# DIGITAL
# SOLUTIONS
## OVERVIEW

SCHÜCO

Digital Solutions

# DIGITALISATION
# IN CONSTRUCTION

## 91 %

91 % feel that the expertise of employees and the shortage of specialist skills are the biggest hurdle to using digital solutions.

## 83 %

83 % feel that sustainability is important in the construction industry.

## 79 %

79 % of companies are hoping for better collaboration and communication by investing in digitalisation.

## 48 %

48 % of companies say that the level of digitalisation compared with other industries is "very high" or "quite high".

## There is no alternative to digitalisation. The same is true in construction.

## "WE
## are building a digital ecosystem for your benefit. "

**Exploiting potential – that's what we all want, right? But how do we get there? For us, the digitalisation of the construction industry is the key.** We see digitalisation as an opportunity for you as our partners and for us ourselves to be more productive, more efficient, faster, more sustainable and more successful on the whole. Whether you're a metal fabricator, an architect or an operator.

Even though it is a marathon rather than a sprint, we have achieved a lot since embarking on our own digitalisation journey in the 1970s: we now have more than 250 members of staff at Schüco who deal with software and management systems. And we wouldn't be Schüco if we didn't work on developing complete digital solutions with the aim of creating a networked construction industry – and making these complex products and services as simple and clear as possible for you.

There's no doubt about it: we now have a wide range of digital products that span the entire value-added chain – from design, planning, fabrication and installation all the way through to operation. So here is a complete overview for you: we want to provide you with an overview of our comprehensive digital solutions and show you how we can assist you with tailor-made products, support and our wealth of expert knowledge.

Let's exploit the potential: together with you, we design digital solutions for a sustainable future. We're working on it!

**Stefan Kobes**

Managing Director of Business Development,
Schüco Digital GmbH

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## DISCOVER OUR PRODUCTS

# OUR MISSION

## WHY
### there is no alternative to digitalisation. Including in construction.

We firmly believe that the power to successfully shape the construction industry lies in the ability to consistently think and act with digitalisation in mind. This is why Schüco, which has always been a pioneer of technological change, sees itself as a driving force behind digitalisation. With our digital solutions, we are shaping a sustainable future for the construction industry and allowing our partners to manage the digital transformation with ease as well as to secure their success in the long term.

## HOW
### we make digital solutions work for our partners.

We are paving the digital way for the core business of Schüco. Because the networked construction industry has long been a reality: only what can be planned digitally will be built. To ease the greater level of complexity that all those involved are faced with, we offer our partners integrated, comprehensive solutions that boost their competitiveness and enable them to prepare for a changing value-added chain in the best possible way.

## WHAT
### does the Schüco range of digital services include?

Our aim is to offer the strongest complete package of digital services in the construction industry: a unique digital ecosystem for our partners in which all aspects engage with each other seamlessly and emerging synergies can be successfully utilised. Just as you would expect from Schüco.

# DIGITAL
## PORTFOLIO

DIGITALISATION

01 | INSPIRATION & DESIGN

03 | FABRICATION & ASSEMBLY

SUSTAINABILITY

04 | OPERATION & RECYCLING
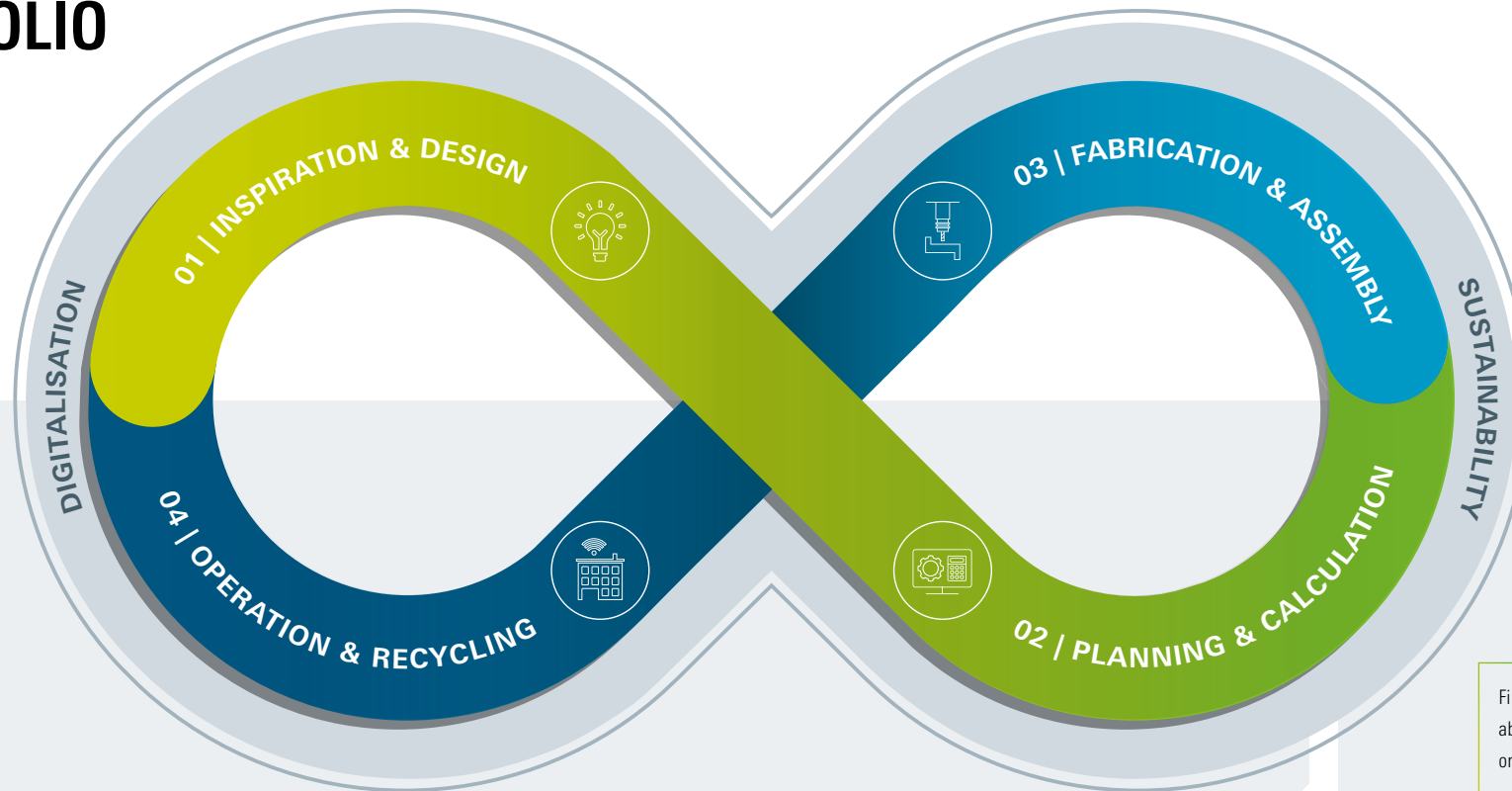
02 | PLANNING & CALCULATION

## INSPIRATION & DESIGN

- Digital planning
- BIM support
- Specification texts/AVA interface
- Digital product catalogues
- Feasibility checks

