



# Production system: Control

Module of system management at factory workflow level

Manual [English](#) Ver. 2.5

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## Module overview

**Control** system module is combined console of system management at level of real time production statistics and managing production for finished and semi-goods, goods storage buffers, production semi-goods articles, workers and workplaces, loadings and active orders existing in the system.

## General structure

At main level of this module it's possible to define a number of general section groups:

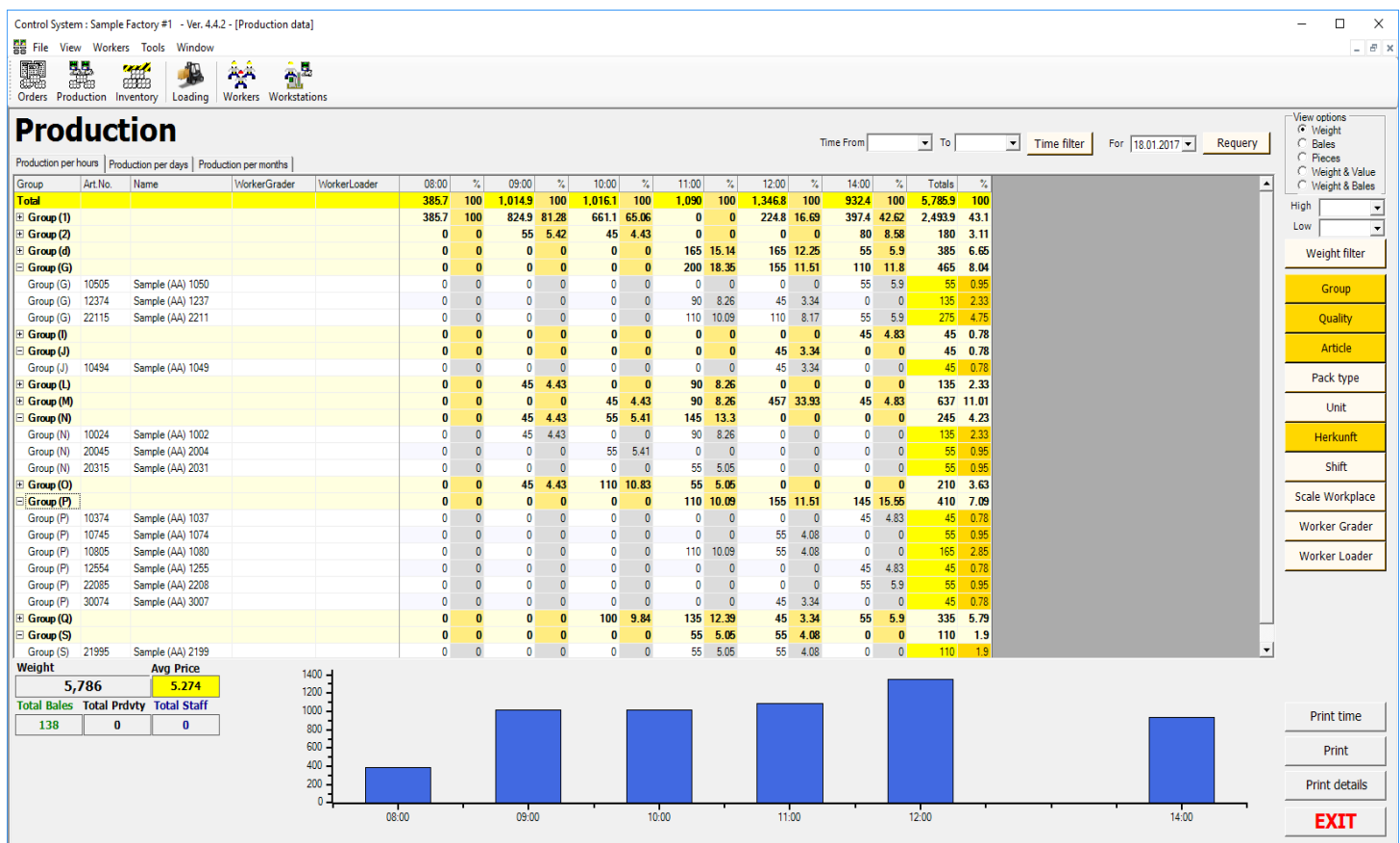
1. Production information
2. Inventory information
3. Orders management
4. Articles management
5. Detailed statistics
6. Workers management
7. Loading of orders
8. Settings maintenance data viewing and editing

