

# TAKTIQ

## ASSEMBLYSUITE SERVICE SPECIFICATION Version 1.8 (effective from 19.07.2024)

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## 1 Introduction

This document is the basis for all offers concerning services related to the use of the AssemblySuite:

- Licensing, maintenance, support & operation
- Development of individual features and product enhancements

It includes the following sections:

- **2 Service Description and Price Structure**
- **3 Company Presentation TAKTIQ**  
General information about the company TAKTIQ
- **4 General Conditions**  
General terms as the basis for all contracts
- **5 Agreement**  
Room for mutual signing of the terms mentioned here

## 2 Service Description and Price Structure

TAKTIQ AssemblySuite is a modular planning software for optimized planning of assembly lines for multi-variant products. The software enables attainment of the following goals:

- Reduce planning time
- Increase production efficiency
- Increase production quality

The prices for the AssemblySuite consist of 3 components:

1. Licensing & Maintenance (Section 2.1)
2. Server Operation & Hosting (Section 2.2)
3. Support & Customer Service (Section 2.3)

Below every service, there is a related *service key* which is referred to in the offer:

Category	
Service Key	Description

### 2.1 Licensing & Maintenance

The licensee acquires the right to use the AssemblySuite at the **sites** covered by the license, with the selected **modules** for the set **period** with a selected number of **users**. All users receive a personal license. Processing of data from other, non-licensed sites is not allowed.

2.1.1 License Type

The AssemblySuite can be used with a term license including updates & maintenance (subscription) or an unlimited license (perpetual license) plus updates and maintenance.

2.1.1.1 Subscription

The subscription period is **yearly**, unless set forth otherwise in the offer. The subscription fee covers the **use of the software including updates & maintenance** (see section 2.1.3)

Individual extensions of the software are not covered by the product maintenance mentioned here and require a separate order (see section 2.1.4 Individual Maintenance). The subscription always includes maintenance for the product scope.

2.1.1.2 Perpetual License

An unlimited right of use (perpetual license) can be acquired as an alternative to a subscription. In this case, the one-time license price is based on the yearly subscription price multiplied by a **factor**. Switching from the subscription model to the perpetual license is possible after each subscription period (yearly).

When switching from an existing subscription to a perpetual license, 20% of the already paid subscription fee is credited. The subscription fees for a **maximum of 3 years** are considered. Therefore, the one-time price for the perpetual license is reduced by a maximum of  $3 \times 20\% = 60\%$  of the yearly subscription fee.

After the purchase of the perpetual license, the software can be used indefinitely within the set range of features (scope) as well as sites & number of users. To ensure the software stays functional and up to date, an update & maintenance package must be booked (see section 2.1.3). A **percentage** of the one-time price for the perpetual license is to be paid **annually** for this purpose. This update & maintenance package must be booked for **at least 2 years** after acquiring the perpetual license. After this period, the licensee can end the contract and will stop receiving bug fixes and updates. In addition, the licensee loses the right to request bug fixes and receive support.

It is possible to reorder maintenance for the perpetual license later, but this is subject to additional costs.

License type	
<b>SUBSCRIPTION</b>	Rental license including maintenance and updates
<b>PERPETUAL</b>	Unlimited right of use

2.1.2 Usage Fee Calculation

The subscription price set forth in the offer is calculated according to the following factors:

- Classification of Potential Benefits (2.1.2.1)

- Range of Features (Scope) (2.1.2.2)
- Number of Sites & Users (2.1.2.3)

### 2.1.2.1 Classification of Potential Benefits

There are 4 possible classifications:

Classification	
<b>CL-CON</b>	Consultant / engineering service provider <b>No in-house</b> production
<b>CL-PS</b>	Producing company small < <b>25</b> employees in the assembly department
<b>CL-PM</b>	Producing company medium <b>25-100</b> employees in the assembly department
<b>CL-PL</b>	Producing company large > <b>100</b> employees in the assembly department

The classification enables a fair benefit-cost ratio. It is based on the total number of employees in the assembly department of **one** site. The classification does not affect the available features in the software. Its sole purpose is a fair definition of a basic price.

### 2.1.2.2 Range of Features (Scope)

The range of features differs according to

- operation mode
- used modules

#### 2.1.2.2.1 Operation Mode

The AssemblySuite can be used in 3 different **operation modes**:

Operation Mode	Client Only	Client-Server	Client-Server Integrated
<b>Data Storage &amp; Exchange</b>			
Save project to file (Local or network drive)	X	X	X

File-based imports & exports	X	X	X
Multi-user access (simultaneous) and storage of the data in so-called plan states and projects in a database		X	X
Specification of central data by an administrator		X	X
Interfaces to other systems (ERP, MES, etc.)			X

In **Client Only** Mode, the application consists of only one Windows desktop application that functions on its own. Generated data inventories can be saved as TKQ files (.tkq) on a drive and be opened again. These files can also be opened and edited by others. Parallel editing by multiple users is not possible. Different data inventories and overwriting times should be coordinated when necessary.

Data from foreign sources is either entered into the software manually or imported and exported from files (e.g., Excel, CSV, XML) through file-based interfaces.

