timeSSD®

User Guide

v.01.14.13.01

timeSSD® and
timeSSD120

Available Worldwide

Accurate Times

Documented Methods

Shared Knowledge

Zero Investment

timeSSD®
Preface

"Working together, manufacturers and brands will also need to gain greater control of the labor component of product pricing. In design and development, brands will need to make more cost-led decisions, while factories who are wrestling with the need to create higher-quality goods in smaller quantities – in shorter timeframes than ever – will need to optimize their processes to a degree they never have before.

To achieve both aims, the industry as a whole will need to rely on levels of labor costing accuracy that have so far only been possible at higher volumes, on production lines set up to create large quantities of a single product.

If retailer and manufacturers are to operate together on a new 'fair labor rates methodology' that is transparent and fit for that new demand-driven economy, then it must use clear and transferrable labour building blocks so that operations can be standardized between one product and another with comparable components and tasks…

With this in place, brands commissioning orders on a more frequent basis, and expecting better quality products in return, will be able to order with confidence that their details Bill of Materials (BOMs) are also being supported by equally detailed Bill of Labour (BOL) that are recognized by the International Labour Organisation – and that are accurate enough to support their requirements for greater cost accuracy at every level of design, development and production. And most importantly, those accurate labour costs are direct costs with **timeSSD®**, rather than today's blanket overheads."

Laszlo Szabo : The Interline – July 21, 2020
https://www.theinterline.com/07/2020/labour-the-missing-piece-of-the-post-covid-production-puzzle/

timeSSD®
The Community of Genuine Apparel Professionals

Developed and placed in the Microsoft Azure Cloud – provides:

- Benchmark : for labor content & pricing with MTM-2 based elements
- Clear work methods : documented on 14 languages with immediate translation
- Cooperation : common database for the team members from different locations
- Cost effective : zero investment, only "pay as you go"
- Decision tool : for the brands with the labor costing support
- Flexibility : have your data in PDF, Excel or transferred into your PDM / ERP system using the integrated EDI feature
- Freedom : in use or not use, with all-time availability, from anywhere, without user limits, subscriptions and without maintenance costs
- Planning tool : capacity and layout, by the efficiency control features for the manufacturers
- Social distancing : full availability to work with it from anywhere, using a simple internet browser
- **Transparency** : common platform where brands and manufacturers could exercise the transparency by the integrated method and operation list **sharing** feature *[unique between similar solutions]*

Enjoy the novelty approach of the **timeSSD®**, dedicated for the apparel industry.
Your feedbacks are welcome !
info@timessd.com

timeSSD®

timeSSD® User guide
timeSSD® v.01.14.11.01 data v. A100.11.00.05.

Contents

*The missing paragraph number is with intention.
All forms, interfaces, reports, other items in this document, having a lower software version shown, are similar and valid in the reference software version of this document.

Disclaimer: No warranty whatsoever is made that any of the articles are accurate.

Direct access links

timeSSD® based on MTM100
https://timessd.azurewebsites.net/#/login ;   https://timessd.azurewebsites.net/#/register

timeSSD120 based on MTM120
https://timessd120.azurewebsites.net/#/login ; https://timessd120.azurewebsites.net/#/register

timeSSD Video tutorials
https://www.timessd.com/how-to-use/

Distribution Partner
Astailor Shine S.R.L. is a world wide distribution partner with System Administrator rights.

1. The scope of timeSSD® software

1.1. timeSSD® and timeSSD120

From April 2021 are available two timeSSD systems, completely separated, no communication between them.

The software code and version of the two systems is identic, all descriptions are valid for both systems. The difference is in the ELF – the basic motion elements database.

timeSSD® or timeSSD100 uses the basic motion elements defined with MTM100 system, or normal work system.

timeSSD120 uses the basic motion elements defined with MTM120 system, or incentive work system.

The set of the basic motions in the two systems are identic, only the element's standard time (TST) is different.

Remark : this document uses the timeSSD® word both for timeSSD® and timeSSD120. All descriptions and examples are referring to timeSSD® and shows the values from the timeSSD® (timeSSD100) system.

All descriptions are valid for timeSSD120, excepting the standard time and TIT values from the examples and screen captures.

1.2. Working method development

timeSSD® scope is the **working method development** – **labor costing** – based on motion analysis with predefined, standard motion elements, providing the benchmark execution time.

Usually, the analysis is done by following a video sequence and identifying the motion elements with the predefined elements from ELF, the software's predefined database.

The result is a documented method with standard, universal accepted, execution time – SAM (or SMV) .

The **operation list** for a style, build up from the defined methods, provides the process description to get the product ready, together with the quantified efforts.

1.3. Availability

timeSSD® should be available for all users which would like to benefit of using it.

To allow the maximum availability it is developed in the Microsoft Azure **Cloud** and is available for all users with internet connection.

Microsoft Azure Cloud provides the expected credibility, data security and backups for the data stored.

1.4. Cost – effective

timeSSD® were planned to be genuine cost-effective, with the cost control kept in the hands of the user.

The "pay as you go" costing is proportional with the element time, selected from ELF.

Remark : data from ELF are not editable by any user.

No investment, no user license prices, no maintenance fees. If no use, then no cost.

The accounting is based on a credit system with TIT named monetary unit where:

a. In timeSSD® : one TIT is the cost of the elements of one SAM taken form ELF, the predefined elements database

b. In timeSSD120 : the cost of the elements of one SAM taken form ELF is 1,20 TIT

1.5. Flexibility

timeSSD® includes all necessary elements for the operations in the sewing lines and a subset of the motion elements from the treatment / finishing area.

Additionally, it includes elements for general activities and provide the MTM-2 data table for the case when the user needs the very basic motions.

This structure provides an extensible platform with own, user defined, elements to cover all possible needs.

With this feature the System makes itself suitable for other industries too.

The data structure implemented supports the group of companies to be managed separate or in common, the parent company can establish universal valid rules.

By the flexibility concept the System can be installed in a dedicated instance for a customer, in Microsoft Azure Cloud, but keeping the "pay as you go" costing.

The franchising option has in the background also the implemented data structure.

1.6. Transparency

timeSSD® provides the collaborative tools between the partners by its method and operation list sharing features, being a net supporter of the transparency.

1.7. Seamless integration

timeSSD® is an important tool in the production's capacity and cost planning process. In the same time provides the benchmark data for the productivity calculation via the efficiency tracking.

Dedicated EDI module takes care of the seamless data interchange between timeSSD® and third-party system.

1.8. Easy to use

With a simple registration process the user could start to use the timeSSD® in commercial mode. Accepting by the user the TOU and PP means a valid contract.

The structure of the interfaces and reports is standardized, the flexible grid-based interfaces are rich in sort, filter, option, and command buttons.

1.9. Administering on multi-level

The instance of the timeSSD® is administered by the SysAdmin. The Business Admin manages the Business-related data and it invites the users.

Remark : all relevant actions are logged.

1.10.   Franchising and On-premise installation

timeSSD® is available for franchise. A separate, franchisee operated System copy will be installed. For details contact the System's copyright owner.

On-premise installation is possible, in case when a very high number of models should be processed, the on-premise version of the System it could be a more cost saving variant.

The on-premise installation is a very personalized franchise.

For details contact the System's copyright owner : info@timessd.com

2. timeSSD® - The Content – Principles, Default, Interface, Role

2.1. timeSSD® environment
Microsoft SQL database

ASP.Net Web API, C#

timeSSD® is a software applied on a well-defined database where are included the basic motion elements together with the system's general parameters and settings.

Because both, the features and the ELF, could have independent improvements a double versioning is used :

      timeSSD® v. nn.nn.nn.nn   - software features version

      A1x0.nn.nn.nn.   - database and settings version (x=0 or x=2)

2.2. timeSSD® principles
2.2.1. License
The License did not have time limit, is limited only by the available Credit or by the Assigned Bond level.

For the Person, the License mean to ask for a pre-paid Credit. Based on the Person's request the proforma invoice is sent. When the whole payment is received the Person's Credit increase in the Software and the invoice is sent to the Person by e-mail.

For the Company, the License is granted based on pre-paid Credit like for the Person or based on a Commitment with Business Assigned Bond value.

If the Business would like to use the Bond, then it should agree the offered Commitment.

After the Commitment is agreed by the Business then the SysAdmin can proceed on sole discretion with additional verifying procedures of the Business. Based on verification results the SysAdmin could accept the Commitment from Franchisee side and will inform the Business regarding the Assigned Bond value, or could not accept it, on sole discretion, with no obligations for explanations.

In case of acceptance of the Commitment by both parties the License is granted until the first proforma invoice due date.

Each invoice payment in due time prolongs the License until the next proforma invoice due date.

In case of invalid Commitment, no agreement by both parties, then only the pre-paid Credit grants the License.

2.2.2. Commitment
If the Business would like to use the Bond for License granting, then it should give its separate accordance with signature on a commitment document which have a similar content like :

"Business uses the Content provided by Franchisee and will pay the Costs of the Content use based on the accumulated Bond value at the end of each month or when the Assigned Bond value is reached.

The Business acknowledge that will pay with PayPal or bank transfer in due time the value of the proforma invoice edited by the System based on the accumulated Bond value.

The Business acknowledges further that: i. gets in grace period with Access Blocked in case of payment delayed; ii. if the payment delayed after the grace period the Business enter in the reactivation period and will be charged additionally with a reactivation fee; iii. if the payment is missing after the reactivation period then the Business Remove initiated by SysAdmin."

2.2.3. Availability

The Services (including the User database) are hosted on the Microsoft Azure Cloud Computing platform, excepting the descriptions from the Site.

The used database is Microsoft SQL.

The Azure's standard back-up policy is applied for the database.

The granted System's Uptime is 99%.

The System's planned maintenances are scheduled for the non-working time in that time zones from where the most active users are registered.

2.2.4. Date & Time

As the System is hosted on the Microsoft Azure Cloud then all timestamps and any System's time references are in UTC (Coordinated Universal Time).

2.2.5. Credit and Bond

The Credit and Bond values are expressed in TIT.

When a Business own an amount of TIT then it has Credit.

The Business can buy Credit with a request sent or can get Credit as a result of the use of a valid Voucher.

No Credit Share nor Credit transfer possible between two or more Business.

No Credit value refund to the Business in any circumstances with the exceptions expressly specified in this document.

When a valid Commitment exist then the Business can use the Software on a loan basis and all Costs generated are cumulated as Bond.

The Credit from any sources first is used by the System for Bond repayment.

May happen to appear a Bond value without a valid Commitment as a result of the Overdraft.

In case of Overdraft the Commitment gets valid by default for the limited value of the Overdraft, without parties' agreement.

All Costs generated are counted immediately from the Credit or in the Bond excepting where are defined differently.

2.2.6. Invoicing

The invoice is generated after the payment of the corresponding Proforma Invoice or instead of Proforma Invoice.

The invoice and the proforma invoice are sent by default to the Business by e-mail. On user request these documents could be printed and sent by post too. By default, the courier costs are belonging to the Business, can be agreed exceptions.

Proforma invoice is edited and sent when: i. the user asks for a pre-paid Credit; ii. a Bond should be invoiced.

The Bond should be invoiced when : i. the Business Assigned Bond value is reached; ii. on the first day of each month for the Bond accumulated in the month before; iii. In case of Business Remove.

2.2.7. **Costing principle** : Once an element selected from ELF, the element's database, the corresponding cost is accounted to the user.

Changing any parameter of an element results a new element and the cost of the new element is accounted.

Once a cost (credit) is accounted then no refund of it.

2.2.8. One e-mail address (username) can be registered only once in the whole system.

2.2.9. Rights over the System

2.2.9.1. The initial database data – ELF, the predefined Elements – and the software is owned by Enedig Project Management Kft.

2.2.9.2.   The initial database data of the former SSDx versions, sold by the former owner of the copyrights, and all SSDx software versions are owned solely by Enedig Project Management Kft.

2.2.9.3.   All data defined or acquired by the Business are owned by the Business.

2.2.9.4.   The access to the data belonging to a Business is possible only by the users invited by the Business Administrator. No access from any Business users to the data which belongs to other Business.

2.2.9.5.   The data sharing between two or more different Businesses is possible only with the acceptance by both, source and recipient, Business Administrator.

2.2.10. Security of the data

The data are crypted and stored in Microsoft Azure Cloud with daily backup.

2.2.11. SysAdmin's Work folder is the System's Public folder

The Public folder contains the data which are published for all users.

The Public folder in fact is another view of the SysAdmin's Work folder.

Items from the Public folder are not editable directly as they are just a full second view of the SysAdmin's Work folder.

The import action from the Public folder in fact is a user-initiated share from the System to user's Business with the exception that the SysAdmin do not need to accept it.

2.3. timeSSD® Defaults

2.3.1.   SysAdmin Business

The Business Admin of SysAdmin Business is the SysAdmin of the System.

SysAdmin Business belonging operational data (=with which a user works) – all or part of them – are published in the Public folder of the System, as a second view, with the aim of examples.

2.3.2.   timeSSD® account

The user account in the System is held by a group of users named "Business".

The companies select for Business type the "Business", the individuals select the "Person". No differences between the rights and features of the two types.

Each account has an administrator named Business Admin.

The System's administrator is the SysAdmin.

The individual's username in timeSSD® is the user's verified e-mail address by timeSSD®, its format is considered to be :

name@domain.extension

where:

- name   : set of characters with which the user is unique identified on the domain
- domain   : address domain name
- extension   : address extension

One e-mail address is allowed only once in the System.

The user can change its password as many times as it wants but cannot change its e-mail address. The user's e-mail address can be changed only by the Business Admin and it take effect after the activation of the confirmation link.

The transfer of a user from one Business to another Business is possible as follows: first delete the existing user from the Business and then the user accepts the invitation got via e-mail from another Business.

Once a user registered then only the Business Admin can delete its username from the System.

In case of the username is deleted from a Business then all references to that username will get the value "name@timestamp" where the timestamp is the moment of deleting.

2.3.3. Language

It is considered from the start that the default language of the timeSSD® is the English.

If no available text on the user selected language, then the English text is provided.

In case of missing also the text marked to be English then the text is provided on the first language where it is found by the System.

The user has the option, and has the tools included, to insert its own translation in any languages for all user editable texts.

User editable texts places are in case of :

    i.   Own elements
    ii.   Operation header and detail
    iii.   Workflow header and detail
    iv.   Model
    v.   Product
    vi.   Group
    vii.   Machine
    viii.   Part

Important : In case of user text the timeSSD® cannot recognize the language of the entered text. The applied default is the text entered by the user is on that language which is set as **Element** language by the user.

2.3.4. ELF – Elements database

The ELF includes all predefined elements necessary for the industry, their standard times, and descriptions, attached witness videos.

timeSSD® allows to define own elements which are stored near the predefined elements, but they are available only for the Business which created them.

The Elements are structured in Classes :

    i.   SSD   : Standard Sewing Data – includes all elements necessary for the sewing lines – with universal accepted standard times

    ii.   SWD : Standard Work Data – includes the auxiliary elements which could be necessary in the apparel industry – with universal accepted standard times

    iii.   SFD   : Standard Finishing Data – has included the macro elements for the ironing, control, packing section – with standard times, but not universally. Is recommended the prior checking of the validity of them in the individual factory

    iv.   STD   : Standard Treatment Data – includes a series of macro elements with standard times (not universally) from the washing and finishing area *(the element linked demo videos coming soon)*

    v.   MTM-2: the MTM-2 data table

    vi.   Business – Owned : Business defined, custom elements. Aren't visible outside of the Business. No predefined element in this Class, the users defines and manages them when it is necessary. The way to define a custom Element is described in the "timeSSD® - Core activity" chapter.

    vii.   SHR – *Business Name*
           The "SHR - …" Class is not it visible from the start.

It appears only if the Business accepted a "Share" and minimum one method from the shared items have included a "Business – Owned" Element from the source Business.

The "SHR - …" Class components are not visible to be selected but they are visible in the methods in which they are used.

Remark : the "Import" from the Public is a simplified "Share".

Class i. – v. includes the predefined Elements.

*Remark* : predefined Elements values and parameters cannot be changed by the user.

2.3.5. Element types

The predefined elements are grouped by their type as follows :

i.	CUT	Cutting
ii.	DECI	Decision
iii.	HAND	Handling
iv.	MARK	Mark
v.	MOVE	Move
vi.	READ	Read
vii.	SEW	Sewing
viii.	TRIM	Trim

The custom element, created by the Business, could belong to a group from the predefined elements or the user, when creates it, can specify an arbitrary type for it.

The new type will be created by the System
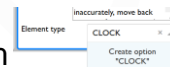
2.3.6. Methods (Operations) and Workflows (Operation lists) database

Core data place. Storage of the user defined methods and workflows, including the attachments.

In the System all Businesses and user's data are stored in the same table. The System has the duty to differentiate them logically and assures the privacy and full rights over the own data for the Business to which belongs.

Core data are data structures with three main sections :

i.	Header
ii.	Detail
iii.	Attachment

2.3.7. Auxiliary / additional tables

Tables and data structures which assists the Core data structure and the functioning of the System.

2.3.8. Measurement units and standard values

timeSSD® handle measurement units for two quantity types :

a. time;
b. distance.

2.3.8.1. Time

2.3.8.1.1. Over the System the time is expressed in minutes : **Min**

2.3.8.1.2. The motion elements time values in ELF are stored in Minutes (Min) values.

2.3.8.1.3. The minutes of the motion elements are considered with :
  a. timeSSD   60 minutes = 100.000 TMU
  b. timeSSD120   60 minutes = 120.000 TMU

2.3.8.1.4. Over the System the time values are shown as follows:
  a. For the Elements and Operations   : 3 digits
  b. For the Workflows   : 2 digits
  The digits for the storage of the time values are unlimited.

2.3.8.2. Distance

In the basic formulas the distance values are interpreted by default in Centimeters (**CM**).

2.4. Accuracy of the predefined Element times

The initial ELF, predefined Elements database of timeSSD®, it was acquired from AJ Consultants , Finland, together with the acquisition of the former SSD software in 2016. The development of SSD were started at the beginnings of the years of '80.

The elements are built up from MTM-2 motions, has universally accepted standard times and are used by more than 800 companies from Brazil to China.

After the acquisition, the ELF was extended with new elements, approved by the academic domain. All extensions and changes in the ELF are transparent and are tracked in the document available under the "About" navigator menu.

In case of any doubt regarding the times the user has minimum two options to check it :

a. Build up the element using the motions from the MTM-2 data table which is included in the System

b. Make a parallel, stopwatch based, time study for minimum three operations. Compare the results with the SAM get for the corresponding methods, developed in timeSSD®, by a timeSSD® practitioner.

All the times we are happy when we get in a written form the confirmation of the accuracy, after your checks please send us a short message to : info@timessd.com

Please be informed about the particular elements from ELF which not has predefined times or requires difficulty parameter; list and instructions are published in Appendix 5.

2.5. timeSSD® - the user interface

Recommended browsers zoom setting : 80%.

The general structure of the user interface is like on the Figure 2.5. Below.

User interface
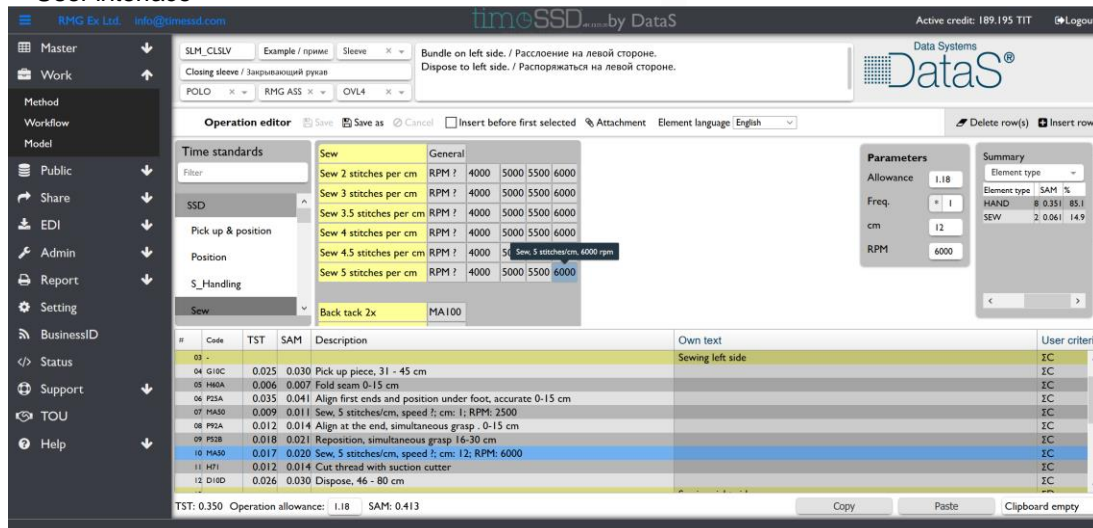
Figure 2.5.

2.5.1. Valid on all interfaces
2.5.1.1. User dedicated info row

Figure 2.5.1.

The row has six segments, as follows from left to right :

i. "Three horizontal bars" icon : close / open the "Navigator panel"

ii. Business name : the chosen name in the system for the company / individual

iii. Username : the current user's e-mail address
iv. timeSSD® version number : in the middle
v. Available Credit (or consumed Bond) on Business level
vi. Logout button : to leave the system by the user

2.5.1.2. Navigator panel

Navigator panel is active and available all time. If is not shown, then by pressing the "three horizontal bars", on the top info row, opens the pane.
Inside the navigator panel the down (⬇) and up (⬆) arrows open and close the detail of the menu point (detail of the folder).
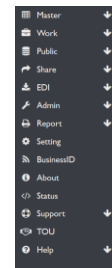
Figure 2.5.1.2.

2.5.1.3. Info message place

The system's info messages are shown on the bottom right corner, on the second canvas / layer, over the "Clipboard" tools. In case of more messages in a short time they are shown one upon another, from bottom to up. The info messages are shown for a short time, after it they disappear.

Figure 2.5.1.3.

2.5.2. Valid on registry listing interfaces
User tools
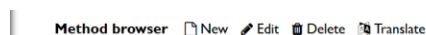
Figure 2.5.2.

The row with tool icons is used to provide the available function buttons dedicated for the data processing and record management.

2.5.3. Valid on editing interfaces
2.5.3.1. User tools
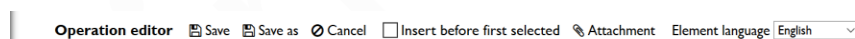
Middle up of the screen
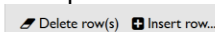
Bottom right of the screen
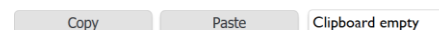
Figure 2.5.3.1.

The row with tool icons – named user tool bar – is used to provide the features dedicated for the data processing and record management.
The bottom placed buttons are dedicated for "Copy" and "Paste" functions of the active or selected records (only records) respectively to check and use the records copied in the "Clipboard".

2.5.3.2. Data header

Data header
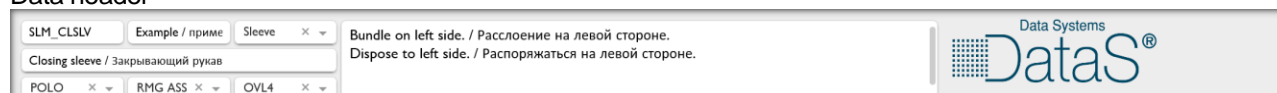
Figure 2.5.3.2.

The header place in case of master – detail data editing. Most of the fields from this form are filled in by selection lists.
The user tools manage the data in the header, too.

2.5.3.3. Data detail

Data detail

Figure 2.5.3.3.

On the bottom half of the screen are the details data in case of master – detail data structure.
Is a general rule that the core data – from ELF and from user registries – cannot be edited in these interfaces, they are selected. The user texts ("Own text"), grouping ("User criteria") and similar user data editing is allowed.

2.5.3.4. Manufacturing data

Method

TST: 0.350   Operation allowance: 1.18   SAM: 0.413

Operation list

ΣSAM: 12.76   ΣNo. of operators: 16.36

Figure 2.5.3.4.

The calculated manufacturing data are placed on the bottom left side : TST, SAM, Number of Operators.
In case of the method editing, a new, on all elements applied, average allowance value can be set.

2.5.4. Only for method / operation editor

2.5.4.1. Element selection

Section on left, where the Elements are displayed with navigation possibility between the classes, groups, and families, for selection the corresponding one.

Figure 2.5.4.1.

Element selection matrix with three columns :

		Example
Left	: Class	SSD
	Group	Pick up & position

Middle : Family   Pick up 2 pieces
        Element   Pick up 2 pieces simultaneously
Right   : Element accurate   Pick up 2 pieces simultaneously from 16-30 cm
User selects with double click, always, the "Element accurate" from the right column.

2.5.4.2.   Element parameters setting

The parameters setting form for the selected element. On the right side of the element selection matrix could be a short or higher panel to enter the appropriate parameter values for the selected element. The example shows the parameters set for the sewing element (line colored in blue) from the Figure 2.5.3.3.

Figure 2.5.4.2.

In such a case is recommended to enter as last value the sewing length, after all the other parameter values are entered.

2.5.4.3.   Elements distribution data

Distribution of the used Elements by types and "User criteria" based subtotals. The provided indicators are relevant for the production management (handling, sewing / machine time …)

Figure 2.5.4.3.

Remark: the individual interfaces are described later, at the corresponding menu point.

2.6. timeSSD® User Roles

The System allows three roles :
a. SysAdmin   : the System's Administrator
b. Business Admin : the Administrator of the account (Business registered)
c. User   : simple user of timeSSD® features
Each role includes the "User" role too.

2.6.1. SysAdmin

Users with SysAdmin rights are from to the System's development, support and administering team.
The main role of the SysAdmin is to follow the System's right functioning, update the System with new Elements (results of confirmed R&D), to inform and support the users, provide the data for the accounting.

2.6.2. Business Admin

Manages the Business belonging users and the account's ID data. Invite users in the Business account, limit, block and delete them.
Follows the Business user's activity.
Manages the partnerships with other Businesses, accept / reject sharing requests initiated by the users or by the partners.
One Business can have only one Business Admin.
The first user who registers the Business is by default the first Business Admin.
The Business Admin can transfer its right to another user. The transfer is performed when the nominated user accepts the transfer.

2.6.3. User

Use the System.

timeSSD®

3. timeSSD® - Features, short overview

This chapter presents a short overview about the System's common features and the scopes of different menu points. The detailed descriptions are on the following pages.

3.1. The navigation menu

Upper part

Menu Point	Feature
Master	Master folder for registries. Provides data in the selection lists.
Product	Product types
Group	Operation Groups
Machine	Machines registry
Part	Product Parts
Workflow	Workflow types
Work	Work folder. Mangement of Operations and Workflows.
Method	Methods / Operations management
Workflow	Workflows / Operation Lists management
Model	Models registry
Public	Public folder. Includes predefined examples.
Method	Operation examples
Workflow	Operation List examples
Product	Product type examples
Group	Operation Group examples
Machine	Machine registry example
Part	Product Part examples
Model	Model registry example
Share	Share folder for collaboration. From here is initiated the sharing.
Method	Methods sharing
Workflow	Workflows sharing
EDI	Electronic Data Interchange Data export to third party software.
Method	Method data export
Workflow	Workflow data export
Links	Links to the exported data files
Admin	BusinessAdmin folder. Visible only for the BusinessAdmin.
Dashboard	Cost breakdown and experience per users
ShareGet	Accept / Reject the shared items from Partners
ShareSent	Accept / Reject the initiated shares by the users
Partner	Partners management (initiate, accept, cancel)
User managment	Invite users, block, delete, nominate admin …
Log	Activity log of all users
Custom	Business realted default values setting

Continue to the end

Menu Point	Feature
Report	Predefined Reports folder. PDF and Excel reports.
Method	Group of predefined Reports for Operation
Description	List of the Elements in selection sequence
Custom	List of the Elements grouped by user criteria
Element type	List of the Elements grouped by Element type
Subtotal	Elements grouped by user criteria with subtotals
Excel	List of the Elements in Excel table, all details
Workflow	Group of predefined Reports for Operation List
Description	List of the Operations in selection sequence
Custom	List of the Operations grouped by user criteria
Machine	List of the Operations grouped by Machine codes
Subtotal	Operations grouped by user criteria with subtotals
Operator	List of the Operations with number of operators
Operator with Target	Operation list with operators no., hourly and daily target
Excel	List of the Operations in Excel table, all details
Setting	Language defaults settings and password change
BusinessID	Management of the company ID data
About	About timeSSD®
Status	List of the System's issues and their Status
Support	Contact list for Support
support@timessd.com	Support e-mail address
TOU	TOU and PP content with the date of acceptance
Help	User Help folder
Guide	Access this user guide
Demo	Demo video link

Figure 3.1.

3.2. Interfaces – data grid

The actual version of the software uses three types of data grids on the interfaces.

3.2.1. Flexible, smart grid

This type of data grids has a three rows header to have included the vertical filtering and sorting on the grid.
Flexible grid allows to set the column width with mouse drag.
Changing the column position, left – right, and the row position, up – down, is possible with the flexible grids.

Initial

Filtered and sorted descending

	Code	Description	SAM	Product
Q	Contains	Contains	Betwee	Contains
1	SGP00508	Collar stitch	0.64	Shirt M
2	SGP00510	Topstitch collar	0.46	Shirt M
3	JAS00101	Side seam	0.70	Jeans
4	RSP00101	Attach label on back yoke	0.47	TSH
5	RSP00201	Attach back Yoke	0.33	TSH
6	RAS00101	Close Schoulder	0.34	TSH
7	RAS00201	Attach Collar band	0.51	TSH
8	RAS00301	Topst. front neckline	0.27	TSH
9	RAS00401	Tape neck and schoulder. T-Shirt	0.33	TSH
10	RAS00601	Attach Sleeve	0.73	TSH
11	RAS00701	Side seam	0.86	TSH
12	RAS00502	Sleeve hemming	0.60	TSH
13	RAS00801	Bottom hemming	0.19	TSH
14	RAS01001	Folding and packing	0.18	TSH
15	SBF00101	Hem pocket mouth	0.22	Shirt M
16	SBF00201	Attach front pocket	0.87	Shirt M
17	SBF00301	Attach front placket	0.38	Shirt M
18	SBF00401	Press front placket	0.31	Shirt M
19	SBF00501	Hem right front	0.29	Shirt M

	Description	Code	SAM	Product
Q	Contains	Contains	Betwee	Contains
		AS		
37	Bottom hemming	RAS00801	0.19	TSH
38	Side seam	RAS00701	0.86	TSH
39	Attach Sleeve	RAS00601	0.73	TSH
40	Sleeve hemming	RAS00502	0.60	TSH
41	Tape neck and schoulder. T-Shirt	RAS00401	0.33	TSH
42	Topst. front neckline	RAS00301	0.27	TSH
43	Attach Collar band	RAS00201	0.51	TSH
44	Close -Right Shoulder	RAS00101A	0.30	TSH
45	Close Schoulder	RAS00101	0.34	TSH
46	Bottom hemming	JAS01201	0.49	Jeans
47	Bartags on fly	JAS01101	0.19	Jeans
48	Attach metal button	JAS01001	0.20	Jeans
49	Rivets on front pockets	JAS00901	0.32	Jeans
50	Buttonhole on waistband	JAS00801	0.25	Jeans
51	Attach Beltloops	JAS00701	0.41	Jeans
52	Attach label on waistband	JAS00601	0.41	Jeans
53	Bartag on waistband	JAS00501	0.24	Jeans
54	Attach waistband	JAS00401	0.70	Jeans
55	Close inside seam	JAS00301	0.31	Jeans
56	Topst. side seam	JAS00201	1.05	Jeans

Figure 3.2.1.

The filtering could be done on a set of predefined logical condition applied on the (partial) text defined in the rubber row. Pressing the magnifier starts the filtering process and the green semaphore is lighting until the filter is active.

To stop the filter just press the eraser.

With the up and down arrows, placed in each header cell, the ascending / descending sort is done.

