circularity Index (BCI)

The Building Circularity Index (BCI) is a metric used to assess the level of circularity and sustainability of a building or construction project. It quantifies the extent to which materials, resources, and components within the building's lifecycle are reused, recycled, or repurposed, minimizing waste and environmental impact. BCI provides a quantifiable score that indicates the extent to which a building follows circular principles. A higher BCI score implies a greater level of circularity and sustainability.

BCI aims to promote more sustainable construction practices by encouraging the design, construction, and operation of buildings that prioritize circular economy principles, such as reducing resource consumption and extending the lifespan of materials.

Building object

Building objects represent *buildings* or *building projects*.

The starting point of a BCI calculation can be either:

- A project: a plan to construct or renovate a building or part of it, or
- An object: an existing building

To perform specific calculations, you can add [scenarios](#) to the building object, including calculation parameters. These scenarios are grouped under the corresponding object.

Furthermore, the BCI solution allows for the grouping of multiple objects within a project, enabling you to organize related objects together. For example, in a new development plot with different types of houses, each house can be represented as a separate object with its own set of scenarios, all within the same project.

Building part

A building part is an item in a project or building object with specific characteristics that help measure how circular (sustainable) a building is. These items can be individual parts or elements of the building and are linked to a specific scenario.

Every building part is linked to a standard building part. Standard building parts can be used when composing a calculation object and provide parameters for the calculations.

Building standard

A set of predefined criteria, guidelines, or principles that focus on promoting environmentally responsible and resource-efficient construction and operations. These standards provide guidelines and benchmarks for sustainable building practices, promoting resource conservation, energy efficiency, and the reduction of environmental impacts in the construction and operation of buildings. Different standards may focus on various aspects of sustainability, but they all share the goal of creating more environmentally responsible and circular buildings.

Examples of building standards that promote sustainability and building circularity:

- **WELL Building Standard:** This standard focuses on improving the health and well-being of building occupants by addressing factors like air quality, water quality, nutrition, and fitness amenities.
- **LEED (Leadership in Energy and Environmental Design):** LEED is a widely recognized green building certification system that evaluates the environmental performance of buildings and encourages sustainable design and construction practices.
- **BREEAM (Building Research Establishment Environmental Assessment Method):** BREEAM is a similar certification system to LEED, primarily used in the United Kingdom and Europe, which assesses the environmental performance of buildings and infrastructure.
- **Cradle to Cradle (C2C):** C2C is a design framework that promotes the idea that products and buildings should be designed to have a positive impact on the environment. It emphasizes the use of materials that can be endlessly recycled or biodegraded.
- **Passive House:** This standard focuses on designing ultra-energy-efficient buildings that require very little energy for heating or cooling, emphasizing insulation, airtightness, and efficient ventilation.
- **The Living Building Challenge:** This standard is one of the most rigorous in terms of sustainability. It requires buildings to meet strict criteria in seven performance areas, including energy, water, and materials.

Calculation method

'Calculation method' refers to the standardized procedure used to measure and evaluate the circularity of a building. It involves specific rules, formulas, and indicators applied to assess factors like material choices, waste generation, energy consumption, and resource efficiency. The calculation method ensures consistency and transparency in evaluating circularity and supports informed decision-making for improving sustainability in the construction industry.

Carbon content

Carbon content refers to the amount or proportion of carbon present in a substance, material, or product. It represents the quantity of carbon atoms contained within the molecular structure of the material. Carbon content is often measured and expressed as a percentage or weight of carbon relative to the total weight of the substance or material. It is a significant parameter when considering the environmental impact or carbon footprint of a material, as carbon is a major contributor to greenhouse gas emissions and climate change. Understanding the carbon content of materials helps in assessing their potential for carbon sequestration, energy efficiency, and environmental sustainability.

Connection accessibility

Connection accessibility refers to the ease of accessing and disconnecting the connections or fasteners between building elements or components during disassembly or deconstruction processes. It focuses on the design and placement of connections, such as bolts, screws, or clips, that hold different parts of a building together.

Connection accessibility is an important consideration for building circularity as it directly affects the efficiency and effectiveness of disassembly and material recovery. When connections are easily accessible, it becomes simpler to disconnect and separate building components without causing damage or generating waste.

By designing buildings with connection accessibility in mind, such as using visible, standard, and accessible fasteners, it becomes easier to disassemble and recover materials for reuse or recycling. This promotes circularity by facilitating efficient and sustainable dismantling practices and supporting the recovery of valuable resources from buildings at the end of their life cycles.

Connection type

Connection type refers to the specific method or mechanism used to join building elements or components together. It impacts the ease of disassembly, material separation, and recyclability. Choosing connection types that facilitate efficient dismantling and material recovery supports circularity by reducing waste and promoting material reuse.