In **Client-Server** Mode, the application consists of the Windows desktop application and a server backend with a database. All the features of the Client Only version are available in this mode, which means that file-based storage of data is possible. In addition, projects and so-called plan states can be saved in a **central database**. Plan states can be classified into different planning *subareas*. Extensive synchronization features enable multiple users to work on the same plan state simultaneously.

An additional administration module is included in the Client-Server Mode. This enables the central definition of planning specifications (e.g., for plant structure, time modules, plant calendar).

The **Client-Server Integrated** Mode includes the same features as the Client-Server Mode. In addition, further systems are linked through standardized interfaces (e.g. a system for manufacturing orders or a system for work processes). It can be individually configured which system has sovereignty for the respective data and attributes. The Client-Server Mode also enables adding individual interfaces for further data. In the Client-Server Integrated Mode, booking of customer support with a fixed contact person is mandatory.

Operation Mode	
<b>OP-C</b>	Client Only
<b>OP-CS</b>	Client-Server
<b>OP-CSI</b>	Client-Server Integrated

2.1.2.2.2 Modules

Different features are available depending on the intended purpose. These features can be arranged into the following modules. These can be activated/deactivated and configured according to the individual needs of the licensee.

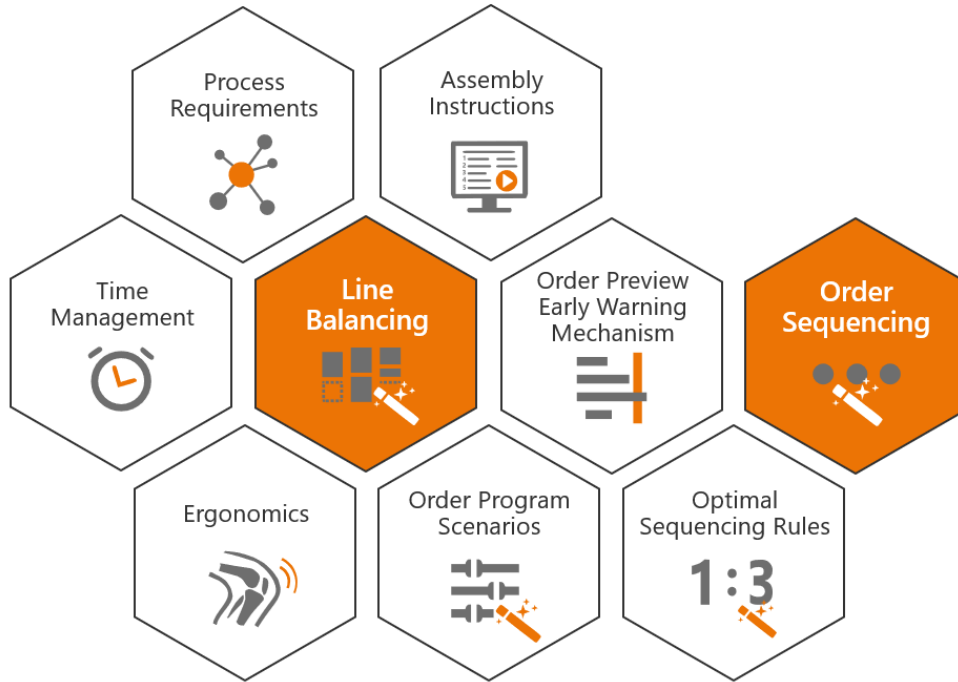


Figure 1: Modules of the TAKTIQ AssemblySuite

The two main modules are Line Balancing and Order Sequencing. Further modules can be activated as add-ons.

An up-to-date description of the individual feature modules can be found in the linked sets of slides:

- [AssemblySuite \(EN\)](https://www.taktiq.de/files/AssemblySuite%20(EN).pdf) (https://www.taktiq.de/files/AssemblySuite%20(EN).pdf)

Modules	
<b>M-BAL</b>	<b>Line Balancing</b> (Basis)
<b>M-TMGM</b>	+ Time Management
<b>M-PROR</b>	+ Process Requirements
<b>M-ERGO</b>	+ Ergonomics
<b>M-ORDS</b>	+ Order Program Scenarios
<b>M-INST</b>	+ Assembly Instructions
<b>M-PREV</b>	+ Order Preview / Early Warning Mechanism
<b>M-SEQ</b>	<b>Order Sequencing</b> (Basis)
<b>M-SEQR</b>	+ Optimal Sequencing Rules



## 2.1.2.3 Sites & Users

Each production site where the AssemblySuite is used must be licensed separately with a site license. This basic site package includes 5 full (writing) user licenses. Additional user licenses can be booked on top of this basic package.

Further user licenses can be booked on top of the basic site package:

Sites & Users	
<b>LIC-LOC</b>	Site packages (incl. 5 users each)
<b>LIC-FULL</b>	+ additional full (writing) users
<b>LIC-READ</b>	+ additional read-only users

The allocation of each named license can be changed to different end users at any time, (up to **2 times per year**) per license.

The prices for the basic package and additional users are based on the classification and range of features that are set once for every site. The available range of features can be further limited on the individual user level. This, however, does not change the price structure. The prices are based on the range of features available at the site.

The number of booked sites and additional users can be determined yearly according to the subscription model. In the case of the perpetual license model, one of the two license models (subscription or perpetual) can be chosen for new additional sites. The same applies to further user licenses that are added to a perpetual license.