## PLANNING & CALCULATION

- Digital flow of data
- Quick and precise calculations for all systems
- Networked communication
- 2D/3D designs
- Digital self-services

## FABRICATION & ASSEMBLY

- Fabrication management
- Process optimisation
- Machine control
- Quality control
- Unit status and location

## OPERATION & RECYCLING

- Digital twin
- Digital documentation
- Maintenance procedures
- Networked building components
- Project management

## SUSTAINABILITY

- Emission factors (e.g. $CO_2$ equivalent/GWP value)
- Digital building passport/ building resource passport
- Lifecycle analysis
- Paperless fabrication
- EPD documentation

# DIGITAL SOLUTIONS FOR FABRICATORS

We are inextricably linked with metal fabrication – it would be impossible to imagine Schüco without it. That's why we support you with software and ideas that optimise your fabrication and ensure you remain competitive and successful in the future. Our end-to-end service also includes our expert consultants, who analyse suitable solutions for our partners, as well as a comprehensive range of training and support services.

**Successful planning, ordering and fabrication in the future**

We make good partners even better – and get them ready to face the challenges of digital change. Efficient processes are crucial for the success of your company. That's why it's important for us to find intelligent digital solutions for your business and to provide you with the best possible support along the entire value-added chain: from planning and calculation to preparing quotes and procuring materials, all the way through to fabrication in the workshop and installation on site.

# DIGITAL
# SOLUTIONS
# FOR
# ARCHITECTS

Digital solutions from Schüco are solutions by architects for architects: we understand the architects' working environment and their specific requirements better than many others, and our aim is to make their work as efficient as possible. That's why we are developing an integrative digital service landscape in which architects are able to work more efficiently, more transparently and more successfully – on the path towards the best technical Schüco solution.

**Boost your efficiency in an integrative digital service landscape**

Architecture is a design and management task – interdisciplinary, highly complex and associated with huge challenges. Digital tools bring greater transparency to the planning process and give architects more creative freedom: the product is initially available in purely digital form before it is physically used at the end of the process.

# DIGITAL SOLUTIONS FOR OPERATORS

The targeted and continuous collection of data already makes it possible today to make buildings "talk" – and thus increase efficiency, economy and comfort. Secure and sustainable smart buildings will have significant advantages on the market in the future. Digital solutions for operators therefore make a key contribution towards maintaining the value of properties.

**Intelligent units are smarter, more sustainable – and more efficient**

Our lives are becoming increasingly digital and connected. It is only logical that this development also finds its way into the buildings where we work and live. Against this background, Schüco is developing a range of digital services that allows investors, operators and facility managers to fully exploit the potential of digitalisation.

# WE'RE HERE FOR YOU.
# WITH TRAINING, SUPPORT AND EXPERT KNOWLEDGE

Visit our YouTube channel to discover our support videos, product demonstrations and much more.

**Are you interested in finding out more about digital solutions and sustainability?** Then contact your Schüco representative or send an e-mail to **servicedesk@schueco.com**

## Our range of training courses

- Practical training sessions provided by experienced trainers to maximise benefits
- Variety of training courses – from group to individual training sessions, you will learn how to make the best use of our digital solutions and how to manage them yourself

## Our support

- Trained members of staff can also be contacted via telephone support
- Quick support with IT problems or technical issues
- Troubleshooting through remote solutions and remote access
- Obtaining trial licences
- Professional, reliable and fast
- Technical support with configuration or updates
- Provision of release notes

## Our experts will be happy to advise you

- Comprehensive advice on the entire range of Schüco Digital services
- Support with IT equipment and configuration issues
- Advice on the choice of installation options
- Implementation of and assistance with projects
- Driving force for customer-oriented improvements
- Whether you're a craftsman or involved in industrial fabrication, we will find a tailor-made solution for you

# THE STRONGEST SERVICE PACKAGE IN THE CONSTRUCTION INDUSTRY.
# OUR PRODUCTS
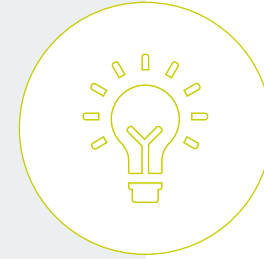
**01** | INSPIRATION & DESIGN

**02** | PLANNING & CALCULATION
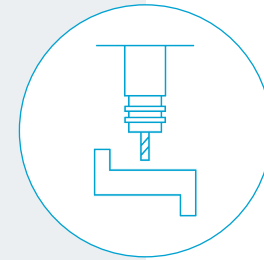
**03** | FABRICATION & ASSEMBLY

**04** | OPERATION & RECYCLING

# 01
# INSPIRATION & DESIGN

**Digital solutions offer added value right from the start.**

Only what can be planned digitally will be built. This makes it all the more important for developers and decision-makers to have suitable solutions at hand throughout the construction process. With Schüco digital solutions, we provide you with precisely the tools that you need to be able to design Schüco systems perfectly and with low risk.

Every construction project is a sequence of many individual process steps. With the help of interconnected digital interfaces, we can make both the entire process and individual phases more efficient, and can also create integrated planning processes for all stakeholders.

For developers and architects, this means easier product selection, improved collaboration with metal fabricators, greater creative freedom in virtual environments as well as maximum planning reliability and transparency, as all the information can be shared without any loss.

## Our digital solutions for you

- **Schüco BIM Catalog:** digital product catalog

- **BIM Manager:** tool for sharing BIM data

# Schüco BIM Catalog

The Schüco BIM Catalog is a tool that enables you to select the perfect solution in the areas of façades, windows, doors, sliding systems and sun shading from Schüco. Quickly find the planning information you need or start your search for the right system based on technical features – depending on which project phase you are in.
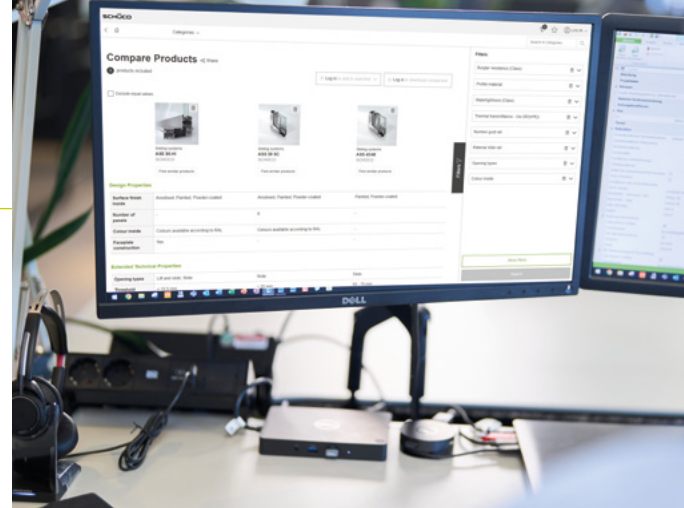
**BENEFITS**

Find the right building product in just a few clicks: with the Schüco BIM Catalog, the perfect building product can be found quickly and easily and compared with similar products. A product selection can be made quickly and the productivity of the construction project will begin to increase as early as the design phase.