Construction Stored Carbon (CSC)

Construction Stored Carbon (CSC) refers to the amount of carbon dioxide (CO₂) that is captured, stored, or sequestered within building materials during the construction or renovation process. It represents the carbon that is removed from the atmosphere and stored within the built environment. CSC takes into account the carbon stored in materials such as wood, timber, bamboo, or other carbon-intensive materials used in construction.

The concept of CSC recognizes that certain building materials have the ability to absorb and store carbon dioxide, thus helping to mitigate climate change by reducing greenhouse gas emissions. By incorporating carbon-storing materials into construction projects, the industry can actively contribute to carbon sequestration efforts. CSC is an important consideration for sustainable construction practices, as it helps to offset the carbon footprint associated with building activities and contributes to a more environmentally friendly built environment.

Disassembly

Disassembly refers to the process of systematically taking apart a building or structure in order to recover and reuse its components, materials, and systems. It involves carefully separating and salvaging elements such as doors, windows, fixtures, fittings, flooring, structural components, and more. Disassembly is carried out with the goal of maximizing the value and lifespan of these building materials, reducing waste, and enabling their reintroduction into the construction or manufacturing processes.

Disassembly potential

Disassembly potential refers to the design characteristics and considerations that facilitate the efficient and effective disassembly of a building. It assesses how well a building is designed to allow for the systematic and safe separation of its components, minimizing damage and maximizing the potential for reuse. Factors that contribute to high disassembly potential include modular construction, use of standard connections and fasteners, clear labeling or marking of components, and detailed disassembly guidelines or instructions. By incorporating disassembly potential into the design and construction of buildings, it becomes easier to recover and reuse materials, thereby promoting circularity and reducing environmental impacts.

Element Circularity Index

The Element Circularity Index is a metric used to assess and measure the circularity of individual building elements or components within a construction project. It evaluates the extent to which a specific element can be reused, recycled, or recovered at the end of its life cycle. The Element Circularity Index provides a numerical value or rating that indicates the level of circularity of each element, taking into account factors such

as material composition, design for disassembly, ease of recycling, and potential for extended lifespan.

By calculating the Element Circularity Index for different building elements, such as doors, windows, flooring, or structural components, it becomes possible to evaluate their circularity performance and compare their potential for reuse or recycling. The Element Circularity Index helps stakeholders in the construction industry make more informed decisions regarding the selection of elements with higher circularity scores, leading to increased resource efficiency, waste reduction, and the promotion of circular economy principles within the built environment.

Environmental Cost Indicator (ECI)

The Environmental Cost Indicator (ECI) is a metric that quantifies the environmental impact of a product or process in monetary terms. It assesses factors like energy use, emissions, water consumption, and waste generation throughout the product's lifecycle. ECI aids in comparing environmental performance and identifying areas for improvement.

Environmental Performance Buildings

'Environmental Performance Buildings' refers to the assessment and measurement of the environmental impact of a building throughout its life cycle. This assessment includes the evaluation of various factors related to resource use, energy consumption, and emissions, with the goal of understanding and minimizing the building's overall environmental footprint. The assessment typically considers factors such as:

- **Energy efficiency:** The energy consumption of the building, including both operational energy (energy used during the building's day-to-day operations) and embodied energy (energy used in the production of building materials, construction, and demolition).
- **Resource use:** The utilization of materials and resources in the construction and maintenance of the building, considering factors such as material extraction, transportation, and end-of-life disposal.
- **Emissions:** The release of pollutants and greenhouse gases associated with the building's construction, operation, and eventual decommissioning. This may include carbon dioxide (CO₂) emissions, which contribute to climate change.
- **Water usage:** The building's impact on water resources, including both direct water consumption and the environmental effects of water use throughout the building's life cycle.
- **Waste generation:** The amount of waste produced during the construction, renovation, and demolition of the building, as well as waste generated during its operational phase.

Geometry of Product Edge

The 'Geometry of Product Edge' refers to the design and shape characteristics of building products' edges that influence their disassembly and recyclability potential in the context of Building circularity. It considers factors such as the shape, connections, and interfaces of the edges, which impact the ease of disassembly and material recovery for reuse or recycling. Designing building products with favorable Geometry of Product Edge facilitates efficient material recovery and promotes circularity in the construction industry.

Functional lifespan

Functional lifespan in the context of building parts refers to the duration during which a component or element of a building remains operational and performs its intended function before requiring replacement or significant maintenance.

Global Warming Potential (GWP)

Global Warming Potential (GWP) is a measure of the potential impact of a greenhouse gas (GHG) on global warming over a specific timeframe, usually 100 years. It quantifies the ability of a GHG, such as carbon dioxide (CO₂) or methane (CH₄), to trap heat in the Earth's atmosphere relative to that of carbon dioxide. GWP values are used to compare the warming effects of different GHGs and to estimate their contributions to climate change.