## 2.1.3 Updates & Maintenance

As a part of product care and further development by TAKTIQ, the licensee receives bug fixes, product feature extensions as well as improvements of usability, program stability, and performance during the license period (subscription) or maintenance period (perpetual license) without additional costs.

Major releases are provided in a continuous release cycle. These also include possible individual extensions and features that have been developed as part of a product enhancement agreement (s. section 2.4.1).

The current release calendar with the planned release dates can be downloaded here at any time (subject to change):

- [TAKTIQ Release Calendar \(https://www.taktiq.de/files/Releasekalender.pdf\)](https://www.taktiq.de/files/Releasekalender.pdf)

Customers in client-server-integrated operation can choose between two different release options:

- Standard release cycle
- Long-Term Support release cycle (LTS)

In addition to the major releases in the plan above, small bug fixes are made available in so-called service releases at any time between the major releases.

Maintenance and support are only available for the current software version of the AssemblySuite (client and server application) in the selected release mode (see section 2.1.3.1 on the additional option Long Term Support Releases in Client Server Integrated operation).

In case of need, updates can be turned off individually at each site or even by individual users. However, as soon as a user is no longer working with the latest version of the selected AssemblySuite release mode, the possible right to maintenance and support expires until the software is updated to the latest version. Support for the update itself forms an exception.

Updates are provided to the client fully automatically when the software is started. In the case of server operation, temporally synchronized deployment and migration processes must be carried out by technicians of TAKTIQ (see section 0 for services in server operation & hosting).

Maintenance	
<b>MAINTAIN-PROD</b>	Product maintenance

Product maintenance is always included in the subscription model.

### 2.1.3.1 Long Term Support Releases

An LTS release builds upon an existing standard release and is made available later. It therefore contains the same functionalities of the previous standard release and already published service releases with bug fixes.

#### **Benefits of LTS:**

- Increased stability by building on a rolled-out standard release
- Risk reduction in operation due to fewer releases and increased stability
- Reduced effort for testing and qualification due to fewer releases

A change from the standard release cycle to a long-term release cycle is only possible with a subsequent LTS release.

A change from the Long-Term Support (LTS) release cycle to the faster standard release cycle is only possible at a standard release date. The license holder must express the wish for such a change at least one month before publication of the standard release so that there is sufficient time to clarify testing requirements.

The standard release cycle allows more flexibility in terms of faster development of additional functionalities. We therefore recommend starting with the standard release cycle after a go-live and only later switching to a long-term support release cycle.

2.1.4 Individual Maintenance

A yearly maintenance fee is to be paid for features developed specifically for a certain customer. The calculation of the fee is based on the invested story points for customer-specific features (see 2.4.2). The maintenance fee is recalculated on an annual basis.

Individual maintenance covers the following services:

1. **Integration and development effort**

As the product is constantly developed further, the product updates must enable flawless functioning of individual features/interfaces and dialogues. In this context, further development of individual features is inevitable in case of adjustments of the product. The more individual features are used in the AssemblySuite, the higher is the adjustment/development effort at every release.

2. **Test effort**

It must be ensured that the functionality of customer-specific features meets expectations at every release. These tests are carried out both manually and automatically. The more there are individual features, the higher is the effort for manual tests at every release. In addition, the automatic tests must be adjusted in the case of further development of the product, therefore also adjusting the individual code sections.

3. **Assurance of know-how**

Assurance of high support quality and customization options.

4. **Mandatory adjustments**

E.g., because of updates in the operation system, development platform .NET and further third-party libraries.

Maintenance		
<b>X € / SP</b>	<b>MAINTAIN-INDIVID</b>	Maintenance service customer-specific features

For the calculation of the individual maintenance fee, the sum of invested story points is multiplied by the respective applicable maintenance rate per story point [€/SP].

2.2 Server Operation & Hosting

In **Client-Server Mode**, more services are necessary than in Client Only Mode. The AssemblySuite software then consists of 3 different **components**:

- Desktop client
- Server application
- Database

In case of updates as a part of product care or product development, a manual update of the server components and a possible database migration are necessary in addition to the automatic update of the client.

An **environment** describes a server application together with the related database. The following environment types can be distinguished in operation:

- A **production environment (PROD)** is used operationally for the planning.
- In an **integration environment (INT)**, tests for new software versions of the AssemblySuite can be carried out in interaction with systems attached to new software states. It can be understood as an “intermediate stage” between TEST and PROD.
- Development takes place in a **test or development environment (TEST/DEV)**. This is an internal environment of TAKTIQ and is only useful for a customer when interfaces are developed in cooperation or simultaneously.

## Minimum Number of Environments

In **Client-Server** Mode without additional interfaces and customer-specific features, working is only possible in a **production environment**.

At least **one production-** and **one integration environment** is needed in **Client-Server-Integrated** Mode with interfaces to other systems or customer-specific features.

### 2.2.1 Maintenance Times

Generally, there are no shutdowns during operating times. Shutdowns are permitted when greater consequential damage is avoided in the interest of the customer.

Planned releases and necessary updates of the infrastructure are announced at least 3 days in advance and are carried out at an agreed time.