**SCOPE**

One window – many possibilities. Try out our new 3D window models for Revit®. A manageable level of detail and freely controllable dimensions give you the freedom you expect in your planning on the one hand and enable us to suggest the most suitable system to you on the other.

**INTEGRATION**

The Schüco BIM Catalog can be directly integrated into a variety of planning software via a plug-in. Depending on the amount of information required, pure product information or highly detailed BIM objects can be transferred to the planning software.

**INTERESTED?**

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **servicedesk@schueco.com**

**GOOD TO KNOW**

The Schüco BIM Catalog can be found in your personal area under "My Workplace". You can also access it on your tablet.

# BIM Manager

The BIM Manager makes it easier and quicker for general contractors, developers and metal fabricators to share BIM data. The perfect basis for efficient project planning and implementation. The BIM Manager enables multiple methods for transferring data – from pure product information to highly detailed BIM planning modules.

**BENEFITS**

You freely define which windows, doors and façades from your plans are to be worked on by your metal fabrication partner. With free control over parameter handling, you determine which information from your model-based planning is made available to your fabricator: industry standards, your own office standards or project-specific adjustments.

The correct transfer of the 3D design ensures that structural and design requirements are taken into account.

**INTEGRATION**

With the BIM Manager, BIM models from Revit® can now be sent even more easily and securely to the metal fabrication partner who is working on your unit in SchüCal. This is thanks to cloud-based data transfer, which gives all participants direct access to all up-to-date data from any operating device.

**SCOPE**

Make the most of unlimited design iterations and optimised data exchange of the SchüCal parameters and values associated with the shared objects.

**INTERFACES TO**

SchüCal
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**INTERESTED?**

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **bim@schueco.com**

**GOOD TO KNOW**

With the Schüco Autodesk® Revit® interface, developers have the option of exporting Schüco BIM object data from their building model to their metal fabrication partner, as well as importing calculated data back into Autodesk® Revit®.

Detailed Schüco BIM data for design, work and detailed planning can be found in the BIM Catalog.

# 02
# PLANNING & CALCULATION



**Digital solutions for increased planning reliability and error-free calculations.**

The detailed preparation and error-free implementation of construction projects is essential for all parties involved. In metal fabrication in particular, the planning and calculation of objects and units are at the heart of every project. Our digital solutions help to support these work steps – from order creation to the construction site.

Digital tools have become an integral part of the construction process. A seamless flow of information from the planning phase to the workshop ensures efficiency and reliability – both for automated and manual tasks.

In short, with digital solutions from Schüco, planning processes can be implemented perfectly – in small and large companies alike.
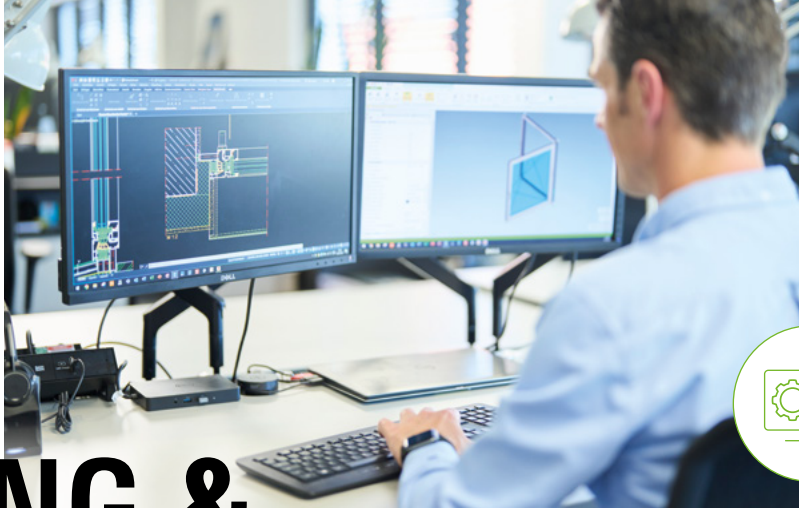
## Our digital solutions for you

- **SchüCal:** calculation software for optimised processes

- **S-Cad:** 2D design software

- **SchüCad next:** CAD software for workshop drawings, etc.

- **Athena | SE:** CAD design software

- **E.R.Plus | SE:** software for operations and production management

- **Schüco Product Configurator:** digital product showroom for Schüco products

- **Docu Center:** central information platform for documents

- **Schüco Connect:** online service portal for the order process

# SchüCal

Always one step ahead with the best calculation software for Schüco systems! With SchüCal, the cost and time-saving calculation of window, door, folding, sliding, façade and conservatory systems has never been easier. Integrated quotation and order processing enables simple, fast and effective processing all the way through to the finished Schüco unit.

**Mobile version also available!**

## BENEFITS

Whether you're a craftsman or involved in industrial fabrication, you have the perfect tools for the job with our digital ecosystem and SchüCal. With the best calculation software for Schüco systems, you can calculate much faster. In addition, thanks to regular software updates, you will always be up to date with the latest systems and can count on reliable planning and calculation. If you have any questions or issues, you can contact our support team. We also offer a wide range of SchüCal training courses and can train your employees.

## SCOPE

The calculation software provides you with support from planning through to fabrication.

- An interface to SchüCal MCo provides the perfect support for controlling CNC machines
- Possible to determine fabrication and installation times
- The clarity of the software and the current product range reduces incorrect orders/deliveries and saves costs
- SchüCal offers proven reliability for material calculations for Schüco systems thanks to continual quality control and coordination with the development engineers for the profile systems

## INTERFACES

SchüCal is the centrepiece of Schüco digital products. That's why the software has efficient interfaces to many products (see page 26).

## INTERESTED?

Depending on your requirements, SchüCal licences are available in basic, advanced and enterprise versions.

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **servicedesk@schueco.com**

## HIGHLIGHTS

**01 Tailored to your needs**
More than 8000 users worldwide. Ongoing development is based on feedback from our metal fabrication partners and is therefore perfectly adapted to your requirements.

**02 Reliable, efficient working**
Create a finished unit with just a few clicks in SchüCal. From calculation to the construction site, work is easy with the integrated fabrication time calculator and no duplicated entries.

**03 Seamless transitions**
The various interfaces make work even easier. Data from SchüCal, for example, can easily be extracted and transferred to SchüCad next.

## GOOD TO KNOW

More information about SchüCal, tips and new releases can be found on our YouTube channel.

**SCHÜCO**
SchüCal

# SchüCal – at the heart of many processes in metal fabrication

SchüCal is at the heart of every process during your construction project. Since Schüco takes an holistic approach to digitalisation and ensures a high level of integration as well as seamless transitions, many products are based on SchüCal and have an interface to many other digital solutions. Decide which set-up is best suited to your individual needs as well as the the best configuration for your value-added chain.

**Seamless integration**

By using SchüCal, the interfaces to other products open up numerous possibilities and make it easier for you to do your work.

**Shaping a sustainable future**

By using comprehensive digital solutions from Schüco, you can ensure your own competitiveness while satisfying sustainability requirements.