The GWP of a greenhouse gas is expressed as a factor relative to carbon dioxide, which has a GWP of 1. For example, methane has a higher GWP than carbon dioxide, indicating that it has a greater warming effect per unit of mass. GWP values are typically used to calculate the carbon footprint or greenhouse gas emissions of various activities, products, or processes. By considering the GWP of different gases, policymakers and researchers can prioritize efforts to reduce emissions of gases with higher GWPs and mitigate their impact on global warming and climate change.

Independency

Independency refers to the ability of building components to be disassembled without relying heavily on the removal or destruction of connected elements. It enables efficient and selective disassembly, promoting resource efficiency and material reuse within the circular economy.

Layers of Brand

The Layers of Brand are used to differentiate between different types of products in the construction sector:

- Site (location)
- Structure (construction)
- Skin (facade, roof, and ground floor)
- Services (installations)
- Space Plan (interior finishing)
- Stuff (fixed and loose furniture)



In the BCI calculation, the average circular potential of all products within the same Layer of Brand is represented. This allows for the identification of which types of products have a positive or negative impact on the BCI. All types of products are equally important in the Building Circularity Index. Therefore, no weighting factor is assigned to the different Layers of Brand.

Material Circularity Index (MCI)

The Material Circularity Index (MCI) is a metric used to measure the circularity of materials in a product or system. It quantifies the extent to which materials are reused, recycled, or recovered at the end of their life cycle, rather than being discarded as waste. The MCI provides a numerical value that reflects the percentage of recycled or reused materials in relation to the total materials used. A higher MCI indicates a higher level of circularity and a more sustainable approach to material use.

Paris Proof indicator

The 'Paris Proof indicator' refers to a metric used to assess whether a building or project aligns with the goals of the Paris Agreement, an international treaty aimed at limiting

global warming to well below 2 degrees Celsius above pre-industrial levels, with efforts to limit it to 1.5 degrees Celsius.

The Paris Proof indicator evaluates the environmental performance of buildings or projects based on their greenhouse gas emissions, energy efficiency, and overall sustainability practices. It aims to ensure that buildings and projects are designed, constructed, and operated in a way that contributes to global efforts to mitigate climate change and reduce carbon emissions.

Meeting the Paris Proof standard typically involves implementing energy-efficient building design, utilizing renewable energy sources, reducing energy consumption, optimizing material usage, and minimizing carbon emissions throughout the building's lifecycle. Buildings or projects that meet the Paris Proof criteria are considered to be aligned with the goals of the Paris Agreement and are contributing to global climate action.

Projects

Projects serve as the starting point for a series of BCI (Building Circularity Index) calculations. A project consists of one or more different objects that require evaluation based on BCI indexes.

For more information on working with projects in Planon, see [Projects](#).

Product

A product refers to any physical item or material used in constructing, operating, or maintaining buildings. It includes building materials, fixtures, equipment, and furniture. Building circularity aims to maximize resource efficiency, minimize waste, and promote the reuse and recycling of products throughout their life cycle.

Product Circularity Index (PCI)

The Product Circularity Index (PCI) is a metric used to assess and measure the circularity or recyclability of a product. It quantifies the extent to which a product is designed and manufactured with principles of circular economy in mind, focusing on its ability to be reused, recycled, or recovered at the end of its life cycle. The PCI provides a numerical value or rating that indicates the level of circularity of a product, with higher values indicating greater circularity and lower environmental impact. It takes into account factors such as the use of recycled materials, design for disassembly, ease of recycling, and potential for extended product life through repair or refurbishment. The PCI helps guide product designers, manufacturers, and consumers towards more sustainable and circular product choices.

Product classes

Product classes refer to categories or groups of building products that share similar characteristics, functions, or applications. These categories are defined based on the

type of product and its role within the building construction or renovation process. Every country can have its own standardized set of classes.

Product classes are used in the BCI to organize and assess the circularity performance of different building products. Each product class may have specific criteria or indicators associated with it to evaluate aspects such as resource efficiency, recyclability, reuse potential, and environmental impact. By grouping products into classes, it becomes easier to compare and benchmark their circularity performance within a specific context, such as a building project or industry sector.

The establishment of product classes in the BCI allows for a more systematic approach to evaluating and improving the circularity of building materials and products. It enables you to identify areas for improvement, set targets, and make informed decisions towards more sustainable and circular building practices.

Product database

A product database refers to a centralized collection of information about building materials, products, and components. It provides details on their environmental characteristics, circularity aspects, and life cycle information. The product database assists stakeholders in making informed decisions regarding material selection and promotes the use of sustainable and circular materials in building design and construction. It enhances transparency, supports the transition to a circular economy, and contributes to a more sustainable built environment.