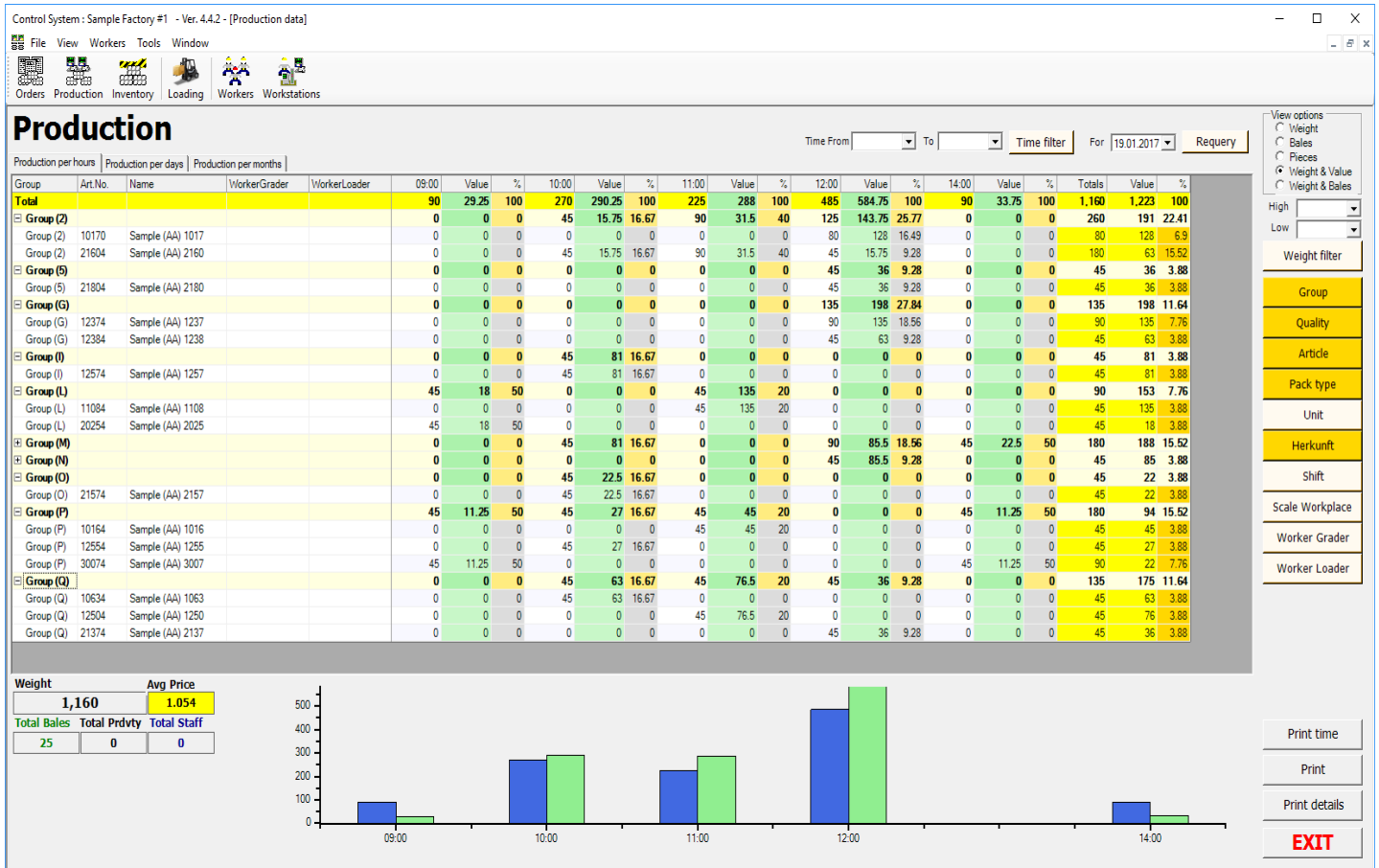
## Production sections

It's a main module to provide production manager with full featured toolbox and real-time workflow information about all steps of running production with many key factors to make direct decisions and daily production manage operations, orders management operations, working personal data checking, production statistics browsing in history and real-time – for all these features at standard satellite production system there is a Control module existing. Control module contains a set of standard and customized (when needed) statistics for main steps of production flow at a single factory. It shows quantities and amounts of produced weight and packages in real-time and even able to show calculated value of manufactured goods in real-time by usage of known planned price for any article.