**Unique ecosystem**

We're here to advise you and help you compile a product range that is tailored to your needs. You can find more information about the support we provide on pages 11 and 12.

# Maximum integration possibilities with SchüCal
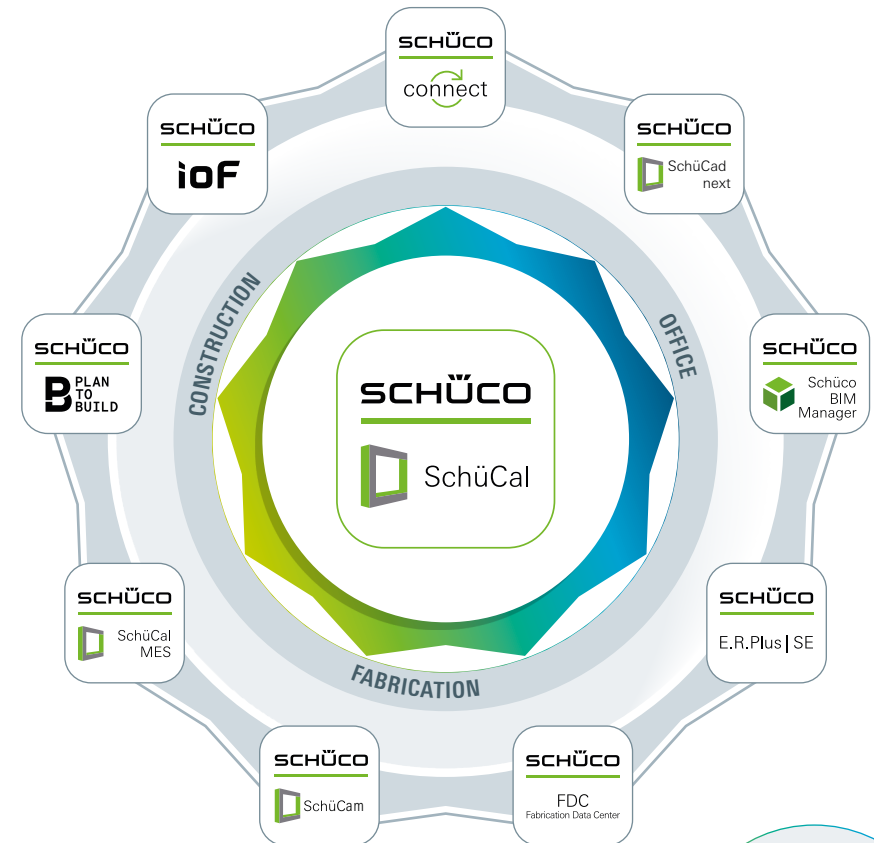


Whether it's while performing calculations in your office, during fabrication in the workshop or during service work on site, SchüCal provides a seamless transition to our product solutions.

**Exploit potential and accelerate value creation**

# S-Cad

The 2D CAD software S-Cad meets all the requirements for the creation of precise 2D drawings. S-Cad also makes planning easier for small companies in all project phases.

## BENEFITS

The intuitive and simple operation of S-Cad allows you to create detailed 2D drawings. Convenient additional functions enable wall attachment details to be created easily, as well as faster dimensioning of fabrication plans, especially height nodes.

## INTEGRATION

Due to SchüCal integration, S-Cad ensures seamless data exchange and performs functions specific to metal fabrication, such as section details.

## SCOPE

With S-Cad and SchüCal basic, you will receive the most accurate item and unit data, including detailed labels and dimensions. In addition, information about various articles and pre-defined profile section details or fixing positions is available in the article library and the Docu Center.

## INTERFACES TO

SCHÜCO

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## HIGHLIGHTS

**01** Simple data exchange with SchüCal.

**02** Always up to date thanks to access to the article library and Docu Center.

**03** Accurate 2D designs.
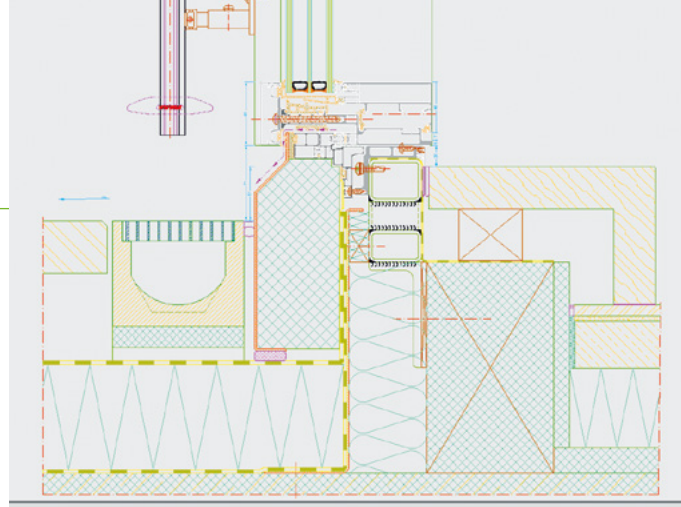
## INTERESTED?

S-CAD is only available in conjunction with SchüCal basic.

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **servicedesk@schueco.com**

# SchüCad next

SchüCad next is the next generation of 2D/3D design software for metal fabricators based on AutoCad®. The software makes the design process even easier, quicker and more secure for the metal fabricator. Precisely tailored to the needs of users from the metal and façade construction industries, it makes it easier for designers to perform their day-to-day tasks.

**SchüCad next**

## BENEFITS

SchüCad next is very user-friendly thanks to its intuitive operation and convenient data exchange. It offers a comprehensive range of functions which are necessary for creating workshop drawings, attachments to building structure and documentation plans.
The Schüco article and architect libraries speed up the design process with pre-defined profile section details and fixing positions. SchüCad next also automatically generates detailed workshop drawings based on SchüCal.

## INTEGRATION

Fully compatible with Athena | SE thanks to the best SchüCal integration on the market, SchüCad next guarantees flexible data exchange. Another benefit is that all of the article data is always up to date thanks to a self-installing, online update feature.

## SCOPE

SchüCad next can be combined with the Autodesk products AutoCad®, Inventor® and Revit® (even if the customer already has access to these products) as well as Athena | SE.

## INTERFACES TO

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**SchüCal**

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## HIGHLIGHTS

**01** Optimum data exchange with SchüCal.

**02** Always up to date thanks to online article updates.

**03** Export profile preparation diagrams and exploded drawings for installation.
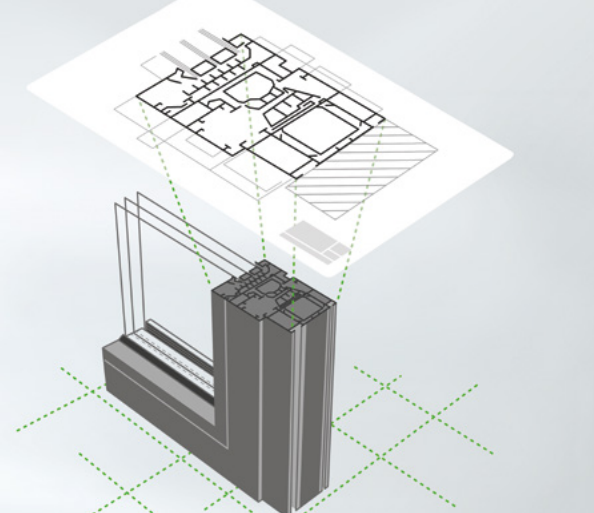
## INTERESTED?