Rules :
  i.   The text, based on which the filtering is performed, is not case sensitive.
  ii. The filters applied in more columns are joined with "AND" logic.
  iii. In case of multiple sorting the last sorting criteria is applied.

3.2.2. Semiflexible grid

From the semiflexible data grid missing the filtering feature, compared with the flexible grid.

Semiflexible data grid

Fix data grid

	Code	Description	Manufacturer
Q			
1	FPSP1	Fusing press small panels with with band and automatic	Macpi
2	FPSP2	Fusing press small panels with automatic dispose in role	Veit
3	FPSMH	Fusing press with mobile head	Veit
4	PFA	Pocket facing automat	AMF Reece
5	OVA	Automat overlock machine	JUKI
6	LOCKST 1 Needle	Single needle lockstitch	JUKI
7	OVL3	Overlock machine, 3 threads	JUKI
8	TDA	Trouser dart automat	AMF Reece
9	AWP	Automatic welt pocket machine	AMF Reece
10	LOCKST 2 Needle	Double needle lockstitch	JUKI
11	OVL5	Overlock/ safety stitch machine, 5 threads	JUKI
12	ZIP	Automatic double needle chainstitch machine for ataching	
13	CHA1	Chainstitch machine, 1 needle	JUKI
14	WLM	Waistband lining chainstitch machine, 1 needle	Durkopp Adler
15	IWST	Ironing work station	
16	BLPM	Industrial beltloops machine	Kansai
17	BHM	Buttonhole machine	JUKI
18	BUTM	Button sewing machine	JUKI
19	BARM	Bartag machine	JUKI
20	ABHEM	Automatic bottom hemming machine	Siruba

	Receiver	Status	Object type	Object code
1	Astailor Shine	Initiated	workflow	MTRO
2	Astailor Shine	Pending	operation	RSP00101
3	Astailor Shine	Pending	operation	JAS00101

Figure 3.2.2.

The rubber, magnifier and semaphore icons exist as part of the planned filtering feature what will be implemented in the next versions.

3.2.3. Fixed grid

The fixed grid (Figure 3.2.2. – right) is a fixed table format without any changing, filtering or sorting feature.

The software next versions will replace it with flexible grid.

Remark :

- Each type of data grid allows the multiple selection of the records using "Ctrl"+Click – one by one – or with "Shift" + Click – the list between the start and end click – like is habitual in Windows.
- Usually the timeSSD® grids do not support the cell data selection but the entire row / record selection.

3.3. Elements matrix

The central item of the timeSSD®, the foundation for its scope and the platform of the core activity. This is the basis of the working method development.

The Elements matrix is the user interface of the ELF.

The Elements are organized in Classes, the Class names are on grey background in the left column ("Time standards") from the Figure 3.3.1.1. – 3.3.2.5. below.

Inside the Class are one or more Element Groups, in the left column the Groups has a white background.

The Element Families are in the same column (middle on Figure 2.5.4.1.) with the Elements. The different families could be identified easily by :

- Family could have a separate title row like on Figure 3.3.1.1. (no selection buttons on the right column), or
- The families are separated by an empty row like on Figure 3.3.2.1., or
- The families are separated by visible, different, grouped colors, or
- The motion is clearly different from the neighbors like on Figure 3.3.2.4.

The Elements are in the middle column, in that rows where are placed selection buttons in the right column. Are many Element families with only one Element row.

Near each Element name / description is a horizontal list of buttons, on grey background, with the parameters which holds the standard time of the element accurate, defined and stored in ELF.

Depending on the Class & Group usually the predefined parameters referrers to:

- distances, lengths (in CM or Steps)   – e.g. Figure 3.3.1.1.
- weights (in KG)   – e.g. Figure 3.3.1.2.
- well defined motion   – e.g. Figure 3.3.2.4.

Please be informed about the particular elements from ELF which not has predefined times or requires difficulty parameter; list and instructions are published in Appendix 5.

3.3.1. Identify the motion's corresponding Element

The right Element selection process has two steps.

First the motion should be identified in the matrix, based on the operation's video sequence followed or just by visualizing it.

To support the Element identification the System shows a short description when the mouse is hover on a parameter button (Figure 3.3.1.1. – black background).

For the exact matching, the user should click with the right mouse button on the parameter button.

A new window opens it on the right side (Figure 3.3.1.1.) where:

i. The Element name / description is repeated.

ii. Exist a very detailed description – if necessary – about what motions are included in the Element, in which sequence, and when / with which motion the Element is end (this could be later, after other Elements between).

iii. In case of possible ambiguity, a witness video is available for visual matching.

Remarks :

- Accurate definitions of the basic motions are listed in Appendix 2, Figure 17.2.
- The scope of the witness video is to show the motion(s), only, for the easy identification of the Element corresponding to the motion in search
- All Element accurate belonging to the same Element has the same witness video attached, e.g. the motion in fact is independent of the distance
- The motion in fact is independent of the material / fabric shown on the video
- The motion in fact is independent of the machine / equipment and workplace shown on the video

The window is closed with clicking the "X" on red background.

SSD Class – Pick up & position Group

Figure 3.3.1.1.

SWD Class – Get piece – Put Group
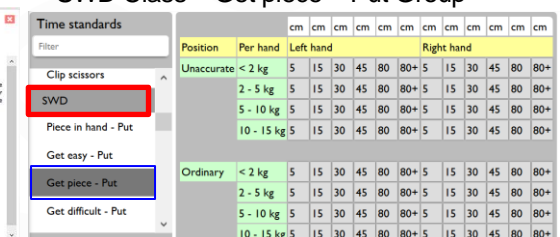
Figure 3.3.1.2.

3.3.2. Selecting the Element

After the Element is identified then with a double mouse click the Element accurate is selected and copied in the detail table of the operation.

Remark : at the selection, please pay attention to the rule from "4.1.2 Element selection rules".

When the selection is done then for the Element accurate should be set minimum two parameters, in the dedicated "Parameters" window, placed right side, (in the green rectangle on Figure 3.3.2.3.) :

i.   Allowance for that Element accurate

By default, the parameter value is set with the general, Business Admin established value, which is valid over the Business.

If the user considers necessary to change it then will overwrite it.

Actual version of the software not apply any detailed allowance separately, just the Business Admin defined average value, each time.

Data are available in the tables placed in Appendix 3 to build up for each Element and Operation the total allowance value.

Remark : pay attention because the Allowance value of each Element, from an operation, will be overwritten by the average Allowance value specified for the whole operation, in case of the user modify it, e.g. on Figure 2.5.3.4.

ii.   Frequency of the Element accurate

The parameter is set by default to the unitary (1) value.

Meaning of the "Freq." is to multiply – if the "*" is used – or to divide – in case of "/" sign – the TST value of the Element accurate with the specified "Freq." value.

It could be used in case of symmetric Elements accurate, to avoid the multiple selection of the same Element accurate sequences, as "multiplying"

case. An example for the "divide" case is when a time of an Element accurate should be divided on more pieces.

SFD Class – Dispose Group

Figure 3.3.2.1.

STD Class – Handling in Treatment Group

Figure 3.3.2.2.

SSD Class – Sew Group

Figure 3.3.2.3.

MTM-2 Data table

Figure 3.3.2.4.

Business-Owned Custom Elements

Figure 3.3.2.5.

A part of the predefined Elements requires or allows to have set its parameters (one or more) free or between established limits. This Elements uses formulas and stored constant values to calculate the TST in function of the values entered.

The typical and easy example is the possibility to set the "rotation / minute" (speed) and "stitch / cm" parameters for a sewing machine. Exist a series of predefined Elements for sewing in ELF, to cover the most popular cases. But for the case when it could be necessary to define a very specific value then exists the "General" button. This button allows to set the machine's RPM and "stitch / cm" values arbitrary and provides the accurate time for the length of the sewing specified.

Remark : because of the credit cost calculating – based on the timeSSD® costing principles – is recommended to have the sewing length specified as last parameter. The panel where the additional parameters are required is shown on Figure 3.3.2.3., right side.

The selection of an element accurate has the following results, in real-time :

i. The accurate element's code, short description and parameter values are copied in the detail table of the operation.

ii. The "Summary" (Elements distribution data) panel (Figure 2.5.4.3.) is updated. The selected accurate element's TST and SAM are centralized to the element's type corresponding row.

iii. The Method execution data section (Figure 2.5.3.4.) is updated :

    a. TST and SAM fields   : value is increased with the corresponding values from the element accurate

    b. Operation allowance field: value is recalculated taking into consideration of the selected accurate element's allowance value (SAM / TST)

iv. Changing any parameter of a selected element accurate updates in real-time all the above (i., ii., iii.) data

Credit cost   : the credit is accounted in the moment of posting / modifying of the selected Element accurate data in the operation detail table.

All changes in the element's parameters are reflected in corresponding cost accountings.

3.3.2.1. Special for sewing elements

- In case of sewing, the acceleration and deceleration of the machine is included in the TST calculating formulas.

- No elements and no parameters for differentiating the SAM in function of the sewing complexity and type the fabric. In case of the right method development, the more complex material will require more handling motions and these additional motions generates those additional times which makes the difference.

- The IE team could establish a common accepted matrix for the machine speeds. In function of the type of the fabric could be specified the recommended / allowed speed of the machine. This table should be posted on a common place on the company server or on a hyperlink.

  The place of the file with the matrix could be inserted as first record in the table under the "Master – Workflow" menu point, as info for all users.

- It is recommended in addition to take into consideration the different sewing speed requirements in function of the expected quality of the product. In case of high quality expected (premium and luxury brands) the sewing machines should be considered on lower speed than usual!

- *Remark* : because of the credit cost calculating – based on the timeSSD® costing principles – is recommended to have the sewing length specified as last parameter.

3.3.3. Manage custom Elements in Business – Owned Class

Custom elements are the elements created by the user and are stored in the Business-Owned class.

Could be cases when the performed motions or tasks are so special / unique than no element exist in ELF, but these motions / tasks are repeating in the manufacturing line on more models.

Such a case could be a special machine, finishing/ironing elements – if the predefined ones are not fit – and others.

timeSSD® allows to the user to define the new elements and to provide their TST (standard time) resulted from time study. The own elements accurate became a part of ELF but are available only for the users from the Business where they were defined.

3.3.3.1. Create custom element

To create own element(s) first the own element group should be defined with click on the "+" button (Figure 3.3.3.1.1.) and entering the name of the group (Figure 3.3.3.1.2.). The name of the group must be unique.

timeSSD®

New own element group

Figure 3.3.3.1.1.

Group name entering

Figure 3.3.3.1.2.

Clicking the checkmark / enter will result in the saving of the element group. After an element group has been created, it is automatically opened for editing.

Edit own element group

Figure 3.3.3.1.3.

The default group has two rows and three columns.
Using the commands from the toolbar the number of the rows and columns can be modified with "Add …" to increase and "Delete …" to decrease.
If „Insert before first selected" is checked then the „"Add …" command is performed correspondingly.

The first column contains the name of the element.
Other column, starting with the second column, contain the Elements accurate.
Each Element accurate has:
  i. Parameter value
  ii. TST value (in Minutes)
  iii. Short description : shown on mouse hover and on selection this text is inserted in the operation detail
  iv. Detailed description
  v. Element type; possible to create new element type
With the scope of time saving for the user during the first edit, the system automatically fills in the cells based on the one preceding it. (Figure 3.3.3.1.4.)

First column filled in and added a column more

Figure 3.3.3.1.4.

After the editing is completed, pressing the save button will return to the operation editor. The newly created elements are ready for use.

New element accurate selected in the last position of the list

Figure 3.3.3.1.5.

3.3.3.2. Custom element edits, rename, translate, delete

Element managing tools

Figure 3.3.3.2.

With right mouse click on the Business-Owned element's group a four-position action menu opens :
  i.   Edit   : Edit elements; Figure 3.3.3.1.4.*
  ii.   Rename   : Rename group; Figure 3.3.3.1.2.*
  iii. Translate : Translate all; Figure 3.23.*
  iv.   Delete   : Deletes the Element group after a confirmation

* Procedures and actions are similar with in the case of the referred ones

3.4. Attachments management

timeSSD® allows to upload attachments to methods and workflows.

Each operation can have attached a file, as well each operation list can have own file attachment.

Allowed file types to attach :

JPG, PDF, PNG; AVI, FLV, MKV, MOV, MP4, MPEG, MPG, WMV

Remark : the video files are stored by Azure, by default, in H.264 720 Codec format.

All attachments have an upload cost and a daily storage cost which are proportional with the size of the file.

For each attached file exist a default, over the instance valid, size limit : 300 MB.

All Businesses has a predefined upload limit per account.

The Business Admin can set an upload limit for each user.

The prices and limits are listed in 16. Appendix 1 – timeSSD® prices and cost estimation.

3.4.1. Upload attachment

To upload an attachment the item should be in Edit mode.

If no attachment uploaded then the "Attachment" button from the toolbar asking for the file to upload, figures below.

Attachment to a method
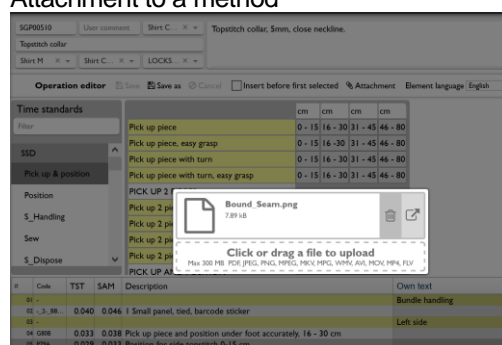
Figure 3.4.1.1.

File selection
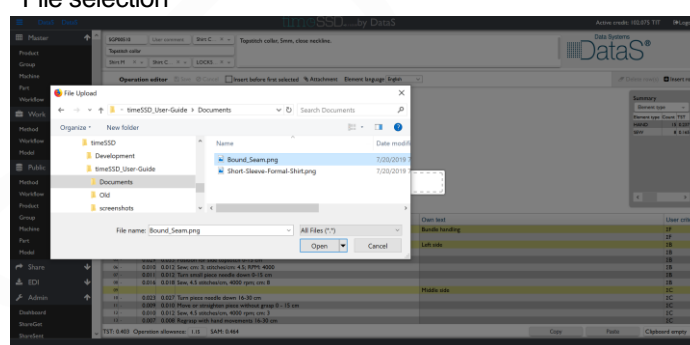
Figure 3.4.1.2.

The selected file is uploaded and linked with the item. The dialog box is closing with the mouse click outside of it.

In this example the attachment to the method is shown, the process is the same in case of the workflows.

In case of the file type is not allowed or the size of the file is larger than the allowed one the file upload is refused, and an info message is shown : "Invalid file type" or "File too big".

Credit cost   : all attachments have an upload cost and a daily storage cost which are proportional with the size of the file. The attachments upload costs are not accounted in the moment of attaching. The first time when the overhead costs (including the storage costs) are accounted all file upload costs – from the last overhead accounting moment – are accounted too.

3.4.2. Open, edit, delete attachment

If the item has an attachment then the "Attachment" button asking for the command to "Open" or "Edit" the attachment, otherwise asking for upload (paragraph before).

timeSSD®

Manage attachment

Figure 3.4.2.1.

Attachment Open

Figure 3.4.2.2.

On "Open" the attached file content is shown in a new tab.
On "Edit" the dialog box (Figure 3.4.2.3.) allows to delete the attachment or to show the content.

Edit dialog box
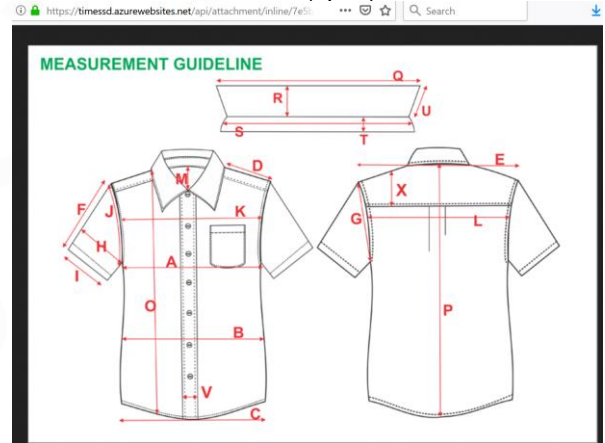

Figure 3.4.2.3.

Attachment content show (open)

Figure 3.4.2.4.

Credit cost : The item with a new attachment is considered by the System as a new item. If the item is already selected in operation lists, then – on saving the item – the System asks for the confirmation of recalculating the costs, like on Figure 3.4.2.5. Based on the principle that the old item is changed with a new item, the System calculates the cost similar like a new item is added to the workflow, in case of each workflow.

Remarks :
- The default upload quota for each user is : 500 MB. The users registered in earlier versions of the System could have a quota of 100 MB which can be changed by the Business Admin.
- Only one file upload, near each method and near each workflow, is allowed. The upload, download and storage costs are shown in Appendix 1.
- The item's sharing feature transfers the attachment too.

timeSSD®

Sewing method with a new attachment
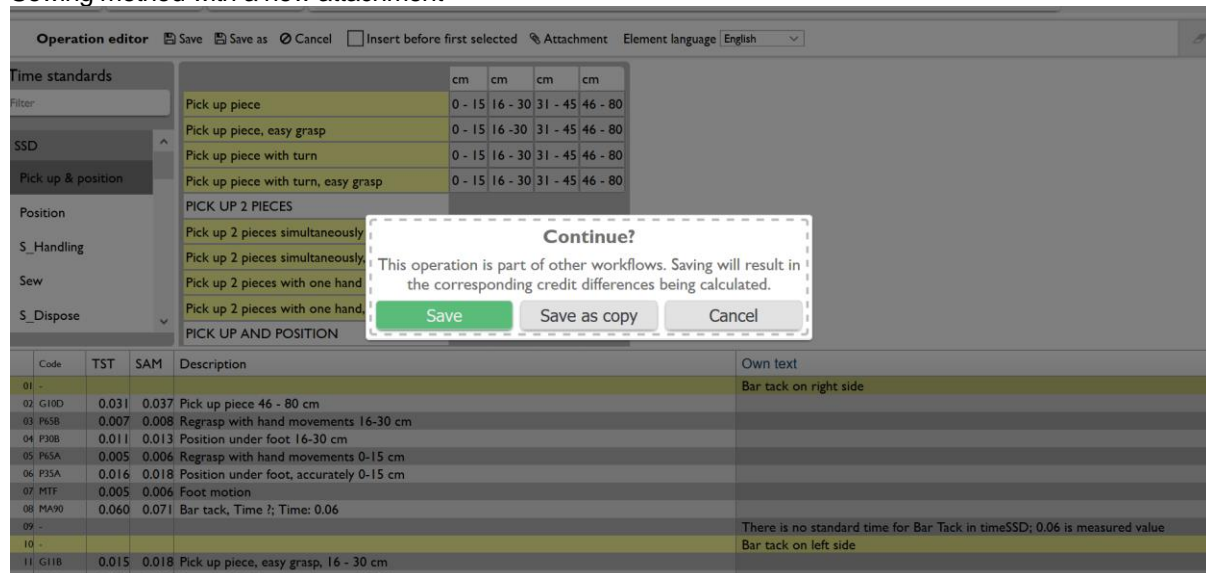
Figure 3.4.2.5.

3.5. User text translation

The text of the Elements from ELF, interfaces and reports are translated by default to the listed languages. The list of the implemented languages is shown on the right side of the "Register for free" button on the timeSSD® website www.timessd.com .

Remark : could be exceptions in case of very new elements which are uploaded only in English. In this case the translations will follow.

timeSSD® provides translation tools for the user to translate its, own, text.

Locations of user editable texts :
  i.   Own elements
  ii.   Operation header and detail
  iii.   Workflow header and detail
  iv.   Model
  v.   Product
  vi.   Group
  vii.   Machine
  viii.   Part

Important : In case of user text the timeSSD® cannot recognize the language of the entered text. The applied default is, the text entered by the user is on that language which is set as **Element** language by the user.

Select the item with a click and the "Translate" button is activated (black) on the user tool bar.

Translation editor active
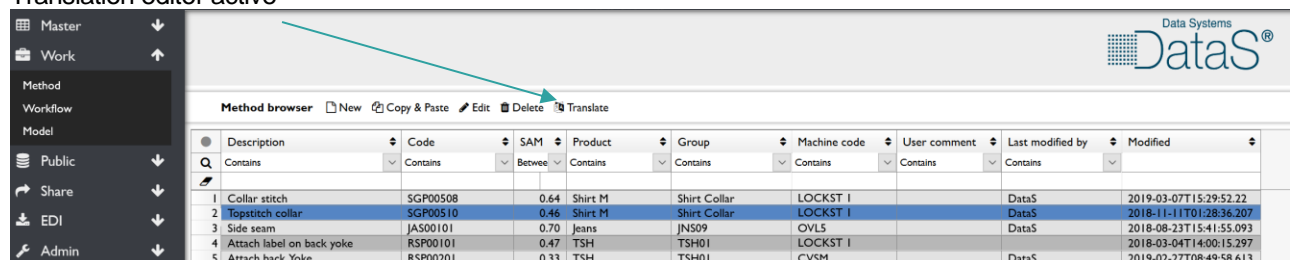
Figure 3.5.1.

Translation process

i. A similar interface, like on the below figure, is open with the "Translate" button.

ii. Left side is dedicated for the source language, right for the target language

iii. User selects on left the language from which would like to translate. In case of no text on the desired source language than that language cannot be selected.

iv. User selects the target language. This could be a language on which the translation already exists.

v. On left side are listed all field names with user text from the selected object, together with their content.

vi. In the first step, by default, the source content is mirrored by the software on the right side, on source language.

vii. The translation consists in to overwrite the source language texts from right side with their corresponding meanings in target language.

Credit cost   : the translation and the translated text storage are credit free.

Remark :

- The content on the left side, on Source language, is not editable.
- With the saving of the translation the used Target language become a new Source language.

Translation editor
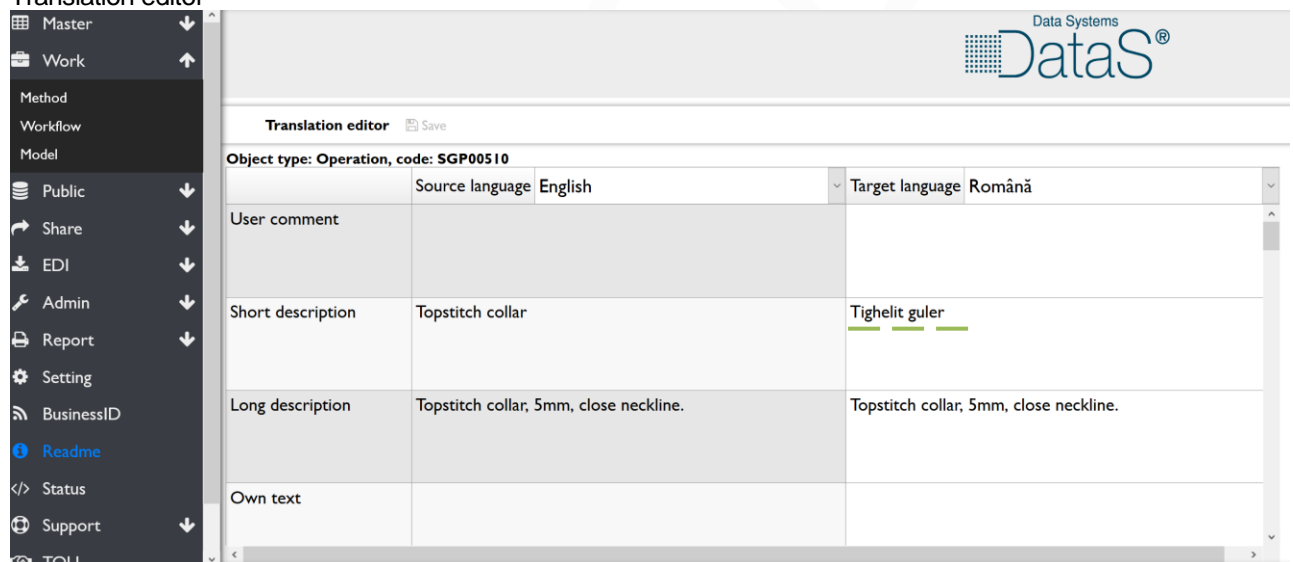
Figure 3.5.2.

3.6. Cascade update : Method and Workflow saving

Cascade update case could be when an existing Method or Workflow is edited and after it is saved with the "Save" button.

If the Operation or Workflow is already referenced in other workflows, then the System should update it in all instances.

Saving will trigger a recursive process which will update every dependent workflow on every level. Credit consumption is the same with when the operation is selected in the workflow, accounted on each referenced workflow.

The System observes the further cost generating and asking for confirmation as well suggests a parallel solution.

3.6.1. Cascade update : Method

In case of the Method saving the below message (Figure 3.6.1.1.) asking for the user decision.
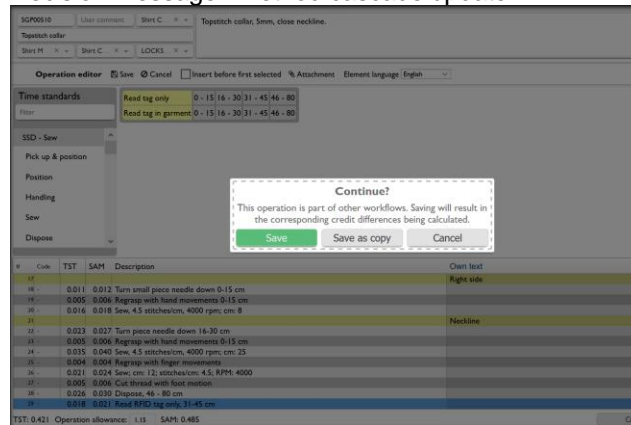
Decision message : Method cascade update

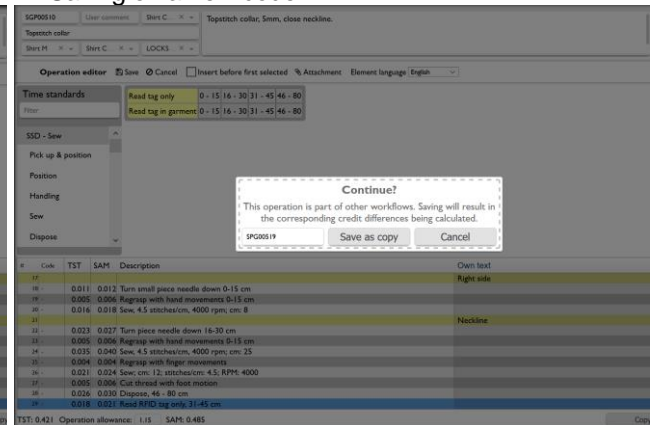Saving on a new code

Figure 3.6.1.1.

Figure 3.6.1.2.

If the user selecting the "Save' then the cascade update is performed with the corresponding credit costs.

The alternative solution is with the "Save as copy" answer on the decision message (Figure 3.6.1.2.). This will result in the creation of an entirely new Operation. This process will not affect the existing Operations or Workflows and will consume credit equal to copying an operation. Duplicate codes are not allowed when saving as copy. With "Save as copy" the System asking for a new operation code to perform the saving, like on Figure 3.6.1.2.

3.6.2. Cascade update : Workflow

Decision message : Workflow cascade update
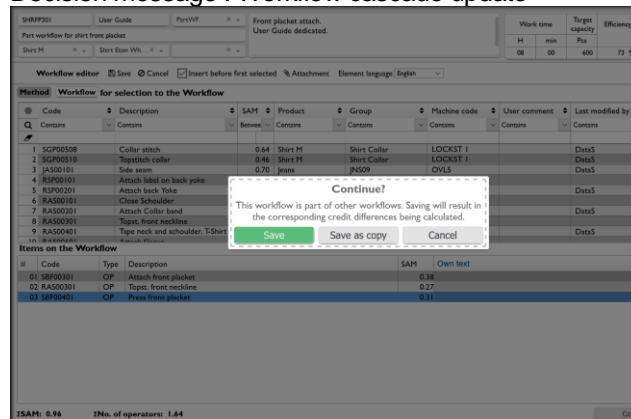
Saving on a new code
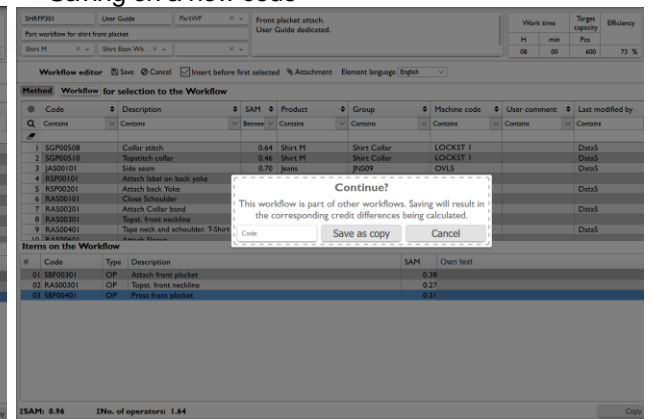
Figure 3.6.2.1.

Figure 3.6.2.2.

In case of the Workflow saving the above message (Figure 3.6.2.1.) asking for the user decision.

If the user selecting the "Save' then the cascade update is performed with the corresponding credit costs.

The alternative solution is with the "Save as copy" answer on the decision message (Figure 3.6.2.1.). This will result in an entirely new Workflow being created. This process won't affect the existing Workflows and will consume credit equal to copying a workflow. Duplicate codes are not allowed when saving as copy.

With "Save as copy" the System asking for a new workflow code to perform the saving on Figure 3.6.2.2.

3.7. Copy, Paste, Clipboard : Method and Workflow

Both the Operation and Workflow editors have their own clipboard. Selected rows can be copied to clipboard by using the dedicated "Copy" button or pressing Ctrl + C on the keyboard while the right table is focused. A focused table is distinguished by the blue outline surrounding it.

The clipboard controls can be found on the bottom right corner of the interfaces – like on Figure 2.5.

The clipboard is not cleared when the Operation/Workflow in the editor is changed, therefore it is possible to copy arbitrary rows from one Operation/Workflow to another.

Clipboard content
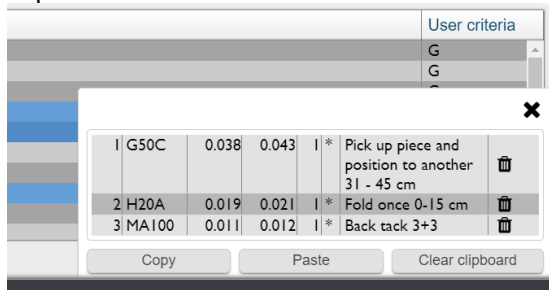
Figure 3.7.

Pasting the rows can be done by using the dedicated Paste button or pressing Ctrl + V on the keyboard. Rows can be pasted in front of another row by ticking the "Insert before first selected" checkbox.

The list of items can be displayed by clicking on the "Clipboard" button.

Credit cost : The "Paste" action is equivalent with manually adding the individual rows, therefore the same amount of credit is charged.

3.8. Communication by the System

timeSSD® inform and asking the users and potentials by messages and e-mails.

3.8.1. The messages could be info messages and messages which require the interaction of the user.

Info messages could be on the bottom right corner displayed in cascade or on the center of the interface.

The messages which expect user interaction always are on the center of the screen.

3.8.2. When the System send an e-mail the sender address is : support@timessd.com. For support requests please use the support@timessd.com address.

3.8.3. For security reasons the e-mail embedded links are used for confirmations.

In such a case the e-mail includes two links to the same address : a short one to just click it, and another, a detailed address, to copy it and paste in the browser to access the page.

The links sent has a validity of 24 hours.

4. timeSSD® - Core activity – Method , Operation List

timeSSD® is dedicated for work methods developments in the garment industry, using the predefined elements, and provides the universal accepted, standard allowed minutes for the defined method.

In case of a necessary but missing element from ELF the user can build it up and enter it in the dedicated section for the private elements ("Business owned" section).

The software provides in case of all defined methods (selected elements list) the accurate time for that list but does not guarantee that the method is the ideal.