Example: the EPiC Database (Environmental Product Information Center). The EPiC database is an initiative that aims to provide standardized and transparent environmental product information for construction products across Europe. It is part of the European EPD (Environmental Product Declaration) System.

Features:

- Offers Environmental Product Declarations (EPDs) for a wide range of construction products, providing information on their environmental impacts throughout their life cycle.
- Supports the comparability of environmental information across products and helps architects, builders, and other stakeholders make informed decisions based on sustainability criteria.

R-value

The R-value is a measure of thermal resistance used to assess the insulating properties of building materials. It indicates how well a material can resist the flow of heat. A higher R-value indicates better insulation, meaning the material provides greater resistance to heat transfer and helps maintain a more stable indoor temperature.

Scenario

Scenarios are used to evaluate the circularity performance of a particular [object](#). In a scenario, you define the [calculation method](#) and the [products](#) that make up an object.

A [building object](#) - being a building or building project - can contain several scenarios, so that you can, for example, see the difference between the results of two calculation methods or two scenarios with different product combinations.

Technical lifespan

Technical lifespan refers to the period during which a building component remains capable of functioning at its intended level of performance, adhering to technical specifications and standards. It is the duration before the component becomes obsolete, requires significant repairs, or necessitates replacement due to wear and tear, technological advancements, or changes in building codes and regulations.

U-value

A U-value, also known as thermal transmittance, is a measure of how effective a building material is as an insulator. It represents the rate at which heat is transferred through the material. A lower U-value indicates better insulation, as it means the material reduces heat loss or gain more effectively.

Reporting

The following system reports are available in the BCI solution:

- The **Building Circularity Index** system report. The BCI calculations show the circularity indexes for materials and structures used to construct a building object. The results of the calculations are presented in this system report. The report shows the outcome of one scenario, it shows all the involved building parts and their indexes in a number of overviews, tables and diagrams. The report can be used to compare different scenarios or to send the results of the calculations to the initiator of the project.

The report can be started based on one scenario. It starts with an overview of the object to be built, followed by a detailed overview of the quantitative aspects pertaining to every building part and element.

- The **Material passport** system report. This report shows all characteristics of the building parts and building elements linked to the scenario. It provides comprehensive information about the origin, composition, properties, and potential applications of materials used in construction projects or products. This report allows you to track the life cycle of materials, from production to the end of their use. The aim is to provide transparency about the materials used, highlight sustainability features, and promote circularity by facilitating reuse, recycling, and responsible disposal.

Generating the Building Circularity Index report

Procedure

1. Go to **Scenarios**.
2. Select the scenario for which you want to generate the report.

A report can only be generated for a scenario in the Report status.

3. On the action panel, click Report.

The Reporting window opens.

4. Click the System reports tab.
5. Select the Building Circularity Index report.
6. Go to the report settings.

You can either view the entire system report or select specific topics from the pick list available in the **BCI report**

part field for a more focused presentation of relevant information within each category:

- **Total report** - shows all sections of the report
- **BCI calculations** - shows the section with BCI calculations
- **CSC calculations** - shows the section with CSC calculations
- **Environmental performance building** - shows the section with EPB calculations
- **New normal** - shows the section that compares the outcome of the scenario with a standard, a general standard or the standard set by the customer.

7. Select relevant output options for your report:

- **Preview & print:** enables you to preview and print a version of your report.
- **Save as:** enables you to select an export format. You can choose between the PDF, HTML, CSV formats and three different XLS formats.



For more information about reporting in general, see [Report Manager](#).

Generating the Material passport

Procedure

1. Go to **Scenarios**.
2. Select the scenario for which you want to generate the material passport.

The material passport can only be generated for a scenario in the Report status.

3. On the action panel, click Report.

The Reporting window opens.

4. Click the System reports tab.
5. Select the Material passport report.
6. Select relevant output options for your report:
 - **Preview & print:** enables you to preview and print a version of your report.
 - **Save as:** enables you to select an export format. You can choose between the PDF, HTML, CSV formats and three different XLS formats.



For more information about reporting in general, see [Report Manager](#).

Field Descriptions

Buildings objects - fields

Field	Description
Address	Select the appropriate address from the list.
BCI team	Select the appropriate team from the list.
Calculation account	Select the appropriate calculation account from the list. For BCI calculations, customers acquire a number of calculations by making a down payment. Each calculation, the amount is decreased by the calculation price.
City	Select the appropriate city from the list.
Code	Enter a code for the building object.
Comment	If relevant, enter comments to the building object.
Country	Select the appropriate city from the list.
Customer	Select the appropriate customer account from the list.
Customer logo	Select the customer logo to be used in the BCI system report .
End date credits	This date is calculated by Planon (current date + one year).
Image 1/2/3	Select an image to be used in the Building Circularity Index system report .
Name	Enter a name for the building object.
Project	Select the appropriate project from the list.
Property	Select the appropriate property from the list.
Remaining report credits	This read-only field indicates the number of report credits left for this building object.