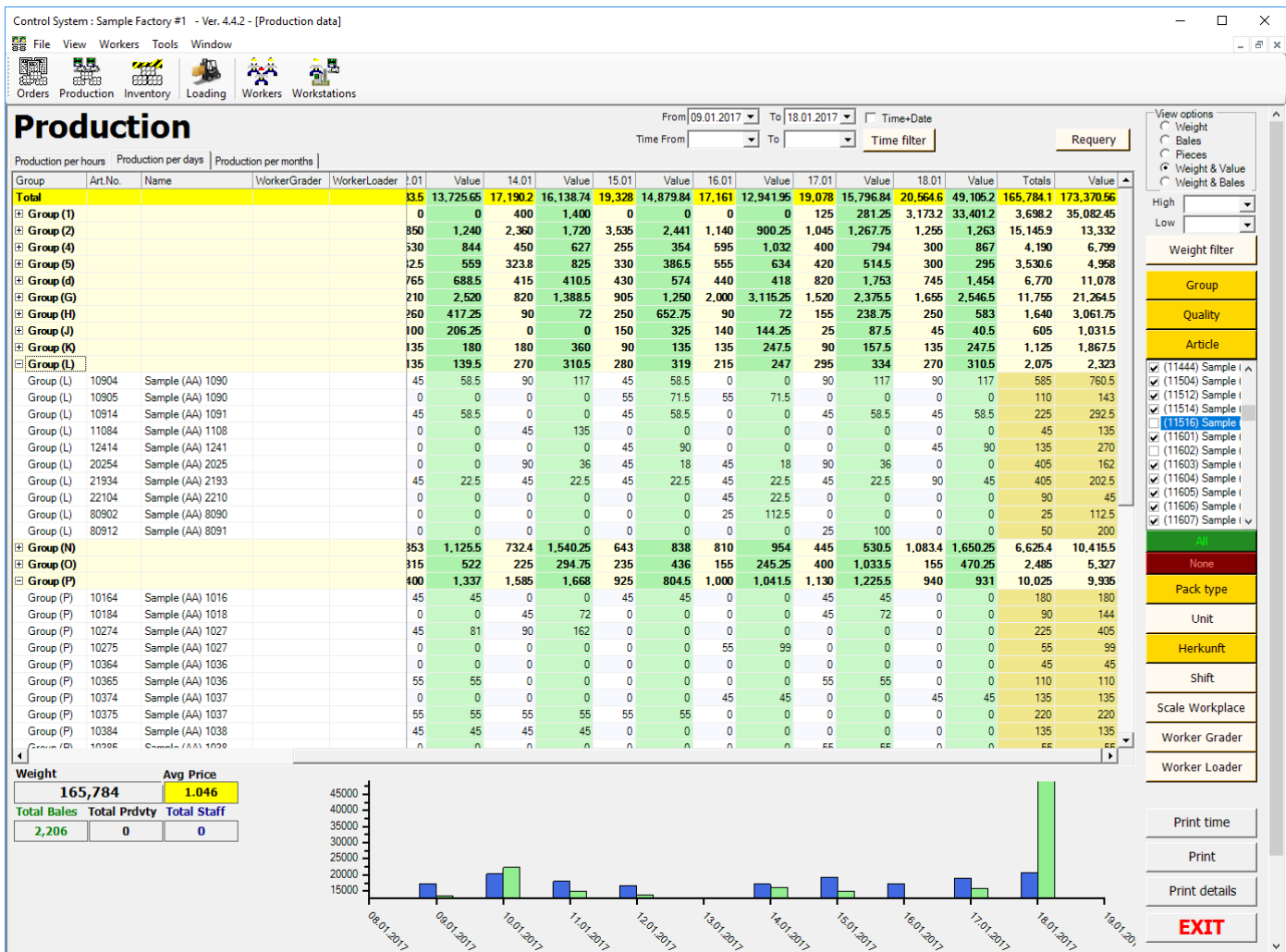
When looking to the sample of satellite using all available features of the Control and Production system in whole there are next main sectors of functionalities supported and regular way checked there.