To edit and define the right methods the user should master the motion analysis concept and techniques.

The operation list (workflow) development, using the already defined methods (operations) is an additional feature of the System. The implemented solution allows for the user to build up a new operation list from existing operation lists mixed with operations.

The labor cost in minutes for a style is provided. The number of required workers per operation are calculated in function of the daily working time, efficiency of the line and the established daily target

4.1. Software operating recommendations and rules

4.1.1. Recommendations for the motion analysis process

i. For method development is recommended to have one or more videos about the analyzed operation. The video should be made from an angle from where all motions are captured, the workplace and close surroundings can be seen. The worker's pace is not important.

ii. It is recommended to start the video on a second screen / another window, follow the worker motions, identify the motion, find out in timeSSD® the corresponding element and select it in the list.

iii. Estimate the distances and lengths with the attention required by the available distance intervals in the System's selection matrix. In case of sewing length follow the tech pack's data for the accuracy.

iv. Identify the unnecessary motions and skip them, do not select any element for them.

v. Use creativity for transport system's modification, auxiliary tools installation on the workplaces and other changes. These changes should generate, on middle time level, more added value via the increased efficiency than the investment made.

vi. Follow the witness video but in the same time read and interpret the descriptions of the elements where the whole content of an item is listed. For example, an element could include a motion what will be necessary after one or more other elements.

Please remember :

- The scope of the video is to show the motion(s), only, for the easy identification of the Element corresponding to the motion in search
- All Element accurate belonging to the same Element has the same witness video attached, e.g. the motion in fact is independent of the distance
- The motion in fact is independent of the material / fabric shown on the video
- The motion in fact is independent of the machine / equipment and workplace shown on the video

vii. In this version of the System the selection lists provide only the code list of the items from where the selection is expected. Until the version when all necessary data will be available in the selection list for the user, in scope of unique identification, please start the software in a second session. Open in a second tab / window that registry from where the selection is expected, in this way the identification is simplified.

timeSSD® do not has included any limits in user licenses, concurrent user numbers or restrictions regarding the number of sessions started by the same user.

4.1.2. Element selection rules

i. In case of many elements the user has the possibility to choose a dedicated button with a fixed parameter value of "V" or can enter that "V" value after the general button is selected.

Example :

Class	: SWD
Group	: Move / Walk
Task	: the operator moving / walking 3 M
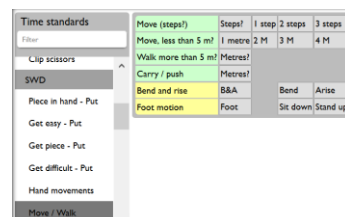
timeSSD® selection possibilities   :

a. "Move, less than 5 m ?" element with the "3 M" button

b. "Walk more than 5 m" element with the "Metres?" button where is possible to enter the number "3"

Figure 4.1.2.1.

All the times use the dedicated button in such a case, the dedicated button has the right time! In case above : use the button with "3M" inscription.

ii. When for a motion exist a predefined, combined element than never build it up again form the available smaller elements, use the already existing combined one.

Example :

Class	: SSD
Group	: Position
Task	: align first ends and position under foot
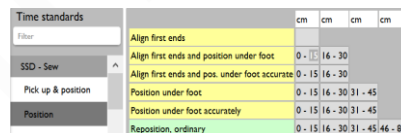
timeSSD® selection possibilities :

a. "Align first ends and position under foot"

b. Align first ends" + "Position under foot"

Figure 4.1.2.2.

All the times use the combined element in such a case, there is the right time! In case above use "Align first ends and position under foot".

iii. The Elements from the "SFD" and "STD" Classes are not considered Universal. With high probability the elements will be the right ones but should be verified by the Business before to apply in practice.

4.2. Working Methods – Operations

The features for the management of the working methods / operations are placed on the navigation pane (Figure 2.5.) in the "Work" folder, "Method" menu point (Figure 3.1.).

timeSSD®

During the development / editing of the methods the selection lists uses data from the "Master" folder registries : Product, Group, Machine, Part.

For the method reports the user should access the "Report" folder and select the predefined report from the "Method" section.
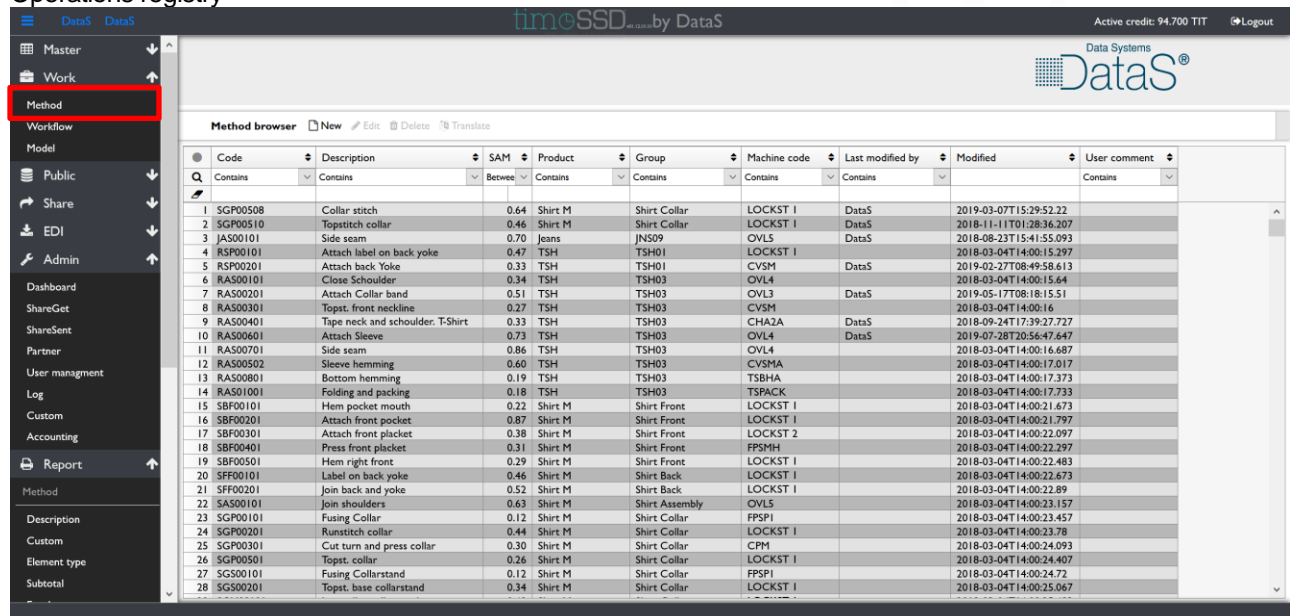
The method's data transfer to third party software is placed in the "EDI" folder, "Method" menu point.

To copy an operation the user should "Edit" the source operation, make the changes but minimum to change its code and after it to use the "Save as" button to save it on the new code.

4.2.1. Operations registry

By selecting the "Method" menu point from the "Work" folder the registry with the list of the existing methods is shown (usually, after the user login, the software starts in this point). The interface name is "Method browser", suggesting the multiple actions with the operations.

Operations registry

Figure 4.2.1.

Having the searching, filtering, organizing the records – by the flexible grid features (Figure 3.2.1.) – the tool bar provides in addition all necessary tools to create and manage the operations and operation registry.

4.2.2. Operation "New" and "Edit"

An operation is a list of Elements accurate selected in a specific order from ELF.

The interface starts as it shown on Figure 4.2.2.1.

The structure of the interface is described on paragraph 2.5 timeSSD® - the user interface.

"New" is dedicated to start the development of a new method. The starting interface for editing is empty, with no content.

"Edit" is used to open the content of an existing method and to modify of it.

Once the empty content is open with the "New" command the rest of the actions are considered "Edit" process.

4.2.2.1. Method header

The fields from the method header are to identify the operation, to describe it in a general way and to have specified that parameters – selected from predefined registries located in the "Master" folder – which helps the users in identifying it easy. The parameters are used also to provide structured data for other software modules

(from timeSSD® and from third party software, too) dedicated for product development, managing and control the production.

Fields

"Operation Code"   – is the only mandatory field

The operation code must be unique inside the Business account, can include any type of characters.

"User comment"   – free space for user indications and comments

"Part"   – code of the component piece of the product resulted after cutting

The code could be selected form a drop-down list which has the data from "Part" registry, located in the "Master" folder.

"Short description"   – a short description of the method

The value of this field is used in general with mouse hover, on reports and documents.

Are allowed any characters on any language. The System's interprets the value of this field as it's on the language which is set for the Elements in the moment of saving.

"Product"   – code of the product type on which the operation is executed

The code could be selected form a drop-down list which has the data from "Product" registry, located in the "Master" folder.

"Group"   – code of the operation group where the operation is executed in the line

The code could be selected form a drop-down list which has the data from "Group" registry, located in the "Master" folder.

"Machine"   – code of the machine type used for the operation execution

The code could be selected form a drop-down list which has the data from "Machine" registry, located in the "Master" folder.

"Long description"   – space to describe in detail and in free style the operation

New method starting interface

Figure 4.2.2.1.

4.2.2.2.   Method detail

Displays in table format the list of the Elements selected from the Elements matrix (center of the interface) like on the Figure 4.2.2.2.1.

timeSSD®

Columns

"#" – sequence number of the Element accurate

The Elements accurate should be in the natural, execution sequence in the list. Usually they are selected in the sequence as they are executed (video sequence analysis), maybe corrected by the IE user with the scope to improve the execution. The already selected Elements accurate sequence – in fact the position of any row from the detail table – can be changed by the user with a simple mouse drag & drop.

"Code" – timeSSD® code of the selected Element accurate ; field is read-only

"TST" – the standard execution time of the Element accurate

This time is from ELF or in case of dynamic Elements (like sewing) is calculated with parameters stored in ELF. Its measurement unit is the Minute. Field is read-only.

"SAM" – standard allowed minutes (standard minute value) of the Element accurate

Is the result of the product between TST and the Element accurate allowance, set by the user : TST x Element accurate allowance. Field is read-only.

"Description" – short description of the Element accurate

The description is from ELF. Field is read-only.

"Own text" – field for user texts

The user can enter descriptions, indications, any text. Field read-write.

"User criteria" – field for user defined grouping identifier

With these criteria field the user can specify which rows belongs to which identifier group with the scope to get subtotals on this groups, on the report.

The identifier can be any text.

The software manages by default the identifier values, when observes an insertion of criteria header row then changes automatically the identifier.

The user can overwrite any time, any criteria identifier with a new value.

Field is read-write.

Method development interface

Figure 4.2.2.2.1.

4.2.2.3. Toolbar and the Method editing work
4.2.2.3.1. Insert row

By default, all new records are inserted in the detail of the operation in a new position at the end of the operation's detail table. Exception is when the "Insert before first selected" option is checked. In case of the option is checked then the new record will be inserted as the option says : before first (up to down sequence) selected.

A new record could be generated by selecting an Element accurate from the matrix or by using the "Insert row" command from the tool bar.

In case of the "Insert row" command the user is asked to specify the type of the free row what will be inserted :
i. Comment row
    Excepting the case when is inserted as first row keeps the running criteria identifier.
    If inserted in the first row, then will generate a new criteria identifier.
ii. Criteria header row
    Changes the criteria identifier to a new, not used, value with the scope to start a new subgroup.
In both case the record is Element free – but the counter sequential number is running – and is allowed for the user to enter free text in the "Own text" field.

4.2.2.3.2.   Delete rows
Deleting the selected rows from the detail. Before the delete is performed an additional confirmation, request message is displayed.

4.2.2.3.3.   Element language
It is a direct setting possibility of the elements language without to go through the "Settings" menu.

4.2.2.3.4.   Attachment
Please follow the description of the "Attachment" command at "3.4 Attachments management"
Credit costs   :

- All attachments have an upload and storage cost. Pricing is described in the Appendix 1.
- The item with a new attachment is considered by the System as a new item. If the item is already selected in workflows, then – on saving the item – the System recalculates the costs. Based on the principle that the old item is changed with a new item, the System calculates the cost like when a new item is added to the workflow, in case of each workflow.

4.2.2.3.5.   Element accurate selection from the matrix
The Element accurate selection procedure is described in the paragraph "3.3 Element Matrix".
As result the Element accurate is inserted as new record in the Method Detail table.
The position of the insertion is the last record, excepting the case if the "Insert before first selected" is checked.
The selected Element accurate updating the method's data in real-time by:
i. Element types distribution panel data (2.5.4.3 Elements distribution data)
ii. Method execution data (2.5.3.4 Manufacturing data).

Credit cost : the credit is accounted in the moment of the posting of the selected Element accurate data in the operation detail table. A credit accounted is not refunded.

4.2.2.3.6. Cancel

"Cancel" command cancels all changes done from the last saving, close the interface and return to the starting point.

The credit costs generated during the changes are not refunded.

4.2.2.3.7. Save As

"Save As" command is used to copy an existing method. Open for edit an existing method and save it with "Save as" using a different code. The existing method remain unchanged, the new method will be saved under the new code.

Credit cost : the "Save As" all times generates a credit cost equal with the credit cost of the original method on which was started the editing.

Pay attention to avoid unnecessary costs : not use "Save As" instead of "Save" , for saving an existing method.

4.2.2.3.8. Save

Saving the changes done on a method starts the cascade update checking process. If is the case then the "3.6.1 Cascade update : Method" process is running, otherwise the changes are saved, header – detail, and close the editing process but the interface isn't closed.

4.2.2.4. Element distribution and Method execution data

The Summary pane (2.5.4.3 Elements distribution data) gives a real-time distribution of the elements during method development.

The distribution can be based on either on the element type (such as handling element, cutting element, sewing element) or based on the contents of the "User criteria" (Subtotal) column.

Element type based distribution

Figure 4.2.2.4.1.

User criteria based distribution with User criteria sequence

Figure 4.2.2.4.2.

Method execution data

Figure 4.2.2.4.3.

The Method execution data (Figure 4.2.2.4.3.; 2.5.3.4 Manufacturing data) consisting of the TST total value, Operation allowance's arithmetic median

on the bottom of the screen, are updated in real-time during method development.

A new Allowance value can be specified for the operation by changing the value of the Operation Allowance. Pay attention because this procedure will update the allowance parameter of every element accurate belonging to the operation.

4.2.3. Delete

Used to delete the selected operations (records).

The user gets a confirmation question before delete.

The delete is irreversible, this version of the software does not have a temporary storage to keep the deleted items for an eventually restore option.

If there is a least one operation in the selection which is included in a workflow then no operation will be deleted from the selection, after the confirmation message. A short message will inform the user regarding the existence of minimum one operation, in the selection, which is referenced.

The referenced item could be deleted only after the reference is broken by the user. In this case the user should delete first that operation from the workflow(s).

Credit cost   : the operation delete has no cost.

4.2.4. Translate

"Translate" button allows to translate all user texts from the selected operation as is described in 3.5 User text translation .

Credit cost   : the operation translation has no cost.

4.3. Operation Lists – Workflows

The features for the management of the workflows / operation lists are placed on the navigation pane (Figure 2.5.) in the "Work" folder, "Workflow" menu point (Figure 3.1.).

During the development / editing of the workflows the selection lists uses data from the "Master" folder registries "Product" and "Workflow" respectively from "Work" folder's "Model" registry.

The workflow could be dedicated for a model or for only a part of the product. The "Workflow" registry from the "Master" folder provides the user with grouping definitions for the differentiation.

For timeSSD® a workflow is a list of items (operation and other workflow) which can be nested until an "n" level, where "n" could be any big number but finite. No direct nor indirect circular reference is allowed.

The System can split any workflow on its next level components (operations and other workflows) but after the split the System is unable to build back the initial status, meaning: the workflow split is possible but isn't it reversible by the System.

For the workflow reports the user should access the "Report" folder and select the predefined report from the "Workflow" section.
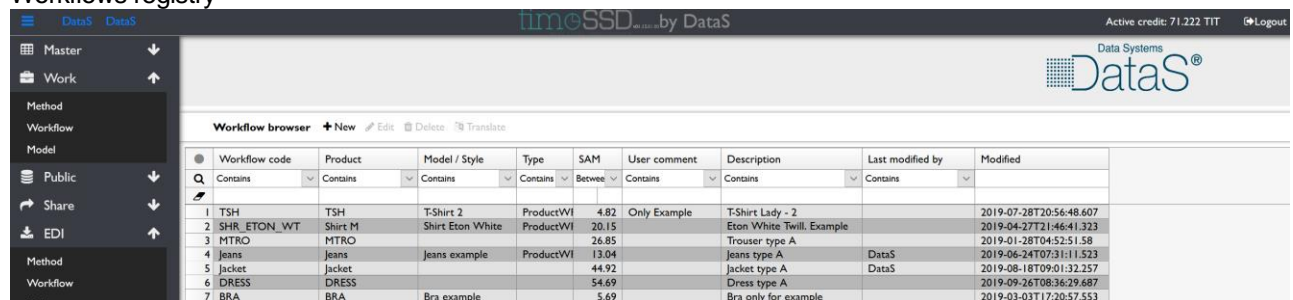
The workflow's data transfer to third party software is placed in the "EDI" folder, "Workflow" menu point. The EDI transfer includes the nested levels too (other workflows, operations).

To copy a workflow the user should "Edit" the source operation list, make the changes but minimum change its code and after it to use the "Save as" button to save it on the new code.

4.3.1. Workflow registry

By selecting the "Workflow" menu point from the "Work" folder the registry with the list of the existing operation lists is shown. The interface name is "Workflow browser", suggesting the multiple actions with the operations.

Near to the searching, filtering, organizing the records – by the flexible grid features (3.2.1 Flexible, smart grid) – the tool bar provides all necessary tools to create and manage the operations and operation registry.

Figure 4.3.1.

4.3.2. Workflow "New" and "Edit"

A workflow is a list of methods and other workflows, mixed but selected in a specific order from the methods and workflows registry. It describes the sequence of the necessary tasks to manufacture the product from beginning to end.

The interface starts as it shown on Figure 4.3.2.1.

The structure of the interface is described by 2.5.3 Valid on editing interfaces .

"New" is dedicated to start the development of a new workflow. The starting interface for editing is empty, with no content.

"Edit" is used to open the content of an existing workflow and to modify of it.

Once the empty content is open with the "New" command the rest of the actions are considered "Edit" process.

4.3.2.1. Workflow header

The fields from the workflow header are to identify the operation list, to describe it in a general way and to have specified that parameters – selected from predefined registries located in the "Master" folder – which helps the users in identifying it easy. The parameters are used also to provide structured data for other software modules (from timeSSD® and from third party software, too) dedicated for managing and control the production.

Fields

"Workflow Code" – is the only mandatory field
   The workflow code must be unique inside the Business account, can include any type of characters.
"User comment" – free space for user indications and comments
 "Type" – user defined code for the workflows to visual distinguish between product related and part related workflows (part related workflows are used in other workflows instead of operations to speed up the editing process and to make structured the product workflow)
   The "Type" code could be selected form a drop-down list which has the data from "Workflow" registry, located in the "Master" folder.
"Short description" – a short description of the workflow
   The value of this field is used in general on reports and documents.
   Are allowed any characters on any language. The System's interprets the value of this field as it's on the language which is set for the Elements in the moment of saving.
 "Product" – code of the product type on which the operations are executed
   The code could be selected form a drop-down list which has the data from "Product" registry, located in the "Master" folder.
"Model" – code of the model / style for which exact execution the workflow is developed

The model code could be selected form a drop-down list which has the data from "Model" registry, located in the "Work" folder.

"Long description" – space to describe in detail and in free style the workflow and any indications regarding the execution and control.

New workflow starting interface

Figure 4.3.2.1.

4.3.2.2. Daily Target – planning

A separate section in the workflow's header space.

Using the values entered in the cells on Figure 4.3.2.2.1. the software provides the number of necessary workers per operation to reach the daily target of the line.

Daily Target

Figure 4.3.2.2.1.

Planning for more than one working day

Figure 4.3.2.2.2.

When a new workflow editing starts the "Work time" and actual "Efficiency" fields are already filled in (Figure 4.3.2.1.) with the default values managed by the Business Admin via the "Admin" – "Custom" menu point.

Figure 4.3.2.2.2. shows the possibility to build up a scenario with planning over one working day. In this case the number of necessary workers per operation should be interpreted as the total number of workers per the duration specified.

Credit cost : the target capacity planning has no cost.

4.3.2.3. Workflow detail

Displays in table format the list of the operations selected from the Methods registry and the workflows selected from the Workflows registry, like on the Figure 4.3.2.3.

timeSSD®
Operation list definition interface

Figure 4.3.2.3.

Columns

"#" – sequence number of the task (operation or workflow)

The tasks should be in the natural, execution sequence in the list. Usually they are selected in the sequence as they must be executed to have the product ready with the required quality.

The already selected tasks sequence – in fact the position of any row from the detail table – can be changed by the user with a simple mouse drag & drop.

"Code" – code of the selected task ; field is read-only

"Type" – type of the selected task ; field is read-only;

With this "Type" are classified the tasks regarding meaning and origin :

  i. OP – Operation   : from the start were selected from Methods registry

  ii. WF – Workflow   : from the start were selected from Workflows registry and it has not been split

  iii. SOP – Split Operation : operation resulted from a workflow split

  iv. SWF – Split Workflow : workflow resulted from a workflow split

Remark : "Type" from here has nothing to do with the "Type" from header

"Description" – short description of the task; field is read-only;

"SAM" – standard allowed minutes (standard minute value) of the task; field is read-only;

"Own text" – field for user texts

The user can enter descriptions, indications, any text. Field read-write.

"No. of operators" – number of necessary operators on the task to reach the target; calculated field, read-only

"User criteria" – field for user defined grouping identifier

With these criteria field the user can specify which rows belongs to which identifier group with the scope to get subtotals on this groups, on the report.

The identifier can be any text.

The software manages by default the identifier values, when observes an insertion of criteria header row then changes automatically the identifier.

The user can overwrite any time, any criteria identifier with a new value.

Field is read-write.

4.3.2.4. Toolbar and the Workflow editing work
4.3.2.4.1. Insert row

By default, all new records are inserted in the detail of the workflow in a new position at the end of the workflow's detail table. Exception is when the "Insert before first selected" option is checked. In case of this option is checked then the new record will be inserted as the option says : before first (up to down sequence) selected.

A new record could be generated by selecting a task from table shown in the selection section (operations or workflows, depending on which button is active upon the selection table header) or by using the "Insert row" command from the tool bar.

In case of the "Insert row" command the user is asked to specify the type of the task free row what will be inserted :

iii. Comment row

Excepting the case when is inserted as first row, keeps the criteria identifier running.

If inserted in the first row, then will generate a new criteria identifier.

iv. Criteria header row

Changes the criteria identifier to a new, not used, value with the scope to start a new subgroup.

In both case the record is task free – but the counter sequential number is running – and is allowed for the user to enter free text in the "Own text" field.

4.3.2.4.2. Delete rows

Deleting the selected rows from the detail. Before the delete is performed, an additional confirmation request message is displayed.

4.3.2.4.3. Task language

It is a direct selecting possibility of the task language (operation or workflow) – language which is governed by the Element language – without to go through the "Settings" menu.

4.3.2.4.4. Attachment

Please follow the description of the "Attachment" command at "3.4 Attachments management"

Credit costs :

- All attachments have an upload and storage cost. Pricing is described in the Appendix 1.
- The item with a new attachment is considered by the System as a new item. If the item is already selected in workflows, then – on saving the item – the System recalculates the costs. Based on the principle that the old item is changed with a new item, the System calculates the cost similar like a new item is added to the workflow, in case of each workflow.

4.3.2.4.5. Task selection from the selection section table

The selection section table content depends on what kind of item the user wants to insert into the workflow : Method or another workflow.

timeSSD®

Selection from operations registry

Figure 4.3.2.4.5.1.

The Figure 4.3.2.4.5.1. shows the selection from operation registry with the SBF00101 operation, as example, selected.

Selection from workflows registry

Figure 4.3.2.4.5.2.

The Figure 4.3.2.4.5.2. shows the selection from the operation lists registry with the SHRFP301 workflow, as example, selected.

Credit cost : the credit is accounted in the moment of the posting of the selected task data in the workflow detail table. A credit accounted is not refunded.

4.3.2.4.6.   Split

The "Split" command, after a confirmation message, splits a workflow type task from workflow detail in its components. Each application of the command splits the object to the next level, meaning : if a workflow has on "n" level nested workflows, then to get only operations as components the "Split" command should be applied "n" times.

The "Split" button is active (black) only if a workflow type task is selected in the detail.

Workflow included workflow content   Result of the "Split" command

Figure 4.3.2.4.6.1.   Figure 4.3.2.4.6.2.

The workflow from Figure 4.3.2.4.5.2. includes in the third position in the detail another workflow with the content shown on Figure 4.3.2.4.6.1.

Applying the "Split" command on the workflow from Figure 4.3.2.4.5.2. resulted the workflow content from Figure 4.3.2.4.6.2.

Remark: once is applied the "Split" on a workflow the process is irreversible, cannot rebuild by the System from the resulted content.

Credit cost   : the "Split" command has no cost.

4.3.2.4.7.   Cancel

"Cancel" command cancels all changes done from the last saving, close the interface and return to the starting point.

The credit costs generated during the changes are not refunded.

4.3.2.4.8.   Save As

"Save As" command is used to copy an existing workflow. Open for edit an existing workflow and save it with "Save as" using a different code. The existing workflow remain unchanged, the new workflow will be saved under the new code.

Credit cost   : the "Save As" all times generates a credit cost equal with the credit cost of the original workflow on which was started the editing.

Pay attention to avoid unnecessary costs : not use "Save As" instead of "Save" , for saving an existing workflow.

4.3.2.4.9.   Save

Saving the changes done on a workflow, starts the cascade update checking process. If is the case then the "3.6.2 Cascade update : Workflow" process is running, otherwise the changes are saved, header – detail, and close the editing process, interface is closed too.

4.4. Selection lists

Selection lists are used for data structuring and are based on registries and catalogs.

The registries and catalogs are placed in Master and Work folders as it is shown on Figure 2.5.

timeSSD®

In the Work folder are the registries for operative data.

4.4.1. Registries in Master folder

4.4.1.1. Product

Dedicated to list the products manufactured.

It's a double column table for : "Code" and "Description".

The "Code" column' data are included in the selection lists.

Product registry

Figure 4.4.1.1.

Available tools, as it is shown on the figure above:

- Add : add a new record
- Edit : edit the active record (where the cursor is placed)
- Delete : delete the active record
  The record is deleted only after a confirmation message.
  If the code in the record is referenced then the record isn't deleted, an info message is shown for the user.
- Translate : the "3.5 User text translation" is activated to allow to translate the content of the "Description" field

4.4.1.2. Group

Registry for the manufacturing work groups.

Structure and tools are similar with "Product" registry and Figure 4.4.1.1.

4.4.1.3. Machine

In this registry should be included all machine types used in the manufacturing lines. The unique identifier of the machine in timeSSD® is its code from the registry.

The machines have an important influence on the methods and their SAM, reason why the registry has more classification / grouping and defining columns. With the code the machine type should be defined clear and unique.

Machine registry

Figure 4.4.1.3.

Available tools, as it is shown on the figure above:
- Add : add a new record
- Edit : edit the active record (where the cursor is placed)
- Delete : delete the active record
  The record is deleted only after a confirmation message.
  If the code in the record is referenced then the record isn't deleted, an info message is shown for the user.
- Translate : the "3.5 User text translation" is activated to allow the translation of the content of all fields, excepting the "Code" field

4.4.1.4. Part

Registry to list the parts of the products manufactured. Usually, but not mandatory, exist a strong link between the work groups and product parts. The work groups are defined to execute a well-defined part of the product, after it in the assembly line the different parts are assembled.

Structure and tools are similar with "Product" registry and Figure 4.4.1.1.

4.4.1.5. Workflow

The catalog provides the users to define workflow types for the workflows developed.

The workflows could be associated with a style or with only a part of the product. In a case when are defined workflows for each part of the style then the operation list associated with the style could include only the corresponding workflows for the execution of different parts.

The content of this catalog is used by the System only to show near a workflow its type, this association could be a support for the user.

Workflow types
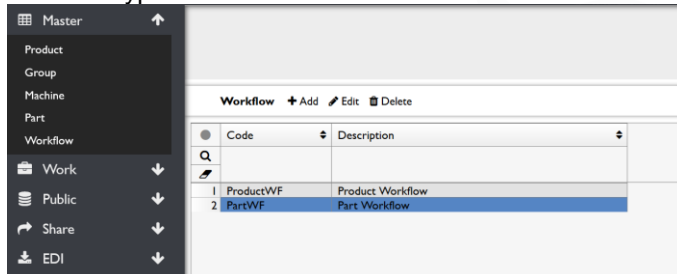
Figure 4.4.1.5.

Available tools, as it is shown on the figure above:
- Add : add a new record
- Edit : edit the active record (where the cursor is placed)
- Delete : delete the active record
  The record is deleted only after a confirmation message.
  If the code in the record is referenced then the record isn't deleted, an info message is shown for the user.

4.4.2. Registries in Work folder

4.4.2.1. Model

The operation list always refers to a style as it describes the steps to be produced. The model catalog's code field data are in the selection list to link a workflow to the model for which it was developed.
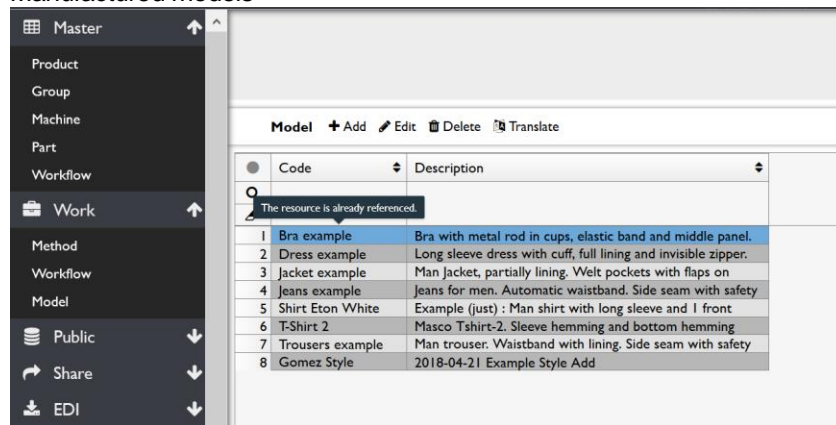
Figure 4.4.2.1.

Available tools, as it is shown on the figure above:
- Add : add a new record
- Edit : edit the active record (where the cursor is placed)
- Delete : delete the active record
  The record is deleted only after a confirmation message.
  If the code in the record is referenced then the record isn't deleted, an info message (Figure 4.4.2.1. shows it on black background) is shown for the user.
- Translate : the "3.5 User text translation" is activated to allow to translate the content of the "Description" field

4.5. Examples

The timeSSD® provides examples for the new users and at the same time offers a platform where the user from any Business can share in public its methods and workflows, on own decision and request.

The System's "Public" folder stores workflow examples for different products and models usually with translation of the user texts in Romanian too.

To have the workflows it means by default that all operations from the workflows are included in the "Public" folder's methods registry and all selection lists required data are in the corresponding registries and catalogs.

The "Public" folder is a read only folder for the users. In fact, the folder is the Work folder of the SysAdmin, shown in a read-only mode for the users.

The methods and workflows from the "Public" folder could be downloaded in the own "Work" folder with the "Import" buttons posted in the toolbars.

The "Import" is considered by the System a "Share" (5.3.6 ShareGet) from the SysAdmin Business to the requesting Business with all implied costs. The difference is that with the "Import" the SysAdmin do not need to accept the outgoing sharing request, but the requesting Business's Admin should accept the incoming share.

Remark : please be informed that the methods and workflows available in the "Public" folder are posted with the example scope, only. No warranty that are accurate or are valid in a specific case. The items were developed based on real production circumstances and they are valid for that production.

If the user makes a download from "Public" then it is recommended to check the validity of the data in its production lines.