Hotfixes are qualified by TAKTIQ and when necessary, installed in the systems on the day they become available.

Regular backups of the database are carried out at night. This takes place preferably within a maintenance window between 02:00 and 04:00. No additional written notification is necessary for this regular procedure.

### 2.2.2 Operation

#### On-Premise Operation

In the case of an on-premise installation, the customer must provide and manage the necessary technical infrastructure. The necessary hard- and software requirements can be found [here](https://www.taktiq.de/files/System%20Requirements%20TAKTIQ%20Assembly%20Suite.pdf): (https://www.taktiq.de/files/System%20Requirements%20TAKTIQ%20Assembly%20Suite.pdf).

A VPN connection to the server must be allowed to enable TAKTIQ to perform the services within the scope of operation.

#### TAKTIQ-Cloud Operation

In the case of operation in the TAKTIQ-Cloud, TAKTIQ takes over the provision and maintenance of the technical infrastructure in addition to all necessary operational services.

The necessary services can be performed by the customer or TAKTIQ, depending on the selected hosting solution. The **possible services** by TAKTIQ are restricted according to the selected hosting:

		<b>On-Premise</b>	<b>TAKTIQ-Cloud</b>
<b>OPER-DEPLOY</b>	<b>Release Deployments</b> (application and database migrations)	<b>TAKTIQ</b>	<b>TAKTIQ</b>
<b>OPER-RC-DEPLOY</b>	<b>Release Candidate Deployments</b> for testing in the integration environment before every major release (application and database migration)	<b>TAKTIQ</b> (mandatory in Client-Server Integrated Mode)	<b>TAKTIQ</b> (mandatory Client-Server Integrated Mode)
<b>OPER-DB-DUMPS</b>	<b>Database Dumps</b> (from production environment for integration and test environments)	CUSTOMER	<b>TAKTIQ</b>
<b>OPER-DB-BACKUPS</b>	<b>Backups and Clean-Up</b> (database)	CUSTOMER	<b>TAKTIQ</b>
<b>HOSTING</b>	<b>Technical Infrastructure</b> (hardware and licenses)	CUSTOMER	<b>TAKTIQ</b>
	<b>Infrastructure Maintenance</b> (configuration and updates)	CUSTOMER	<b>TAKTIQ</b>
	<b>Health Checks and Proactive Monitoring</b> (application and database)	-	<b>TAKTIQ</b>

### 2.2.2.1 Deployment (Application & Database Migration)

An update of the server application takes place at every new major release and when necessary, at further service releases. The software state of the client and server-side as well as the state of the database must fit together to enable further use of the environment. Access to the server components from a newer or outdated client is technically blocked.

All steps must therefore be carried out within a time frame as narrow as possible to minimize the duration of unavailability.

The deployment includes the following steps/services:

- **Coordination of the timing** and the accompanying unavailability of the server components with the customer
- **Shutdown** of the environment
- **Update** of the software
- **Migration** of the database (including generation of migration scripts)
- **Restart** of the environment
- **Smoke test** through one-time “load-/save” workflow

Operation	
<b>OPER-DEPLOY</b>	<b>Release Deployments</b> (Application and database migration)

### 2.2.2.2 RC Week Deployment (Application and Database Migration)

During the release candidate week (RC week), there is a nightly deployment of the release candidate state on the integration environment (INT). Simultaneously, the client is made available in an appropriate RC version. Key users receive an additional feature in the AssemblySuite to enable simple switching between different environments.

The RC-week deployment also includes migration of the database on the integration environment (INT). In addition to the functionally necessary migration, the success of the migration of customer-specific data is tested to eliminate bugs in the later migration in the production environment.

During the RC week, the new features can be tested by the users of the customer and the technicians of TAKTIQ in the individual customer setting. This enables **early identification of bugs** and gives key users the possibility to **test new features** in advance and decide centrally on their use.

If the AssemblySuite is integrated with other software systems through interfaces or if there is a relevant number of customer-specific features, a new software state must be tested in the individual customer setting with the customer-specific interfaces and possible additional logic. In these cases, having an integration environment and booking the RC-week deployments are mandatory.

In case database dumps are carried out by the customer itself, the customer must ensure they are carried out regularly enough, ideally shortly before the RC week deployment. The software quality can only then be assured on current data.

Operation	
<b>OPER-RC-DEPLOY</b>	<b>Release Candidate Deployments</b> Additional deployments on the INT-environment (application and database migration)

2.2.2.3 Database Dumps (Supply INT and TEST-Environments)

To ensure that the integration and test environments have as realistic test data as possible, the database is updated periodically with the current production data.

The procedure takes place upon request. The package contains max. one dump per release. In the case of a booked RC deployment, the dumps are usually carried out at the beginning of the RC week.

Operation	
<b>OPER-DB-DUMPS</b>	<b>Database Dumps</b> (from production environments for integration and test environments)

2.2.2.4 Backups (Database)

The backup services include ensuring the implementation of the agreed backup strategy and if necessary, restoration of this backup in the respective environment.

Integration and development environments are **not** backed up.

Production environments are backed up in the following rhythm:

- **Nightly backup** of the database (through incremental updates)
- **Weekly full backup** (usually Sunday night) to ensure a faster restoration process
- **Reset of the database when necessary**  
Reaction time: return to an old data state within 24 h is guaranteed

Backups are stored at least for 1 week.