1. **Production of Finished Goods overview** – real-time updated statistics for currently running production based on data coming to system database from all Scales and another sources, grouped by articles, time period, etc and filtered according to user choice. Also contains (sample picture at bottom-right corner) a set of KPIs chosen by management to inform production manager about running workflow. For finished goods even weight and value together shown mode is supported, so user could see directly stock value of manufactured goods, by its plan price of ES.





- Production of Primary Material Overview** – real-time updated statistics for currently running primary sorting based on data coming to system database from all Scales primary sections, grouped by primary articles, time period, etc. and filtered according to user choice. Also contains (sample picture at bottom-right corner) a set of KPIs relative to primary stage. Primary section is integrated with personal performance measurement system – so it shows data about sorted material at workplaces joined with every single worker staying at separate workplace. This information is also collected and measured in real-time mode.
- Production of Secondary Material Overview** – real-time updated statistics for currently running secondary sorting based on data coming to system database from all Scales secondary sections, grouped by secondary articles, time period, etc. and filtered according to user choice. Also contains (sample picture at bottom-right corner) a set of KPIs relative to secondary stage. Secondary section same as primary is integrated with personal performance measurement system. This information is also collected and measured in real-time mode.
- Helper stage section(s)** – is similar as Primary/Secondary stages, by reflects handling of material directed to custom stages of the factory workflow.



## Inventory sections

Inventory section is containing next views of different kinds of goods with stored information in the system database.

1. **Inventory of finished goods main overview** – allows to see current total stock summary information and view it grouped in comfortable way with articles, article categories, article groups and large set of filters on all parameters. This information is collected and updated in real-time mode. In same time with help of database system extended technical capabilities, it allows to use “history logged” browsing mode, which supports after activation to see exact contents of the stock for previous date exactly same view as it would be for current moment.

Control System : Sample Factory #1 - Ver. 4.4.2 - [Inventory]

File View Workers Tools Window

Orders Production Inventory Loading Workers Workstations

# Inventory

Only free Requery From 01.07.2017 To 17.05.2017

Status by 19.08.2017 With history

grp	artno	artdesce	bc	wgt	pcs
Total			8,173	370,050.8	0
Group (1)			439	13,310.4	0
Group (1)	11154	Sample (AA) 1115	5	225	0
Group (1)	50551	Sample (AA) 5055	171	6,680	0
Group (1)	82361	Sample (AA) 8236	25	777.8	0
Group (1)	82371	Sample (AA) 8237	40	895.2	0
Group (1)	82381	Sample (AA) 8238	18	603.4	0
Group (1)	82391	Sample (AA) 8239	20	291.2	0
Group (1)	82401	Sample (AA) 8240	31	917.1	0
Group (1)	82411	Sample (AA) 8241	97	2,195.3	0
Group (1)	82421	Sample (AA) 8242	9	211.5	0
Group (1)	82431	Sample (AA) 8243	6	64.6	0
Group (1)	82441	Sample (AA) 8244	1	30	0
Group (1)	82461	Sample (AA) 8246	8	224.8	0
Group (1)	82471	Sample (AA) 8247	8	194.5	0
Group (2)			111	3,015	0
Group (2)	11144	Sample (AA) 1114	2	90	0
Group (2)	20204	Sample (AA) 2020	4	180	0
Group (2)	82202	Sample (AA) 8220	99	2,475	0
Group (2)	82204	Sample (AA) 8220	6	270	0
Group (5)			48	2,160	0
Group (d)			135	6,075	0
Group (d)	11614	Sample (AA) 1161	98	4,410	0
Group (d)	12514	Sample (AA) 1251	17	765	0
Group (d)	12714	Sample (AA) 1271	4	180	0
Group (d)	22004	Sample (AA) 2200	16	720	0
Group (G)			1,441	55,925	0
Group (H)			9	405	0
Group (H)	22034	Sample (AA) 2203	9	405	0
Group (I)			369	11,696.2	0
Group (K)			333	11,385	0