SchüCad next licences are available in various combinations.

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **servicedesk@schueco.com**

# Athena | SE

ATHENA | SE is a one-stop CAD solution for façade fabricators that can handle even the most complex design tasks. The software makes it easier for users to work with numerous productivity commands, which significantly reduces the risks of many manual work errors. The Schüco Edition (SE) includes a SchüCal interface and offers a whole host of extra features for creating aspects, section details and workshop drawings.

### BENEFITS

Athena | SE is easy and intuitive to use thanks to an extensive standard parts library and a versatile 3D design area. Thanks to the sheet metal processing program, sheet metal parts can be designed in the simplest way and automatically processed. The calculation functions for structural analysis and building physics in ATHENA | SE are sophisticated tools for preliminary dimensioning during the planning process.

### INTEGRATION

In ATHENA | SE there is an interface to SchüCal, which makes it easy to transfer units. Compared to SchüCad next, the combination of the SchüCal interface and ATHENA | SE offers access to many additional powerful commands and tools that make working on complex projects and special solutions easier.

### SCOPE

Athena | SE comprises four groups of functions covering a range of features for which you would usually need to purchase several different programs.

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### INTERESTED?

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **servicedesk@schueco.com**

### GOOD TO KNOW

Thanks to its comprehensive range of features, ATHENA | SE is the only CAD solution you need on your machine.

# E.R.Plus | SE



**SCHÜCO**
E.R.Plus | SE

E.R.Plus | SE is a piece of ERP software which is specially tailored to metal fabrication and allows you to map projects quickly and effectively in all commercial areas, from creating quotations to materials management, project scheduling and calculation of actual costs.

## BENEFITS

Business success is largely influenced by the internal corporate structure and management. With a structured project set-up, the simple operation of E.R.Plus | SE allows you to filter information immediately and to easily keep track of things with the flexible schedule. E.R.Plus software is intuitive and user-friendly, facilitating production processes in metal fabrication.

## INTEGRATION

The bidirectional interface connecting you to SchüCal ensures that your data is always up to date.

## SCOPE

The modular, expandable structure, the high degree of security and flexibility as well as the numerous fully automatically controlled work processes are convincing arguments in favour of using E.R.Plus | SE. In addition, the modular design in particular means that setting up every department within a company with the software is affordable.

## INTERFACES TO

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## INTERESTED?

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to
**servicedesk@schueco.com**

## HIGHLIGHTS

**01 Focus on metal fabrication**
ERP software specially tailored to your needs in metal fabrication.

**02 EDI interface**
Transfer your order to Schüco quickly and securely, and receive a digital order confirmation afterwards.

**03 Always up to date**
Up-to-date data due to the high degree of process integration.

# Schüco Product Configurator

From the idea to the creation of your individual quotation – with the Schüco Product Configurator, your ideas can be put together digitally, checked and priced in the form of a quotation.

**SPC**
Schüco Product Configurator

## BENEFITS

The Schüco Product Configurator (SPC) presents individual system solutions down to the last detail in life-like simulations. Discover limitless possibilities for your sales consultations: size, surface finish or security – with the Schüco Product Configurator, you and your customer can configure bespoke system solutions for the products areas of sliding systems, entrance doors and windows in no time at all.

## INTEGRATION

The Schüco Product Configurator is used in consultations with prospective clients. When planning and calculating windows, doors and sliding units, SchüCal integration ensures that they are technically feasible. In addition, the price is determined in parallel with

the configuration and a non-binding quotation is created.

## SCOPE

From the idea to the creation of your individual quotation – with the Schüco Product Configurator, your ideas can be put together digitally, checked and priced in the form of a quotation. During configuration, criteria such as geometry and design, security, comfort and energy can be planned according to your personal tastes. With the SPC, you can configure sliding units (including Panorama Design), folding sliding units, windows, floor-to-ceiling windows, doors including door infills from three manufacturers, corner sliding units and corner folding sliding units.

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**INTERESTED?**

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **servicedesk@schueco.com**

**HIGHLIGHTS**

**01 Photo-realistic representation**
When you have finished configuring your units, the SPC creates a photo-realistic and detailed preview of them.

**02 Perfect aid in sales consultations**
A digital aid in sales consultations enables you to configure and provide advice about Schüco units beyond the confines of your showrooms.

**03 Overview of costs**
The exact price is calculated during the configuration. You can create the corresponding, non-binding quotation immediately afterwards.

**GOOD TO KNOW**

As the Product Configurator is automatically updated, you will always be up to date, save time on consultation, and speed up order processing.

Find out more about the SPC in this video.

# Docu Center

All the latest product information is always available digitally in the Docu Center. From order and fabrication manuals to architect infos, such as CAD data or specification texts, as well as instructions, brochures and videos.



Docu
Center

## BENEFITS

Everything in one place: whether it's design planning or fabrication, the Docu Center contains the relevant information for your work processes. The ability to quickly find the latest data version and access it securely saves time and prevents mistakes. With installation videos and product information, the online catalogue provides you with effective support when carrying out work in the metal fabrication workshop.

## INTEGRATION

The Docu Center is a central source of information for all phases of the construction process.It can be used in conjunction with the Fabrication Data Center (FDC), SchüCal calcula-tion software and Schüco Internet of Façades (IoF) applications.

## SCOPE

The Docu Center is available in online, mobile (app) and local (without Internet connection) versions.
It contains the following information:
- Architect infos, such as specification texts
- Manuals and documents
- Fabrication and installation guide-lines as well as videos
- Data sheets (works certificates, safety data sheets, etc.)
- CAD library
- Tools
- Certificates and CE markings

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Fabrication Data Center
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### INTERESTED?

The Docu Center and all of its features are available to registered users free of charge.

### HIGHLIGHTS

**01 Safe and up to date**
No time-consuming searches, no outdated information: retrieve the latest data at any time in the Docu Center.

**02 Always available**
Corresponding app for any appli-cation, whether on the construc-tion site, in the office or in the workshop.

**03 Simple and practical user guidance**
With its intuitive operation, the Docu Center has a clear program structure. Documents can be opened, printed, sent or saved individually, making it easier for you to do your work.

### GOOD TO KNOW

The Docu Center is available in online, mobile (app) and local (without Internet connection) versions.

If you have any questions or suggestions, you can contact your Schüco representative or send an e-mail to the Docu Center team at **docucenter@schueco.com**

# Schüco Connect

Trigger orders, view the delivery status, find receipts – with the Connect online service portal you can see all the latest information related to order processing. The portal accesses the latest data in real time and – prior to the order being placed – calculates whether the selected articles are available and when they can be delivered, making the ordering process transparent and easy to plan.