To ensure high performance of the database, appropriate cleaning processes are configured and maintained in the database environment.

Operation	
<b>OPER-DB-BACKUPS</b>	<b>Backups and Clean-Up</b> (Database)

2.2.3 Hosting

The price for hosting depends on the **number of environments** and the **size of the database**.

At least one production environment must exist. In Client-Server Integrated Mode, at least one integration environment must exist in addition to this.

Hosting		
<b>1</b>	<b>PROD</b>	Production environments
<b>1</b>	<b>INT</b>	Integration environments
<b>0</b>	<b>TEST</b>	Test environments

<b>50</b>	<b>DB-SIZE</b>	Database size in GB
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2.2.3.1 Technical Infrastructure (Hardware and Licenses)

The technical infrastructure encompasses the necessary hardware & software licenses for hosting the application and database.

The database size is limited to **50 GB** database room per booked environment. Extensions are offered in 10GB steps when necessary. The booked backups are similarly oriented towards the chosen database size.

High functionality of the AssemblySuite is guaranteed in our hosting package. Possible scaling of the system, which might be necessary for performance reasons, is carried out by TAKTIQ.

2.2.3.2 Infrastructure Maintenance (Configuration and Updates)

The provided infrastructure is serviced regularly with necessary updates and reconfigurations whenever needed.

2.2.3.3 Health Checks and Proactive Monitoring

TAKTIQ takes care of health checks and proactive monitoring of the application, database and environments.

2.3 Support and Customer Service (SLA)

A support level can be combined with the preferred intensity of customer service (a cell in the table).

There are 3 different **support levels**:

1. **ESSENTIAL**  
Documented faulty performance of the AssemblySuite is fixed. The customer must provide evidence in this case. No specialist support is provided for the AssemblySuite. No reaction and resolution times are promised at this support level.
2. **ADVANCED**  
Includes the services of ESSENTIAL. In addition, specialist support is provided and TAKTIQ takes care of the troubleshooting and error analysis in case of supposed malfunctioning of the software. This effort is compensated even when it turns out that there is no bug.
3. **PREMIUM**  
Includes the services of ADVANCED. Reaction and resolution times are firmly confirmed in addition to the support offering.

The support and customer service level can be redetermined yearly.

<b>Support</b>	
<b>ESSENTIAL</b>	Only troubleshooting, proof of error by the customer.



<b>ADVANCED</b>	As ESSENTIAL + Specialist support + troubleshooting by TAKTIQ.
<b>PREMIUM</b>	As ADVANCED + service level agreement (SLA) with guaranteed reaction and resolution times

**User management** is a part of the support service and included in each of the offered levels. This includes generation & change and reconfiguration of user licenses.

Description of the different **customer service levels**:

- **Support Only**  
No fixed contact person for the customer. Any type of contact with TAKTIQ takes place through central support.
- **Fixed contact person with a yearly exchange of experiences**  
There is a fixed customer advisor at TAKTIQ who is familiar with the workflows and use cases of the customer. The know-how concerning the customer’s application is documented by TAKTIQ. In an exchange of experiences, the customer advisor (in person or in a web conference) presents new and modified features of the AssemblySuite to the key users utilizing sample data. In addition, planned extensions of the AssemblySuite are discussed and the key users have the possibility to express wishes for further development.  
The customer advisor represents the third level in the support process. In case of more complex support questions, the customer advisor understands the individual customer setting and can be involved in the search for a solution.
- **Fixed contact person with a quarterly exchange of experiences**  
The exchange of experiences takes place 1x per quarter (instead of once a year).
- **Fixed contact person with a monthly exchange of experiences**  
The exchange of experiences takes place 1x per month (instead of once a year).

<b>Customer Service</b>	
<b>SERV-NO</b>	No fixed contact person (only support)
<b>SERV-YEAR</b>	Fixed contact person including 1x exchange of experiences per year (yearly)
<b>SERV-QUARTER</b>	Fixed contact person including 4x exchange of experiences per year (quarterly)
<b>SERV-MONTH</b>	Fixed contact person including 12x exchange of experiences per year (monthly)

### 2.3.1 Contacting TAKTIQ

The TAKTIQ support can be contacted in three ways:

- E-mail: [support@taktiq.de](mailto:support@taktiq.de)
- Phone: +49 5251 68262-00
- Automatic error reporting from the AssemblySuite

### 2.3.2 Support Times

Our support team is available on working days from Monday to Friday during office hours from 8:00 am to 4:30 pm CET. No support is available on Saturdays and Sundays as well as public holidays in Nordrhein-Westfalen (Germany).

On request, the PREMIUM support level can be extended to include on-call support at additional times (weekends, holidays and outside normal support hours).