All users are allowed to upload methods and workflows in the "Public" folder. If a user wants to publish its method or workflow then it should "Share" it with the SysAdmin

Business (Enedig Project Management or Astailor Shine). This share it has no cost for the user's Business.

After the SysAdmin's consultants made the analysis on the items sent, the SysAdmin on its sole decision will publish or not the items get. SysAdmin don't have any obligation to accept or even to explain the reasons of not acceptance.

Once the Business shared the item in that moment the only owner of that item is no more that Business.

If the user wants to have mentioned the source of the item then it can use the "User comment" fields for it, in the items.

4.5.1. Public – Method

On the Figure 4.5.1.1. is a table format presentation of the methods from the "Public" folder.

Public folder Methods

Figure 4.5.1.1.

The "View details" button from the tool bar opens a new window with all elements and details included.

Method details

Figure 4.5.1.2.

The "Import selected" button starts the import of the selected methods. Depending on the size and number of the methods imported in a short time a message on the bottom right corner informs the user that the items are imported and waiting the accept from the Business Admin side. The user can see in its Business folders the imported items after the Business Admin accepts them.

Credit costs : The acceptance has the credit cost equal with the development of the imported methods. If no acceptance, then no cost.

4.5.2. Public – Workflow

As you can follow on Figure 4.5.2.1. , in the "Public" folder are included workflows for full product and workflows for product parts.

Public folder Workflows

Figure 4.5.2.1.

Workflow details

Figure 4.5.2.2.

The "View details" button from the tool bar opens in a new window the list of the operations included in the workflow (Figure 4.5.2.2.).

The "Import selected" button starts the import of the selected workflows. Importing a workflow are imported by default the operations included in the workflow.

Depending on the size and number of the workflows imported in a short time a message on the bottom right corner informs the user that the items are imported and waiting the accept from the Business Admin side. The user can see in its Business folders the imported items after the Business Admin accepts them.

Credit costs : The acceptance has the credit cost equal with the development of the imported workflows together with the cost of developing each method included in the workflows. If no acceptance, then no cost.

4.5.3. Public – selection list data registries

The "Product", "Group", "Machine", "Part" registries are similar with the ones described for the Master folder. The "Model" registry is similar with the one described for the Work folder.

These registries are read only. The items from these registries which belongs to the imported method or workflow are imported by default, in the corresponding registries of the Business.

5. timeSSD® - Administering the Business

After registering the Business in timeSSD® the "Admin" folder and "BusinessID" menu points provides the tools for the Business Admin to manage the company ID data, set the Business wide valid default parameters, manage the users, follow the costs and the user's activities.

5.1. Registering the Business and Login
5.1.1. Select the language
timeSSD® today speaks 14 languages, the default language is the English.
To start to register in your language go to www.timessd.com and select your language from the language drop-down list near the register button.

Select language
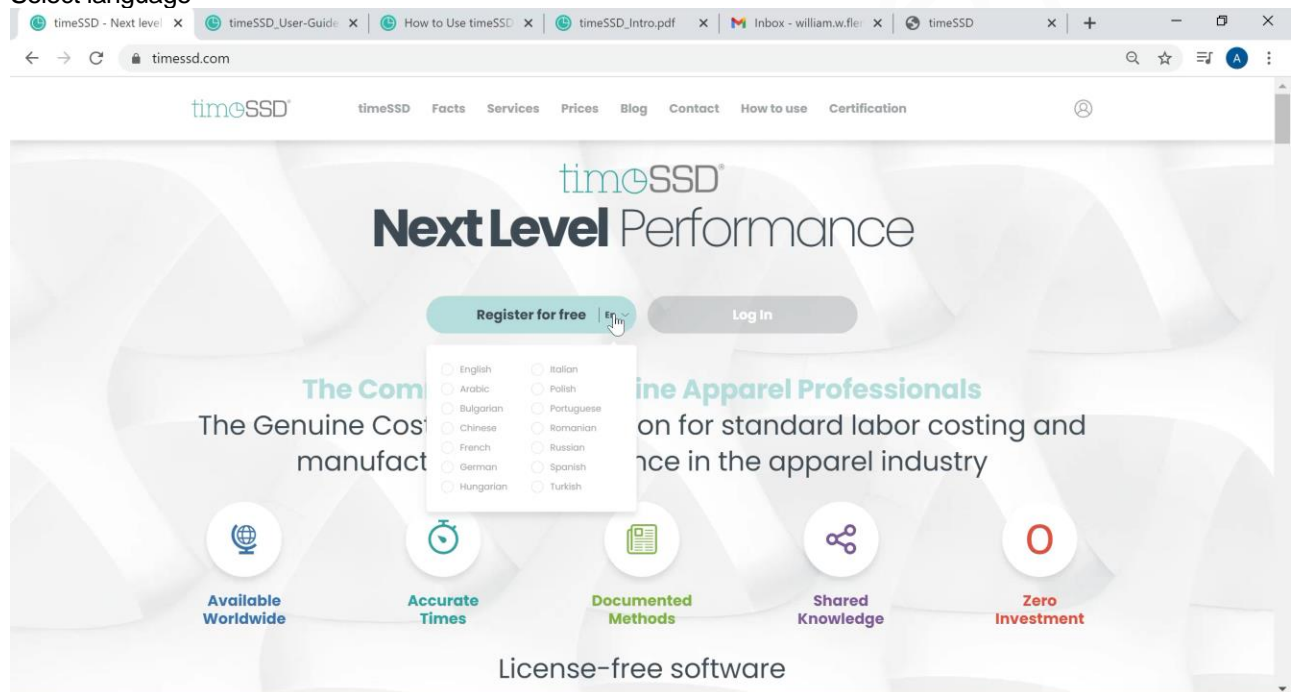
Figure 5.1.1.1.

After language selection click the "Register for free" button.

5.1.2. Provide your e-mail address

Enter your e-mail address and chose your password.
The "Terms Of Use" and "Privacy Policy" (blue texts on Figure 5.1.2.) must be accepted to continue the registration. By clicking the links, the two documents are available for read.

Figure 5.1.2.

timeSSD®

5.1.3. Confirmation e-mail

Figure 5.1.3.

After the push of the "Send" button the software will send a confirmation e-mail (Figure 5.1.3.) to the specified e-mail address as part of the standard e-mail checking procedure. To activate the account the click is expected on the link provided in the e-mail.

Remarks:

• the sender of the confirmation e-mail is support@timessd.com ;

• if you didn't get the confirmation e-mail in the next minute please check your Spam / Junk / Quarantine folders;

• in case of you didn't find out the confirmation e-mail than please send a corresponding message to the support because your e-mail address is already taken by the system and will not allow to start the registration again; even more, that e-mail address couldn't be invited as a user of any Business until the precedent confirmation isn't solved;

5.1.4. Confirmation result

Login

Figure 5.1.4.

By clicking the confirmation link the software answers with the login screen in the default browser, like Figure 5.1.4. The previously provided e-mail address and password is required, followed by the pressing of the "Login" button.

5.1.5. Registering for "Trial" use

After login, the user landing on the "Trial" Business registration page, by default.

Just few data are required as it is shown on the Figure 5.1.5.1. below, fields marked with the red border.

The mandatory fields are marked with "*" and in case of forgetting to fill it a linked message is shown.

Minimal data request

Figure 5.1.5.1.

timeSSD®

Required data entered

Figure 5.1.5.2.

When all required data are entered press the "**Submit**" button, left upper corner, which sends the data to the system.

Remark : Please pay special attention for the value required in the "Country" field. This parameter cannot be changed later by the Business Admin, after the data are submitted with the "Submit" button.

timeSSD® provides free trial credits – for a limited, but enough days – to experiment its power and to observe the advantages of the "pay as you go" pricing . The free credits are set in the moment of "Submit" . The quantity of the available credits are shown in the upper line of the screen, in the right corner, like "Active credit : 183,749 TIT" on Figure 5.1.6.1.

The registering user is the registered company's account ("Business") administrator who can invite other users to join the Business in timeSSD® and use the system, without any limitations in the number of the users.
 The administrator can transfer its privileged rights to another user, later.

The user has full rights to use the edited methods and defined operations lists for any scope it wishes.

During the Trial, the user could be limited on the number of the Methods and Workflows what can copy from the Public, what can Share and what can accept from Shares.

Also, could be limited on the total SAM of one Method what can define and on the number of Operations what can select into one Workflow.

The Trial could be limited in time regardless of the existing Credit or by other system parameters.

On User request sent by e-mail to the SysAdmin, and on the SysAdmin's sole discretion, part or all the Trial limits may be cancelled.

During the Trial period, the Business Admin can ask for it but later at the end of the Trial period the Business Admin could get the proposal to ask for the Commercial status.

If at the end of the Trial period, the Business did not opt for Commercial status then the Business Remove procedure is performed by the SysAdmin.

Remark: is possible to register for "Commercial" status from the start, just select in the "Registration type*" field (Figure 5.1.5.1. – 5.1.5.2.) the "Commercial" option instead the default "Trial".

5.1.6. User Login

The already registered user can login the system by :

- The official website of timeSSD®

Pressing the "Login" button from Figure 5.1.1.1. the user will land on the system's access page shown on Figure 5.1.4.

Providing the username (e-mail) and password the user is logged in timeSSD® and usually landing on the Method table list page, like on Figure 5.1.6.1.

User landing page

Figure 5.1.6.1.

In case of changes in the TOU or / and PP, when the user is logged in then it is landing on the page shown in Figure 5.1.6.2. for reading and acceptance.

In case of minor changes, the user is not asked to check the acceptance buttons again, but its acceptance is considered by default by continuing to use the system.

TOU and PP acceptance
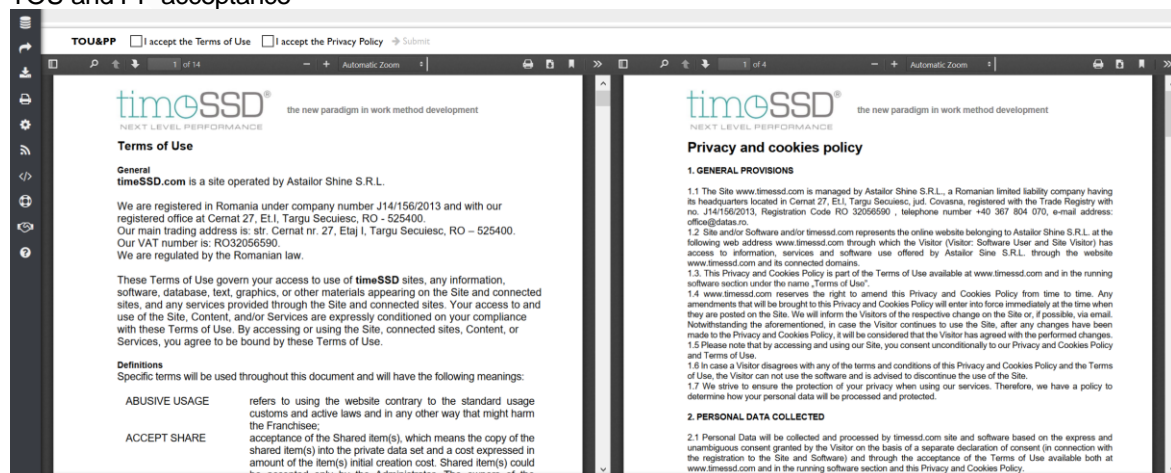
Figure 5.1.6.2.
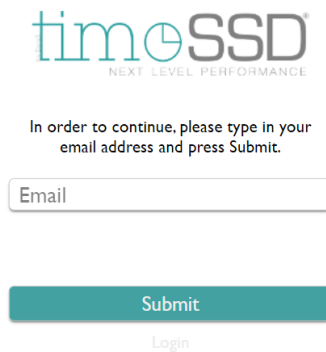
timeSSD®

When an issue, regarding the timeSSD®, is considered relevant for the user then the System starts on the "</> Status" page, as it's shown on the Figure 9.1.

- Using the direct link to login https://timessd.azurewebsites.net/#/login
  The user landing on the system's access page shown on Figure 5.1.4.

5.1.7. Forgot login password

Forgot password

To forget the password, it may happen.
On the "login" page shown on Figure 5.1.4. the user should click the "Forgot password".
On the new interface, shown on Figure 5.1.7.1., the user must enter its username (e-mail address) and click the "Submit" button.
A link with instructions to reset the password will be send to the e-mail specified, like Figure 5.1.7.2.
In case of the e-mail delays please check your spam folder.

In order to continue, please type in your email address and press Submit.

Email

Submit

Login

Figure 5.1.7.1

Password reset e-mail

From: <support@timessd.com>
Date: Sun, Nov 29, 2020 at 2:11 AM
Subject: Reset your timeSSD® password
To: <william.w.fleming@gmail.com>

Dear timeSSD® User

Please use this link to reset your timeSSD® password.

If you are having troubles with the link you can navigate to this URL in your favorite browser:
https://timessd.azurewebsites.net/#/reset-password/1560/gxxEmH909Bb%2FRchJXSB%2FbuJct%2Fhuclzg3YcGtnHNuNRK%2BRe9N1oG7IP5feRazzmn54r9oGCCeiyU8Yx62h9TwwUx93vVbd3bCelA1RPOmRsOecsoMjZXxUeFO38e1LIRxdhrxG9HE5ppaPO0Z42GjSlGykPnK8ZtL9VOM3%2Fi32w%3D

In case you need any help, please contact us at support@timessd.com

Thanks,
The timeSSD® team

E-mail : support@timessd.com

timeSSD® - the new paradigm in work method development

Figure 5.1.7.2.

Entering new password

Please type in a new password for your account.

●●●●●●●●

●●●●●●●●
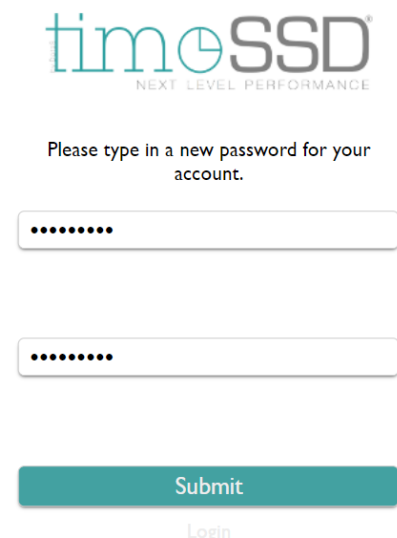
Submit

Login

Figure 5.1.7.3.

Following the link from the e-mail the user is redirected to the page shown on Figure 5.1.7.3. where the new password is set. The "Submit" button redirects again to the login interface (Figure 5.1.4.) for the login with the new password.

5.2. BusinessID menu point

The BusinessID menu point provides read-only access to all users, excepting the Business Admin. It can edit its Business data.

If the initial registration was made for "Trial" type than the opening interface is similar with Figure 5.1.5.2.

The Business Admin can modify on the interface the followings :

   i.   Left side   : all, excepting "Registered as*" and "Country*"
   ii.   Right side   : is read only

Latest at the end of the trial period the Business Admin should change the "Registration type*" from "Trial" to "Commercial" in order to secure the access in the future to the System for the users belonging to the Business.

Figure 5.2.1.1. shows the selection of the "Commercial", from the drop-down list linked to the "Registration type*", to start the status change.

5.2.1. Switch to "Commercial" status

timeSSD® will never switch to the "Commercial" status any Business automatically, this could be done only by the Business Admin.

However, if the initial free credits are consumed or the trial period is passed than no user from the Business can edit / define more methods and operation lists. Later in this stage is expected the Business Admin's decision to switch to "Commercial" status if it would like to use the System.

This status is an intermediary status between the „Trial" and „Verified" status from the System's point of view.

In this status the BusinessID page shows on the bottom right corner the TIT price and the invoicing conditions.

Commercial status selection

Figure 5.2.1.1.

    Remark : With the switch to "Commercial" status the system asking few more data regarding the Business, on two additional dedicated pages (Figure 5.2.1.2. – 5.2.1.3.), a part of these data is mandatory.

timeSSD®

Business presentation documents (optional)

Figure 5.2.1.2.

Business Admin contact data

Figure 5.2.1.3.

Any time the Business Administrator can have a look on the "Commercial" registration page regarding the additional data required. Until the "Submit" button is not pressed and accepted by the system the registration status remains "Trial".

Once the registration status is changed (and accepted by the system) to "Commercial" than no way to switch back to "Trial".

5.2.2. Get "Verified"

Entering in "Commercial" status starts the verification of the provided Business ID data by the system's administering team.

If the BusinessID data are confirmed as result of the verification process, then the Business gets the "Verified" status and the Business Admin is informed about it.

Credit cost : the verification process costs are specified on the BusinessID page as "Setup Fee" , usually a deposit payment is required for it before starts the process.

5.2.3. Commitment for "Bond" limit

Any Business with "Verified" status could ask the SysAdmin for a "Bond" limit.

The Bond is a loan from the System to the Business until the end of the month or until the Business assigned limit is reached, with no interest. If the Business has no Credit than each new cost became a Bond.

SysAdmin could propose/accept a Commitment with established Bond limit and will inform the Business regarding the Assigned Bond value, or could refuse it, on sole discretion, with no obligations for explanations.

5.2.4. Modifying Business ID data

Comparing with the precedent paragraphs the Business Admin is restricted, in plus, to modify on the Business ID interface the e-mail address of the Business Admin. This address is modified by default if its privileged rights are transferred.

5.3. Admin menu point

The tools to administering the Business account in timeSSD® are placed under the "Admin" menu point. The menu point is visible only for the Business Admin.

Summary of the features included:

- Cost control : acceptance decision in case of the shared items get; access to the detailed cost breakdown data on users and activities;
- User control : full user management; activity log;
- Collaboration management : partnership management; acceptance decision in case of the shared items sent;
- Default values : Business parameter's default value settings; various actions default behavior;

5.3.1. User Management

Overview of the Business Admin features and permission settings for the users.

Figure 5.3.1.1. shows the list view of the Business users registry.

Toolbar commands :

i. Invite user :
   - a message box asking for the user e-mail address to be invited
   - System checks the provided e-mail address, already registered e-mail address in timeSSD® not allowed
   - System send the invitation letter to the nominated e-mail address; the sender of the e-mail is support@timessd.com
   - invited user should follow the link included in the invitation e-mail, enter its password on the designated form, accept TOU and PP, as the only steps to have registered in the inviting Business

ii. Edit :
   These features are planned to be the platform where Business Admin can set different permissions and limits, individually for the users.
   Figure 5.3.1.2. shows two tabs in the upper left corner, the first tab – "Permissions" – is open, its interface is visible. Another tab is "Uploads".
   a. Permissions : from the "Available" (left) box is already assigned (right arrow used) the only possible "Permission" – in this version – the "Attachment Uploader" (to remove : use left arrow).
   b. Uploads : Figure 5.3.1.3. shows the "Upload" tab content dedicated to count the total size of uploaded files per user and to set maximum limit per user.
   The System allows for each Business to upload attachments in total of 1.000 GB per Business, excepting the "Trial" registration type. For "Trial" the limit per Business is 500 MB.
   Each user gets in the moment of registration a quota of 500 MB upload which can be changed by the Business Admin. The users registered in earlier version could have a 100 MB quota set.
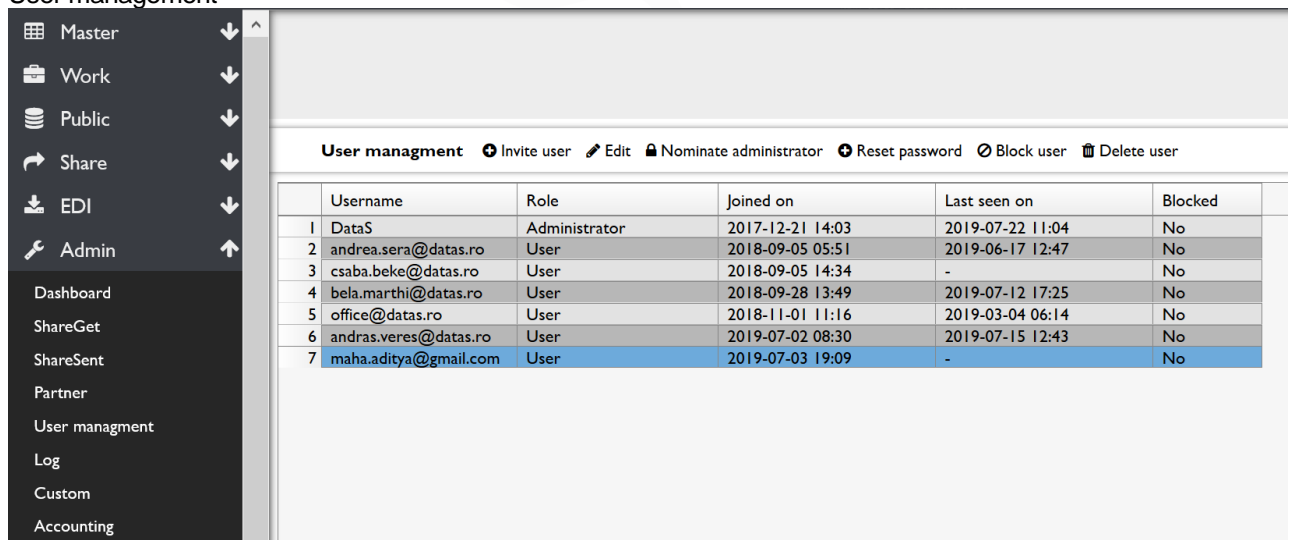
The "Total uploaded" number shows the total size of the uploaded files per user. *Please be informed that this counter is not decreasing if the file, once uploaded, is deleted in a moment.*

All attachments have an upload and storage cost. Pricing and the accounting are described in the Appendix 1.

iii.   Nominate administrator   : it is the transfer of the Business Admin privileges to the user nominated by the record where the cursor is; to perform this command the System asking for the Business Admin password. The result of the command is an e-mail sent to the designated user with a confirmation link. The role transfer is made by the System only if the confirmation of the link is done until the link is valid.

iv.   Reset password   : this command – after a confirmation message – sends an e-mail to the user nominated by the record where the cursor is; in the e-mail is included a link with which the user can reset its password.

v.   Block / Unblock user   : after a confirmation message the System blocking / unblocking the access of the user nominated by the record where the cursor is; no info e-mail sends to user.

vi.   Delete user   : after a confirmation message the System deleting the user nominated by the record where the cursor is; no info e-mail sends to user. Isn't required to block the user first.

Once a user registered than only the Business Admin can delete its username from the System.

In case of the username is deleted from a Business then all references to that username will get the value "name@timestamp" where the timestamp is the moment of deleting.

User management
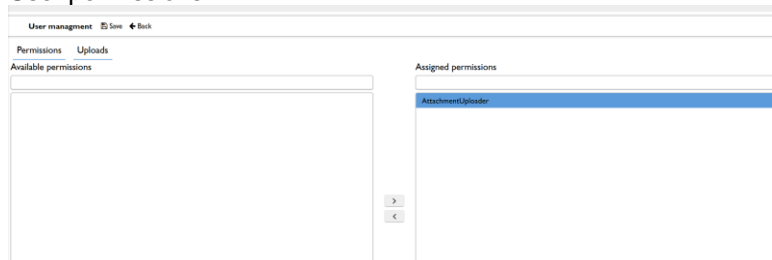
	Username	Role	Joined on	Last seen on	Blocked
1	DataS	Administrator	2017-12-21 14:03	2019-07-22 11:04	No
2	andrea.sera@datas.ro	User	2018-09-05 05:51	2019-06-17 12:47	No
3	csaba.beke@datas.ro	User	2018-09-05 14:34	-	No
4	bela.marthi@datas.ro	User	2018-09-28 13:49	2019-07-12 17:25	No
5	office@datas.ro	User	2018-11-01 11:16	2019-03-04 06:14	No
6	andras.veres@datas.ro	User	2019-07-02 08:30	2019-07-15 12:43	No
7	maha.aditya@gmail.com	User	2019-07-03 19:09	-	No

Figure 5.3.1.1.
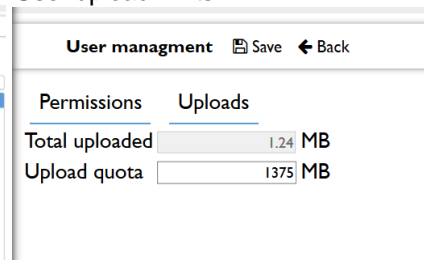
User permissions

Figure 5.3.1.2.

User upload limits

Figure 5.3.1.3.

5.3.2. Custom

Business Admin can configure certain default values, and behaviors for various actions, valid over the Business as custom defaults.

Custom settings
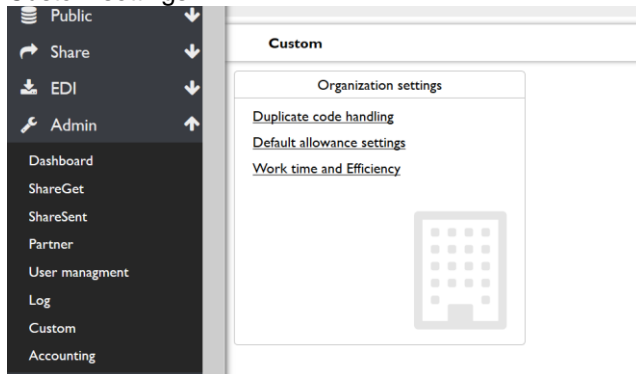
Figure 5.3.2.1.

The implemented features allows to set the way of handling of the operations and workflows duplicate values, to set the Business wide valid default allowance level and to provide the System with working time and actual efficiency level, as it shown on the Figure 5.3.2.1.

5.3.2.1. Duplicate code handling

Duplicate operation and workflow codes are not allowed in the same Business. Code clashes may occur during accepting a shared or imported resource.

The system has three methods, shown on Figure 5.3.2.1.1., of resolving duplicate code clashes which can be configured separately for operations and workflows.

Duplicate codes
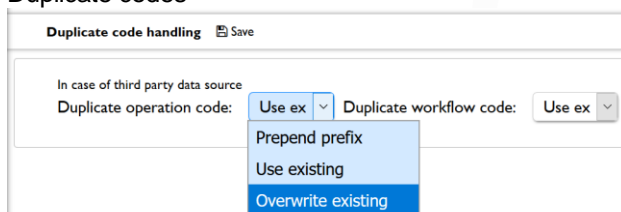
Figure 5.3.2.1.1.

i. By prepending a prefix to the new resource code. The prefix is formed by dashes and an incrementing number. Examples: -_1-_CODE, -_2-_CODE, -_3-_CODE .

Prepending prefixes ensure that both the new and the old resource is kept.

ii. Using the existing resource during a code clash, meaning the new resource will not be imported and the already existing is going to be used instead.

iii. Overwrite the already existing data with the new one.

Default setting when Business registering, for operations and workflows : Use exiting.

Credit cost : Excepting the "Use existing" option the saving process generates a credit cost equal with the TIT value of the saved item. In addition, with the "Overwrite existing" the System goes through all references in the workflows and considers the overwriting as a new operation inserted in the workflow.

5.3.2.2. Default allowance setting

Allowance is an additional time to the cycle time for Personal needs, Fatigues and Delays generated by machines (e.g. thread change, needle change, machine programming, thread tensioning , others). A common acronym used is PFD. Usually the level of it is expressed in percentage (%). timeSSD® uses the "1+allowance" factor with the name "Allowance".

timeSSD®

Allowance

Default allowance settings 💾 Save

Default allowance

Initial allowance multiplier value used when creating a new method.

Allowance: 1.18

Figure 5.3.2.2.

The Business Admin can set on the interface from Figure 5.3.2.2. the most frequently used allowance level.

This value is entered by default as allowance during the element's selection into the method.

The user overwrites the default value when is necessary.

Remark : In the Appendix 3 are placed the data tables with the recommended allowance levels.

5.3.2.3. Work time and Efficiency

Work time and Efficiency data are used in the header of the workflows, together with planned daily target. Is recommended to have updated in the corresponding field from Figure 5.3.2.3., time by time, the average efficiency level of the company.

Work time & Efficiency

Work time and Efficiency 💾 Save

Work time		Efficiency
H	**min**	**%**
08	00	78

Figure 5.3.2.3.

When the editing of a new workflow starts the System fills in the corresponding data fields with the averages defined here (user overwrites if necessary).

Based on the defined workflow the System calculates the number of necessary operators per operation. This figure is used further for the layout planning.

5.3.3. Dashboard

Provides data regarding the

cost generated and experience accumulated with the System by each individual user.

When the interface starts then two charts are generated, based on historical data.

The linked date near the username means that was the last date of its activity before to leave the Business.

The left chart data on Figure 5.3.3. are measured in TIT , the right chart shows the cumulated method time developed by the user.

Dashboard
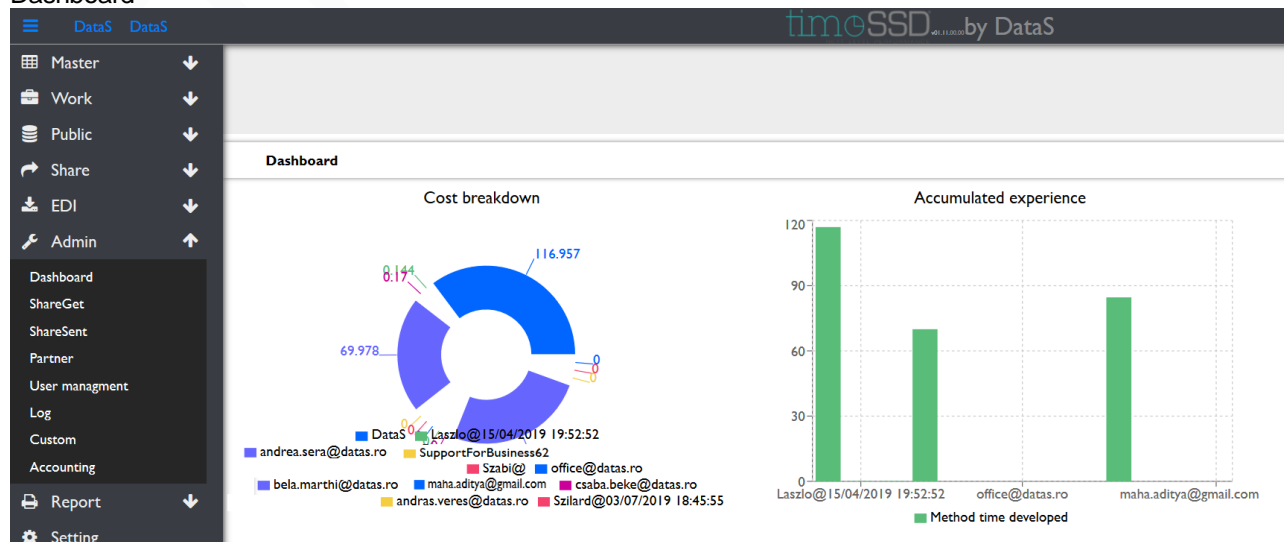
Figure 5.3.3.

5.3.4. Log

All relevant user activities are logged, including the System's administration and support team actions. The Business Admin has access to its users' logs, example on Figure 5.3.4.

User Log

Figure 5.3.4.

5.3.5. Partner

timeSSD® running in the Cloud and the same platform is used by many, different companies and individuals, each of them being a "Business" in the System.

The Businesses in the System could have a business relation between them, like Client – Supplier, Main contractor – Subcontractor or other types.

The System allows to share the operations and workflows created by a user from a Business with other Business from the platform.

To exclude any spamming possibilities and for a control regarding the data sent and accepted any sharing is possible only between "Partners".

The Business can have as many partners as it wants with the condition that the other party agree the relation, meaning it initiated or it accepted the request.

The partnership management is the responsibility of the Business Admin and the tools are shown below, on Figure 5.3.5.1.

Partner list

Figure 5.3.5.1.

On the left column are listed the active partners.

Is possible to cancel a partnership with selecting the partner(s) from the list and using the "Cancel partnership" button from the toolbar.

Once partnership (or its request) is canceled that partnership cannot be initiated again by any of the parties.