Field	Description
Start date credits	Based on one credit from the calculation account, a customer can report four scenarios within a year. Enter the start date for the report credits.

Building parts - fields

Field	Description
Accessibility of connections for disassembly	Select the appropriate accessibility of connections from the list.
Asset	Read-only field. Displays the asset linked to the building part.
Attribute definition set	Variable field so that different standards can have their own specialized fields. Can be defined on the calculation method.
Bio-based	Read-only field, calculated by the app.
Bio-based recovery	Displays the percentage of bio-based recovery that applies to the building part (=process of reusing materials derived from renewable biological sources). Read-only field, calculated by the app.
Bio-based sustainable source?	Specify if the building part is a bio-based sustainable source or not. By default, this field is set to Yes .
Building environmental impact	Specify what the effects of the building part are on the natural environment, including resource consumption, energy use, emissions, and waste generation.
Building scenario	Select the appropriate building scenario from the list.
Calculated on	Read-only field. Displays the date of the calculation.
Calculation content	Shows the values for calculation parameters to be used in the calculations.
Carbon content	Read-only field. Displays the amount of carbon present in the building part.

Field	Description
	The value in this field is copied from the standard building part.
Code	Enter a code for the building part.
Comment	If relevant, enter comments for the building part.
Comment on disassembly potential	If relevant, enter comments on changes of the disassembly potential.
Compostable	Read-only field, calculated by the app.
Connection type	Select the appropriate Connection type from the list.
Connection type disassembly	Select the appropriate connection type disassembly from the list.
Construction phase	Read-only field, calculated by the app.
Construction-stored carbon (kg) / (tons)	This calculated read-only field displays the amount (in kg / in tons) of carbon dioxide (CO2) that is present within the building part.
Customer reference code	Enter the reference ID of the customer.
Declaration category	This read-only field displays the declaration category. The value in this field is copied from the standard building part.
Deconstruction or demolition	Read-only field, calculated by the app.
Disassembly potential	Specify the disassembly potential of the building part.
Downcycling?	This field determines whether the product is downcycled or recycled as high-quality. By default, this field is set to Yes
Efficiency energy recovery	Specify the energy recovery efficiency percentage for the building part.
Element circularity index	This calculated read-only field displays the element circularity index of the building part.
End date	Read-only field. Displays the material's valid end date, as calculated by the app.

Field	Description
Environmental Cost Index	Read-only field, calculated by the app.
Environmental Cost Indicator - percentage	Read-only field, calculated by the app.
Environmental Cost Indicator per functional unit	Read-only field, calculated by the app.
Functional lifespan	This calculated read-only field displays the functional lifespan in years. The value in this field is copied from the standard building part. If required, you can modify it.
Functional unit	Read-only field. Displays the unit of measurement of the building part.
Geometry of product edge disassembly	Select the appropriate Geometry of Product Edge from the list.
GWP Beyond System boundary	Read-only field calculated by the app. This can be a negative value.
GWP Repair (B2)	Read-only field calculated by the app.
GWP Replacement (B3)	Read-only field calculated by the app.
High quality recycling	Field calculated by the app.
Image	Select an image of the (standard) building part. If an image is linked to the standard building part, it is also copied to the building part.
Incinerated	Read-only field, calculated by the app.
Independent disassembly	Select the appropriate independent disassembly from the list.
Landfill	Read-only field, calculated by the app.
Maintenance	Read-only field, calculated by the app.
Mass kg	Calculated read-only field.
Mass percentage	Calculated read-only field.
Mass per functional unit	Read-only field. The value in this field is copied from the standard building part.
Name	Enter a name for the building part.

Field	Description
New materials (kg)	Read-only field, calculated by the app.
Polluted?	Indicates if the building part is polluted or not. Read-only field. The value in this field is copied from the standard building part.
Product class	Read-only field. The value in this field is copied from the standard product.
Product database	Read-only field. Displays the product database building part is linked to.
Product ID	Read-only field. The value in this field is copied from the standard building part.
Production	Displays if the building part is in production.
Quantity	Enter the quantity of the building part.
Recyclable	Read-only field, calculated by the app.
Recycled	Read-only field, calculated by the app.
Recycled efficiency	Specify the recycled efficiency percentage that applies to the building part. This is the percentage of recycled materials used in the production of new products.
Recycling efficiency	Specify the recycling efficiency percentage that applies to the building part. This percentage indicates the effectiveness of the recycling process in converting waste materials into usable products.
Recycling feasible?	Specify if recycling is feasible for this building part. By default, this field is set to No .
Refurbishment	Read-only field, calculated by the app.
Results	Select the appropriate results from the list.
Reusable	Read-only field, calculated by the app.
Reusable?	Specify if the building part is reusable or not.
Reused	Read-only field, calculated by the app.
Reused?	Specify if the building part is reused or not.