### 2.3.3 Support Process

1. A user contacts the support team

The support ticket is opened according to one of three **priorities**, which represent the combination of urgency and the extent of effects on the core business of the customer:

- **Low**  
A representation or function is faulty. However, the error only relates to one representation or has no great relevance for the user's use case. (e.g., display errors such as truncated tooltips or typos). A fix is not urgent.
- **Middle**  
A feature is faulty, but there is either a workaround or the bug is sporadic, or the fix is not urgent.
- **High**  
A feature is faulty, and the user cannot follow up on a necessary use case. In addition, there is no workaround. The short-term effects on the core business are small or it is sufficient that the user continues working on the use case later.
- **Critical**  
A feature is faulty, and the user cannot follow up on a necessary use case. No workaround is available. In addition, the use case must be carried out very urgently, as a high impact on the core business of the customer can be expected if the use case cannot be completed soon.

2. The support team starts the analysis/work on the incident (within the **set reaction time**).
3. The support team communicates with the user to receive additional information or feedback on the solution. This takes place via e-mail, phone or screen sharing via Microsoft Teams.
4. If a bug fix in the software is necessary, the support team creates a bug item in the Azure DevOps system of TAKTIQ and allocates the bug item to a software developer. The user who has reported the issue is documented in the bug item to ensure this user gets informed when the bug is resolved or additional information is needed.
5. In any case, the user receives feedback on the resolution of the issue (within the agreed **resolution time**).

### 2.3.4 Languages

The support is offered in the following languages:

- German
- English

### 2.3.5 Reaction & Resolution Times

The following reaction and resolution times are assured in the support level PREMIUM:

Priority	Reaction time	Resolution time
Low	-	-
Middle	2 working days	4-5 working days
High	8 hours	3-4 working days
Critical	4 hours	1-2 working days

**Reaction time means:**

The support team has started the analysis and/or solving the issue.

**Resolution time means:**

One of the following solutions is found within the resolution time:

- A potential bug is fixed with a service release
- An acceptable workaround is defined, and a potential bug is fixed later

In the so-called worst case, there is the possibility of returning to an older version of the software (“roll back”). This can also include returning to a data backup. When the resolution time is running out and the problem is urgent, the option of a “roll-back” is discussed with the customer or a responsible key user. When this instrument is used, a possible loss of the data processed after the last backup must be expected and accepted.

A maximum time for the analysis and completion of possibly necessary changes in the software cannot be guaranteed due to the nature of the matter.

### 2.3.6 Obligations to Cooperate

- The customer must report deficiencies in the AssemblySuite without delay and support TAKTIQ in the elimination of defects to the required extent to minimize possible consequential damages.
- The customer names an employee who has been trained and qualified in the use of the AssemblySuite as a contact person.
- The customer is obliged to always use the current version of the AssemblySuite.
- In the case of on-premise operation, the customer is obliged to take care of the procurement and management of the technical infrastructure. The customer also undertakes to keep the

operating environment of the AssemblySuite (operating system and database) in an up-to-date state supported by the provider and the TAKTIQ AssemblySuite. The customer is responsible for regular backup of the individual data – especially before implementation of program updates.

- The customer must provide the infrastructure necessary for appropriate processing of support requests (internet connection, possibility for remote maintenance and provision of VPNs when needed).

## 2.4 Individual Extensions & Product Enhancement Agreement (PEA)

The AssemblySuite is constantly developed further through agile development procedures. Every licensee benefits from the product development as a part of the maintenance through regular updates of the software.

In addition, every customer has the possibility to **request development of individual features** for the AssemblySuite. These can be, e.g., individual interfaces, reports such as assembly instructions, and calculation of individual performance indicators (KPI).

### 2.4.1 Product Enhancement Agreement (PEA)

If a functional enhancement requested by the Customer is suitable as a generally available product feature from TAKTIQ's point of view, TAKTIQ offers a **Product Enhancement Agreement (PEV)**. Within such an agreement TAKTIQ agrees to implement the functionality requested by the customer within an agreed time frame. The implementation as a product enhancement by TAKTIQ and the right of use for the customer to satisfy his requirements is compensated via the offered usage fee.

The following **tasks and benefits** arise in a product development partnership:

#### TAKTIQ

- evaluates the development effort
- evaluates the product relevance and the general benefit for the product
- offers the enhancement of the requested functionality for an annual usage fee
- commits to a time period for the implementation and delivery of the functionality
- provides maintenance for the functionality and continues to develop
- retains full rights to the concept and software code

#### Customer

- receives the full functionality by the agreed deadline

- participates in the specification process and has the opportunity to design the feature to meet their requirements
- can participate in the review/test process of the feature if desired
- benefits from further improvements of the feature in the future
- pays only a share of the costs for development and maintenance of the functionality via the annual usage fee

## 2.4.2 Effort Evaluation & Procedure

The developments requested by the customer are first specified roughly in the form of user stories, and the effort is evaluated. The result of the assessment is captured in a **customer-specific backlog**. In addition, the **product relevance is assessed** and therefore an offer of TAKTIQ for the product development partnership.

The development effort is generally evaluated with so-called story points. These story points include everything necessary for the delivery of the feature. They comprise the following:

- Detailed specification (especially technical specification)
- Development of the feature
- Development of the tests
- Review and test process in the release
- Necessary roll-out specifics and migration scripts

**1 story point (SP)** is offered at a **fixed price in €**. This is based on an average effort per story point of 2 days:

- 0,25 days of planning & tracking
- 0,50 days of technical and final specification
- 1,00 days of development
- 0,25 days of testing and review

The determination of the total effort in story points is followed by an evaluation of the product relevance by TAKTIQ.

