infoBoard 3.2

(As of 01 December 2017)

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1 Introduction

1.1 Application

The planning board is suitable for various business plans.
Most of the companies mix up the applications, so that the infoBoard planning board software can deliver its benefits.

The infoBoard planning and organisation tool has been developed based on the commonly known magnetically planning boards. The infoBoard tool unites all of the major unique selling points as operable graphical software. The **value creation process** - one of the software's major tasks - can be easily illustrated for the whole company through the large and favourable screens. Management and staff will work as one.

There are 3 aims that have to be pursued when organising tasks:

1. The due performance of the contract concerning the client
2. Favourable fulfilment of the tasks through foreign or own resources
3. Optimisation in the future, improvements during the running orders

InfoBoard is our response to these needs.
There are three essential characteristics of using central information anywhere, with multi-user capacity, and of decentralised planning:

- easy handling and comprehension, overview
- direct transmission of new information to all planning boards
- role and entitlement concept while using it across departments

The four cycles of planning are particularly supported:

1. Collecting information
2. Showing alternatives
3. Deciding for one of the alternatives
4. Controlling

Our clients focus on four different planning tasks:

1.2 First Application: task and staff plans

Every company, every organisation delegates tasks to its employees. A visualisation of what to do is especially necessary - as experience has shown – in companies with more than ten employees, as there are a huge number of tasks that have to be done at the same time.

The decisive factor for success is passing tasks to the employees, so that the responsibility is documented.
It is as well possible to create an education plan for trainees or a room plan in these applications.

The multi-user capacity is the major characteristic of task and staff plans.
The illustration of national holidays in the calendar could be interesting, too - especially when the company operates in many different countries.

1.3 Machine Planning

Other descriptions for 'machine planning' are production planning and capacity planning. The machine's resources mostly execute the orders. Some orders are combined with others - the machines produce orders of different clients at the same time.

Sometimes only one machine manufactures diverse products immediately. Frequently, the yield runs with shift operation. Therefore, Fridays can be abbreviated, the rerunning production can begin in Sunday's night shift or additional shifts on Saturday can be established. In recent times, companies changed between multiple shift operation and one-shift operation, for that temporary short-time working times have to be taken into consideration.

Planning tasks become more and more difficult through several conditions and criteria - a responsible economic behaviour is essential. It is important to increase the company's value creation process from 70% to nearly 100%. Banal assumptions and estimated variables could jeopardise the whole company in the end.

Small series, orders of loyal customers and regular despatches often have to be executed while creating new projects, developing prototypes and commissioning special machines.
The complexity of the daily business occurs with different procedures when executing the orders or with the enormous number of productions running at the same time. These productions separated into sub-tasks and an allocation in various dimensions can lead to thousands of planning tasks.

Think of this example:

Question: how many combinations are possible with 11 items in the cupboard?
Answer: 39 million (11^{11}) possible combinations

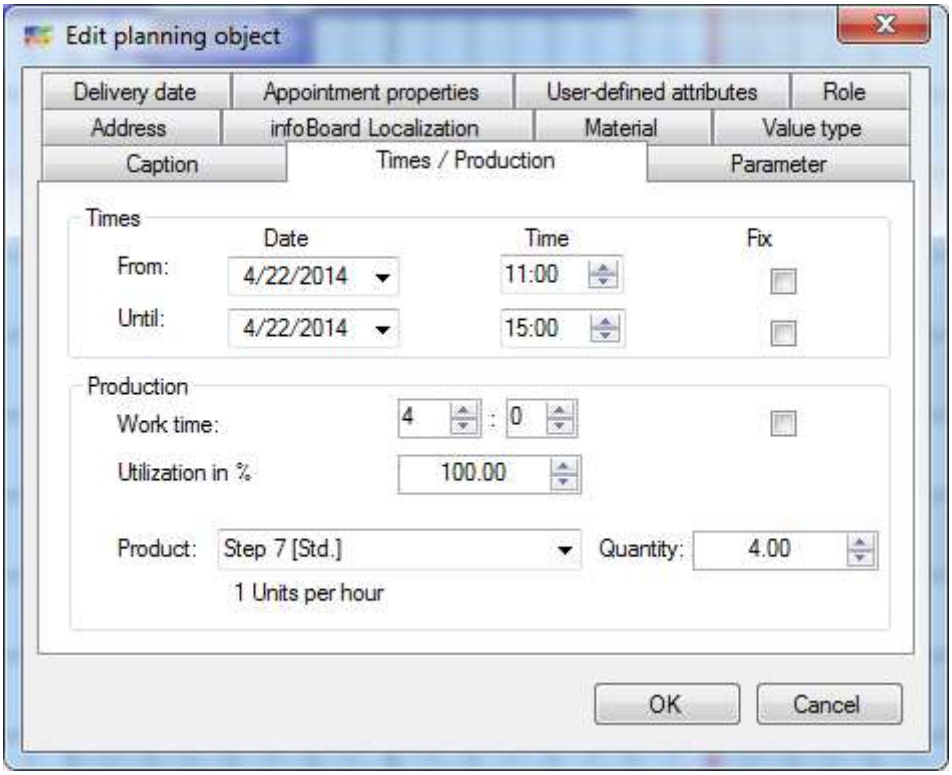
Transfer this situation to the tasks in your company.