Field	Description
R-value	Displays the R-value of the building part.
Scalable dimension 1/2/3	Read-only field. The value in this field is copied from the standard building part.
Scalable dimension 1/2/3 label	Read-only field. The value in this field is copied from the standard building part.
Scalable dimension 1/2/3 - unit of measurement	Read-only field. The value in this field is copied from the standard building part.
Scaling?	Read-only field. Indicates if scaling is used. The value in this field is copied from the standard building part.
Scarce material	Read-only field, calculated by the app.
Scenario	Select the appropriate Scenario from the list.
Standard building part	Select the appropriate standard building part from the list. You can only select items that correspond to the products of the leading standard of the country of the building object.
Start date	Read-only field. Displays the material's valid start date, as calculated by the app.
Sustainable energy recovery?	Specify if the building part includes sustainable energy recovery (=process of capturing and utilizing wasted energy to minimize environmental impact and promote sustainability). By default, this field is set to Yes .
Technical lifespan	Read-only field. Displays the Technical lifespan in years.
Toxic?	Read-only field. Indicates if the building part is toxic or not. The value in this field is copied from the standard building part.
Transport	Read-only field, calculated by the app.
Transport of waste	Read-only field, calculated by the app.
Type	Read-only field. Displays the type of building part.

Field	Description
Uncontaminated non-toxic?	Specify if the building part has not been contaminated by harmful chemicals, toxins, or pollutants and is safe for use. By default, this field is set to Yes .
Unrecoverable waste	This field indicates the level of unrecoverable waste. Read-only field, calculated by the app.
Usage of product	Read-only field, calculated by the app.
U-value	Displays the U-value of the building part.
Waste (kg)	Read-only field, calculated by the app.
Waste disposal	Read-only field, calculated by the app.
Waste energy recovery?	Specify if the building part integrates waste energy recovery (=process of capturing and reusing otherwise wasted energy for practical purposes, promoting energy efficiency and sustainability). By default, this field is set to No .
Waste processing	Read-only field, calculated by the app.

Building scenarios - fields

Field	Description
Adaptive capacity	Displays the building object's adaptive capacity.
Agreements on handling residual material	Displays the building object's agreements on handling residual material
Attribute definition set	Variable field so that different standards can have their own specialized fields. Can be defined on the calculation method.
Bio-based	Read-only field, calculated by the app.
Bio-based materials?	Specify if bio-based materials are present in the building object of this scenario or not.
Bio-based recovery	Displays the percentage of bio-based recovery that applies to the building object (=process of reusing materials derived

Field	Description
Building Circularity Index / Building Circularity Index (BP)* * BP= Building part	from renewable biological sources). Read-only field, calculated by the app. Enter the Building Circularity Index that applies to the building object of this scenario.
Building environmental impact	Enter the building environmental impact that applies to the building object of this scenario.
Building height	Enter the building height that applies to the building object of this scenario: <ul style="list-style-type: none"> • Low • Medium • High
Building object	Select the appropriate Building object from the list.
Calculation goal	Select the appropriate calculation goal from the list: <ul style="list-style-type: none"> • Measurement • Research • Tender • Certification • Subsidy • Material passport • Permit • Other • Unknown
Calculation method	Select the appropriate Calculation method from the list.
Calculation type	Select the appropriate calculation type from the list: <ul style="list-style-type: none"> • Low circular scenario • Average circular scenario

Field	Description
Code	Enter a code for the scenario.
Comment	If relevant, enter comments to the building scenario.
Compostable	Specify the percentage of compostability of the building object in this scenario.
Construction-stored carbon (kg) / (tons)	Specify the amount (in kg / in tons) of carbon dioxide (CO ₂) that is present in the building object of this scenario.
Construction type	Indicate the construction type of the building object: <ul style="list-style-type: none"> • Concrete • Steel • Wood • Combination
Customer	Select the customer to which this scenario applies.
Date of delivery	Enter the date of delivery.
Development phase	Select the appropriate development phase from the list: <ul style="list-style-type: none"> • Definitive design • Realized • Initiative • Sketch design • Technical design • Final design • Preliminary design
Disassembly?	Specify if disassembly is involved in this scenario or not.
Disassembly potential / Disassembly potential (BP)*	Specify the Disassembly potential of the building object in this scenario.
* BP= Building part	