Date filter

Time filter

High

Low

Weight filter

Group

Quality

Article

Pack type

Unit

Scale Workplace

Status

Season

Worker Grader

Worker Loader

Print

EXIT



2. **Inventory details** - there is also existing detailed view with possibility to drill down to single bale level. This information is filtered according to the filters chosen at the level of general selected view and section browsed by user. It allows to see details of chosen produced items as its weight, article, groups and a number of others.
3. **Inventory of semi-goods** – in similar way as main finished goods view it works for Primary, Secondary and Custom stages materials stock view forms. It also contains overview and detailed view for all views. It also supports history and all filters related to Primary, Secondary and Custom semi-goods data.
4. **Packing materials inventory** - Additional custom inventory view is packing materials stock, which shows currently available resource of helper materials at the factory. It also could be browsed filtered and managed by user in standard way as also production goods stocks. Any service materials at the factory this way could be supervised by single system.

## Orders management sections

Orders management section group allows to overview and check details of active and whole list of presented orders in the production system at the factory.

1. **Order overview** - its important part to browse order list of this factory and check current status with quantity of produced goods, rest amount of goods to make, ability to block (stop the production of this one order), etc.

Order No.	Date	Prio.	Sign.	Client no.	Client name	Origin	Blocked	Weight %	Pieces %
102327	30.11.2016	20	TT	40025	Customer (Y)	EUR	<input type="checkbox"/>	85	0
102355	22.12.2016	21	TT	40006	Customer (F)	EUR	<input type="checkbox"/>	75	0
102377	10.01.2017	22	TT	40020	Customer (T)	EUR	<input type="checkbox"/>	44	0
102356	22.12.2016	24	TT	40007	Customer (G)	EUR	<input type="checkbox"/>	53	0
102357	22.12.2016	25	TT	40007	Customer (G)	EUR	<input type="checkbox"/>	47	0
102379	16.01.2017	26	TT	40025	Customer (Y)	EUR	<input type="checkbox"/>	16	0
102375	08.01.2017	27	TT	40006	Customer (F)	EUR	<input type="checkbox"/>	32	0
102378	10.01.2017	28	TT	40017	Customer (Q)	EUR	<input type="checkbox"/>	17	0

2. **Order details** - system providing detailed view with actual parameters of all orders, which could be opened for the order from main view. Detailed view of single order allows user to drilled-down to articles information of the order.
3. **Order free material details** - system providing detailed view with feature to sub-select bales free (not dedicated to other orders) in warehouse stock suitable by article and packing for this one order.

## Articles management sections

Article management sections allow to browse and assign new properties for all finished and semi-goods production types in the system.

1. **Finished goods articles view** - in order to give production manager user of Control application more flexible information on existing articles in production flow, Control support Article Finished Goods module to browse all active articles. It shows per article its main data: name, group, packings, preferred packing, usage of article (was it ever produced already).

However typically information of Finished Goods articles is not edited here (managed by setting in the system), because it's centrally managed by office in Export system module.

2. **Primary goods articles view** - there is a next one presented module to browse and manage from Control application data related to Primary articles in the system suitable to manage it. This module allows to see existing connections to presented delivery orders of incoming raw supply into factory and browse it parameters too together with registration of new delivery orders directly at this module. Every primary article could be blocked from production from this module. Also user could choose to show active or blocked articles or to see it all together. Articles could be assigned to be registered at specific workplace/handling stations numbers.
3. **Secondary goods articles view** – is similar as Primary view and serve to browse and manage from Control application data related to Secondary articles in the system in order to manage it. Every secondary article could be blocked from production from this module. Also user could choose to show active or blocked articles or to see it all together. Articles could be assigned to be registered at specific workplace/handling stations numbers.
4. **Custom goods articles view** – Similar to Primary/Secondary goods articles there could be managed in separate section(s) articles of goods of custom workflow stages in custom articles editing module.
5. **Packing materials articles view** – this section allows to manage service materials articles list and register ones at Scale module for supervising helper materials central inventory at the factory.

## Detailed statistics sections

1. **Workflow sub-stages statistics** - in order to control sub-stages of workflow there are custom statistics with information of material input and chosen stages of workflow as Primary/Secondary/Custom sorting areas. This data could be registered from individual workplaces in real-time mode similar as all other production stages.
2. **Combined data entity statistics for production** – this is a group of united views in parts of one section, which present options to display custom statistics of delivery orders supply, manufactured goods and individual workers at sorting workplaces there are custom switching statistic, which allows to see in single form real-time data with all suitable filtering on user choice.