## BENEFITS

The fastest way to get Schüco profiles and accessories. Connect is available at all times, either online or on your mobile phone. You can view all the relevant article and order information on the clear start page. Order lists can be easily transferred directly from SchüCal and the availability and prices of products can be checked in real time.

## INTEGRATION

Connect helps you with the planning and calculation phase for orders. Integration in SchüCal means that you can easily transfer project-related material lists as shopping baskets and a link to the Docu Center provides you with more detailed information about articles.

## SCOPE

Order Schüco profiles, fittings and other accessories online at any time with ease. To make it as easy as possible for our partners to find articles, successor or alternative articles are displayed for them. Wishlists and the ability to save favourite articles simplify the ordering process. In Connect you can find information about article features, current orders or current service requests around the clock.

## INTERFACES TO

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## INTERESTED?

Schüco Connect and all of its features are available to registered users free of charge.

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **connect@schueco.com**

## HIGHLIGHTS

**01 Always up to date and available**
Whether on your computer in the office or the app on your tablet – Connect is available 24/7, even outside office hours.

**02 Save your favourite Schüco products**
Which articles do you order regularly? Which articles are on your wishlist? The portal gives you the option to create wishlists so that you can work effectively and quickly.

**03 Digital business receipts**
Thanks to the document archive, business receipts from the previous two years can be found online.

## GOOD TO KNOW

Connect can be found in your personal area under "My Workplace". You can also access it on your tablet.

Further helpful information on Connect can be found on our YouTube channel.

Our current product brochure for Schüco Connect can be found here.

# 03
# FABRICATION & ASSEMBLY

**Digital solutions optimise processes: before, during and after fabrication.**

There are many different challenges in metal fabrication: the high degree of product customisation, the generally small numbers of items, as well as tailor-made solutions. Digital solutions along the entire production chain are indispensable to optimise processes, increase productivity and ultimately improve competitiveness.

However, it is also clear that investments or changes in production must have clear added value. In addition to improved production quality control, our digital solution tools also enable the fabrication process to be streamlined – and for production times to be shortened as well.

Other than for process optimisation and improved networking, digitalisation plays a key role in our trade at a much earlier stage. That's because more accurate quotations help companies to secure orders. With digital solutions from Schüco, metal fabrication partners can improve their operational efficiency: by means of smooth processes and more bespoke customer solutions.
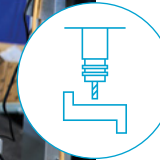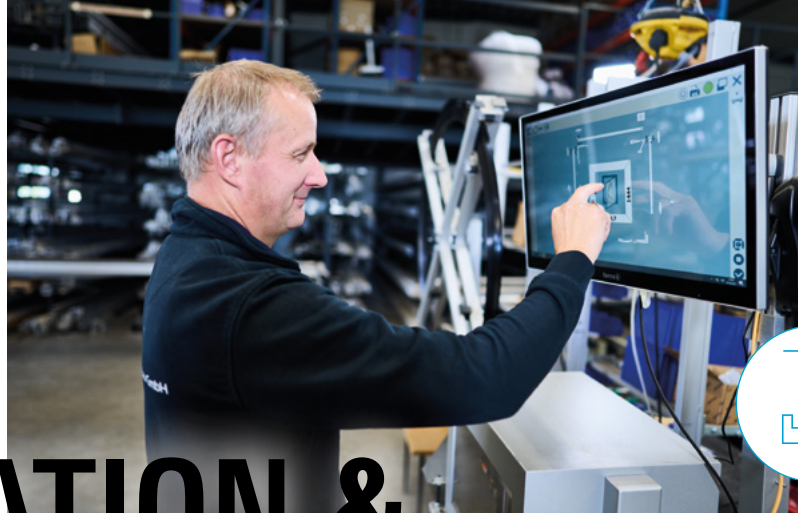
## Our digital solutions for you

- **Fabrication Data Center:** flexible information terminal for paperless fabrication

- **Fabrication Data Center mobile:** flexible tablet for fabrication

- **SchüCal MES:** control and monitor fabrication processes efficiently

# Fabrication Data Center

FDC
Fabrication Data Center

The Fabrication Data Center is the perfect fabrication aid. The hardware and software package provides you with a smart tool that delivers all the information relevant to fabrication right to where you need it – the workshop. This guarantees reliability and saves time.

## BENEFITS

The Fabrication Data Center is based on a version of SchüCal that has been optimised for the workshop and is thus adapted to the machining processes. Documents that are relevant to fabrication, such as role plans or material lists, are provided. You can also configure your individual requirements in the software, e.g. using the DWG viewer.

## INTEGRATION

Thanks to the integrated workshop mode of the SchüCal software, fabrication items can be found quickly and any related information can be looked up with just one click in the Docu Center. The Fabrication Data Center can also be used as a feature for the new SchüCal MES.

## SCOPE

As the data is saved on a shared server, it will be updated on every machine if any changes are made to the data in the Fabrication Data Center, such as the pick list during stock reconciliation or the material list in the case of notes or queries.

## INTERFACES TO

SchüCal
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Docu Center
Docu Center
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SchüCal MES
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## INTERESTED?

The Fabrication Data Center is available in two versions:
- Up-to-date mini PC, SSD hard drive, 27" touchscreen suitable for workshop use
- Up-to-date mini PC, SSD hard drive, 43" touchscreen suitable for workshop use

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **servicedesk@schueco.com**

## HIGHLIGHTS

**01 Paperless and always up to date**
Unit information, drawings or fabrication lists are available directly on the machines.

**02 Reliable fabrication**
The barcode reader ensures faultless assignment of profile bars and the 3D mode guarantees greater machining reliability.

**03 Simplified installation of fittings**
The integrated locking bar software in the FDC can directly control the LA 10 locking bar machine and simplifies fabrication of the Schüco Simply Smart fitting.

## GOOD TO KNOW

Our current product brochure for the Fabrication Data Center can be found here.

# Fabrication Data Center mobile

Fabrication Data Center mobile provides you with flexible access to all the functions of the stationary Fabrication Data Center in your workshop. The robust and splash-proof tablet containing all the information relevant to fabrication is with you wherever you go – whether in the warehouse, using a machine or at the construction site.

## BENEFITS

Thanks to its features, Fabrication Data Center (FDC) mobile makes your everyday life easier. Retrieve the latest information from the Docu Center, cut locking bars to length or document fabrication orders – FDC mobile offers all of these features and many more. An integrated barcode reader enables clear identification of bars during fabrication, for example, as well as localisation in SchüCal.

## INTEGRATION

FDC mobile features the SchüCal workshop edition with a customised user interface and FPC support. An interface to the Docu Center means that product documentation and installation videos are always available.

## SCOPE

With FDC mobile, you can expect a comprehensive package of software and hardware for your fabrication. The pre-installed locking bar software makes fabrication of the Schüco Simply Smart fitting simple and accurate. CAD drawings can be viewed in the DWG viewer and in combination with E.R.Plus | SE, you have yet another tool for recording operating data when on site.