Example for a customer-specific backlog with 3 stories:

Story-ID	User story	Effort [SP]
18776	Individual interface for order data <b>Example for individual story</b>	15 SP
18752	Use of placeholders (wildcards) for definition of the sequencing rules <b>Example for PEA</b>	10 SP
18647	Standard deviation as an additional measure of time spread <b>Example for PEA</b>	8 SP

The customer purchases a number of story points based on the pre-defined backlog. The development of the stories takes place in the regular, agile sprint process of TAKTIQ:

The customer-specific backlog can be adapted at any time by mutual agreement between TAKTIQ and the customer.

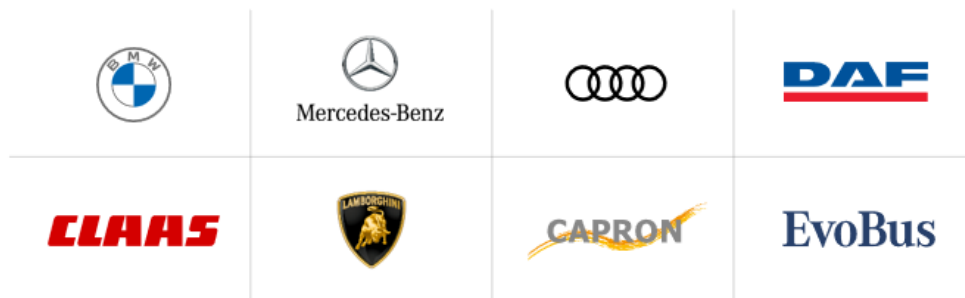
As soon as a story is firmly scheduled for a sprint and the fine specification phase has started, the request cannot be altered anymore. If a story is cancelled during the specification and implementation phase, the story points are billed according to the scope provided. Implemented scopes are billed after delivery and acceptance of the feature.

The maintenance fee to be paid by the customer is calculated on the basis of the invested story points (SP) and the currently agreed maintenance rate. See chapter 2.1.4.

### 3 Company Presentation TAKTIQ

TAKTIQ was founded in 2010 by Dr. Simon Altemeier and Dr. Christoph Danne with the goal of developing truly intelligent software for assembly planning, with a focus on line balancing and order sequencing. We bring state-of-the-art optimization technologies into practice and facilitate the daily work of people in planning and production, so they achieve their quality and efficiency goals. Our flagship product **AssemblySuite™** is paving the way. It enables efficient planning and control of complex production systems, in which highly individualized products are manufactured cost-effectively and in high quality. Numerous well-known companies are already benefiting from this.

After an initial development phase, the **AssemblySuite™** has been distributed to end users since 2013. Since then, it has rapidly gained popularity and customers. By now, we support more than 5000 users. The driver for this growth is the automotive and vehicle industry, consisting of large manufacturers of cars, trucks and buses.



This success is the result of our uncompromising focus on the planning problems of line balancing and order sequencing, together with the ambition to develop our **AssemblySuite™** into the best software solution in this field. To achieve this, we combine intelligent features with intuitive operation and the best possible feedback. This first-class user experience ensures a high level of satisfaction among our users.

TAKTIQ GmbH & Co. KG is an owner-managed and equity-financed company led by the founders and managing directors Dr. Simon Altemeier and Dr. Christoph Danne. Our headquarters are located in Paderborn. All support levels (1st, 2nd and 3rd level) are provided from this location. Currently, full service is offered in German and English to customers in Germany, France, Great Britain, Spain, Italy, Hungary, Czech Republic, Russia, Mexico, USA, South Africa, India and China.

Our TAKTIQ-team currently consists of 34 members. They combine expertise from software development, modern analytics and production management and work together on the development, marketing and implementation of the **AssemblySuite™**. The team is organized along an agile development and release process.

We have extensive experience in implementing and customizing the **AssemblySuite™** to individual customer processes and requirements within a variety of industries and sizes. As line balancing and order sequencing are the core themes of TAKTIQ, all our employees in service, programming and consulting have significant knowledge of the underlying planning processes.

Our vision, mission and values form the basis for all business decisions and our growth strategy:

**Our Vision**

We are at the vanguard of shaping the digital future of production planning. Our compelling software products profoundly simplify the way manufacturers dominate the increasing variant diversity. They revolutionize the planning and operation of complex production systems.

**Our Mission**

We unlock the full potential of assembly lines. With our unlimited passion for agile development of state-of-the-art software, we deliver innovations that enable the world’s leading manufacturers to continuously achieve new levels of quality and efficiency.

**Our Values**

We love and live innovation, impact, partnership, user-centricity, agility, performance and fun.

Our commitment to agile, user-centric and partnership-based software development is what differentiates us and guarantees customer satisfaction. With consistent focus and a team of top talents, we build long-term partnerships with our customers. This is how we enable our customers to achieve the highest levels of manufacturing excellence and sustainable improvements in competitiveness.





## 4 General Conditions

### 4.1 Extension of Yearly Services

- (1) All yearly services shall be automatically extended by one year if the contract is not terminated 6 weeks before the end of the then-current term.
- (2) For a price adjustment, the Contractor must provide the Client with appropriate information at least 12 weeks before the end of the service.