Field	Description
Energy usage	Indicate the energy usage that applies to the building object of this scenario: <ul style="list-style-type: none"> • Nearly Energy Neutral Buildings • Energy Neutral Buildings • Zero-on-the-Meter • Other
Environmental Cost Index	Specify the Environmental Cost Index of the building object in this scenario.
Gross floor surface	Enter the gross floor surface of the building object in this scenario.
Gross usable surface	Enter the gross usable surface of the building object in this scenario.
GWP module A-D	Read-only field, calculated by the app.
GWP module A-D per m2 GFA	Read-only field, calculated by the app.
High quality recycling	Specify the percentage of high quality recycling of the building object in this scenario.
Incinerated	Specify the percentage of incineration of the building object in this scenario.
Landfill	Specify the percentage of landfill of the building object in this scenario.
Last calculation date	Automatically populated by Planon. Displays the date of the last calculation.
Lifespan	Enter the lifespan in years of the building object in this scenario.
Low environmental impact?	Specify if the building object of this scenario has a low environmental impact or not.
Mass kg	Enter the mass in kilograms of the building object in this scenario.
Material circularity index / Material circularity index (BP)*	Specify the Material circularity index of the building object in this scenario.

Field	Description
* BP= Building part	
Method version	Displays the version of the calculation method . The value in this field is copied from the calculation method.
Name	Enter a name for the scenario.
New materials	Enter the amount of new materials in the building object of this scenario.
Number of calculated products	Automatically calculated and populated by Planon. Displays the number of calculated products in the scenario.
Object function	Select the appropriate object function from the list. The function of a building refers to its purpose or intended use. For example, Office, Shop, Warehouse.
Paris proof indicator	Enter the Paris Proof indicator of the building object in this scenario.
Ready for verification?	Specify if the scenario can be verified or not. By default, this field is set to No .
Recycled materials?	Specify if recycled materials are involved in this scenario or not.
Reusable?	Specify if reusable materials are involved in this scenario or not.
Reused materials?	Specify if reused materials are involved in this scenario or not.
Total products in scenario	Automatically calculated and populated by Planon. Displays the total number of products in the scenario.
Toxicity	Displays the building object's toxicity.
Type of project	Indicate the type of project: <ul style="list-style-type: none"> • New construction • Existing construction • Renovation • Maintenance

Field	Description
	<ul style="list-style-type: none"> • Sustainable renovation
Verification date	Enter the date on which the scenario was verified.
Verified by	Select the person who verified the scenario from the list.
Waste (kg)	Enter the amount of waste in kilograms of the building object in this scenario.

Building standards - fields

Field	Description
Code	Enter a code for the building standard.
Country	Select the relevant country from the list.
Product database	Select the relevant product database from the list.
Name	Enter a name for the building standard.

Calculation accounts - fields

Field	Description
Account balance	Enter the amount of money that reflects the value of the account.
Account manager	Select the responsible account manager from the list.
Account number	Enter the account number
Code	Enter a code for the calculation account.
Comment	If relevant, enter comments to the calculation account.
Credits left	Number of credits that are left for the calculation account.

Field	Description
Credits license	Number of credits for the calculation account.
Currency	Select the appropriate currency from the list.
Customer	Select the customer to which this calculation account applies.
Customer first name	Enter the customer's first name.
Customer last name	Enter the customer's last name.
Customer logo	Select the customer logo to be used in the BCI system report .
License active?	Indicates if the license is active or not.
Main account	Select the person who is the main account.
Name	Enter a name for the calculation account.
Number of buildings	Enter the number of building objects for this calculation account.
Payment reference	Enter the relevant payment reference.
Start date license / End date license	Enter the start date and end date of the account's license.
VAT number	Enter the relevant VAT number.

Calculation methods - fields

Field	Description
Attribute definition set	Link to attribute definition set.
Attribute set 2 / 3	<p>A basic set of fields is fixed in the product. The calculation method can be made flexible per country by adding attribute sets fields (additional fields). You can add a field to:</p> <ul style="list-style-type: none"> • standard building parts

Field	Description
	<ul style="list-style-type: none"> • building parts and building elements • scenarios and scenario details
Code	Enter a code for the calculation method.
Country	Select the relevant country from the list.
Name	Enter a name for the calculation method.
Leading standard	Select the relevant standard from the predefined list of standards used for BCI calculations.
Product database	Select the relevant product database from the list.
Version	Enter the version of the calculation.

Disassembly - fields

Field	Description
Code	Enter a code for the disassembly.
Disassembly type	<p>Select the relevant disassembly type from the list:</p> <ul style="list-style-type: none"> • Independency • Geometry Product Edge • Connection Accessibility • Connection Type
Group code	Displays the unique system generated code group.
Name	Enter a name for the disassembly.
Parent level	If a sub disassembly item is added to a main disassembly item, this field automatically shows the name of the main item.

Field	Description
Score	Enter the score for the disassembly.