The table list holds the history and the status of the partnerships. The columns are dedicated for :

Sender : initiator Business of the partnership

Recipient : the Business to which the Sender sent the request

Remark : or the Sender, or the Recipient is the own Business

Status : status of the partnership; could have the following values :

- Initiated : the partnership is initiated (Figure 5.3.5.2.), the message sending is started but it is waiting for the confirmation of the Sender's Business Admin
- Pending : the Sender sent the request, no answer yet
- Accepted : the parties are in partnership
- Cancelled : the partnership was cancelled

Message : the content of the initiating message

Received on : timestamp of the record creation

Finished on : timestamp of the last Status change

Actions : decision expected from the Business Admin side :

- if the Sender is the other party : Accept or Reject partnership
- if the Sender is the own Business : Confirm or Cancel the initiating of the partnership

Initiate partnership
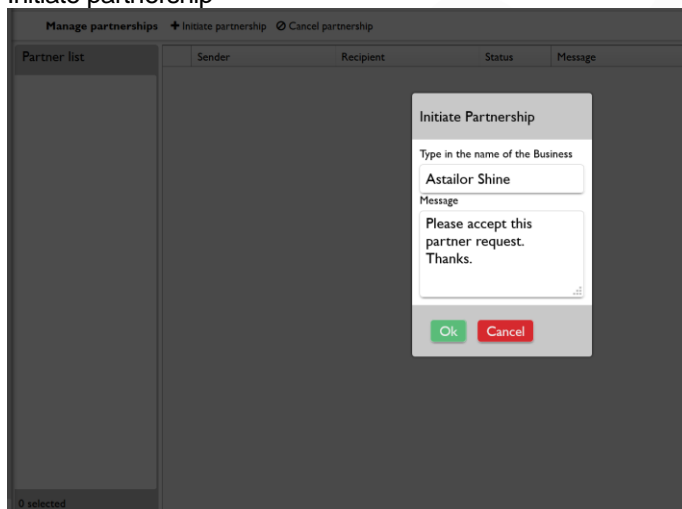
Figure 5.3.5.2.

The "Initiate partnership" command from the toolbar opens the selection and message window shown.

Starting to enter the name of the Business with which the partnership is intended a selection list is open with the Business names which fit the filtering criteria. Once only one Business could be selected from the list.

The message field is optional.

The "Ok" button register the initiating record in the partner list where the Business Admin will decide if allows the sending or will cancel it.

Remark : partnership cannot be initiated with "Hidden" marked Business, that Business is not listed for selection.

5.3.6. ShareGet

When a partner shares one or more items with the Business then new records are inserted in the "ShareGet" table, visible only – and managed by the Business Admin. The number of new records is equal with the number of the items shared by the partner.

The "ShareGet" table keeps the whole history of the share acceptance requests from the partners side, as it is shown on the Figure 5.3.6.

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The acceptance and saving of the shared items have a credit cost for the Business equal with the TIT values of the accepted items (similar with credit cost of their creation).

The import of the items from the "Public" folder (4.5.1 and 4.5.2) is a default share request from the SysAdmin Business.

Share sent by Partners

	Sender	Status	Object type	Object code	Received on	Finished on	SAM	Actions
18	Astailor Shine	Accepted	operation	DCF00101	2019-07-28 22:53	2019-07-28 22:57	0.157	
19	Astailor Shine	Accepted	workflow	Dress_Assembly_MP	2019-07-22 22:52	2019-09-26 08:30	11.819	
20	Astailor Shine	Pending	workflow	SHR	2019-07-22 22:52		20.435	**Accept |Reject**
21	Astailor Shine	Pending	operation	SGU00401	2019-07-22 21:47		0.192	**Accept |Reject**
22	Astailor Shine	Pending	operation	SGP00501	2019-07-22 21:47		0.257	**Accept |Reject**
23	Astailor Shine	Rejected	operation	AAS00101	2019-06-21 12:33	2019-06-21 12:35	0.386	
24	DataStep	Accepted	operation	ETC3-OP2	2019-05-22 06:49	2019-05-22 06:50	0.548	
25	DataStep	Accepted	operation	ETC3-OP3	2019-05-22 06:49	2019-05-22 06:50	0.8	
26	DataStep	Accepted	operation	ETC3-OP1	2019-05-22 06:49	2019-05-22 06:50	1.027	
27	DataStep	Accepted	operation	ETC3-OP1-OPT	2019-05-22 06:49	2019-05-22 06:50	0.976	
28	Manufacturing Cost	Accepted	operation	R002	2019-05-20 12:50	2019-05-21 05:55	0.701	
29	Manufacturing Cost	Accepted	operation	R001	2019-05-20 12:50	2019-05-21 05:55	0.358	
30	mohannad almallah	Accepted	operation	BAS00101	2019-05-05 09:44	2019-05-05 09:54	0.394	
31	DataStep	Rejected	workflow	JJBTEE_ME		2019-04-28 00:06	5.243	
32	DataStep	Rejected	workflow	JJBTEE_ME		2019-04-28 00:06	5.243	
33	DataStep	Accepted	workflow	L11	2019-04-27 21:46	2019-04-27 21:46	0.847	
34	Astailor Shine	Rejected	workflow	TSH		2019-04-26 18:05	4.739	
35	Manufacturing Cost	Pending	operation	T006	2019-04-16 04:41		0.523	**Accept |Reject**
36	Manufacturing Cost	Pending	operation	FAK001	2019-04-16 04:41		0.559	**Accept |Reject**
37	Manufacturing Cost	Pending	operation	NIFT_WB004	2019-04-16 04:41		0.465	**Accept |Reject**
38	Manufacturing Cost	Pending	operation	T002	2019-04-16 04:41		0.38	**Accept |Reject**
39	Manufacturing Cost	Accepted	operation	FAM002	2019-03-01 04:14	2019-03-03 11:47	0.364	
40	Manufacturing Cost	Accepted	operation	FAM001	2019-02-28 06:52	2019-03-03 11:47	0.866	
41	Astailor Shine	Rejected	operation	DSL00401		2019-02-18 08:22	0.782	
42	Manufacturing Cost	Accepted	operation	NFM03	2018-11-06 14:56	2018-11-06 22:55	0.195	
43	Manufacturing Cost	Accepted	operation	NFM02	2018-11-06 14:56	2018-11-06 22:56	0.149	
44	Manufacturing Cost	Accepted	operation	NIFT_W02	2018-11-05 13:59	2018-11-06 22:56	0.246	
45	Manufacturing Cost	Accepted	operation	NIFT_W02_1	2018-11-05 13:59	2018-11-06 22:56	0.509	
46	Pearl global	Accepted	workflow	PGL-310 shirt	2018-10-30 05:31	2018-10-30 05:34	24.584	
47	Astailor Shine	Accepted	operation	AAS00101	2018-10-29 23:52	2018-10-29 23:54	0.386	
48	Astailor Shine	Accepted	operation	NFM003	2018-10-18 08:12	2018-10-18 08:13	0.635	

Figure 5.3.6.

The "ShareGet" interface is designed to provide enough data to the Business Admin for informed decision :

Sender : Business from where the share is initiated (the imports from the "Public" has as sender Enedig Project Management / Astailor Shine = SysAdmin Business)

Status : status of the share acceptance request
      Pending : waiting the Business Admin decision
      Accepted : the items were accepted
      Rejected : the items were rejected (no cost generated)

Object type : what is the shared item : a. Operation; b. Workflow

Object code : code of the shared item; cod of the Operation / Workflow given to the item by the Sender

Received on : timestamp of generating the record (request received)

Finished on : timestamp of the decision from Business Admin side

SAM : SAM value of the shared item; included to provide data to Business Admin for cost estimation in case of acceptance

Actions : "Accept" or "Reject" options available for Business Admin for the requests in "Pending" status

Each shared item from Sender's side is posted in a separate record. In this way the Business Admin can see each shared item's identifying parameters and the expected cost in case of acceptance.

Please pay attention to the "Workflow" type of objects. In case of workflow share, are shared by default the component operations, too. The operations belonging to the workflow are not listed in separate records but in case of the share acceptance the operations will be inserted in the operation registry (following the established rules for eventually duplicate codes) and their credit cost is accounted in addition to the workflow's credit cost.

The Business Admin can decide which item (row) is accepted and which not. More data regarding the content of item cannot be provided without accepting the share request.

The feedback is sent to the sender regarding the acceptance decision.

The acceptance of the share request means the copy of the shared items into the corresponding registries in the Business database. In case of duplicate codes, the System will proceed as it's set in " 5.3.2.1 Duplicate code handling".

The eventually attachments, linked with the shared elements, are not shared.

The sender's private elements included in the methods shared will be copied in the Business owned elements database, in the "SHR …" class (SHaRed). The elements from this class are not visible for the receiving Business and cannot be selected in methods but allows to be part in the shared methods get. In the details of the methods, between the elements list these private elements are visible too.

The items necessary in the selection lists for the shared methods and workflows are copied in the Business corresponding registries.

The Business rights over the items get is the "owner" of that items. The sender also keeps the owner right over the items shared.

Credit cost : the costs with the acceptance of the shared items is equal with the creation cost of the saved items.

Remark :

i.   to perform the share accept the System will look for the enough credit level at the receiving party. The required credit level reserve is around double of the credit level what will be consumed. In first step the System will account the whole (double) credit cost following by the refunding of the difference between reserved credits and the real share cost.

ii.   ShareGet is not performed, no changes when "Accept" pressed and no costs if the item already exist in the receiver's database and the "Use existing" is set.

5.3.7. ShareSent

The users initiate the share of the items (operation, workflow) as it's described in "6.1 Share".

Each item shared (initiated) by the user generates a new record in the "ShareSent" table, visible only – and managed by the Business Admin as is shown on Figure 5.3.7.

Share sent by Business

ShareSent

	Receiver	Status	Object type	Object code	Received on	Sent on	Finished on	SAM	Actions
1	DataStep	Initiated	workflow	Guide_Shirt	2019-07-24 20:09			20.154	**Approve |Reject**
2	DataStep	Initiated	operation	SGP00510	2019-07-24 19:09			0.464	**Approve |Reject**
3	DataStep	Initiated	operation	Guide_SGP00510	2019-07-24 19:09			0.464	**Approve |Reject**
4	Astailor Shine	Initiated	workflow	MTRO	2019-06-24 07:18			26.851	**Approve |Reject**
5	Astailor Shine	Pending	operation	RSP00101	2019-05-28 09:30	2019-05-28 09:30		0.475	
6	Astailor Shine	Pending	operation	JAS00101	2019-05-28 09:30	2019-05-28 09:30		0.697	
7	mohannad almallah	Pending	operation	ETC3-OP3	2019-05-22 06:51	2019-05-22 06:51		0.8	
8	mohannad almallah	Pending	operation	ETC3-OP2	2019-05-22 06:51	2019-05-22 06:51		0.548	
9	mohannad almallah	Pending	operation	ETC3-OP1-OPT	2019-05-22 06:51	2019-05-22 06:51		0.976	
10	mohannad almallah	Pending	operation	ETC3-OP1	2019-05-22 06:51	2019-05-22 06:51		1.027	
11	factories of future	Accepted	operation	R002	2019-05-21 14:44	2019-05-21 14:44	2019-05-27 06:42	0.694	
12	factories of future	Accepted	operation	R001	2019-05-21 14:44	2019-05-21 14:44	2019-05-27 06:42	0.358	
13	DataStep	Accepted	workflow	TSH_Example	2019-04-16 21:31	2019-04-16 21:32	2019-04-16 21:32	3.278	
14	RGT-ROMANIA	Accepted	operation	TTCTRSIDESEAM01	2019-03-22 20:28	2019-03-22 20:28	2019-04-16 16:12	1.009	
15	Arto Juva	Pending	operation	TTCTRSIDESEAM01	2019-03-22 20:28	2019-03-22 20:29		1.009	
16	RGT-ROMANIA	Rejected	operation	TTCTRSIDESEAM01	2019-03-22 20:28		2019-03-22 20:29	1.009	
17	Arto Juva	Rejected	operation	TTCTRSIDESEAM01	2019-03-22 20:28		2019-03-22 20:29	1.009	

Figure 5.3.7.

The "ShareSent" table keeps the whole history of the items initiated to be shared with the partners.

The interface is designed to provide enough data to the Business Admin for informed decision :

Receiver : the recipient Business of the shared items (the publishing intention has as receiver Enedig Project Management / Astailor Shine = SysAdmin Business)

Status : status of the initiated share request

    Initiated : waiting the Business Admin decision

    Pending : Business Admin approved, waiting the receiver's decision

    Accepted : the items were accepted be receiver

    Rejected : the items were rejected or by Business Admin or by receiver

Object type : what is the shared item : a. Operation; b. Workflow

Object code : code of the shared item; cod of the Operation / Workflow given to the item by the Business

Received on : timestamp of generating the record (the share was initiated)

Sent on : timestamp of the approval by Business Admin, in that moment the item is sent to "Receiver" (empty = not sent to the receiver)

Finished on : timestamp of the decision from Receiver's side

SAM : SAM value of the shared item

Actions : "Approve" or "Reject" options available for Business Admin for the requests in "Initiated" status (shares initiated by the users of the Business)

The approval of the initiated share means the copy of the shared items sent to the receiver. The Business Admin is responsible to not approve the share of banned, confidential or other sensitive data holder items.

The private elements included in the methods shared are send, will be visible by the recipient in the details of the methods but the receiver cannot select them into their own methods.

The items necessary in the selection lists for the shared methods and workflows are part of the shared items.

The Business rights over the items is the "owner" of that items but the receiver gets the owner right as well.

The share initiator user is not informed by the System about the Business Admin decision.

Credit cost : no costs with sending shared items.

6. timeSSD® - Collaboration and Integration – Share , EDI

The Cloud is the perfect place for collaboration with data exchange and timeSSD® uses this opportunity. With a support on 14 languages, allows to the partners to share their methods and operation lists, to the users to publish their solutions and provide the consultants with an always available, flexible tool with which they can act remotely too.

For the third-party shop floor control, PDM, PLM, ERP software solutions timeSSD® offers a free and smooth connection to benchmark and accurate data for labor costing and efficiency control.

6.1. Share

This menu point allows to share with the partners (5.3.5 Partner) the methods and operation lists developed and stored in the database of the Business. In case of the methods the translation is immediate between the implemented languages. Example : a method developed in Turkish and shared with a partner from England it can be read instantly by the partner on English, without any other user artifice.

Similar is with the workflows, they are available instant, including their component operations. The language of the user texts depends on the translation made by the users.

By sharing an item the attachment of it is shared also.

Remark :

a. the share sent to the SysAdmin (Partner = Enedig Project Management / Astailor Shine) it means that the user wants to publish in the "Public" folder the shared items.

b. by sharing an item, the Business acknowledges that with the acceptance of the initiated share the recipient became a co-owner of that item with similar rights as the sender has over the item.

6.1.1. Share Method

Figure 6.1.1. presents the working interface for Method sharing.

The user can select one or more recipients from the left column "Partner list" for the shared items. On the selection of minimum one recipient the "Share" button from the right side of the toolbar became active (black).

Share Method

Figure 6.1.1.

The items to share are selected one by one from the upper table with double click and they get copied in the "Included in share" table.

The "Delete row(s)" button from the toolbar deletes the selected records from bottom table (items prepared for sharing).

Pressing the "Share" button from the toolbar will post the sharing request in the "ShareSent" folder to wait for the share confirmation from the Business Admin (5.3.7 "ShareSent").

About forwarding the request to the Business Admin the user get an info message displayed instead of the bottom table. When the message disappears then all items are packed to send for the confirmation of the Business Admin.

The System does not provide feedback to the user regarding the Business Admin decision.

Remark :

a. sharing a method which includes Business owned element will transfer that element too, to the partner. The Business owned element will be visible for the partner in the method's detail but will be not visible in the elements matrix and the partner cannot select it in other methods.

b. the method sharing transfer the copies of the items used in the method which are necessary for the selection lists too (machine, part, group, product).

c. with item share the attachments are not transferred

Credit cost : no credit cost for the initiator / sender in case of method sharing.

6.1.2. Share Workflow

The steps to share the workflows are similar with the "Share method" steps, just the upper table now shows the workflows registry as it is shown on Figure 6.1.2.

Share Workflow

Figure 6.1.2.

The workflow share request is also forwarded to the Business Admin for confirmation.

Important detail : in case of workflow sharing the operations on the workflow are shared too, by default.

The System does not provide feedback to the user regarding the Business Admin's decision.

Remark :

a. the workflow sharing transfers the copies of the items used in the workflow which are necessary for the selection lists too (product, model, workflow type and operation).

b. by sharing the workflow, the data related to the daily target and capacity planning are not transferred

c. with item share the attachments are not transferred

Credit cost : no credit cost for the initiator / sender in case of share workflow.

6.2. EDI

EDI – Electronic Data Interchange – is dedicated for the methods and workflows related data transfer from timeSSD® to third-party software.

The implemented solution in the today's version is semi-automat, the full automated solution will be part of the next major version upgrade.

The data transfer is unidirectional only, from timeSSD® to third-party and is initiated by the timeSSD® user.

The user selects the methods or workflows to be exported with double click, press the "Export" button from the right -top corner and the System copies the selected items data, including the relevant linked data, in a CSV delimited flat file.

The flat file name is provided by the user like on Figure 6.2.1., the storage location is in the Cloud, its link is returned as message (Figure 6.2.2.). The link and the flat are kept for 24 hours, for the access to the links the "Link" menu point is dedicated from where the interface shown on Figure 6.2.3. is available.

Once the flat file storage link accessed the file can be saved by the user / by the third-party software for further data import availability by the third-party software.

Remark :

- the user procedure is similar both for method and workflow
- to use the flat file access link please copy it and paste it in yor browser
- CSV delimiter is : " **;** " (semicolon)
- In the "Settings" menu point the user sets on which language would like to have the exported data.In case of no data for export on the selected language then the default English data are exported

  Remark : This version of timeSSD® can export the data on 12 languages. From the installed 14 languages the data export missing on the Arabic and Chinese languages, these data are exported in English.

Method's related data export

Figure 6.2.1.

Flat file storage link

Figure 6.2.2.

Flat files link temporary storage

Figure 6.2.3.

6.2.1. EDI Method

The flat file structure in case of method export is explained below, using for practical example the data export of the "SGP00510" operation.

i. On the user interface

This are the data exported, interface views

Method data in operation list

Figure 6.2.1.1.

Method header in detail view and the execution data from bottom line

Figure 6.2.1.2.

Operation linked data from selection lists

Product

6	Shirt M	Men's Shirt

Part

46	Shirt Collar	Collar

Group

7	Shirt Collar	Shirt Collar

Machine

6	LOCKST 1 Needle	Single needle lockstitch	Mechanic	JUKI	DLN 9010	Sewing machine	Lockstitch, 1 needle

Figure 6.2.1.3.

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ii. Flat file record
This is the content of the method's flat file

<div style="background-color: #fdf6d8;">

First record : header record
Language_Code;Id;Code;ShortDescription;LongDescription;UserComment;Allowance;TotalStandardTime; StandardAllowedMinutes;ProductGroup_Code;ProductGroup_Description;Part_Code;Part_Description; OperationGroup_Code;OperationGroup_Description;Machine_Code;Machine_Description;Machine_Complexity; Machine_Manufacturer;Machine_Model;Machine_Principle;Machine_Purpose

Second record : data record of the selected operation and its linked data
EN;355997;SGP00510;Topstitch collar;Topstitch collar, 5mm, close neckline.;;1.152;0.403;0.464;Shirt M;Men's Shirt;Shirt Collar;Collar;Shirt Collar;Shirt Collar;LOCKST 1 Needle;Single needle lockstitch ;Mechanic;JUKI;DLN 9010;Lockstitch, 1 needle;Sewing machine

Third record : data record of the second operation selected and its linked data (if exist, not this case)
…

"k" record : data record of the operation in position "k" from the selection list and its linked data (if exist)
…

</div>

iii. Structure
Here is the clear structure to be used for the method data import by the third party software

Flat file record structure for Method data export

No.	Field name in database	Field Type Data export	Field Length	Field Content type	Record example Value
1	Language_Code	NVARCHAR	MAX	ISO 639-1 Code	EN
2	Id	NVARCHAR	MAX	Record ID number	355997
3	Code	NVARCHAR	100	Text	SGP00510
4	ShortDescription	NVARCHAR	MAX	Text	Topstitch collar
5	LongDescription	NVARCHAR	MAX	Text	Topstitch collar, 5mm, close neckline.
6	UserComment	NVARCHAR	MAX	Text	
7	Allowance	NVARCHAR	MAX	Real type number	1.152 [Remark : 1+Allowance]
8	TotalStandardTime	NVARCHAR	MAX	Real type number	0.403
9	StandardAllowedMinutes	NVARCHAR	MAX	Real type number	0.464
10	ProductGroup_Code	NVARCHAR	100	Text	Shirt M
11	ProductGroup_Description	NVARCHAR	MAX	Text	Men's Shirt
12	Part_Code	NVARCHAR	100	Text	Shirt Collar
13	Part_Description	NVARCHAR	MAX	Text	Collar
14	OperationGroup_Code	NVARCHAR	100	Text	Shirt Collar
15	OperationGroup_Description	NVARCHAR	MAX	Text	Shirt Collar
16	Machine_Code	NVARCHAR	100	Text	LOCKST 1 Needle
17	Machine_Description	NVARCHAR	MAX	Text	Single needle lockstitch
18	Machine_Complexity	NVARCHAR	MAX	Text	Mechanic
19	Machine_Manufacturer	NVARCHAR	MAX	Text	JUKI
20	Machine_Model	NVARCHAR	MAX	Text	DLN 9010
21	Machine_Principle	NVARCHAR	MAX	Text	Lockstitch, 1 needle
22	Machine_Purpose	NVARCHAR	MAX	Text	Sewing machine

Figure 6.2.1.4.

6.2.2. EDI Workflow

The flat file structure in case of method export is explained below, using for practical example the data export of the "Guide_Shirt" workflow.

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i. On the user interface
This are the interface views for the data exported

Workflows data in workflows list

Figure 6.2.2.1.

Workflow header and detail

Figure 6.2.2.2.

The included workflow header and detail

Figure 6.2.2.3.

Workflow linked data from selection lists
Workflow type

1	ProductWF	Product Workflow
2	PartWF	Part Workflow

Product

6	Shirt M	Men's Shirt

Model

5	Shirt Eton White	Example (just) : Man shirt with long sleeve and 1 front

Machine

6	LOCKST 1 Needle	Single needle lockstitch	Mechanic	JUKI	DLN 9010	Sewing machine	Lockstitch, 1 needle

…
Figure 6.2.2.4.

ii. Flat file record
This is the content of the flat file

First record : header record

Language_Code;Id;Code;UserComment;ShortDescription;LongDescription;StandardAllowedMinutes;WorkTimeHours;WorkTimeMinutes;
WorkTime;TargetCapacity;Efficiency;TotalNumberOfOperators;ProductGroup_Code;ProductGroup_Description;Model_Code;Model_Description;
WorkflowType_Code;WorkflowType_Description;ItemList_UserDescription;ItemList_StandardAllowedMinutes;ItemList_NumberOfOperators;
ItemList_Frequency;ItemList_SubtotalCode;ItemList_Order;Referenced_Workflow_Id;Operation_Id;Operation_Code;Operation_ShortDescription;
Operation_LongDescription;Operation_UserComment;Operation_Allowance;Operation_TotalStandardTime;Operation_StandardAllowedMinutes;
Operation_ProductGroup_Code;Operation_ProductGroup_Description;Operation_Part_Code;Operation_Part_Description;
OperationGroup_Code; OperationGroup_Description;Operation_Machine_Code;Operation_Machine_Description;
Operation_Machine_Complexity; Operation_Machine_Manufacturer;Operation_Machine_Model;Operation_Machine_Principle;
Operation_Machine_Purpose

Second record : data record of the selected workflow and linked data together with the first operation with its linked data

EN;1900;Guide_Shirt;User Guide ;Eton White Twill for User Guide;Man shirt with long sleeve and 1 front pocket. Collar with collar stand and side seam with safety stitch.
User Guide dedicated.;20.1544598214286;8;0;480;600;73;34.5110613380626;Shirt M;Men's Shirt;Shirt Eton White Twill;Man shirt with long sleeve and 1 front pocket. Collar with collarstand and side seam with safety stitch.;ProductWF;Product Workflow;;0.217986;0.373263698630137;
1;ΣA;1;;356109;SBF00101;Hem pocket mouth;Hem pocket mouth;;1.15;0.1922;0.217986;Shirt M;Men's Shirt;Shirt Front Pocket;Front Pocket;Shirt Front;Shirt Front;LOCKST 1 Needle;Single needle lockstitch ;Mechanic;JUKI;DLN 9010;Lockstitch, 1 needle;Sewing machine
…

Fourth record : data record of the selected workflow and linked data together with the fourth operation with its linked data ; it should be here the third operation but that record is a "Part Workflow" and is included at the end

EN;1900;Guide_Shirt;User Guide ;Eton White Twill for User Guide;Man shirt with long sleeve and 1 front pocket. Collar with collar stand and side seam with safety stitch.
User Guide dedicated.;20.1544598214286;8;0;480;600;73;34.5110613380626;Shirt M;Men's Shirt;Shirt Eton White Twill;Man shirt with long sleeve and 1 front pocket. Collar with collarstand and side seam with safety stitch.;ProductWF;Product Workflow;;0.290215;0.496943493150685;1;ΣA;4;;356113;SBF00501;Hem right front;Hem right front, with folder and cutting& folding mechanism;;1.15;0.2555;0.290215;Shirt M;Men's Shirt;Shirt Front Panel;Front Panel;Shirt Front;Shirt Front;LOCKST 1 Needle;Single needle lockstitch ;Mechanic;JUKI;DLN 9010;Lockstitch, 1 needle;Sewing machine
…

Record 39 : data record of the selected workflow and linked data together with the first "Part Workflow" and linked data

EN;1900;Guide_Shirt;User Guide ;Eton White Twill for User Guide;Man shirt with long sleeve and 1 front pocket. Collar with collar stand and side seam with safety stitch.
User Guide dedicated.;20.1544598214286;8;0;480;600;73;34.5110613380626;Shirt M;Men's Shirt;Shirt Eton White Twill;Man shirt with long sleeve and 1 front pocket. Collar with collarstand and side seam with safety stitch.;ProductWF;Product

Workflow;;0.684926321428571;1.17281904354207;1;ΣA;3;**1901**;;;;;;;;;;;;;;;;

Record 40 : data record of the first "Part workflow" and linked data together with the first operation from the "part workflow" with its linked data

EN;**1901**;SHRFP301;User Guide;Part workflow for shirt front placket;Front placket attach.
User Guide dedicated.;0.684926321428571;8;0;480;600;73;1.17281904354207;Shirt M;Men's Shirt;Shirt Eton White Twill;Man shirt with long sleeve and 1 front pocket. Collar with collarstand and side seam with safety stitch.;PartWF;Part Workflow;;0.377422321428571;0.646271098336595;1;ΣA;1;;356111;SBF00301;Attach front placket;Attach front placket Using placket folder;;1.15;0.332232142857143;0.377422321428571;Shirt M;Men's Shirt;Shirt Front Panel;Front Panel;Shirt Front;Shirt Front;LOCKST 2 Needle;Double needle lockstitch ;Mechanic;JUKI;LH 4168;Lockstitch, 2 needls;Sewing machine
…

Remarks:
- The principle used is : list / export first the simple operations and after it includes the "Part workflows", in the execution order, followed by their operations
- The red numbers make the links of the operations to the corresponding "Part workflow"

iii. Structure
Below is the clear structure to be used for workflow data import by the third-party software

Flat file record structure for Workflow data export

No.	Field name in database	Field Type Data export	Field Length	Field Content type	Example values from records							
					1	...	4	...	39	40	41
1	Language_Code	NVARCHAR	MAX	ISO 639-1 Code	EN	...	EN	...	EN	EN	EN
2	Id	NVARCHAR	MAX	Record ID number	1900	...	1900	...	1900	1901	1901
3	Code	NVARCHAR	100	Text	Guide_Shirt	...	Guide_Shirt	...	Guide_Shirt	SHRFP301	SHRFP301
4	UserComment	NVARCHAR	MAX	Text	User Guide	...	User Guide	...	User Guide	User Guide	User Guide
5	ShortDescription	NVARCHAR	MAX	Text	Eton White Twill	...	Eton White Tw	...	Eton White Tw	Part workflow	Part workflow
6	LongDescription	NVARCHAR	MAX	Text	Man shirt with lor	...	Man shirt with	...	Man shirt with	Front placket a	Front placket a
7	StandardAllowedMinutes	NVARCHAR	MAX	Real type number	20.15	...	20.15	...	20.15	0.68	0.68
8	WorkTimeHours	NVARCHAR	MAX	Real type number	8.00	...	8.00	...	8.00	8.00	8.00
9	WorkTimeMinutes	NVARCHAR	MAX	Real type number	0.00	...	0.00	...	0.00	0.00	0.00
10	WorkTime	NVARCHAR	MAX	Real type number	480.00	...	480.00	...	480.00	480.00	480.00
11	TargetCapacity	NVARCHAR	MAX	Real type number	600.00	...	600.00	...	600.00	600.00	600.00
12	Efficiency	NVARCHAR	MAX	Real type number	73.00	...	73.00	...	73.00	73.00	73.00
13	TotalNumberOfOperators	NVARCHAR	MAX	Real type number	34.51	...	34.51	...	34.51	1.17	1.17
14	ProductGroup_Code	NVARCHAR	100	Text	Shirt M	...	Shirt M	...	Shirt M	Shirt M	Shirt M
15	ProductGroup_Description	NVARCHAR	MAX	Text	Men's Shirt	...	Men's Shirt	...	Men's Shirt	Men's Shirt	Men's Shirt
16	Model_Code	NVARCHAR	100	Text	Shirt Eton White	...	Shirt Eton Wh	...	Shirt Eton Wh	Shirt Eton Wh	Shirt Eton Wh
17	Model_Description	NVARCHAR	MAX	Text	Man shirt with lor	...	Man shirt with	...	Man shirt with	Man shirt with	Man shirt with
18	WorkflowType_Code	NVARCHAR	100	Text	ProductWF	...	ProductWF	...	ProductWF	PartWF	PartWF
19	WorkflowType_Description	NVARCHAR	MAX	Text	Product Workflov	...	Product Workt	...	Product Workf	Part Workflow	Part Workflow
20	ItemList_UserDescription	NVARCHAR	MAX	Text		...		...			
21	ItemList_StandardAllowedMinutes	NVARCHAR	MAX	Text	0.22	...	0.29	...	0.68	0.38	0.31
22	ItemList_NumberOfOperators	NVARCHAR	MAX	Text	0.37	...	0.50	...	1.17	0.65	0.53
23	ItemList_Frequency	NVARCHAR	MAX	Text	1	...	1	...	1	1.00	1.00
24	ItemList_SubtotalCode	NVARCHAR	MAX	Text	ΣA	...	ΣA	...	ΣA	ΣA	ΣA
25	ItemList_Order	NVARCHAR	MAX	Text	1	...	4	...	3	1.00	2.00
26	Referenced_Workflow_Id	NVARCHAR	MAX	Text		...		...	1901		
27	Operation_Id	NVARCHAR	MAX	Text	356109	...	356113	...		356111	356112
28	Operation_Code	NVARCHAR	100	Text	SBF00101	...	SBF00501	...		SBF00301	SBF00401
29	Operation_ShortDescription	NVARCHAR	MAX	Text	Hem pocket mou	...	Hem right fron	...		Attach front pla	Press front pla
30	Operation_LongDescription	NVARCHAR	MAX	Text	Hem pocket mou	...	Hem right fron	...		Attach front pla	Press front pla
31	Operation_UserComment	NVARCHAR	MAX	Text		...		...			
32	Operation_Allowance	NVARCHAR	MAX	Text [1+Allowance]	1.15	...	1.15	...		1.15	1.14
33	Operation_TotalStandardTime	NVARCHAR	MAX	Text	0.19	...	0.26	...		0.33	0.27
34	Operation_StandardAllowedMinutes	NVARCHAR	MAX	Text	0.22	...	0.29	...		0.38	0.31
35	Operation_ProductGroup_Code	NVARCHAR	100	Text	Shirt M	...	Shirt M	...		Shirt M	Shirt M
36	Operation_ProductGroup_Description	NVARCHAR	MAX	Text	Men's Shirt	...	Men's Shirt	...		Men's Shirt	Men's Shirt
37	Operation_Part_Code	NVARCHAR	100	Text	Shirt Front Pocke	...	Shirt Front Pa	...		Shirt Front Pa	Shirt Front Pa
38	Operation_Part_Description	NVARCHAR	MAX	Text	Front Pocket	...	Front Panel	...		Front Panel	Front Panel
39	OperationGroup_Code	NVARCHAR	100	Text	Shirt Front	...	Shirt Front	...		Shirt Front	Shirt Front
40	OperationGroup_Description	NVARCHAR	MAX	Text	Shirt Front	...	Shirt Front	...		Shirt Front	Shirt Front
41	Operation_Machine_Code	NVARCHAR	100	Text	LOCKST 1 Need	...	LOCKST 1 Ne	...		LOCKST 2 Ne	FPSMH
42	Operation_Machine_Description	NVARCHAR	MAX	Text	Single needle loc	...	Single needle	...		Double needle	Fusing press v
43	Operation_Machine_Complexity	NVARCHAR	MAX	Text	Mechanic	...	Mechanic	...		Mechanic	Mechanic
44	Operation_Machine_Manufacturer	NVARCHAR	MAX	Text	JUKI	...	JUKI	...		JUKI	Veit
45	Operation_Machine_Model	NVARCHAR	MAX	Text	DLN 9010	...	DLN 9010	...		LH 4168	FPD
46	Operation_Machine_Principle	NVARCHAR	MAX	Text	Lockstitch, 1 nee	...	Lockstitch, 1 r	...		Lockstitch, 2 needls	
47	Operation_Machine_Purpose	NVARCHAR	MAX	Text	Sewing machine	...	Sewing machi	...		Sewing machi	Fusing machin

Figure 6.2.2.5.