## INTERFACES TO

**SCHÜCO**
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## INTERESTED?

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **servicedesk@schueco.com**

## HIGHLIGHTS

**01 FPC support**
Simply photograph the completed FPC document and save it in the SchüCal project.

**02 Synchronisation of server data**
Any changes made to the data in FDC mobile, such as the pick list during stock reconciliation, will be updated on every machine.

**03 Always up to date**
In the workshop, FDC mobile makes up-to-date fabrication information available where it is needed.

## GOOD TO KNOW

Our current product brochure for the Fabrication Data Center mobile can be found here.

Join us on a tour of the workshop.

**SCHÜCO**
FDC mobile

# SchüCal MES

On the basis of all the upcoming production orders, SchüCal MES (Manufacturing Execution System) helps to deliver the required production information to every individual colleague who works in fabrication and thus to manage the best possible sequence of operations. This creates transparency, saves fabrication time and improves quality.

## BENEFITS

With the help of SchüCal MES, data from SchüCal that is relevant to fabrication is transferred to the workshop by means of the Fabrication Data Center. Push processes are used to take the orders digitally through production, including queries for Factory Production Control (FPC). Any problems are recorded and the relevant colleagues are informed via a built-in messenger tool.
The entire production process is monitored at all times, which helps the workshop manager to get a good overview of the ongoing production status.

## INTEGRATION

SchüCal MES is based on the calculation software SchüCal, which provides all the specific fabrication data that is required for the next task. It can be used in conjunction with the stationary or mobile version of the Fabrication Data Center.

## SCOPE

From the concept to support during ongoing operations – you will receive comprehensive project support for SchüCal MES. We start by analysing your requirements and create an individual concept for your fabrication. We then gradually develop, introduce and train your employees how to use the perfect solution. We will continue to provide you with support even after the roll-out.

### INTERFACES TO

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### INTERESTED?

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **servicedesk@schueco.com**

### HIGHLIGHTS

**01 Tailor-made**
Fabrication control with SchüCal MES is individually analysed and scaled for your production.

**02 Efficient**
Increased productivity due to a guided production process and immediate reporting of any faults.

**03 Paperless**
Digital access to documents that are relevant to fabrication and simplified documentation thanks to integrated FPC queries.

### GOOD TO KNOW

Our current product brochure for SchüCal MES can be found here.

# 04
# OPERATION & RECYCLING

**Digital solutions for intelligent buildings: smarter, more sustainable, more efficient.**

Digitalisation is becoming increasingly relevant not only during the construction of a building, but during its subsequent operation as well. The future vision of "Smart Cities" has long been well on the way to becoming reality. That's why the demand for intelligent buildings has been growing among clients and building users.

Digital solutions from Schüco provide the exact planning and implementation tools that are required for the job. It begins long before a building is actually used – by considering technologies like Building Information Modelling (BIM) or creating a digital twin at an early stage. Smart components are therefore making buildings and cities more and more intelligent, sustainable and comfortable. This requires networked solutions that are interconnected by means of interfaces.

From the digital documentation of installed units and project management solutions for the construction industry to the central storage of all information and documents in one place – with Schüco digital solutions, you can already meet future building requirements today.

## Our digital solutions for you

- **Internet of Façades (IoF):** the digital twin for every unit

- **PlanToBuild:** project management solution for the construction industry

# Internet of Façades (IoF)

With the Internet of Façades (IoF) concept and the IoF ID, Schüco is turning windows, doors, façades and sliding systems into components of digital building envelopes. The small tag gives every façade unit in a building its own digital identity. All of the data, information and documents relating to the unit are linked to it and will be available throughout the duration of the unit's useful life. The IoF ID can be used on aluminium, PVC-U or steel units – even retrospectively.

**SCHÜCO**
**iOF**

### BENEFITS

Which handle was installed? What maintenance work was carried out? How can old components be recycled? All this information is available from the digital twin and can be tracked anytime, anywhere. For clients, investors or facility managers, this means a better overview, more information and ultimately greater control.
The IoF ID is easy to affix (it is stuck on) – even retrospectively – and can be easily read via a QR code or by NFC.

### INTEGRATION

Projects along with all units and documents can be transferred directly from SchüCal to IoF.

### SCOPE

IoF ID comes with two handy applications: the IoF app and IoF Manager. The app can be used to retrieve information about and assign information to a unit on your mobile phone. The IoF Manager is a browser-based application for managing all IoF projects and units.

### INTERFACES TO

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PLAN TO BUILD

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### INTERESTED?

The IoF ID is available in packs of 50. To take full advantage of all the benefits and features, you need the IoF ecosystem consisting of the IoF Manager and IoF app. Both applications are available to you free of charge at all times. Download and try it now!

### HIGHLIGHTS

**01 IoF hardware, software and app**
With the trio of IoF ID, IoF Manager and the IoF app, information can be easily assigned to and read from each unit.

**02 Direct and simple**
After installation and acceptance, photos of the unit can be taken, for example, and linked with the unit and date. The advantage of this is direct detection if a defect is reported.

**03 Time savings**
Documents can be marked in IoF as "For revision" and added to a document at the touch of a button.

### GOOD TO KNOW

Find out even more about Internet of Façades on our YouTube channel.

Simply download the IoF app from the App Store.

Have you heard about IoF Manager? Simply scan the QR code and register.

# PlanToBuild

PlanToBuild covers all phases of project management such as the planning, control and follow-up of a project, and also enables digital networking between all of the key players involved. Architects, developers, metal fabricators and building operators work together on their building project. On a single platform.

## BENEFITS

PlanToBuild offers holistic project management on a single platform with complete flexibility and cost control. All the relevant functions for successful construction project management are on a single plat-form, preventing any more insular solutions. Thanks to the digital building model, progress at the construction site can be seen at a glance and shared with internal and external project stakeholders.

## INTEGRATION

PlanToBuild is a piece of project management software that provides holistic management of all the pro-ject data from planning to operation and shares data with SchüCal and E.R.Plus | SE seamlessly, easily and quickly.

Thanks to the creation of a digital twin, any remaining work, defects and acceptances can be documented for each specific unit.

## SCOPE

PlanToBuild is a cross-trade, web-based software solution for construc-tion project management that has been developed for you by industry insiders based on real-life needs. The software is based on a modular and intuitive operating concept – for successful, collaborative project management for everyone involved. Each workspace contains special functions that can be used across all projects – depending on authorisation.

## INTERFACES TO

| SCHÜCO | SCHÜCO |
|---|---|
| SchüCal | E.R.Plus \| SE |

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E.R.Plus | SE
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## INTERESTED?

PlanToBuild consists of different workspaces and you have a choice of different packages. Choose one of our package solutions – we are really flexible. Just like our software.

We're here to help you with tailored advice. Contact your Schüco representative or send an e-mail to **info@plantobuild.online**

## HIGHLIGHTS

**01** Reliable data availability anytime and anywhere thanks to cloud-based data storage.

**02** Comprehensive networking of the trades involved in the construction project.

**03** The creation and continuation of a building model makes it easier for service and maintenance companies to do their job.

## GOOD TO KNOW

Find out even more about PlanToBuild on our YouTube channel.

Even more information and details can be found on the PlanToBuild website.