This statistics are presented in form supporting data compositions as:

- Supplier / Delivery Order / Employee / Quality
  - Employee / Quality
  - Delivery Order / Quality
  - Supplier / Quality
3. **Quality statistic section** - similar one module of Quality control statistics based on information of sub-system of management for quality performance goals.

## Workers management sections

Workers data management group of sections present tools for browsing and editing list of actual workers in the system with storage of previously existed workers and its status. Also there are features to assign custom parameters of workers and their performance target data (goals).

1. **Article Quality Goals** – this section used to set specific quality performance goals there Article Quality goal editing module.
2. **Personal management section** – this view is used in order to support required personal maintenance involved into factory workflow and to link personal performance to every single worker and workplace there is a sub-system of modules for managing personal data included. This sub-system contains as first one module of personal managing, which allows to register, edit and browse all active employees, as long as also block them, print barcode equipped ID cards (with usage of connected barcode printer) and other connected functions.

Control System : Sample Factory #1 - Ver. 4.4.2 - [Personal]

File View Workers Tools Window

Orders Production Inventory Loading Workers Workstations

ID no.	First name	Last name	Middle name	Hire Date	Inactive
101	Worker e			1900.01.01	Active
102	Worker f			1900.01.01	Active
103	Worker g			1900.01.01	Active
104	Worker h			1900.01.01	Active
105	Worker i			1900.01.01	Active
106	Worker j			1900.01.01	Active
107	Worker k			1900.01.01	Active
108	Worker l			1900.01.01	Active
109	Worker m			1900.01.01	Active
110	Worker n			1900.01.01	Active
111	Worker o			1900.01.01	Active
112	Worker p			1900.01.01	Active
113	Worker q			1900.01.01	Active
114	Worker r			1900.01.01	Active
115	Worker s			1900.01.01	Active
116	Worker t			1900.01.01	Active
117	Worker u			1900.01.01	Active
118	Worker v			1900.01.01	Active
119	Worker w			1900.01.01	Active
120	Worker x			1900.01.01	Active
121	Worker y			1900.01.01	Active
122	Worker z			1900.01.01	Active
123	Worker {			1900.01.01	Active
124	Worker			1900.01.01	Active
125	Worker }			1900.01.01	Active
126	Worker ~			1900.01.01	Active
127	Worker			1900.01.01	Active
128	Worker €			1900.01.01	Active
129	Worker !			1900.01.01	Active
130	Worker .			1900.01.01	Active
131	Worker f			1900.01.01	Active
132	Worker .			1900.01.01	Active
133	Worker .			1900.01.01	Active
134	Worker †			1900.01.01	Active
135	Worker ‡			1900.01.01	Active
136	Worker *			1900.01.01	Active
137	Worker %			1900.01.01	Active
138	Worker S			1900.01.01	Active
140	Worker CE			1900.01.01	Active
141	Worker !			1900.01.01	Active
142	Worker Z			1900.01.01	Active
143	Worker !			1900.01.01	Active
144	Worker !			1900.01.01	Active
145	Worker *			1900.01.01	Active
146	Worker *			1900.01.01	Active
147	Worker *			1900.01.01	Active

Blocked Filter: Active

ID no.

Last name

First name

Middle name

Department

Inactive ☐

Hire date: 19.08.2017

ID or Name

Search

New

Edit

Save

Cancel

Delete

Exit

Print

Print ID card

3. **Workplace management section** – this view is presented in order to make distinct of workplace positions and divide it to sub-groups, there is a form of workplace groups (divisions) existing in the system. It also contains standard tools for managing personal / workplaces data and also special elements to display current status of divisions as occupation with quantity of personal planned and deployed at now moment for every single division.