Product classes - fields

Field	Description
Classification type	Enter the relevant classification type. Each country (or database) has its own classification hierarchy. For example: for the NMD and NIBE database this is the NL/SfB classification.
Code	Enter a code for the product class.
Code group	Displays the unique system generated code group.
Description	Enter a name for the product class.
Layer of Brand	Select the relevant Layer of Brand from the list: <ul style="list-style-type: none"> • Site • Structure • Skin • Services • Space plan • Stuff
Name	Enter a name for the product class.
Parent level	If a sub product class is added to a main product class, this field automatically shows the name of the main product class.
Use for scenario?	Specify if this product class can be used as a template for adding building parts and/or elements.

Product databases - fields

Field	Description
Code	Enter a code for the product database.
Country	Select the relevant country from the list.
Import document	Here you can upload a relevant document.
Latest updated	This field is populated by Planon, when the import is successful.
Latest update result	This field is populated by Planon, information about the import process including date and time.
Name	Enter a name for the product database.
Leading standard?	Specify if the building standard is leading standard of your country. This is the standard that contains the products to be selected in the scenario, for example 'MPG' (MilieuPrestatie Gebouwen) in Netherlands.
Version	Enter the version of the product database.

Standard building parts - fields

Field	Description
Accessibility of connections for disassembly	Select the appropriate accessibility of connections from the list.
Actual/valid?	Indicates if the standard building part is valid. If an existing standard building part is updated, the old one is retained but becomes invalid.
Bio-based	Read-only field, calculated by the app.
Calculation content	Displays the values for the calculation parameters to be used in the calculations.
Calculation method	Select the relevant calculation method.
Carbon content	Displays the amount of carbon present in the standard building part.
Code	Enter a code for the standard building part.

Field	Description
Comment	If relevant, enter comments for the standard building part.
Comment on disassembly potential	If relevant, enter comments on changes of the disassembly potential.
Compostable	Read-only field, calculated by the app.
Connection type	Select the appropriate Connection type from the list.
Connection type disassembly	Select the appropriate connection type disassembly from the list.
Construction-stored carbon (kg) / (tons)	Specify the amount (in kg / in tons) of carbon dioxide (CO ₂) that is present within the standard building part.
Declaration category	Read-only field.
Disassembly potential	Read-only field, calculated by the app.
Element Circularity Index	Read-only field, calculated by the app.
Environmental Cost Index	Read-only field, calculated by the app.
Environmental Cost Index per unit	Read-only field, calculated by the app.
Functional unit	Read-only field. Displays the unit of measurement of the standard building part.
Geometry of product edge disassembly	Select the appropriate Geometry of Product Edge from the list.
Image	Select an image of the (standard) building part. If an image is linked to the standard building part, it is also copied to the building part.
Incinerated	Read-only field, calculated by the app.
Independent disassembly	Select the appropriate independent disassembly from the list.
Landfill	Read-only field, calculated by the app.
Leading standard?	Read-only field. Displays if this is the leading building standard.

Field	Description
Linked standard building parts	Shows the linked standard building parts.
Mass per functional unit	Read-only field.
Material circularity index	Read-only field, calculated by the app.
Name	Enter a name for the standard building part.
New materials	Read-only field, calculated by the app.
Paris proof indicator	Read-only field, calculated by the app.
Polluted?	Indicates if the standard building part is polluted (Yes , No or Unknown). Read-only field.
Product circularity index	Read-only field, calculated by the app.
Product class	Read-only field, displays the corresponding product class.
Product database	Read-only field, displays the linked product database.
Product ID	Read-only field.
Product import date	Read-only field.
Quantity	Read-only field, displays the quantity of the standard building part.
Recyclable	Read-only field, calculated by the app.
Recycled	Read-only field, calculated by the app.
Related standard building parts	The leading standard.
Reused	Read-only field, calculated by the app.
Reusable	Read-only field, calculated by the app.
R-value	Read-only field, displays the R-value of the standard building part.
Scalable dimension 1 / 2	Read-only field, calculated by the app.
Scalable dimension 1 / 2 label	Read-only field, calculated by the app.
Scalable dimension 1 / 2 - unit of measurement	Read-only field, calculated by the app.

Field	Description
Scaling	Read-only field, calculated by the app.
Scarce material	Read-only field, calculated by the app.
Leading standard?	Read-only field. Indicates if the standard is a leading standard. This standard is used for BCI calculations.
Standard dimension 1 / 2 / 3	Read-only field, calculated by the app.
Standard dimension 1 / 2 / 3 label	Read-only field, calculated by the app.
Standard dimension 1 / 2 / 3 - unit of measurement	Read-only field, calculated by the app.
Start date / End date	Read-only field. Displays the start date / end date of material validity, calculated by the app.
Technical lifespan	Read-only field. Displays the Technical lifespan in years.
Toxic	Read-only field. Indicates if the standard building part is toxic (Yes , No or Unknown). Read-only field.
Uncertainty margin	Enter the uncertainty margin (this value is based on the declaration category).
U-value	Read-only field. Displays the U-value .

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