6.3. Publish

The user can ask to have published its method or operation list, on own wish, by sharing it with the SysAdmin Business (Enedig Project Management / Astailor Shine).
The SysAdmin, after analyzing the shared item(s), will decide to accept it for publishing or not, without any liability for explanations.

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7. timeSSD® - User Setting

"Setting" is a navigation panel menu point which allows the users to customize the way of use timeSSD® and manage their password.

User settings

Figure 7.1.

The user can use different languages on the interface, for the elements, on reports and for the exported data via EDI.
For example, using English for interface, German for elements and Turkish for PDF report to be sent.
The user guide language is English excepting when the interface language is Romanian, then the user guide language is Romanian.

User can subscribe or not to newsletter. We recommend subscribing. We send e-newsletter only when we really have what to communicate with the users.

For password change the user must provide first the actual password.
If the user's browser is set to fill in by default the passwords on the forms, then the browser will fill in the password field. The System interprets it like a password change will from the user side and will not allow to use the "Save" button without filling in the "New password" and "Confirm password" fields or by emptying the "Password" field by the user.
The "Cancel" button or to click the navigation bar is allowed even with the "Password" field filled in.

Remark : in case of no data on the selected language then the default English data are used by the System.

8. timeSSD® - Predefined Reports

The developed methods and defined operation list can be printed in PDF and exported in Excel using the "Report" menu point from navigation panel.

Method

Figure 8.1.

On the navigation panel on Figure 8.1., under the "Report" menu the two horizontal lines divides the reports :

- related to methods – the upper section with "Method" label on grey
- related to operation lists – the bottom section with "Workflow" label on grey

To get the report the user clicks on the corresponding menu point and both for methods and reports opens the table view items list.

From the list the item is selected with a click followed by the "Next" button from the toolbar (right). In a new browser tab, the selected report is delivered.

Remark : only one item's report delivered once. If the user selects more items, the System will generate the report for the first one.

On the interface is placed an info bar below the toolbar.

The info line informs about what is reported (operation or workflow) – highlighted with the green rectangle on Figure 8.1. – and which type of report is selected – highlighted with the red rectangle.

The reports formats are structured in five parts :

i.	Page header	: Business name ; Report generation timestamp (UTC time)
ii.	Report header	: the reported item's header
iii.	Report content	: item's content
iv.	Report footer	: execution data
v.	Page footer	: username; software version; page number

On the following pages are included examples for each report type.

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8.1. Method reports
8.1.1. Method – Description
Listing the elements in the selected order

RMG Ex Ltd.   2020-04-07 00:02:50

Method description
R_OP_S1

SLM_CLSH	RMG ASS	Close shoulders
OVL4		Front and back panels placed on left and right side.
POLO	A0101	Disposal to left side.

No.	Element code	Description	Frq		TST
1		Prepare bundle for sewing Prepare bundle for sewing			
2	-_1-_-_9-_CZ0	Bundle Handling	1	*	0.040
3	-_1-_-_9-_CZ0	Bundle Handling	1	*	0.040
4		Sewing left shoulder Sewing left shoulder			
5	G70D	Pick up piece and position under foot, 46 - 80 cm	1	*	0.037
6	G50D	Pick up piece and position to another, 46 - 80 cm	1	*	0.044
7	P35A	Position under foot, accurately 0-15 cm	1	*	0.016
8	MA50	Sew, 5 stitches/cm, speed ?, cm: 1, RPM: 2500	1	*	0.009
9	H10B	Move or straighten piece 16-30 cm	1	*	0.015
10	P92A	Align at the end, simultaneous grasp . 0-15 cm	1	*	0.012
11	MA50	Sew, 5 stitches/cm, speed ?, cm: 15, RPM: 6000	1	*	0.020
12	H71	Cut thread with suction cutter	1	*	0.012
13		Sewing right shoulder Sewing right shoulder			
14	G50A	Pick up piece and position to another, 0 - 15 cm	1	*	0.027
15	P35A	Position under foot, accurately 0-15 cm	1	*	0.016
16	MA50	Sew, 5 stitches/cm, speed ?, cm: 1, RPM: 2500	1	*	0.009
17	P92A	Align at the end, simultaneous grasp . 0-15 cm	1	*	0.012
18	MA50	Sew, 5 stitches/cm, speed ?, cm: 15, RPM: 6000	1	*	0.020
19	H71	Cut thread with suction cutter	1	*	0.012
20		Overlocking fly bottom Overlocking fly bottom			
21	G20C	Pick up piece with turn, 31 - 45 cm	1	*	0.034
22	P35A	Position under foot, accurately 0-15 cm	1	*	0.016
23	MA50	Sew, 5 stitches/cm, speed ?, cm: 3, RPM: 2500	1	*	0.013
24	H71	Cut thread with suction cutter	1	*	0.012
25		Dispose panels Dispose panels			
26	D30D	Dispose and fold, 46 - 80 cm	1	*	0.076

	TST	0.490
	Allowance	1.18
	SAM	0.578

Figure 8.1.1.

timeSSD®

8.1.2. Method – Custom
Elements grouped on "User criteria" with subtotals.

Method description, custom grouping
R_OP_S2

SLM_CLSH	RMG ASS	Close shoulders
OVL4		Front and back panels placed on left and right side.
POLO	A0101	Disposal to left side.

No.	Element code	Description	Frq		TST
1	Prepare bundle for sewing				
2	-_1-_-_9-_CZ0	Bundle Handling	1	*	0.040
3	-_1-_-_9-_CZ0	Bundle Handling	1	*	0.040
4		**Subtotal ΣA = Prepare bundle for sewing**			**0.080**
5	Sewing left shoulder				
6	G70D	Pick up piece and position under foot, 46 - 80 cm	1	*	0.037
7	G50D	Pick up piece and position to another, 46 - 80 cm	1	*	0.044
8	P35A	Position under foot, accurately 0-15 cm	1	*	0.016
9	MA50	Sew, 5 stitches/cm, speed ?, cm: 1, RPM: 2500	1	*	0.009
10	H10B	Move or straighten piece 16-30 cm	1	*	0.015
11	P92A	Align at the end, simultaneous grasp . 0-15 cm	1	*	0.012
12	MA50	Sew, 5 stitches/cm, speed ?, cm: 15, RPM: 6000	1	*	0.020
13	H71	Cut thread with suction cutter	1	*	0.012
14		**Subtotal ΣC = Sewing left shoulder**			**0.164**
15	Sewing right shoulder				
16	G50A	Pick up piece and position to another, 0 - 15 cm	1	*	0.027
17	P35A	Position under foot, accurately 0-15 cm	1	*	0.016
18	MA50	Sew, 5 stitches/cm, speed ?, cm: 1, RPM: 2500	1	*	0.009
19	P92A	Align at the end, simultaneous grasp . 0-15 cm	1	*	0.012
20	MA50	Sew, 5 stitches/cm, speed ?, cm: 15, RPM: 6000	1	*	0.020
21	H71	Cut thread with suction cutter	1	*	0.012
22		**Subtotal ΣD = Sewing right shoulder**			**0.095**
23	Overlocking fly bottom				
24	G20C	Pick up piece with turn, 31 - 45 cm	1	*	0.034
25	P35A	Position under foot, accurately 0-15 cm	1	*	0.016
26	MA50	Sew, 5 stitches/cm, speed ?, cm: 3, RPM: 2500	1	*	0.013
27	H71	Cut thread with suction cutter	1	*	0.012
28		**Subtotal ΣF = Overlocking fly bottom**			**0.075**
29	Dispose panels				
30	D30D	Dispose and fold, 46 - 80 cm	1	*	0.076
31		**Subtotal ΣE = Dispose panels**			**0.076**
				TST	**0.490**
				Allowance	**1.18**
				SAM	**0.578**

Figure 8.1.2.

timeSSD®

8.1.3. Method – Element type
Elements grouped by type

Method description grouped by Element type
R_OP_S3

SLM_CLSH	RMG ASS	Close shoulders
OVL4		Front and back panels placed on left and right side.
POLO	A0101	Disposal to left side.

No.	Element code	Description	Frq		TST
1					
2	-_1-_-_9-_CZ0	Bundle Handling	1	*	0.040
3	-_1-_-_9-_CZ0	Bundle Handling	1	*	0.040
4	G70D	Pick up piece and position under foot, 46 - 80 cm	1	*	0.037
5	G50D	Pick up piece and position to another, 46 - 80 cm	1	*	0.044
6	P35A	Position under foot, accurately 0-15 cm	1	*	0.016
7	H10B	Move or straighten piece 16-30 cm	1	*	0.015
8	P92A	Align at the end, simultaneous grasp . 0-15 cm	1	*	0.012
9	H71	Cut thread with suction cutter	1	*	0.012
10	G50A	Pick up piece and position to another, 0 - 15 cm	1	*	0.027
11	P35A	Position under foot, accurately 0-15 cm	1	*	0.016
12	P92A	Align at the end, simultaneous grasp . 0-15 cm	1	*	0.012
13	H71	Cut thread with suction cutter	1	*	0.012
14	G20C	Pick up piece with turn, 31 - 45 cm	1	*	0.034
15	P35A	Position under foot, accurately 0-15 cm	1	*	0.016
16	H71	Cut thread with suction cutter	1	*	0.012
17	D30D	Dispose and fold, 46 - 80 cm	1	*	0.076
18			**Subtotal HAND =**		**0.420**
19					
20	MA50	Sew, 5 stitches/cm, speed ?, cm: 1, RPM: 2500	1	*	0.009
21	MA50	Sew, 5 stitches/cm, speed ?, cm: 15, RPM: 6000	1	*	0.020
22	MA50	Sew, 5 stitches/cm, speed ?, cm: 1, RPM: 2500	1	*	0.009
23	MA50	Sew, 5 stitches/cm, speed ?, cm: 15, RPM: 6000	1	*	0.020
24	MA50	Sew, 5 stitches/cm, speed ?, cm: 3, RPM: 2500	1	*	0.013
25			**Subtotal SEW =**		**0.070**
			TST		**0.490**
			Allowance		**1.18**
			SAM		**0.578**

Figure 8.1.3.

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8.1.4. Method – Subtotal
Elements subtotals (only) grouped by "User criteria"

Method with subtotals
R_OP_S4

SLM_CLSH	RMG ASS	Close shoulders
OVL4		Front and back panels placed on left and right side.
POLO	A0101	Disposal to left side.

Group	Element description	TST
ΣA	Prepare bundle for sewing	0.080
	Bundle Handling	
	Bundle Handling	
ΣC	Sewing left shoulder	0.164
	Pick up piece and position under foot, 46 - 80 cm	
	Pick up piece and position to another, 46 - 80 cm	
	Position under foot, accurately 0-15 cm	
	Sew, 5 stitches/cm, speed ?, cm: 1, RPM: 2500	
	Move or straighten piece 16-30 cm	
	Align at the end, simultaneous grasp . 0-15 cm	
	Sew, 5 stitches/cm, speed ?, cm: 15, RPM: 6000	
	Cut thread with suction cutter	
ΣD	Sewing right shoulder	0.095
	Pick up piece and position to another, 0 - 15 cm	
	Position under foot, accurately 0-15 cm	
	Sew, 5 stitches/cm, speed ?, cm: 1, RPM: 2500	
	Align at the end, simultaneous grasp . 0-15 cm	
	Sew, 5 stitches/cm, speed ?, cm: 15, RPM: 6000	
	Cut thread with suction cutter	
ΣF	Overlocking fly bottom	0.075
	Pick up piece with turn, 31 - 45 cm	
	Position under foot, accurately 0-15 cm	
	Sew, 5 stitches/cm, speed ?, cm: 3, RPM: 2500	
	Cut thread with suction cutter	
ΣE	Dispose panels	0.076
	Dispose and fold, 46 - 80 cm	

TST	0.490
Allowance	1.18
SAM	0.578

Figure 8.1.4.

timeSSD®

8.1.5. Method – Excel

Method data export in Excel table

AutoSave ● Off	🖫 ↺ ↻ ▾	xpDYz_zV.xlsx.xlsx - Read-Only - Excel

File   Home   Insert   Page Layout   Formulas   Data   Review   View   Developer   Help   🔎 Search

A1   ▾   :   ✕ ✓ fx   RMG Ex Ltd.

#	A	B	C	D	E	F	G	H	I	J	K
1	RMG Ex Ltd.				2020-04-07 00:29:15						
2											
3	Operation code	Operation group	Product	Part code				Machine code			
4	SLM_CLSH	RMG ASS	POLO	A0101				OVL4			
5	User comment	Description		Detailed description							
6	Example	Close shoulders		Front and back panels placed on left and right side.Disposal to left side.							
7											
8		#	Element code	Type co	Element description			Additional text	Frequ	Op	TST	SAM	Subtotal code
9		1			Prepare bundle for sewing		Prepare bundle for sewing	0		0.000	0.000	ΣA
10		2	-_1-_-_9-_CZ0	HAND	Bundle Handling			1	*	0.040	0.047	ΣA
11		3	-_1-_-_9-_CZ0	HAND	Bundle Handling			1	*	0.040	0.047	ΣA
12		4			Sewing left shoulder		Sewing left shoulder	0		0.000	0.000	ΣC
13		5	G70D	HAND	Pick up piece and position under foot, 46 - 80 cm			1	*	0.037	0.044	ΣC
14		6	G50D	HAND	Pick up piece and position to another, 46 - 80 cm			1	*	0.044	0.052	ΣC
15		7	P35A	HAND	Position under foot, accurately 0-15 cm			1	*	0.016	0.018	ΣC
16		8	MA50	SEW	Sew, 5 stitches/cm, speed ?, cm: 1, RPM: 2500			1	*	0.009	0.011	ΣC
17		9	H10B	HAND	Move or straighten piece 16-30 cm			1	*	0.015	0.018	ΣC
18		10	P92A	HAND	Align at the end, simultaneous grasp . 0-15 cm			1	*	0.012	0.014	ΣC
19		11	MA50	SEW	Sew, 5 stitches/cm, speed ?, cm: 15, RPM: 6000			1	*	0.020	0.023	ΣC
20		12	H71	HAND	Cut thread with suction cutter			1	*	0.012	0.014	ΣC
21		13			Sewing right shoulder		Sewing right shoulder	0		0.000	0.000	ΣD
22		14	G50A	HAND	Pick up piece and position to another, 0 - 15 cm			1	*	0.027	0.032	ΣD
23		15	P35A	HAND	Position under foot, accurately 0-15 cm			1	*	0.016	0.018	ΣD
24		16	MA50	SEW	Sew, 5 stitches/cm, speed ?, cm: 1, RPM: 2500			1	*	0.009	0.011	ΣD
25		17	P92A	HAND	Align at the end, simultaneous grasp . 0-15 cm			1	*	0.012	0.014	ΣD
26		18	MA50	SEW	Sew, 5 stitches/cm, speed ?, cm: 15, RPM: 6000			1	*	0.020	0.023	ΣD
27		19	H71	HAND	Cut thread with suction cutter			1	*	0.012	0.014	ΣD
28		20			Overlocking fly bottom		Overlocking fly bottom	0		0.000	0.000	ΣF
29		21	G20C	HAND	Pick up piece with turn, 31 - 45 cm			1	*	0.034	0.040	ΣF
30		22	P35A	HAND	Position under foot, accurately 0-15 cm			1	*	0.016	0.018	ΣF
31		23	MA50	SEW	Sew, 5 stitches/cm, speed ?, cm: 3, RPM: 2500			1	*	0.013	0.015	ΣF
32		24	H71	HAND	Cut thread with suction cutter			1	*	0.012	0.014	ΣF
33		25			Dispose panels		Dispose panels	0		0.000	0.000	ΣE
34		26	D30D	HAND	Dispose and fold, 46 - 80 cm			1	*	0.076	0.089	ΣE
35											
36	Username			info@timessd.com							
37	© timeSSD v01.13.05.00 by DataS							www.timessd.com			
38											

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Figure 8.1.5.

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Listing of the operations in the selected order

RMG Ex Ltd.   2020-04-11 03:36:20

Workflow description
R_WF_S1

SLM_POLOV14	Men's semi fitted Polo, Standard length & sleeve	WF
Polo example model	Instructions : Binding for neck- cut 3.2cm x width of fabric, or use printed tape	-
POLO	8mm seams, 2cm coverstitch hem	

No.	Item code	T	Description	Machine code	Machine	SAM	
1	SLM_FSCL	OP	Fusing collar	IWST	Pressing machine	0.342	
2	SLM_FSPL	OP	Fusing and folding plackets	IWST	Pressing machine	0.418	
3	SLM_PRCL	OP	Prepare collar	LOCK1	Sewing machine	1.100	
4	SLM_STPL	OP	Stitching placket seam	LOCK1	Sewing machine	0.328	
5	SLM_ATPL	OP	Attach Plackets	LOCK1	Sewing machine	1.677	
6	SLM_HMSL	OP	Sleeve hemming	CVSM	Sewing machine	0.335	
7	SLM_HMFP	OP	Front Panel hemming	CVSM	Sewing machine	0.370	
8	SLM_HMBP	OP	Back Panel hemming	CVSM	Sewing machine	0.370	
9	SLM_CLSL	OP	Closing sleeve	OVL4	Sewing machine	0.413	
10	SLM_CLSH	OP	Close shoulders	OVL4	Sewing machine	0.578	
11	SLM_CLSS	OP	Closing side seam	OVL4	Sewing machine	0.823	
12	SLM_ATSL	OP	Attaching Sleeves	OVL4	Sewing machine	0.889	
13	SLM_ATCL	OP	Attaching Collar	OVL4	Sewing machine	1.078	
14	SLM_STBT	OP	Stitching binding tape	LOCK1	Sewing machine	1.820	
15	SLM_TSSP	OP	Topstitching Side Split	LOCK1	Sewing machine	0.815	
16	SLM_SWBH	OP	Mark and sewing buttonholes	BHM	Sewing machine	0.723	
17	SLM_SWBT	OP	Mark and sewing buttons	BUTM	Sewing machine	0.685	
					SAM	**12.764**	

Figure 8.2.1.

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8.2.2. Workflow – Custom
Operations grouped on "User criteria" with subtotals.

RMG Ex Ltd.   2020-04-11 03:34:02

Workflow description, custom grouping
R_WF_S2

SLM_POLOV14			Men's semi fitted Polo, Standard length & sleeve		WF	
Polo example model			Instructions : Binding for neck- cut 3.2cm x width of fabric, or use printed tape		-	
POLO			8mm seams, 2cm coverstitch hem			

No.	Item code	T	Description	Machine code	Machine	SAM
1						
2	SLM_FSCL	OP	Fusing collar	IWST	Pressing machine	0.342
3	SLM_FSPL	OP	Fusing and folding plackets	IWST	Pressing machine	0.418
4	SLM_PRCL	OP	Prepare collar	LOCK1	Sewing machine	1.100
5	SLM_STPL	OP	Stitching placket seam	LOCK1	Sewing machine	0.328
6	SLM_ATPL	OP	Attach Plackets	LOCK1	Sewing machine	1.677
7	SLM_HMSL	OP	Sleeve hemming	CVSM	Sewing machine	0.335
8	SLM_HMFP	OP	Front Panel hemming	CVSM	Sewing machine	0.370
9	SLM_HMBP	OP	Back Panel hemming	CVSM	Sewing machine	0.370
10					Subtotal ΣA =	4.940
11						
12	SLM_CLSL	OP	Closing sleeve	OVL4	Sewing machine	0.413
13	SLM_CLSH	OP	Close shoulders	OVL4	Sewing machine	0.578
14	SLM_CLSS	OP	Closing side seam	OVL4	Sewing machine	0.823
15	SLM_ATSL	OP	Attaching Sleeves	OVL4	Sewing machine	0.889
16					Subtotal ΣB =	2.703
17						
18	SLM_ATCL	OP	Attaching Collar	OVL4	Sewing machine	1.078
19	SLM_STBT	OP	Stitching binding tape	LOCK1	Sewing machine	1.820
20	SLM_TSSP	OP	Topstitching Side Split	LOCK1	Sewing machine	0.815
21					Subtotal ΣC =	3.713
22						
23	SLM_SWBH	OP	Mark and sewing buttonholes	BHM	Sewing machine	0.723
24	SLM_SWBT	OP	Mark and sewing buttons	BUTM	Sewing machine	0.685
25					Subtotal ΣD =	1.408
					SAM	12.764

Figure 8.2.2.

timeSSD®

8.2.3. Workflow – Machine

Operations grouped on machine types, with subtotals

RMG Ex Ltd.   2020-04-11 03:31:48

Workflow description, grouped by Machine
R_WF_S3

SLM_POLOV14			Men's semi fitted Polo, Standard length & sleeve		WF	
Polo example model			Instructions : Binding for neck- cut 3.2cm x width of fabric, or use printed tape		-	
POLO			8mm seams, 2cm coverstitch hem			

No.	Item code	T	Description	Machine code	Machine	SAM
1						
2	SLM_FSCL	OP	Fusing collar	IWST	Pressing machine	0.342
3	SLM_FSPL	OP	Fusing and folding plackets	IWST	Pressing machine	0.418
4					**Subtotal IWST =**	**0.760**
5						
6	SLM_PRCL	OP	Prepare collar	LOCK1	Sewing machine	1.100
7	SLM_STPL	OP	Stitching placket seam	LOCK1	Sewing machine	0.328
8	SLM_ATPL	OP	Attach Plackets	LOCK1	Sewing machine	1.677
9	SLM_STBT	OP	Stitching binding tape	LOCK1	Sewing machine	1.820
10	SLM_TSSP	OP	Topstitching Side Split	LOCK1	Sewing machine	0.815
11					**Subtotal LOCK1 =**	**5.740**
12						
13	SLM_HMSL	OP	Sleeve hemming	CVSM	Sewing machine	0.335
14	SLM_HMFP	OP	Front Panel hemming	CVSM	Sewing machine	0.370
15	SLM_HMBP	OP	Back Panel hemming	CVSM	Sewing machine	0.370
16					**Subtotal CVSM =**	**1.075**
17						
18	SLM_CLSL	OP	Closing sleeve	OVL4	Sewing machine	0.413
19	SLM_CLSH	OP	Close shoulders	OVL4	Sewing machine	0.578
20	SLM_CLSS	OP	Closing side seam	OVL4	Sewing machine	0.823
21	SLM_ATSL	OP	Attaching Sleeves	OVL4	Sewing machine	0.889
22	SLM_ATCL	OP	Attaching Collar	OVL4	Sewing machine	1.078
23					**Subtotal OVL4 =**	**3.781**
24						
25	SLM_SWBH	OP	Mark and sewing buttonholes	BHM	Sewing machine	0.723
26					**Subtotal BHM =**	**0.723**
27						
28	SLM_SWBT	OP	Mark and sewing buttons	BUTM	Sewing machine	0.685
29					**Subtotal BUTM =**	**0.685**
					SAM	**12.764**

Figure 8.2.3.

timeSSD®

8.2.4. Workflow – Subtotal
Subtotals grouped on "User criteria"

Workflow with subtotals
R_WF_S4

SLM_POLOV14	Men's semi fitted Polo, Standard length & sleeve	WF
Polo example model	Instructions : Binding for neck- cut 3.2cm x width of fabric, or use printed tape	-
POLO	8mm seams, 2cm coverstitch hem	

Group	Description	Machine code	Machine	SAM
ΣA				4.940
	Fusing collar	IWST	Pressing machine	
	Fusing and folding plackets	IWST	Pressing machine	
	Prepare collar	LOCK1	Sewing machine	
	Stitching placket seam	LOCK1	Sewing machine	
	Attach Plackets	LOCK1	Sewing machine	
	Sleeve hemming	CVSM	Sewing machine	
	Front Panel hemming	CVSM	Sewing machine	
	Back Panel hemming	CVSM	Sewing machine	
ΣB				2.703
	Closing sleeve	OVL4	Sewing machine	
	Close shoulders	OVL4	Sewing machine	
	Closing side seam	OVL4	Sewing machine	
	Attaching Sleeves	OVL4	Sewing machine	
ΣC				3.713
	Attaching Collar	OVL4	Sewing machine	
	Stitching binding tape	LOCK1	Sewing machine	
	Topstitching Side Split	LOCK1	Sewing machine	
ΣD				1.408
	Mark and sewing buttonholes	BHM	Sewing machine	
	Mark and sewing buttons	BUTM	Sewing machine	
			SAM	**12.76**

Figure 8.2.4.

timeSSD®

Operations in the selected order with number of operators calculated for each operation

RMG Ex Ltd.   2020-04-11 03:40:34

Workflow with calculated no. of operators
R_WF_NO_OP

		WF		Work time	Target capacity	Efficiency
	Polo example model			**Min**	**Pcs**	
SLM_POLOV14		Men's semi fitted Polo, Standard length & sleeve				
-				600	600	70%
POLO	Instructions : Binding for neck- cut 3.2cm x width of fabric, or use printed tape 8mm seams, 2cm coverstitch hem					

No.	Item code	T	Description	Machine code	Machine	SAM	No. of Operator
1	SLM_FSCL	OP	Fusing collar	IWST	Pressing machine	0.342	0.49
2	SLM_FSPL	OP	Fusing and folding plackets	IWST	Pressing machine	0.418	0.60
3	SLM_PRCL	OP	Prepare collar	LOCK1	Sewing machine	1.100	1.57
4	SLM_STPL	OP	Stitching placket seam	LOCK1	Sewing machine	0.328	0.47
5	SLM_ATPL	OP	Attach Plackets	LOCK1	Sewing machine	1.677	2.40
6	SLM_HMSL	OP	Sleeve hemming	CVSM	Sewing machine	0.335	0.48
7	SLM_HMFP	OP	Front Panel hemming	CVSM	Sewing machine	0.370	0.53
8	SLM_HMBP	OP	Back Panel hemming	CVSM	Sewing machine	0.370	0.53
9	SLM_CLSL	OP	Closing sleeve	OVL4	Sewing machine	0.413	0.59
10	SLM_CLSH	OP	Close shoulders	OVL4	Sewing machine	0.578	0.83
11	SLM_CLSS	OP	Closing side seam	OVL4	Sewing machine	0.823	1.18
12	SLM_ATSL	OP	Attaching Sleeves	OVL4	Sewing machine	0.889	1.27
13	SLM_ATCL	OP	Attaching Collar	OVL4	Sewing machine	1.078	1.54
14	SLM_STBT	OP	Stitching binding tape	LOCK1	Sewing machine	1.820	2.60
15	SLM_TSSP	OP	Topstitching Side Split	LOCK1	Sewing machine	0.815	1.16
16	SLM_SWBH	OP	Mark and sewing buttonholes	BHM	Sewing machine	0.723	1.03
17	SLM_SWBT	OP	Mark and sewing buttons	BUTM	Sewing machine	0.685	0.98
	Total					**12.764**	**18.23**

Figure 8.2.5.

timeSSD®

8.2.6. Operator with Target

Operations in the selected order with number of operators, hourly and daily target calculated for each operation

Workflow with calculated no. of operators
R_WF_NO_OP_T

		WF		Work time	Target capacity	Efficiency
SLM_POLOV14	Polo example model	Men's semi fitted Polo, Standard length & sleeve		Min	Pcs	
-				600	600	70%
POLO	Instructions : Binding for neck- cut 3.2cm x width of fabric, or use printed tape 8mm seams, 2cm coverstitch hem					

No.	Item code	T	Description	Machine code	Machine	SAM	No. of Operator	Target H	Target Day
1	SLM_FSCL	OP	Fusing collar	IWST	Pressing machine	0.342	0.49	122	1224
2	SLM_FSPL	OP	Fusing and folding plackets	IWST	Pressing machine	0.418	0.60	100	1000
3	SLM_PRCL	OP	Prepare collar	LOCK1	Sewing machine	1.100	1.57	38	382
4	SLM_STPL	OP	Stitching placket seam	LOCK1	Sewing machine	0.328	0.47	128	1277
5	SLM_ATPL	OP	Attach Plackets	LOCK1	Sewing machine	1.677	2.40	25	250
6	SLM_HMSL	OP	Sleeve hemming	CVSM	Sewing machine	0.335	0.48	125	1250
7	SLM_HMFP	OP	Front Panel hemming	CVSM	Sewing machine	0.370	0.53	113	1132
8	SLM_HMBP	OP	Back Panel hemming	CVSM	Sewing machine	0.370	0.53	113	1132
9	SLM_CLSL	OP	Closing sleeve	OVL4	Sewing machine	0.413	0.59	102	1017
10	SLM_CLSH	OP	Close shoulders	OVL4	Sewing machine	0.578	0.83	72	723
11	SLM_CLSS	OP	Closing side seam	OVL4	Sewing machine	0.823	1.18	51	508
12	SLM_ATSL	OP	Attaching Sleeves	OVL4	Sewing machine	0.889	1.27	47	472
13	SLM_ATCL	OP	Attaching Collar	OVL4	Sewing machine	1.078	1.54	39	390
14	SLM_STBT	OP	Stitching binding tape	LOCK1	Sewing machine	1.820	2.60	23	231
15	SLM_TSSP	OP	Topstitching Side Split	LOCK1	Sewing machine	0.815	1.16	52	517
16	SLM_SWBH	OP	Mark and sewing buttonholes	BHM	Sewing machine	0.723	1.03	58	583
17	SLM_SWBT	OP	Mark and sewing buttons	BUTM	Sewing machine	0.685	0.98	61	612
	Total					**12.764**	**18.23**		

Figure 8.2.6.

timeSSD®

8.2.7. Workflow – Excel

Workflow data export in Excel table

Figure 8.2.7.

9. timeSSD® - Support, Status, About

For support reasons the support@timessd.com e-mail address is dedicated.

In case of you are in trouble with how to start a method development, what and how you can use to have an operation ready with its standard time please have a look on the timeSSD® demo video posted on YouTube.
The "Demo" video link is posted under the "Help" menu point, near this user guide. The same access link to the video is posted also under the "How to use" menu from the www.timessd.com site.