Control System : Sample Factory #1 - Ver. 4.4.2 - [Working Divisions]

File View Workers Tools Window

Orders Production Inventory Loading Workers Workstations

Inact.	Department	Division	Plan	Workers Now
<input checked="" type="checkbox"/>	Facility	Quality Control	0	2
<input type="checkbox"/>	Primary	Workflow division #1	0	0
<input type="checkbox"/>	Analysis	Workflow division #2	0	0
<input type="checkbox"/>	Facility	Workflow division #3	0	0

Inactive Filter: Active

ID: 4

Name: Quality Control

Department: Facility

Plan: 0

☐ Add Not Scanned To Staff Indicator

☐ Inactive

Print Workers Now: 2 Update

Delete New Edit Save Drop EXIT

4. **Workplace occupation management** – this module is another one for management for workplaces. It's used to handle and change workplaces list. All workplaces could be in real time assigned for current shift with workers set to particular working positions by very comfortable intuitive drag-n-drop operations – as dragging worker from available workers pool field to needed row of workplace position in workplaces grid shown at the form. Data for workers occupation could be also copied fully from previous shift and filtered by related filters placed at this form. Workplaces in order to take part with personal performance real-time registration system is also equipped with function to print barcode labels for every single workplace (with usage of connected barcode printer).

Control System : Sample Factory #1 - Ver. 4.4.2 - [Workstations]

File View Workers Tools Window

Orders Production Inventory Loading Workers Workstations

Inact.	ID	Department	Division	Workstation	Worker No.	Worker
<input type="checkbox"/>	4001	Facility	Quality Control	Quality Control Sub #1	0	
<input type="checkbox"/>	4002	Facility	Quality Control	Quality Control Sub #2	148	Worker
<input checked="" type="checkbox"/>	4003	Facility	Quality Control	Quality Control Sub #3	120	Worker x

Work Data For Date: 19.08.2017

Department Filter: (All)

Inactive Filter: Active

Division: Quality Control

ID: 4003

Name: Quality Control Sub #3

Analysis Art No.:

Station Code:

☒ Show Article Analysis

☐ Block production

**Workers**

Worker e (101)

Worker f (102)

Worker g (103)

Worker h (104)

Worker i (105)

Worker j (106)

Worker k (107)

Worker l (108)

Worker m (109)

Worker n (110)

Worker o (111)

Worker p (112)

Worker q (113)

Worker r (114)

Worker s (115)

Worker t (116)

Worker u (117)

Worker v (118)

Worker w (119)

Worker y (121)

Worker z (122)

Worker [ (123)

Worker | (124)

Worker } (125)

Worker ~ (126)

Worker ! (127)

Worker (128)

Worker (129)

Worker (130)

Worker (131)

Worker (132)

Worker (133)

Worker (134)

Worker (135)

Worker (136)

Worker (137)

Worker (138)

Worker (140)

Worker (141)

**Update**

**Delete**

**Print ID**

**New**

**Edit**

**Save**

**Drop**

**EXIT**

**Print**

Workers Now 2

## Loading management sections

This section group is serving for important feature set of making data collection and scanning management for loading process at all orders supplied form factory storage of finished goods.

1. **Loading management section** – this section supports full process of loading and shipping orders from production flow and see interactively results of loading process executed by another module(s) “MobileScan”/”MScan” there is a sub-system “Loading” in Control. It allows at main form to browse all active orders, create and edit orders and temporary bales collection loading virtual folders. Also it’s possible to make all needed documents for orders shipping process at the factory.

Next feature at this form is possibility to manage and browse list of corrected bale numbers from “Scale” modules and also manage list of current numbers in Inventory pool (Inventory buffer) for regular inventory process of company storage.

Control System : Sample Factory #1 - Ver. 4.4.2 - [Loading]