# ADDED VALUE WITH SCHÜCO

For Schüco, there is no alternative to sustainable action. Whether in terms of our windows, doors and façades or our digital solutions. We see sustainable action as our responsibility and are committed to it in everything that we do. With our energy-saving and recyclable products, we want to make an effective and long-term contribution towards keeping our ecological footprint as small as possible.

Our digital methods and tools are already making a significant contribution towards making construction processes planned with Schüco more efficient and sustainable. In planning, manufacturing and installation, but also when using buildings. This applies to the calculation of embodied carbon, which we use to help you calculate the exact $CO_2$ balance of your building. But it also applies to sustainable paperless fabrication. Our future digital solutions also take into account important factors such as the lifecycle analysis, environmental product declarations (EPDs) and the digital building resource passport. This is our green motivation. Each and every day.

# SUSTAINABLE CONSTRUCTION PROCESSES – MADE BY SCHÜCO

**Emission factors:** We specify the $CO_2$ equivalent of unit items for you in SchüCal. The GWP value (GWP = Global Warming Potential) is continuously calculated for unit processing. It is displayed for the various grades of aluminium that are available.

**Paperless and efficient fabrication:** Our Schüco Digital products make paper-based material lists a thing of the past – with a high degree of process transparency for shorter production times, but without any loss of information.

**Digital resource passport:** You have full transparency over the materials and components that have been installed as well as key information about resource consumption, the impact on the climate and recyclability.

**Lifecycle analysis:** Report of the energy balance and environmental impact over the entire lifecycle of a product.

**EPD (Environmental Product Declaration):** In many specifications, EPDs are now required as proof of sustainable construction. EPDs are the basis for developers and architects to calculate the eco-balance of products. We provide detailed, officially certified Environmental Product Declarations in accordance with current calculation methods at the touch of a button.

 **Are you interested in finding out more about digital solutions and sustainability?** Then contact your Schüco representative or send an e-mail to **servicedesk@schueco.com**

PRODUCT OVERVIEW

Which of our digital products is suitable for each process step?

Dot = the digital product is suitable for this process step.

| Process step | SchüCal | SchüCad next | FDC | FDC mobile | BIM Manager | Docu Center | SchüCal MES | Schüco Connect | SPC | PlanToBuild | Internet of Façades | Services | E.R.Plus \| SE |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **Specification and planning** | | | | | | | | | | | | | |
| Create a specification | ● | | | | | | | | | | | | |
| Calculate quotations | | | | | | | | | | | | ● | |
| Compare products online | | | | | | | | | | | | ● | |
| Global Schüco documentation | | | | | | | | | | | | ● | |
| Selection of material quality and calculation of "embodied carbon" | ● | | | | | | | | | | | | |
| Preliminary structural, thermal and acoustic calculations | ● | | | | | | | | | | | | |
| Architect/metal fabricator data sharing | ● | | | | | ● | | | | | | | |
| Integration of BIM objects | ● | | | | ● | | | | | | | | |
| BIM support | ● | | | | ● | | | | | | | | |
| **Quotation generation** | | | | | | | | | | | | | |
| Unit visualisation | ● | | | | | | | | | | | | |
| Create a quotation | ● | | | | | | | | ● | | | | |
| Calculate a quotation | ● | | | | | | | | ● | | | | |
| Document storage | ● | ● | ● | ● | ● | | ● | ● | | ● | ● | | ● |
| Professional sales consultation | | | | | | | | | | | | ● | |
| Financial and personnel management | | | | | | | | | | ● | | | ● |
| **Job planning and programming** | | | | | | | | | | | | | |
| Workshop drawings, attachments to building structure | | ● | | | | | | | | | | | |
| Fabrication time calculation | ● | | | | | | | | | | | | |
| Assembly time calculation | ● | | | | | | | | | | | | |
| Fabrication planning | ● | | | | | | | | | | | | |
| Import/design articles | ● | | | | | | | | | | | | |
| Check availability of articles | | | | | | | | ● | | ● | ● | | |
| Resource planning | | | | | | | | | | | | | ● |
| Generate material lists | ● | ● | | | | | ● | | | | | | |
| Scheduling | ● | | | | | | | | | ● | | | ● |
| Calculation of actual costs | ● | | | | | | | | | ● | | | ● |
| Machine control | | | | | | | | | | | | | |
| Attachments to building structure | | | | | | | | | | | | | |
| Share IFC data | | | | | | | | | | | | | |
| **Procurement** | | | | | | | | | | | | | |
| Order Schüco articles online | | | | | | | | ● | | | | | ● |
| Retrieve order information | | | | | | | | ● | | | | | ● |
| Retrieve delivery notes and invoices | | | | | | | | ● | | | | | ● |
| View delivery status | | | | | | | | ● | | | | | ● |
| Inventory accounting system and work orders | | | | | | | | | | | | | ● |
| Fabrication order control | | | | | | | | | | | | | |
| CE marking | | | | ● | | | ● | | | | | | |
| Bar identification | | ● | ● | ● | | | ● | | | | | | |
| **Efficient fabrication** | | | | | | | | | | | | | |
| Retrieve documents and product information on a mobile phone | ● | | | | | | | | | | ● | | |
| Monitor machine data | | | | | | | ● | | | | | | |
| Incident management | | | | | | | ● | | | | | | |
| Project and item-specific completion notification | | | | | | | ● | | | | | | |
| Paperless fabrication | | | | | | | ● | | | | | | |
| Factory Production Control | | | | | | | ● | | | | | | |
| **Project management and installation** | | | | | | | | | | | | | |
| Installation location | | | | | | | | | | ● | | | |
| Unit status and condition | | | | | | | | | | ● | | | |
| Ticket management | | | | | | | | | | ● | | | |
| Interface to digital twin | | | | | | | | | | ● | | | |
| Quality control and acceptance | | | | | | | | | | ● | | | |
| Defect rectification | | | | | | | | | | ● | ● | | |
| Use of digital twin | | | | | | | | | | | ● | | |
| **Operation** | | | | | | | | | | | | | |
| Immediate identification of unit components | | | | | | | | | | | ● | | |
| Internal and external provision of digital documents | | | | | | | | | | | ● | | |
| Digital service messages (B2C) and history for each unit | | | | | | | | | | | ● | | |
| Location of the installed unit | | | | | | | | | | | ● | | |
| **Maintenance** | | | | | | | | | | | | | |
| Determine maintenance cycles | | | | | | | | | | | ● | | |
| Digital documentation | | | | | | | | | | | | | |
| Personnel planning | | | | | | | | | | ● | | | |
| Scheduling | | | | | | | | | | ● | | | |
| Defect management | | | | | | | | | | ● | | | |
| **Recycling and modernisation** | | | | | | | | | | | | | |
| Identification and dimensioning of installed materials | | | | | | | | | | | ● | | |
| Carbon footprint of building components | | | | | | | | | | | ● | | |
| Localisation (building envelope as a resource store) | | | | | | | | | | | ● | | |
| Consistent, reusable data for circular economy | | | | | | | | | | | ● | | |

**Schüco International KG**
www.schueco.de/digitalisation