### 4.2 Cancellation of Project, Development and Training Services

- (1) If project services (e.g. consulting days, training services or development of features) are cancelled at short notice (< 14 days prior to performance of the service), the contractor shall be entitled to charge 25% plus any travel rebooking costs and cancellation fees.

### 4.3 The Customer's Obligation to Cooperate

- (1) The customer shall provide the contractor open access to all information necessary for performing the specified services.

### 4.4 Warranty, Delay

- (1) The warranty due to defects is determined in accordance with the statutory provisions
- (2) Insofar as the services can be made up for and the contractor is in delay, the customer can give the contractor an appropriate deadline. In case the service is not performed within this period, the customer can assert its further statutory rights.
- (3) All entitlements of the customer lapse – except in case of intent on the part of the contractor – one year after termination of the contract.

### 4.5 Data Processing

- (1) The customer commissions the contractor to process the user data necessary for the licensing process and support.
- (2) By entering into a contract for the use of the AssemblySuite, the Customer agrees to the privacy policy of TAKTIQ. This can be viewed at [www.taktiq.de/en/privacy-policy/](http://www.taktiq.de/en/privacy-policy/).

### 4.6 Copyright

- (1) Procedures, algorithms and source code are, if not already otherwise protected, intellectual property of the contractor. All use, commercial or not and be it only of excerpts, requires the written consent of the contractor.

### 4.7 Subcontracting

- (1) The Customer is accepting the subcontracting to the following service providers:
  - a. **LSH Steuerberater und Wirtschaftsprüfer** – Grünebaumstr. 4 – D-33098 Paderborn  
Purpose:
    - Storage and processing of invoices / financial data

b. **CleverReach GmbH & Co. KG** – Mühlenstr. 43 – D-26180 Rastede

Purpose:

- Storage and processing of email addresses for sending release notes (news from the software)

CleverReach is a German company and hosts the data exclusively in ISO/IEC 27001 certified data centers ([www.cleverreach.com/de-de/datensicherheit/](http://www.cleverreach.com/de-de/datensicherheit/))

c. **VegaSystems GmbH & Co. KG** – Halberstädter Str. 99 – D-33106 Paderborn

Purpose:

- Storage and processing of user data in the context of licensing
- Storage and processing of planning data if hosting is booked in Paderborn

VegaSystems is a hosting company based in Paderborn (Germany) and is certified according to the strict ISO/IEC 27001. Further information can be found on the website: (<https://www.vegasystems.de/datenschutz>)

d. **Microsoft Corporation** – One Microsoft Way – Redmond – Washington 98052 USA (European data storage has been selected):

Microsoft Ireland Operations, Ltd. – One Microsoft Place – South County Business Park - Leopardstown – Dublin 18, D18 P521, Ireland

Purpose:

- Storage and processing of user information as part of support and operations (MS Dynamics 365 and MS Office 365/Teams).
- Storage and processing of planning data when hosting is booked in Azure (MS Azure).

- (2) When using the website [www.taktiq.de](http://www.taktiq.de), further data is processed by sub-service providers.  
See: [www.taktiq.de/en/privacy-policy/](http://www.taktiq.de/en/privacy-policy/).

## 4.8 Confidentiality

- (1) The contract partners shall comply with the statutory provisions on data protection.
- (2) Both parties mutually undertake to keep any trade secrets, which they learn about each other during the execution of this contract, confidential from third parties.
- (3) The contractual partners shall oblige their employees to secrecy and data protection and inform any third parties, which are involved in the execution of the contract, of this obligation.

## 4.9 Liability

- (1) The contractor is liable for damage caused by the contractor due to wrongful intent or gross negligence. The liability for slight negligence is excluded.
- (2) The contractor is not liable for lack of economic success, lost profit, indirect damage, consequential damages and third-party claims.
- (3) The amount of compensation for damage in accordance with paragraph 1 and paragraph 2 as well as compensation for wasted expenses is limited to 20,000 €.
- (4) The contractor is liable for data loss and recovery in accordance with paragraphs 1 to 3 only when such a loss could not have been avoided by the customer through appropriate data backup measures.

- (5) The limitations of liability in accordance with paragraphs 1 to 4 are analogously also applicable to employees and commissioners of the contractor.
- (6) Liability of the contracting parties for damage due to gross negligence or wrongful intent of members of the management as well as possible liability of the contractor for given warranties and claims based on the product liability law remain unaffected.

### 4.10 Place of Delivery for Services

The place of delivery for our services is Paderborn. The place of fulfillment for payments is Paderborn.

### 4.11 Place of Jurisdiction

The place of jurisdiction is the principal place of business of the contractor in Paderborn.

### 4.12 Severability Clause

In case individual provisions of this contract are or become ineffective, the effectiveness of the remaining provisions is not affected. The parties shall endeavor to replace the ineffective provision with an appropriate provision that reflects the original intention as well as possible. The same applies to contractual gaps.

## 5 Agreement

Both parties, the customer \_\_\_\_\_ and contractor TAKTIQ GmbH & Co. KG confirm the above-mentioned details concerning services, prices and conditions.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Signature (TAKTIQ)

\_\_\_\_\_  
Title / Role

\_\_\_\_\_  
Title / Role at (TAKTIQ)