File View Workers Tools Window

Orders Production Inventory Loading Workers Workstations

Sample Order #1

**Packing list**

**Close order**

**New local order**

Order No.	Date	Time
1016931 Sample Order #1	28.03.2017	03:18:08
1016933 Sample Order #1	28.03.2017	03:18:08
1016934 Sample Order #1	28.03.2017	03:18:08
1016935 Sample Order #1	28.03.2017	03:18:08
1016936 Sample Order #1	28.03.2017	03:18:08
1016937 Sample Order #1	28.03.2017	03:18:08
1021298 Sample Order #1	28.03.2017	03:18:08
1021299 Sample Order #1	28.03.2017	03:18:08
1021300 Sample Order #1	28.03.2017	03:18:08
1021302 Sample Order #1	28.03.2017	03:18:08
1021304 Sample Order #1	28.03.2017	03:18:08
1021305 Sample Order #1	28.03.2017	03:18:08
1021306 Sample Order #1	28.03.2017	03:18:08
1021644 Sample Order #1	28.03.2017	03:18:08
1021672 Sample Order #1	28.03.2017	03:18:08
1021714 Sample Order #1	28.03.2017	03:18:08
1021715 Sample Order #1	28.03.2017	03:18:08
1021716 Sample Order #1	28.03.2017	03:18:08
1022794 Sample Order #1	28.03.2017	03:18:08
1022795 Sample Order #1	28.03.2017	03:18:08
1022796 Sample Order #1	28.03.2017	03:18:08
1022797 Sample Order #1	28.03.2017	03:18:08
1022798 Sample Order #1	28.03.2017	03:18:08
1022799 Sample Order #1	28.03.2017	03:18:08
1022800 Sample Order #1	28.03.2017	03:18:08
1022801 Sample Order #1	28.03.2017	03:18:08
1022802 Sample Order #1	28.03.2017	03:18:08
1022803 Sample Order #1	28.03.2017	03:18:08
1022804 Sample Order #1	28.03.2017	03:18:08
1023495 Sample Order #1	28.03.2017	03:18:08
1024091 Sample Order #1	28.03.2017	03:18:08

Sample Order #1

Closed Orders

View

Correction Wrong Labels

From 18.08.2017 to 19.08.2017

Correction report By Corr.Date

Inventory FG Details X

Inventory Pri Details X

Upd. Exit




2. **Reports of loading in shipment** – this section and same way most of others in Control system are equipped with reports, to make a print out of shown data in all cases when it's suitable for supposed workflow. This functionality is supported in Loading section group and also most of other section groups and reference forms.


## Settings management sections


In this section group there are included modules used to manage custom data features.


1. **Labels basic management** – this section is managing simple labels correction by Production manager for Primary, Secondary, Finished Goods, Packing Materials and other labels, as long as also restore it and unload from wrongly loaded orders.
2. **Inventory separated stock management** – this section is serving to support custom functionality to check and register goods stored at different warehouses inside of factories group (as goods manufactured at one department and stored at other one). This section supporting feature of “Move goods to store”, which shows content of goods stored at different plants, but linked to this one factory and supporting functionality to assign to outer storage more goods with scanning it barcodes.


Control System : Sample Factory #1 - Ver. 4.4.2 - [Move goods to store]



Orders


Production


Inventory


Loading


Workers


Workstations

File
View
Workers
Tools
Window

Bale numbers to move

Bale No.	Art.No.	Weight	Date	Remove	Bal

Destination

Bales

Weight

New Bale

SAVE

LOAD

Clear numbers list

Move Bales

Exit

3. **Scale management section** – is usable for assigning Scales workplaces to adjust working places parameters and allows to change and set workplaces registration for specific scale stations according to plan of production manager in flexible way.
4. **Packing type management section** – this section is for editing packing types allows to production manager to assign required parameters to currently running production used packings.
5. **Article groups section** – is used for editing of article groups and allow to production manager to put new and edit existing article groups in the system and even assign it as KPI indicator at main Production of Finished goods statistic performance KPIs panel.

Control System : Sample Factory #1 - Ver. 4.4.2 - [Article Groups]

File View Workers Tools Window

Orders Production Inventory Loading Workers Workstations

ID	Name
21	Group (1)
22	Group (2)
23	Group (3)
24	Group (4)
25	Group (5)
26	Group (6)
27	Group (a)
28	Group (b)
29	Group (c)
30	Group (d)
31	Group (e)
32	Group (f)
1	Group (G)
33	Group (g)
2	Group (H)
34	Group (h)
3	Group (I)
35	Group (i)
4	Group (J)
36	Group (j)
5	Group (K)
37	Group (k)
6	Group (L)
38	Group (l)
7	Group (M)
39	Group (m)
8	Group (N)
40	Group (n)
9	Group (O)
41	Group (o)
10	Group (P)
42	Group (p)
11	Group (Q)
43	Group (q)
12	Group (R)
44	Group (r)
13	Group (S)
45	Group (s)
14	Group (T)
46	Group (t)

ID: 21

Name: Group (1)

Prod. Indicator: None

Update

Delete

New

Edit

Save

Drop

EXIT