We cannot grant that timeSSD® as software is perfect, even with all our wishes to do it.
Under the "</> Status" menu point we list, and we update frequently, the known issues and their progress status.
Before you ask for Support please have a look on this list.

</> Status

Figure 9.1.

Remark : the "Status Page" language is only English.

In case of planned maintenance or urgencies are messages sent to the Business Admin's or all user e-mail addresses from the support@timessd.com e-mail address.

In case of support request please describe **in detail** , in English, your issue and request. The attached screenshots help the support team in a faster answer.

Pricing and credit costs are in the Appendix 1.
The TIT value is shown on the Business ID page , Figure 5.2.1.1. (not shown for "Trial" type registration).
Definitions, meanings, acronyms are listed in Appendix 4.
FAQ are listed in Appendix 6.

The "About" menu point provides up to date info regarding the version tracking of the system and the ELF database.

timeSSD®

Clicking the "About" menu point an embedded PDF reader should start. Depending on your browser's setting it could happen the PDF is downloaded by default instead to be shown on the screen, in this case you will find it in your default folder, dedicated for downloads.

10. timeSSD® - Legal

The user can use the timeSSD® only if agree with the "Terms Of Use" and "Privacy Policy" documents content.

Before to register, the System asking for the accepted agreement from all users.

Time by time the content of the documents could suffer minor or major changes.

In case of minor change, the users are not forced to accept it again but continuing to use the software the default acceptance is acknowledged.

If a major change occurs, the System requires from each user to read again the documents and accept them again.

The content of the documents is available under the "TOU" menu point.

On the top bar of the page the last acceptance date is displayed.

Terms Of Use and Privacy Policy
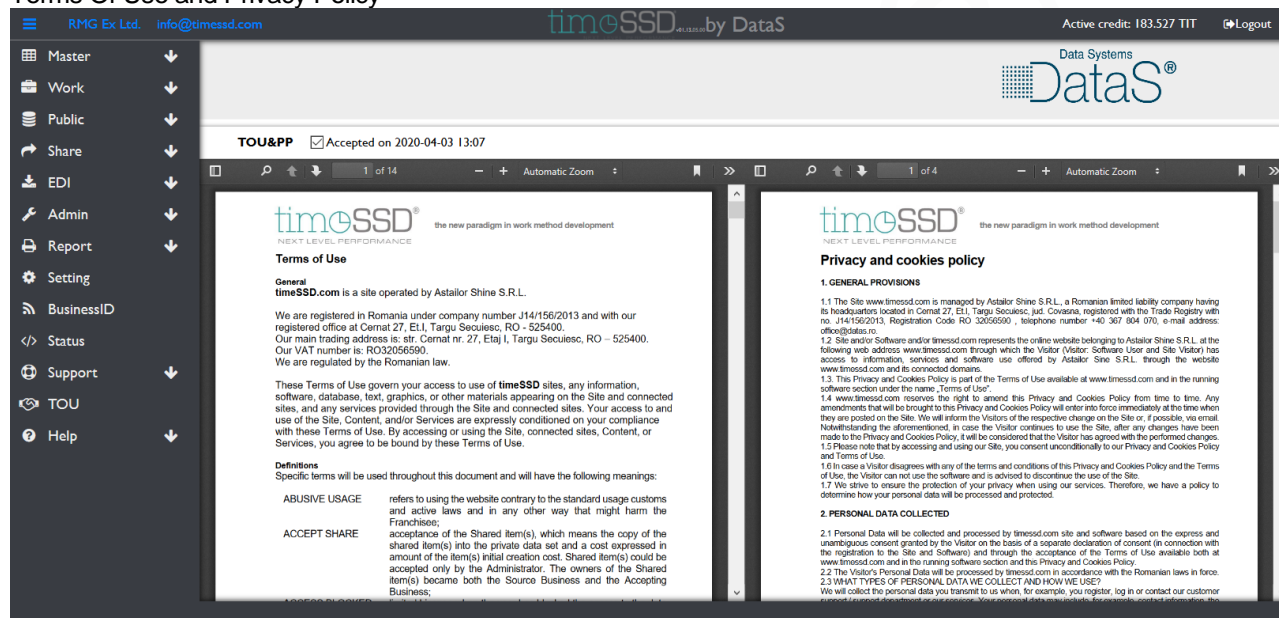
Figure 10.1.

TOU and PP are published also on the timeSSD® website : www.timessd.com . The visitor can access them via the links posted on the bottom of the page.

Clicking the "TOU" menu point an embedded PDF reader should start and should show the two PDF files near each other. Depending on your browser's setting it could happen the PDF files are downloaded by default instead to be shown on the screen, in this case you will find them in your default folder, dedicated for downloads.

11. timeSSD® - Security , Backup , Maintenance

timeSSD® is running on the Microsoft Azure Cloud platform. The platform was chosen for its reliability, security and highest uptime with the value of minimum 99%. The Microsoft platform is a native platform for timeSSD® as it's developed with Microsoft tools and on Microsoft SQL database.

The data of the timeSSD® customers are on a safe and secure platform, the system itself offers high protection against the intruders.
The users are in charge to use strong passwords, to change periodically their passwords and to access the system only by enough secure internet connection.

timeSSD® has set an automatic backup plan in cascade.
The system didn't have a dedicated backup feature developed for the users or account administrators with the aim of private backup of the Business data.
Instead of a backup menu point all users benefit by the 6.2 EDI feature. Using it the user of a Business can select any number of items (all) – operations and workflows – belonging to the Business and export them in a flat file. The exported flat files can be saved on a private server, computer, representing the backup for the selected items.
11.1.1. Another backup possibilities for the user are the Excel type reports, 8.1.5 Method – Excel and 8.2.6 Operator with Target
Operations in the selected order with number of operators, hourly and daily target calculated for each operation

timeSSD®

Workflow with calculated no. of operators
R_WF_NO_OP_T

	WF				Work time	Target capacity	Efficiency
SLM_POLOV14	Polo example model	Men's semi fitted Polo, Standard length & sleeve			Min	Pcs	
-					600	600	70%
POLO	Instructions : Binding for neck- cut 3.2cm x width of fabric, or use printed tape 8mm seams, 2cm coverstitch hem						

No.	Item code	T	Description	Machine code	Machine	SAM	No. of Operator	Target H	Target Day
1	SLM_FSCL	OP	Fusing collar	IWST	Pressing machine	0.342	0.49	122	1224
2	SLM_FSPL	OP	Fusing and folding plackets	IWST	Pressing machine	0.418	0.60	100	1000
3	SLM_PRCL	OP	Prepare collar	LOCK1	Sewing machine	1.100	1.57	38	382
4	SLM_STPL	OP	Stitching placket seam	LOCK1	Sewing machine	0.328	0.47	128	1277
5	SLM_ATPL	OP	Attach Plackets	LOCK1	Sewing machine	1.677	2.40	25	250
6	SLM_HMSL	OP	Sleeve hemming	CVSM	Sewing machine	0.335	0.48	125	1250
7	SLM_HMFP	OP	Front Panel hemming	CVSM	Sewing machine	0.370	0.53	113	1132
8	SLM_HMBP	OP	Back Panel hemming	CVSM	Sewing machine	0.370	0.53	113	1132
9	SLM_CLSL	OP	Closing sleeve	OVL4	Sewing machine	0.413	0.59	102	1017
10	SLM_CLSH	OP	Close shoulders	OVL4	Sewing machine	0.578	0.83	72	723
11	SLM_CLSS	OP	Closing side seam	OVL4	Sewing machine	0.823	1.18	51	508
12	SLM_ATSL	OP	Attaching Sleeves	OVL4	Sewing machine	0.889	1.27	47	472
13	SLM_ATCL	OP	Attaching Collar	OVL4	Sewing machine	1.078	1.54	39	390
14	SLM_STBT	OP	Stitching binding tape	LOCK1	Sewing machine	1.820	2.60	23	231
15	SLM_TSSP	OP	Topstitching Side Split	LOCK1	Sewing machine	0.815	1.16	52	517
16	SLM_SWBH	OP	Mark and sewing buttonholes	BHM	Sewing machine	0.723	1.03	58	583
17	SLM_SWBT	OP	Mark and sewing buttons	BUTM	Sewing machine	0.685	0.98	61	612
	Total					**12.764**	**18.23**		

Figure 8.2.6.

    Workflow – Excel .

The System's planned maintenances are published with corresponding time before on the </> Status page and are scheduled for the non-working time in that time zones from where the highest number of Businesses are registered.

12. timeSSD® - Certification

With its flexibility, easy to use and cost-effective approach timeSSD® could be considered the ideal tool for the learning process as well. No better similar software today to exercise the motion analysis and work method development in the apparel domain.

Enedig Project Management Kft. offers the possibility for the users to be certified as "**timeSSD® Practitioner**" and " **timeSSD® Trainer**". That professionals which considers themselves ready for the exam are invited to step in.

The general requirements to be accepted in the "Practitioner" exam is based on the traceable of work history with timeSSD®. A practical exam exercises are based on video recordings provided by the examiners followed by a remote interview with practical demo from the candidate side. No other limitations, no other requirements, no costs for the first exam, only to prove the corresponding knowledge level.
For the "Trainer" certification the "Practitioner" certificate is a must, together with demonstrable experience and references.

timeSSD® seminar, contest and workshop participants are provided with "**timeSSD® Participant**" certificates, on request.

More about and periodically updates under the "Certification" menu point
http://www.timessd.com/certification

To check the validity of a timeSSD® certificate the registry of the certificates is available online, on the link posted on the timeSSD® website, under "Certification" menu point.
Data can be obtained from the registry by entering the certificate number or the candidate's ID number.

Certification
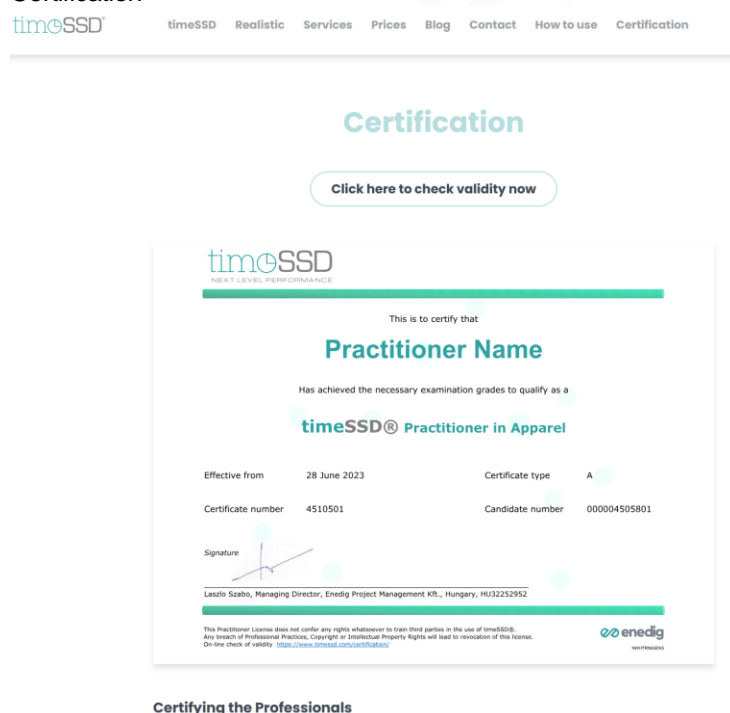
Figure 11.1.

14. timeSSD® BPO and Consulting services

An experimented consulting team provides :
- Business Process Outsourcing services for *Work Method Engineering and Re-Engineering*, on-site and remotely
- Consulting services, on-site, dedicated for the *Performance Enhancement* of the manufacturing units

The used tool is the timeSSD® software solution.

The *Work Method Engineering and Re-Engineering* services includes :

Remote and on-site :
- Work method / operation development
- Operation breakdown list / workflow definition
- Line layout planning with machine list and task distribution per operators (soon)

Only on-site :
- Workplace engineering

The consulting services are dedicated for the *Performance Enhancement* of the manufacturing units. We focus on bringing added value to the client company in terms of system driven shop floor.

On-site:
- "timeSSD® Practitioner" training, including motion analysis technics
- Operators and middle management training
- Efficiency increase
- Line balancing
- Quality management

Remote and On-site :
- timeSSD® webinars
- "timeSSD® Practitioner" and "timeSSD® Trainer" certification exams

The manufacturing operation consultant team is formed by REFA and MTM certified consultants with many years of international experiences behind, part of them are certified "timeSSD® Trainers", all of them are certified "timeSSD® Practitioners".

Description of the procedures and prices on the https://www.timessd.com/#services .

15. timeSSD® - Under development

timeSSD® established a new paradigm in the PMTS dedicated to the apparel sector with its collaborative features and unique "pay as you go" costing structure.
Its availability in the Cloud makes it suitable for widespread use on very cost-effective way.

We are working on to increase our customers satisfaction and near the planned new features we keep our ears open. Requests, ideas, and suggestions from our customers are always welcome.

15.1. Separate timeSSD® ELF module

The "timeSSD® ELF" scope is an API based software solution which copy the ELF database to the Partner's environment and keeps the control of the database access.
The control is realized by the timeSSD® ELF software combined with the legal agreement which defines the Partner and the Partner's Customer rights, together with the rules.
The legally defined rules must be implemented and followed by the Partner's software which access the copy of the timeSSD® ELF database.
The Partner's software should be able to provide all the necessary features to build up the methods from the ELF elements. The Partner holds the whole responsibility regarding how the ELF elements are used.
This new module allows to work with Centimeters and Inches too.

15.2. Other

New timeSSD® features are under development which includes graphical costing interface, line layout planning, extensions of measurement units, others.

16. Appendix 1 – timeSSD® prices and cost estimation

16.1. timeSSD® cost generating items and prices

No.	Cost generator item		Item description	Price		Cost accounted
1	ACCESS COST	ACC	GM role Business level daily (symbolic) price to use the Software.	0.350000	TIT / Day	EOM OVH
2	CREATION COST	CRC	one-time cost for Method and/or Workflow initial editing/creation and/or Share acceptance; the Creation Cost of the item is equal with the item's value	MTV or WFV	TIT	IMD
3	CREATION COST - Graphic interface	CRG	one-time cost for Method and/or Workflow initial editing/creation by the Graphical Interface and/or Share acceptance	MGV or WGV	TIT	IMD
4	DATA EXPORT in CSV	EDI	Data export in flat file (via EDI)	0.000000	TIT	IMD
5	DATA EXPORT in Excel	DEE	Data export in Excel file format	0.000000	TIT	IMD
6	DATA EXPORT in PDF	DEP	Data export in PDF file format	Free	TIT	-
7	ELEMENT VALUE	ELV	the price, expressed in TIT, equal with the Element's SAM value when it's selected from ELF	SAM	TIT	-
8	FILE & MEDIA (BLOB) DOWNLOAD	BLD	File access with download in v.1.x.	0.000000	TIT / GB	IMD
9	FILE & MEDIA (BLOB) UPLOAD	BLU	File upload cost in v.1.x., usualy method video.	9.706700	TIT / GB	EOM OVH
10	HIDING COST	HDC	GM role Business level daily optional cost to hide the Business from visibility of the other Users	0.525000	TIT / Day	EOM OVH
11	LAYOUT VALUE	LYC	15% from the sum of the component items - Operations and / or Workflows - of the parent Workflow's values . Ci = MTVi or WFVi * 5	SUM(Ci) * 15%	TIT	-
12	METHOD VALUE	MTV	sum of the values of the component Elements	SUM(ELVi)	TIT	-
13	PUBLIC IMPORT	PBC	The cost of the copy / import of Public Method and/or Workflow is equal with the item's value, any other action on Public data is free	MTV or WFV	TIT	IMD
14	RETENTION COST - Layout	RLC	Business level daily Cost of retaining a Layout in the Software	0.000075 * LYC	TIT / Day	EOM OVH
15	RETENTION COST - Method	RMC	Business level daily Cost of retaining a Method in the Software	0.005000 * MTV	TIT / Day	EOM OVH
16	RETENTION COST - File&Media	RBL	File level daily Cost of retaining a file (attachment) in the Software	0.018400	TIT / Day per GB	EOM OVH
17	RETENTION COST - Workflow	RWC	Business level daily Cost of retaining a Workflow in the Software	0.000100 * WFV	TIT / Day	EOM OVH
18	SHARE ACCEPT	SHG	The cost of the ShareGet - acceptance of shared item, a Method and/or Workflow - is equal with the item's value data is free	MTV or WFV	TIT	IMD
19	SHARE SEND	SHS	The cost of the ShareSent - sharing an item, a Method and/or Workflow - is free	Free	TIT	-
20	SETUP FEE	STF	one-time cost which has the scope to cover the costs with the services used for checking the validity of the registration data of the Business, provided during the registration process. Once any total or partial amount is applied than no more will be applied this kind of fee in any value and any time	800.000000	TIT	IMD
21	TIT	TIT	TImessd Time: the internal cost and credit counting (credit currency) unit of the timeSSD® ; 1(one) TIT = is the cost of the selection of 1(one) SAM minute Element from ELF;	ELV of 1 SAM	TIT	-
22	TRIAL PERIOD	TRP	Time period during which a "Trial User" using for free the System. The SysAdmin could decide on its sole discretion the length of the trial period for each "Trial User" separately.	30.000000	Day	-
23	WORKFLOW VALUE	WFV	20% from the sum of the values of the component items, Operations and / or Workflows. Ci = MTVi or WFVi * 5	SUM(Ci) * 20%	TIT	-
Grey = under development			EOM OVH = End Of Month as OVerHead cost			IMD = IMmeDiate with the event

Figure 16.1.1.

Remark : the value of " 1 TIT " is displayed in EUR under the ""BusinessID" navigation menu point, excepting for the "Trial" type registered Businesses.

16.2. timeSS® Costing principles

Once an element selected from ELF, from the element's database, the corresponding cost is accounted to the user, does not matter what will happen with that Element in the next steps. The Business owned elements are private elements of the Business but are part of the ELF, too.

Changing any parameter value of an item results a new item, from the point of view of timeSSD®. The cost of generating any new item is accounted, in the moment when is

generated the item. The "allowance" and "frequency" values are considered parameter values, too.

The parameter's value is considered changed when its existing value is modified (by delete or by direct overwrite).

When an operation is selected into an operation list (workflow) then the corresponding TIT cost is accounted, does not matter what will happen with that Operation in the next steps.

Once an existing operation is changed when it is saved it is considered a new operation. Its cost is calculated – as a new operation insert – on each operation list where the operation is present.

Changing the file attachment of an item the timeSSD® considers that a new item is realized.

Once a cost (credit) is accounted then no refund of it.

16.3.   timeSSD® generated costs forecasting and TCO

For the estimation of the TCO a dedicated menu point is available on :
https://www.timessd.com/prices/

A smart table is developed and posted behind the link.

Download it and based on few data related to the styles manufactured and about the the available human resources the system calculates the estimated costs for the required period.

The cost simulations with the related services, like user training, remote method development, on-site manufacturing enhancements consulting are included as well.

16.4.   timeSSD® prices overview

SetUp Fee	800.00	TIT		-		Overhead					
Method		Workflow		Line Layout		Retention / Storage				Admin Fee	
List	Image Selection	List	Image Selection			Method	Workflow	Layout	File & Media	Business Access	Hide
TIT / SAM	TIT / SAM	TIT / SAM	TIT / SAM	TIT / SAM		TIT / SAM per Day	TIT / SAM per Day	TIT / SAM per Day	TIT / GB per Day	TIT / Day	TIT / Day
1.000	1.500	0.200	0.300	0.150		0.000500	0.000100	0.000075	0.018400	0.350000	0.525000
Trial			For "Trial" the UpLoad and Storage : Free	File & Media	Allowed file types	Business Limit	User limit	File & Media (BLOB) v.2.x		TIT / GB	
Days	30		Video Storage form	Verified Business	JPG, PDF, PNG; AVI, FLV, MKV, MOV, MP4, MPEG, MPG, WMV	1.000 GB	Admin set it	UpLoad		9.7067	
TIT	5		H.264 720 Codec	Trial		500 MB	500 MB	DownLoad		0.0000	CESTLK9CEN0

Grey letters : not active yet

Figure 16.4.1.

16.5.   timeSSD120 prices
In case of timeSSD120 all prices are calculated by adding 20% to the timeSSD® (timeSSD100) prices, excepting the services. Service prices are the same.

16.6.   BPO, Consulting services and procedures suggested

The BPO and Consulting service procedures, including prices, are available here :
https://www.timessd.com/#services

MTM 100

G - Get		MTM - 2 Data Card					P - Put
		Time in **min**			1 tmu=	0.0006 **min**	
Movement of	Code	GA	GB	GC	PA	PB	PC
	Distance (cm)	No grasping motion	One grasping motion	More than one grasping motion	No correction	One correction	More than one correction
Finger	- 5	0.0018	0.0042	0.0084	0.0018	0.0060	0.0126
Hand / Wrist	- 15	0.0036	0.0060	0.0114	0.0036	0.0090	0.0156
Forearm	- 30	0.0054	0.0084	0.0138	0.0066	0.0114	0.0180
Arm extended / Shoulder	- 45	0.0078	0.0108	0.0162	0.0090	0.0144	0.0216
Upper Torso	- 80	0.0102	0.0138	0.0192	0.0120	0.0180	0.0246

GW: 0.0006 min per 1 kg / daN				PW: 0.0006 min per 5 kg / daN		
Weight / Force	for weights/forces ≥ 2 kg/daN per hand			Weight / Force	for weights/forces ≥ 5 kg/daN per hand	

A	R	E	C	S	F	B
Apply pressure	Regrasp	Eye motion	Crank	Step	Foot motion	Bend and arise
0.0084	0.0036	0.0042	0.0090	0.0108	0.0054	0.0366

MTM 120

G - Get		MTM - 2 Data Card					P - Put
		Time in **min**			1 tmu=	0.0005 **min**	
Movement of	Code	GA	GB	GC	PA	PB	PC
	Distance (cm)	No grasping motion	One grasping motion	More than one grasping motion	No correction	One correction	More than one correction
Finger	- 5	0.0015	0.0035	0.0070	0.0015	0.0050	0.0105
Hand / Wrist	- 15	0.0030	0.0050	0.0095	0.0030	0.0075	0.0130
Forearm	- 30	0.0045	0.0070	0.0115	0.0055	0.0095	0.0150
Arm extended / Shoulder	- 45	0.0065	0.0090	0.0135	0.0075	0.0120	0.0180
Upper Torso	- 80	0.0085	0.0115	0.0160	0.0100	0.0150	0.0205

GW: 0.0006 min per 1 kg / daN				PW: 0.0006 min per 5 kg / daN		
Weight / Force	for weights/forces ≥ 2 kg/daN per hand			Weight / Force	for weights/forces ≥ 5 kg/daN per hand	

A	R	E	C	S	F	B
Apply pressure	Regrasp	Eye motion	Crank	Step	Foot motion	Bend and arise
0.0070	0.0030	0.0035	0.0075	0.0090	0.0045	0.0305

Figure 17.1.

Definitions		[3]
No Grasp	Simple contact grasp (place hand on object).	
One Grasp	Simple closing of the fingers on small, medium or large object with one grasping.	
More Grasp	Complex grasping actions with precise and careful fingers movement.	
No Correction	Placing an object to an approximate location.	
One Correction	Some non-obvious corrections.	
More Corrections	Corrections are obvious. Difficult to handle.	
Normal working area	Finger, wrist and elbow movements.	
Maximum working area	Shoulder movements.	
The ideal layout	Should involve the operator not having to move further than the normal working area to complete her task.	

Distances in Practice		[3]
Distance	**Movement of**	
0 … 5 cm	1st knuckles (knuckles at the base of the fingers)	
6 … 15 cm	2nd knuckles (knuckles at the midfinger)	
16 … 30 cm	Wrist	
31 … 45 cm	Elbow	
46 … 80 cm	Shoulder	
>80 cm	Body	

[3]

Get	Is an action with the predominant purpose of reaching with the hand or fingers to an object, grasping the object and subsequently releasing it. Starts: With reaching to the object. Includes: Reaching to, gaining control and subsequently releasing control of the object. Ends: When the object is released.
Get Weight	The action required for the muscles of the hand and arm to take up the weight of the object or its resistance to motion. Occurs after the fingers have closed on the object after the preceding Get. It must accomplished before any actual movement can take place. When the weight or resistance is less than 2 kg per hand, no Get Weigh is assigned. From 2 kg the time is assigned for the first 2 kg too. Starts : With the grasp on the object completed. Includes: Muscular forces necessary to gain full control of the weight of the object. Ends: When the object is sufficiently under control to permit movement of the object.
Put	Is an action with the predominant purpose of moving / position an object to a destination with the hand or fingers. Starts: With an object grasped and under control at the initial place. Includes: All transporting and correcting motions necessary to place an object. Ends: With the object still under control at the intended place.
Put Weight	Is an additional Put motion to take account of the slowing down due to weight or resistance to movement. Put Weigh is assigned when the resistance reached 2 kg per hand. From 2 kg the time is assigned for the first 2 kg too. Between 5kg and 10 kg the time is dubled, and so on. Starts: When the move begins. Includes: The additional time, over and above the move time in Put, to compensate for the differences in time required in moving heavy and light object over the same distance. Ends: When the move ends.
Apply Pressure	Is an action with the purpose of exerting muscular force on an object to achieve control, to restrain or to overcome resistance to motion. The object is not displaced more than 6 mm during the action. Starts: with the body member in contact with the object. Includes: the application of the controlled muscular force, a minimum reaction time to permit the reversal of force and the subsequent releasing of muscular force. Ends: with the body member in contact with the object, but with muscular force released.
Regrasp	Is a hand action with the purpose of changing the grasp on an object. Consists of not more than three fractional movements. Starts: with the object in hand. Includes: digital and hand muscular readjustment on an object. Ends: with the object in a new location in the hand. Reamrk: Regraspr should not be assigned in combination with Apply Pressure.
Eye Motion	Is an action with the purpose of: a. Recognizing a readily distinguishable characteristic of an object (a simple yes/no decision); b. Shifting the aim of the axis of vision to a new viewing area. A single eye focus covers an area of 10 cm diameter and 40 cm from the eyes. Starts: When other actions must cease because a characteristic of an object must be recognized. Includes: Either muscular readjustment of the lens of the eyes to recognize a distinguishable characteristic of an object, Or the eye motion performed to shift the aim of the axis of vision to a new viewing area. Ends: When other actions can start again.
Crank	Is a motion with the purpose of moving an object in a circular path of more than half a revolution with the hand or fingers. The weight or resistance influencing the time for moving an object. The rules of adding Get Weigh and Put Weigh to Put motions also apply to Crank. Put Weigh applies to each revolution, whether continuous or intermittent. Get Weigh is applied once only to a continuous series of revolutions, but to each revolution where these are intermittent. Starts: With the hand on the object. Includes: All transporting motions necessary to move an object in a circular path. Ends: With the hand on the object when one revolution is completed.
Step	Is a leg motion with the purpose of moving the body or leg motion longer than 30cm. The steps may be in any direction, forward, backward or to the side such as walking. A single Foot motion allows for movement in one direction only. Starts: With the leg at rest. Includes: Either a motion of the leg when the purpose is to achieve displacement of the trunk, Or a leg motion longer than 30 cm. Ends: With the foot in a new location.
Foot Motion	Is a short leg or foot motion when the purpose is not to move the body. When a Foot motion occurs with force being applied, an Apply Pressure (A) should be allowed to compensate for the force. Starts: With the foot or leg at rest. Includes: A motion not exceeding 30cm (12") that is pivoted (bent) at the hip, knee or instep. Ends: With the foot in a new location.
Bend and Arise	Are the actions used when the body changes its vertical position. Typical movements characteristic including sitting down, kneeling and standing up. Kneels on both knees should be Bend + Bend. Starts: With the motion of the trunk forward from an upright posture. Includes: Movement of the turn and other body members to achieve a vertical change of body position to permit the hands to reach down to or below the knees and subsequent arise from this position. Ends: with the body in the upright posture.

Figure 17.2.

18. Appendix 3 – Allowances

The TST does not include unavoidable delay and other legitimate lost time, for example, in waiting for materials, tools or equipment; periodic inspection of parts; interruptions due to legitimate personal needs, etc. It is necessary and important that the time study person applies some adjustment, or allowances, to compensate for such losses so that fair time standard is established for the given job.

Allowances are generally applied to total cycle time as some percentage of it, but sometimes these are given separately for machine time as some % and for manual effort time some other %. However, no allowances are given for interruptions which may be due to factors which are within the operator's control or which are avoidable.

Sitations or avoidable and unavoidable allowances [7]

Situation	Nature (Avoidable or unavoidable)	Reasoning for Avoidable or unavoidable
Personal & Fatigue	Unavoidable	One has to attend such needs, yet may be controlled with improved working conditions and better methods etc.
Machine Breakdowns	Both	Machine break downs for new machines should be under avoidable, but for a factory with very old machines, such machine breakdowns may be considered as unavoidable allowance. Still with an effective maintenance schedule, such breakdowns may be controlled. Changing of broken needle should come under unavoidable category but the same may be controlled by using the correct needle for the correct material and an improved machine handling. While changing of blunt needle should be under avoidable as by following a needle change schedule (based on usage hours or stitches as recommended by the manufacturer), one can avoid such situation. The changing of needles may be planned before or after the shift hours or may be in breaks.
Contingency allowances	Avoidable	I most of the situations (such as writing/recording the production figures, updating the supervisor, discussing/reporting the quality related matters or machine maintenance related issues with the concerned persons, picking up and arranging the fallen bundles or trimmers, waiting for material to be stitched from the previous work station or waiting for the correct sewing trims), contingency allowances are avoidable or significantly controllable. Situations which require contingency allowances may be eliminated with an effective IE intervention on method improvement, work place improvement, effective real time monitoring, improved technology interface.

Figure 18.1.

Classification of allowances [7]
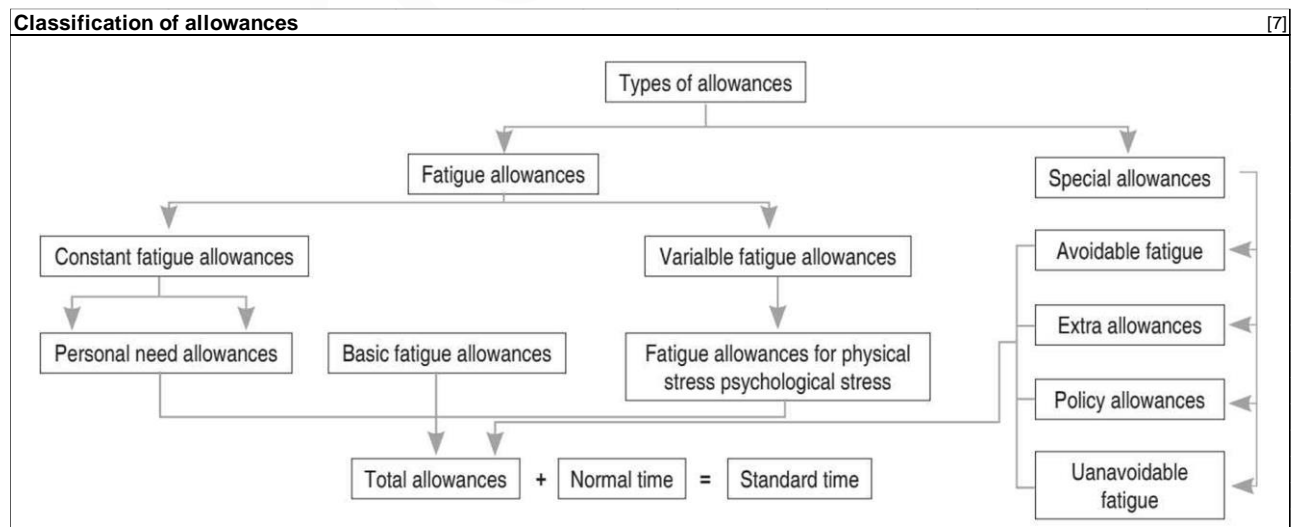
Figure 18.2.

Machine allowance for different machines	[7]
Machine type	**% Allowance**
Single Needle Lockstitch and Chainstitch	5%
Button Hole and Button Attach	5%
Multi Needle Chainstitch	6%
Overlock	6%
Bar-tack	6%
Safety stitch	8%

Figure 18.3.

Special allowances		[7]
Allowance	**Brief description**	**Examples**
Periodic Activity Allowances	Allocated to carry out periodic work while sewing	Bundle handling, bobbin refilling and replacement
Machine Interference Allowances	Allocated to compensate the temporary halt of the machine which is awaiting for operator and operator is engaged in handling other machine.	While handling of more than one automatic work stations (many a times cyclic machines) by one operator, such as handling of two automatic pocket setters by one operator.
Short Run Allowances	Allocated to compensate the frequent changes in machine settings and other adjustments in a production set-up while style change over, colour or fabric change are associated with smaller order quantities.	Situations where small orders with variations are getting executed. Modular manufacturing and flexible manufacturing set-ups which work on customized products may require such allowances.
Policy Allowances	Applied to standard time to provide a satisfactory level of earnings for a specified level of performance in particular situations.	Usually given to line up the Standard time as such allowances are mostly decided by the management. The activities which require high-level of skill or mental concentration (such as inspecting defects in fine embroidery

Figure 18.4.

International Labor Organization recommended allowances [3]						
Allowance		**Difficulty parameter**				
		Easy		**Middle**		**High**	
Constant	**Variable**	Content	Value	Content	Value	Content	Value
Personal		5%					
Basic Fatique		4%					
Allowances should be applied on element level	Standing	2%					
	Abnormal poisition / awkward	Slightly	0%	Bending	2%	Very	7%
	Use of force	< 2 kg	0%	<18 kg	0.40 % per kg	<32 kg	0.60 % per kg
	Bad light	Slightly	0%	Well	2%	Inadequate	5%
	Atmospheric conditions (heat & humidity) : variable 0% - 100%						
	Close attention	Fairly	0%	Exacting	2%	Very exacting	5%
	Noise level	Continuous	0%	Loud	2%	Very Loud	5%
	Mental strain	Fairly complex	1%	Complex	4%	Very complex	8%
	Monotony	Low	0%	Medium	1%	High	4%
	Tediousness	Rather	0%	Tedious	2%	Very tedious	5%

Figure 18.5.

19. Appendix 4 – Definitions

Disclaimer: the below definitions are valid on the date of editing this document.

ABUSIVE USAGE	refers to using the website contrary to the standard usage customs and active laws and in any other way that might harm the Franchisee;
ACCEPT SHARE	acceptance of the Shared item(s), which means the copy of the shared item(s) into the private data set. Shared item(s) could be accepted only by the Administrator. The owners of the Shared item(s) became both the Source Business and the Accepting Business;
ACCESS BLOCKED	limited License when the user has blocked the access to the data in the System;
ACCESS	Login and use the System ;
ACCOUNT	an arrangement in which the Business uses the Software;
ADMINISTRATOR	responsible User for carrying out the administration of the Business Account in the Software. The first user registered on behalf of the Business is considered by default its Software administrator;
ALLOWANCE	an additional time to the cycle time for Personal needs, Fatigues and Delays generated by machines (e.g. thread change, needle change, machine programming, thread tensioning , others);
ALLOWED FILE TYPE	file formats allowed to upload and store in the Software;
ALTERNATIVE	available as another possibility or choice;
API	Application Programing Interface;
ASSIGNED BOND	Business linked Bond value limit;
BASIC TIME	time of the Element from ELF. Universally accepted, predetermined motion time for the execution of the Element;
BLOB	Binary Large OBject;
BOND	loan from the System to the Business until the Business assigned limit is reached, with no interest; if the Business has no Credit than each new cost became a Bond;
BPO	Business Process Outsourcing;
BUSINESS	Company / Organization / Person. Owner of the User License right for the System use and owner of the data created with the System, with its valid license. Name used for the System's user account;
BUSINESS ADMIN	responsible / full in charge with the Business account;
CATEGORY	Any set of objects, concepts or expressions distinguished from others within some logical or linguistic theory by the intelligibility of a specific set of statements concerning them. The first set level on the Category - Class - Group - Family - Item hierarchy ;
CLASS	Close to the "Category" but somehow shortly : A set of groups with some similar properties. The second level on the Category - Class - Group - Family - Item hierarchy;
COMMITMENT	the Bond payment engagement by the Business;
CONTENT	any information, Software, data, database, text, graphics, or other materials appearing on the Site and all related documents;
COST	an amount of TIT that must be paid or spent to buy or obtain something;

CREATION	Method and/or Workflow initial editing/creation and/or Share acceptance;
CREDIT	the amount of TIT owned by the User; the negative Credit is the Bond;
CSV	Comma Separated Value;
CYCLE TIME	Total elapsed time to move a unit of work from the beginning to the end of a physical process. The time necessary to perform a task from the beginning to the end.
DATABASE	all the Software's structured data, both Private and Public but not limited on them;
DATA EXPORT	data export in allowed file formats; for the Method and Workflow the PDF, Excel table and flat file data export formats are available;
DataS	Brand under which operates Astailor Shine;
EDI	Electronic Data Interchange;
ELEMENT	motion(s) or other action(s) what require a human activity;
ELEMENT ACCURATE	accurately defined Element;
ELF	Essential Labor Fund; the System's initial database which includes the motion elements with their standard times and parameters;
EM	Equipment Manufacturer / dealer, and related, Business role. EM role include the GM role. *On the date of this document the EM role is inactive and is managed as GM role.;*
EQUIPMENT	necessary items to manufacture a product / for a particular purpose;
FAMILY	a subset of a group. The fourth level on the Category - Class - Group - Family - Item hierarchy ;
FAQ	Frequently Asked Question;
FRANCHISE	An authorization granted by the Owner to an individual or Company enabling them to operate a separate instance of the System ;
FRANCHISEE	An individual or company that holds a Franchise for the operation of a separate instance of the System. The Franchisee for this system is the Owner;
GM	Garment industry belonging Brand, Retailer, Consultant or Manufacturer, and related, Business role; in the moment of the Subscription it is the default role;
GROUP	a number of persons or things considered a collective unit. The third level on the Category - Class - Group - Family - Item hierarchy ;
HIDING	GM role Business hiding from visibility of the outside Users ;
HIGH TASK	MTM 120 . The performance of the working pace sustained throughout the day under incentive payment conditions.
IE	Industrial Engineer;
ILO	International Labor Organization;
INVOICE	a document that lists goods that have been supplied or services that have been done and says how much money Business owe for them. In any places of the Content the Proforma Invoice could be interpreted as Invoice;
LAYOUT	the way in which the workplaces are arranged in the line ;

LEAD TIME	The time between the initiation and completion of a production process. Amount of time it takes from the moment a customer places an order to the moment the product is out for a delivery.
LIBRARY	collection of sources of data, information and similar resources, made accessible to each User from the System as Public, for reference and free import;
LICENSE	contract between Franchisee and Business, establishing the rights of the Business to use the Software;
LOW TASK	MTM 100 . The performance of the working pace sustained throughout the day under daywork payment conditions.
METHOD	a way of proceeding or doing something;
MRP I	Materials Requirement Planning I;
MTM	Method Time Measurement;
MTM 100	60 Min = 100.000 TMU . MTM system 100% is the performance which the most people can perform when working manually. MTM 100 performance guarantee that a person is not overloaded . It makes possible for a person to keep working 8 hours per day without any physical energy losses.
MTM 120	60 Min = 120.000 TMU .
OPERATION	well defined Method with order of Elements;
OPERATION BILL	Workflow
OPERATION LIST	Workflow
OVERDRAFT	a Bond, resulted as deficit in a Credit caused by the application of the System rules, usually as results of the accounting of the daily / periodic fixed Costs;
OWNER	Enedig Project Management Kft. ;
PEACE	It is an agreement between a company and workers union on which performance (speed) the work must be done .
PERSON	type of Business where the owner of the User License right is a singular individual and not a company;
PFD	acronym of the allowance : Personal needs, Fatigue, Delay generated by machine;
PMTS	Predetermined Motion Time System;
PP	Privacy Policy;
PRIVATE	belonging to or for the use of one particular Business only;
PROCESS	A series of steps or actions that lead to a desired result or output. A set of common tasks that creates a product, service, process or plan that will satisfy a customer or group of customers.
PUBLIC	accessible to all Users. Operation or Workflow item could become Public in the System only with the acceptance of the SysAdmin. Public data are owned by Franchisee. Items from Public can be imported by the Business;
PUBLISH	publishing of the item (Operation or Workflow) from Source Business to be available for all registered Businesses in the System. The SysAdmin should accept on his sole discretion the content intended to be published;
R&D	Research & Development;
REFA	Reichsausschuss für Arbeitszeitermittlung. Work time determination committee. ;
REMOVE	remove / delete the Business from the System, it means all the data belonging to the Business are deleted from the System with no possibility to recover them;

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RETENTION	retaining / storing of an item in the Software ;
RMG	Ready Made Garment;
ROLE	the status of the reference during the interaction with the Software;
SAM	Standard Allowed Minute = Basic Time + Allowance;
SHARE	share of the item(s) (Operation or Workflow) from Source Business with the Destination Business registered in the System. Destination Business should accept the Share to can see and use it ;
SERVICES	any services provided through the Site;
SETUP	services used for checking the validity of the registration data of the Business, provided during the registration process ;
SFC	Shop Floor Control;
SITE	represents the online website belonging to Franchisee at the following web address www.timessd.com through which the User has access to information, services and Software (as part of the Site) use offered by Franchisee through the website www.timessd.com and its connected domains;
SOFTWARE	System;
SOURCE	the Business from where the item originates;
STANDARD WORK	Detailed definition of the most efficient method to produce a product (or perform a service) at a balanced flow to achieve a desired output rate. It breaks down the work into elements, which are sequenced, organized and repeatedly followed.
SUBSCRIPTION	registering in the System: User gives the email address and chose a password to use the System and may be asked by the SysAdmin for additional identification data;
SYSADMIN	responsible / full in charge with the System;
SYSTEM	the timeSSD® software with all of its components, including but not limited to: source code, compiled code, databases, documentations, descriptions and so on;
TAKT TIME	The required product assembly duration that is needed to match the demand. Is the speed (peace) with which the product needs to be created to satisfy the needs of the customer.
TCO	Total Cost of Ownership;
TIMESSD	timeSSD® software solution using the ELF basic motion elements database with MTM100; access on https://timessd.azurewebsites.net/#/login
TIMESSD120	timeSSD® software solution using the ELF basic motion elements database with MTM120; access on https://timessd120.azurewebsites.net/#/login
TIT	TImessd Time: the internal cost and credit counting unit of the timeSSD® ; One TIT is the cost of the elements of one SAM [MTM 100] taken form ELF; in case of timeSSD120 one SAM [MTM 120] taken form ELF it has a cost of 1,20 TIT.
TMU	Time Measurement Unit;
TOU	Terms Of Use;
TRIAL PERIOD	Time period during which a "Trial User" using for free the System.
TRIAL USER	Business with the first free Credit until reaches the Trial User End status;

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TRIAL USER END	next status after the Trial User status, is reached by : free Credit is consumed, or the Trial Period is over or other established System's parameter is reached or the Business by its decision start to buy Credits or asking for the Commitment;
TST	Time STandard = Basic Time;
UPTIME	mean the total minutes in the reporting month that the Software were actually available to Users for normal use, calculated from the Microsoft Azure Cloud Computing platform's uptime for the reporting month;
USER	individual or individuals who act in the System on behalf of the Business; or: Individual behind the username / e-mail address;
USER LICENSE	the rights and conditions to use the System. This right is get by default with the acceptance of both of the "Terms Of Use" of the System and the "Privacy Policy" of the System, and, maybe in addition, with the acquisition of one of the available / offered license types. Determines the baseline of features of the Software that the User can access;
VERIFIED	BusinessID data confirmed by independent party;
VOUCHER	a code provided by the System what can be used to get a Credit;
WORKFLOW	well defined list with order of Operations and / or other Workflows; Operation List; Operation Bill;
WORKLOAD	It is an amount of work expected from persons doing manual work with their hands, feet, body, eyes, and fingers.

Figure 19.1.

20. Appendix 5 – particular ELF elements

20.1. The following Elements from ELF has no defined standard time

ELF elements with no predefined time

List of the elements which are, or could be, necessary to execute a garment but can't have a universal standard time defined.
Few of the reasons: the diversity / possible variants of the object of the element, no standard distances defined for the transporting / conveyor systems, others.

When the element, from the list below, is selected then the standard time is required to be entered by the user.
If the elements, with the user times provided, are repetitive then is suggested to define them as own elements, included in the Business Owned Class and use from there.

No.	Class	Group	Family	Element	Element Accurate	Remark
1	SSD	Sew	Press Button		Mark	Marking of press button or stud
2	SSD	Sew	Press Button		Attach	Attaching of press button or stud
3	SSD	Sew	Bartack			Special position / reason bartack
4	SSD	Sew	Manual button sew			Style dependent
5	SSD	Sew	Button sew			Style dependent
6	SSD	Sew	Buttonhole			Style dependent
7	SSD	S_Dispose	Dispose to conveyor			Transporting system dependent
8	SFD	F_Handling	Reposition iron to next point, unaccurately		*All*	Style dependent
9	SFD	F_Handling	Reposition iron to next point, accurately		*All*	Style dependent
10	SFD	F_Handling	Pull garment to post for ironing		*All*	Transporting system dependent
11	SFD	F_Handling	Turn / reposition garment on post		*All*	Style dependent

Figure 20.1.1.

20.2. Elements from ELF for which time depends on the difficulty category

ELF elements with "Difficulty" parameter

No.	Class	Group	Family	Element	Element Accurate	Difficulty level depends on
1	SSD	Scissors	Cut distance, lenght?		HSM	Pressure
2	SSD	Scissors	Cut distance, with accuracy or pressure		HSMA	Accuracy and Presure
3	SFD	Ironing	Ironing (surface)	- easy / non accurate	"?"	Pressure
4	SFD	Ironing	Ironing (surface)	- difficult / accurate	"?"	Accuracy and Presure
5	MTM-2	MTM-2		Decide	D	Complexity of task

Difficulty level should be defined between : 0 … 10
Always make a in-company instruction table for difficulty categories.

Figure 20.2.1.

20.3. "NoUse" element accurate buttons

Buttons like on Figure 20.3.1. are placeholders for further, planned element accurate.
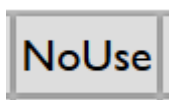
Figure 20.3.1.

21. Appendix 6 – "How to do" and FAQ

Action	Related	Reference	Remark
Accept	Share received	5.3.6 ; 4.5.1	ShareGet; Import
Accept	Share initiated / sent	5.3.7	ShareSent
Administering	Administering Business	5	
Attach	File	3.4 ; 4.2.2.3.4 ; 4.3.2.4.4 ; 16.4	File attachment to operation and workflow
Backup	Operations, Workflows	11	
Block	User	5.3.1	
Change	Allowance – Element	4.2.2.2	
Change	Allowance – Method	4.2.2.4	
Change	Allowance – overall	4.2.2.2	
Copy	Method	4.2.2.3.7	
Copy	Record	3.7	Detail record copy
Copy	Workflow	4.3.2.4.8	
Create	Element	3.3.3.1	Business owned element
Delete	User	5.3.1	
Edit	Method	4.2.2.3	
Edit	Workflow	4.3.2	
ELF	Elements database	2.3.4	
Export	Data	6.2 ; 8.1.5 ; 8.2.5	EDI; Excel
Get	Verified	5.2.2	Trial to Commercial
Import	Share	4.5	"Import" is a simplified "Share"
Initiate	Partnership	5.3.5	To can use Share
Install	Private version	1.10	Local installation
Invite	User	5.3.1	Join to Business
Login	User login	5.1.6	
Partner	Partnership	5.3.5	
Password	Forgot password	5.1.7	
Prepare	Selection lists; Master	4.4	Master folder; Work-Style
Publish	Own items	4.5	Send to Public
Quota	Upload quota	5.3.1	
Register	Business	5.1	Register first user
Register	User	5.1.2	
Report	Operation	8.1	
Report	Workflow	8.2	
Reset	Password	5.3.1	Settings
Select	Element	3.3.2	Element matrix
Set	Allowance	5.3.2.2	Default for Business
Set	Permissions	5.3.1	Not used
Share	Method	6.1.1	
Share	Workflow	6.1.2	
Split	Workflow	4.3.2.4.6	Workflow in Workflow
Start	https://timessd.azurewebsites.net/#/login https://timessd.azurewebsites.net/#/register	Direct addresses for "Login" and "Register"	Skip the timeSSD® presentation page
timeSSD120	https://timessd120.azurewebsites.net/#/login https://timessd120.azurewebsites.net/#/register	Direct addresses for "Login" and "Register"	Use the timeSSD120 system

Transfer	Business Admin role	5.3.1	Nominate Admin
Translate	Item	3.3.3.2 ; 3.5 ; 4.2.4	User texts, only
Unblock	Command	If the page is blocked	Try a page Refresh
Unblock	User	5.3.1	
Update	Cascade update	3.6	Item included in another
Upload	Upload attachment	3.4 ; 4.2.2.3.4 ; 4.3.2.4.4 ; 16.4	
User	User management	5.3.1	User invite, rights, limits
Video	Video tutorials	https://www.timessd.com/how-to-use/	Access code to restricted area : published in "About"
View	Element distribution	4.2.2.4	Element distribution in method, on types
View	Method SAM	4.2.2.4	Execution data
View	Target capacity plan	4.3.2.2	Prepare layout
View	Workflow SAM	4.3.2.3	Execution data

Figure 21.1.

FAQ

The order of the listed questions below is based on their frequency in asking it.
If you do not find here the answer on your question, then please check the list in the software under the **</> Status** menu point. There are published the recent issues.

Missing answer e-mail with activation link for the Business Registration or invitation-based User Registration

Issue   : the expected e-mail with the activation link not arriving / missing.
Info   : timeSSD® uses a third-party service for the automated e-mail communication. E-mails are sent and should arrive in few seconds.
Cause   : the expected e-mail is in the user's Spam or Quarantine folder or was hanged up somewhere on a spam filter.
Solution   : Check your Spam / Quarantine folder. If you cannot find it then please send an e-mail to support@timessd.com and the activation link will be sent from a local e-mail address again.

I have imported items from the "Public" and cannot find them

Issue   : in the "Public" folders (Method and Workflow) were selected the records and are applied the "Import" button but the items cannot be found in the user's "Work" folder
Info   : the "Import" from public is considered by the System as a "Share" from "Public" to the user's Business (account). The "Share" is a credit consuming action and the third party (in this case the "Public") shared items should be accepted by the Business Admin.
Cause   : the items imported are waiting the Business Admin acceptance
Solution   : ask the Business Admin to click the "Accept" button(s) in the "Admin – ShareGet" menu point. After it the items will be available in the "Work" folder's corresponding subfolder.

How much cost me to use timeSSD®

Issue   : user would like to know the cost of the use of timeSSD®
Info   : timeSSD® is a user license free software, no initial payment, no yearly fees. Its pricing is "pay as you go" meaning : the Business pays for the data and features used from the software in direct proportion with using them. If no use, then no cost.
Cause   : with this novelty "pay as you go" approach the timeSSD® is available for all without any investment. With its pricing model the timeSSD® provides a direct costing model.
Solution   : the prices in TIT of the used data and features are described above, in a dedicated section. For the TCO and cost forecast a dedicated cost simulator is available here : https://www.timessd.com/prices/

What is the price of one TIT credit

Issue   : all prices and costs are expressed only in the timeSSD® credit system's defined TIT
Info   : timeSSD® and timeSSD120 counts all costs, generated by using it, in its own credit currency, in TIT.
Cause   : all accounts have the same TIT costs for the same data and feature, no differences.

Solution   : each Business (account) has specified in EUR the value of one TIT on its BusinessID page, excepting the "Trial" registrations. The "Trial" type accounts have the prices and costs only in TIT but using the cost simulator the cost forecast is shown in EUR as well.
The cost simulator is available here :   https://www.timessd.com/prices/

Why are timeSSD® and timeSSD120 systems ?

Issue   : from April 2021 are available two different timeSSD® systems, as timeSSD® or timeSSD100, and timeSSD120

Info   : the two systems are completely separated, their use is from completely different Azure Cloud link address, and the two systems are not communicating between them

Cause   : a. timeSSD® or timeSSD100 using the basic motion elements database defined with MTM100
   b. timeSSD120 using the basic motion elements database defined with MTM120, this is the so-called incentive system

Solution   :   Register   a. timeSSD® https://timessd.azurewebsites.net/#/register ;
                                        b. timeSSD120 https://timessd120.azurewebsites.net/#/register ;
                    Login   a. timeSSD® https://timessd.azurewebsites.net/#/login ;
                                        b. timeSSD120 https://timessd120.azurewebsites.net/#/login ;

The cost simulator from   https://www.timessd.com/prices/ provides the cost forecast with the timeSSD® system. For the cost forecast with timeSSD120 system please add 20% to the costs calculated for timeSSD®.

Why I cannot find a motion element code in the ELF

Issue   : analyzing the list of the elements of an operation the user finds an element code which is not included in ELF

Info   : each user can define its own elements and they are private, Business owned elements. These elements are available for use only by that Business which created them, and they are stored in the element class with the name "Business"

Cause   : when a method is shared by the Business A with the Business B and that method includes a private element belonging to Business A than that element is transferred to Business B too but only as part in the shared operation. That element is visible in the shared operation by the users from Business B, is valid in that method but cannot be selected in other operations belonging to Business B. It not included in any Class for the Business B.

Solution   : ask Business A to include only the specific private element in a method and share that method with Business B. After the acceptance of the share of that specific operation than the operation it will be available to select it in a workflow (not in an operation). The user from Business A can build up an operation block where is included the specific operation-element in the right, wanted, position / order and will use that operation block on the post of operation.

Why the Element's description is not translated ?

Issue   : on other than EN as Elements language the selected Element's descriptions are not translated, are in English

Info   : the System's elements are on 14 languages

Cause   : the added very new elements to the ELF database are on EN and their translations are under processing

Solution   : in case of the user would like to have the meaning of the description on other language then could enter its translation in the user comment field, until the missing translations will be implemented

Why I cannot find the Element linked demo video ?

Issue   : with the right click on the element in the matrix the new window includes the detailed description but no demo video

Info   : not all elements has demo video attached

Cause   : demo video is attached to that elements where even with the long and detailed descriptions it could be complicated to identify / differentiate accurately the right element. In case of that elements which understanding are accurate by name and / or by description are no demo video attached. Could be very new elements where the demo video is not ready yet, in that case will be attached soon (like the macro elements from the Treatment Class, in this version of timeSSD®)

Solution   : please read and interpret the detailed description

Overlapping images on the interface

Issue   : the tables or pictures on the user interface are overlapped

Info   : timeSSD® has a dynamic interface size setting

Cause	: all versions of the Internet browser settings and all time cannot be followed by automatic interface size setting in timeSSD®
Solution	: decrease your internet browser's zoom level (Ctrl + mouse down scroll ; usually it works) until the images are not overlapped. Suggested zoom level : 80%.

Some commands are executed others are not

Issue	: it seems that the software does not execute all or part of the commands
Info	: the software is running in a browser and requires uninterrupted connection with the server in the Cloud
Cause	: the Internet connection between the browser and the server were interrupted by connection broken, computer gone in the sleeping mode, other
Solution	: logout from the current timeSSD® instance and close the browser's page. Open a new browser page and start again the software with login.

Cannot leave the editing interface

Issue	: user wants to leave an editing interface, usually by clicking other menu point, but the software not executes the mouse click
Info	: any action on the interface is considered by the software as a change, even only the element's video showing is it from the software point of view
Cause	: timeSSD® expecting the user decision regarding "Save" or "Cancel" the changes. On the right bottom corner, a discrete, short, message is shown for few seconds to inform the user.
Solution	: "Save" or "Cancel" your changes

Edit command on a selected method (or workflow) from the list doing nothing

Issue	: a record is selected in the "Method browser" or "Workflow browser" and the "Edit" command is clicked to open and start to edit it. The command is not executed, no messages.
Info	: timeSSD® cannot handle on other way the record lock
Cause	: the selected record is under editing by another user
Solution	: when another user finalizes the record editing then the record will be available to edit. Trying more times to edit the locked record could require the logout from the System and a new login to work the editing.

Selected element from ELF returns null time value

Issue	: user selected an element from the matrix and the TST provided is null in the detailed method line
Info	: exist a series of elements which requires one or more user parameters to calculate and provide the standard time
Cause	: a. one or more user parameter expected in the data entry form from the right side of the elements matrix; b. could be an element which cannot provide a standard time
Solution	: a. fill in the value for the required parameters in the data entry form from the right side of the element's matrix; b. is a particular element listed in Appendix 5. Please follow the recommendations from the tables inserted in Appendix 5.

Where is it the attachment from the shared item

Issue	: the shared item receiving party cannot find any attachments linked to the items get
Info	: the "Share" feature makes a copy of the items from the source Business to the receiver Business following the duplicated item rules defined by the receiving Business
Cause	: the attachments are not part of the Share feature; they are not copied from the source Business. Is a kind of protection because the receiving part could decide to not accept duplicates and in that case is not granted the accuracy
Solution	: with the next major version change of the System, will be included the configurable options to share and accept the attachments too

Missing items in the selection list

Issue	: the dropdown selection list(s) or the selection list of workflows in workflow does not include all items
Info	: in the corresponding item's registry the wanted item is present but is not shown in the selection list (dropdown or table list)
Cause	: the items get via sharing are marked as property of the origin Business
Solution	: open the item in the registry and save it, the property mark is changing and will appear in the selection lists

Changed description of a workflow selected in another workflow

Issue : in the workflow selected (partial) workflow's description is not shown, instead of it is shown the hosting workflow's description

Info : when the workflows selected in the another, hosting workflow then the description is its own. After save and reopening the host workflow the description of the embedded workflow is changed to the description of the host workflow.

Cause : the bug of the timeSSD® multilanguage mechanism

Solution : on the printed form the description is the right one. On the interface the problem will be solved by the first revision of the multilanguage mechanism.

I want to build up the product from its parts (components)

Issue : user wants to build up the operation list from predefined operation blocks

Info : the "Public" folder already includes workflows (operation blocks) for different products and for different parts of that products. The user can develop operation block for other product parts (components) and can use them.

Cause : will for a standardized operation list development with celerity

Solution : the "Master" folder's "Workflow" subfolder allows the user to give names / define as many types of operation list it wants.

All types of operation lists (operation blocks and workflows) are stored in the "Work – Workflow" folder and includes the "Type" field on which values the user can define filters.

When a workflow is edited it allowed to select in it an operation from the "Method" registry or any type of operation list (operation block) from the "Workflow" registry, just the user should switch to the corresponding source registry by pressing the available buttons upon the tables.

If a type of workflow is selected, then it could be kept as it is or is possible to split it in the component operations using the "Split" button placed on the right-upper corner.

Caution : once the operation block is split then no possibility to rebuild it in that workflow.

The above described features allow the user to build operation blocks for the products parts, structure them and when it's required just select that operation blocks in a new workflow.

Open more timeSSD® instances by the same user

Issue : user wants to open more instances of timeSSD®

Info : timeSSD® has no user number limit, nor instance number limit for the same user

Cause : no limitation concept of the software. Even is suggested to have more instances open for the same user during the method development to follow the selection lists.

Solution : user can open on the same computer and on other computers too as many instances want. All instances will be fully functional, independently.

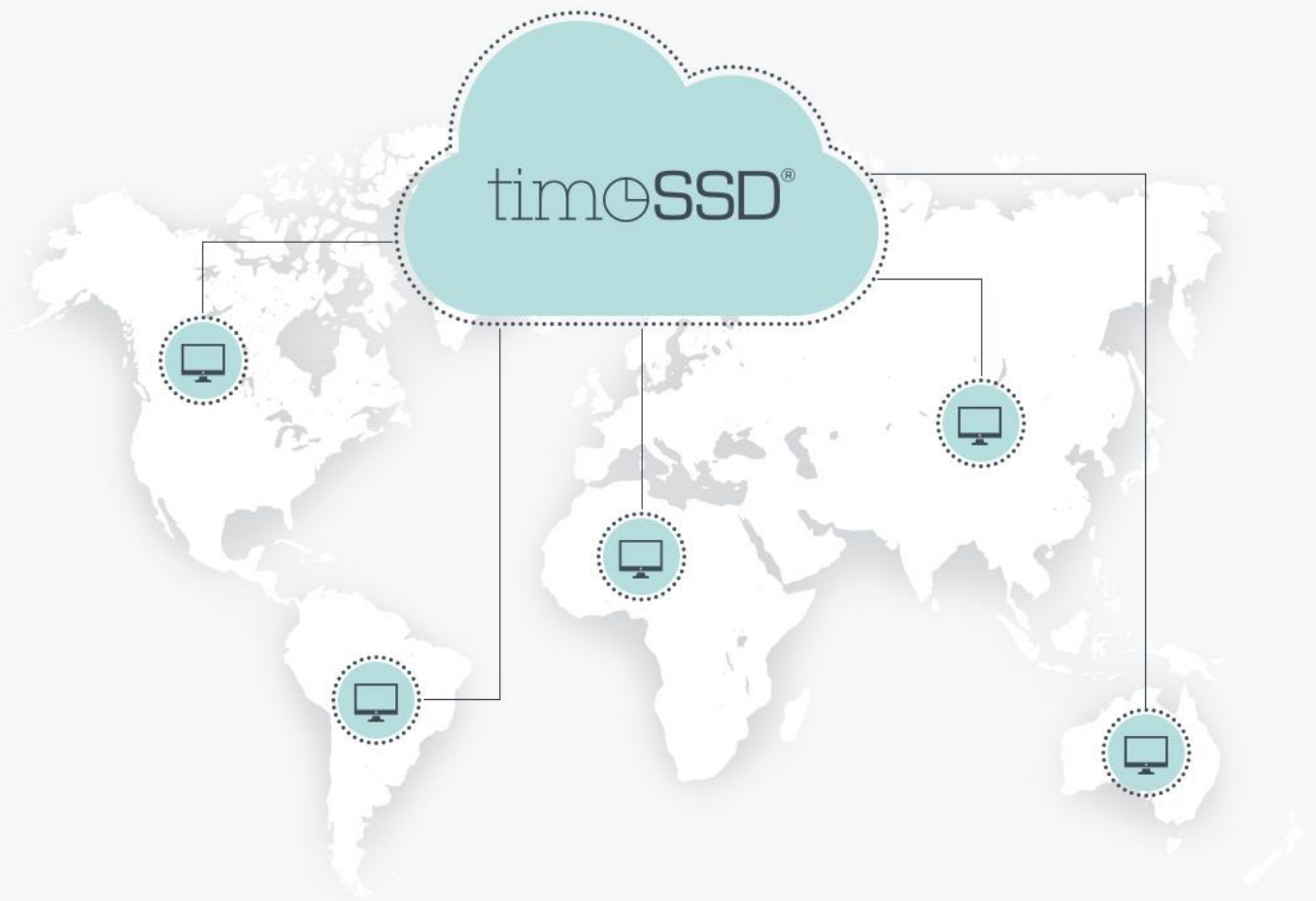## Additional element appeared on the method reports

Issue : on the method / operation reports appear additional elements which are not part of the method and are not visible on the method editing interface

Info : timeSSD® no adding elements without command. The element is resulted from an insert made by the user and it was deleted later.

Cause : between the moment of deleting the element and saving the method the connection to the System were interrupted.

Solution : select / insert again the element in cause in the method and save the method; after it delete the new inserted element and save again the method. The element will be deleted from the reports too.

timeSSD® Video Tutorial series available on the below link :
https://www.timessd.com/how-to-use/

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NEW PARADIGM IN LABOR COSTING