Machines will be provided with additional employees and all the tasks become a multi-dimensional problem.

One possible solution for this problem could be the calculation of 'amounts in durations' belong to 'calculating on the planning board' and 'capacity planning'. 100 AT-1-containers are produced by one machine, succeeding 12 pieces per hour, in 8 hours and 20 minutes. Production starts on Thursday 20 pm in a 100-pieces-container and ends on Wednesday 4:20 am.

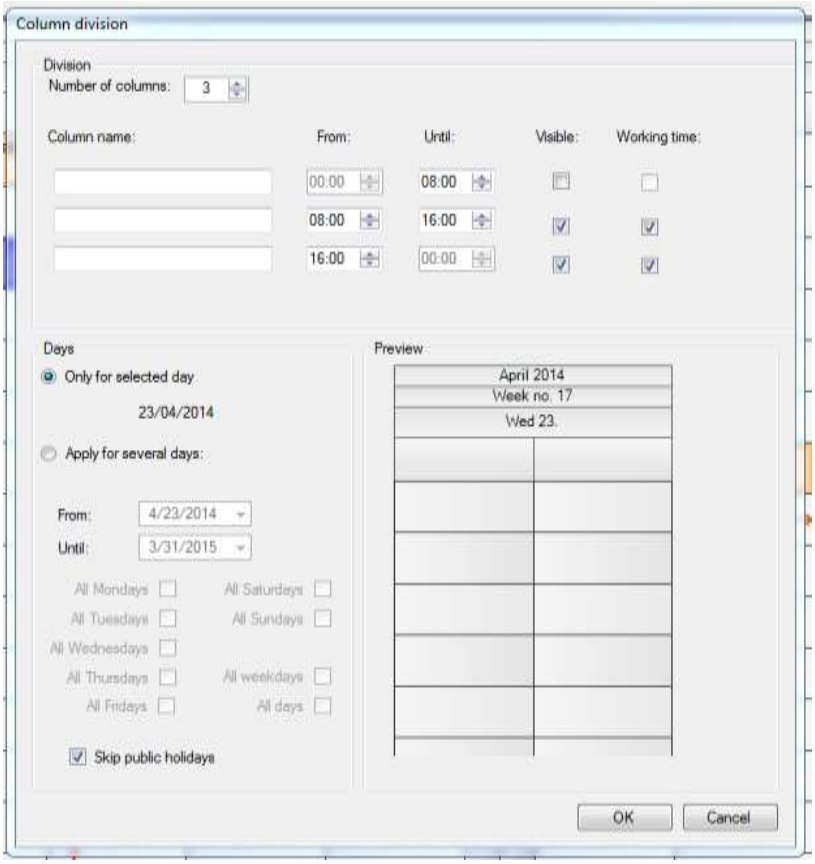
How many pieces does the machine produce if we use it for four hours?

It has to be calculated backwards: if 100 pieces have to be finished until 12 am, when does the production have to be started?

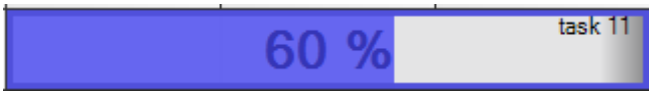


(See: infoBoard planning objects: times/production).

The flexible division of shifts and times - differentiated according to days and periods - is another answer to the requirements of machine planning.

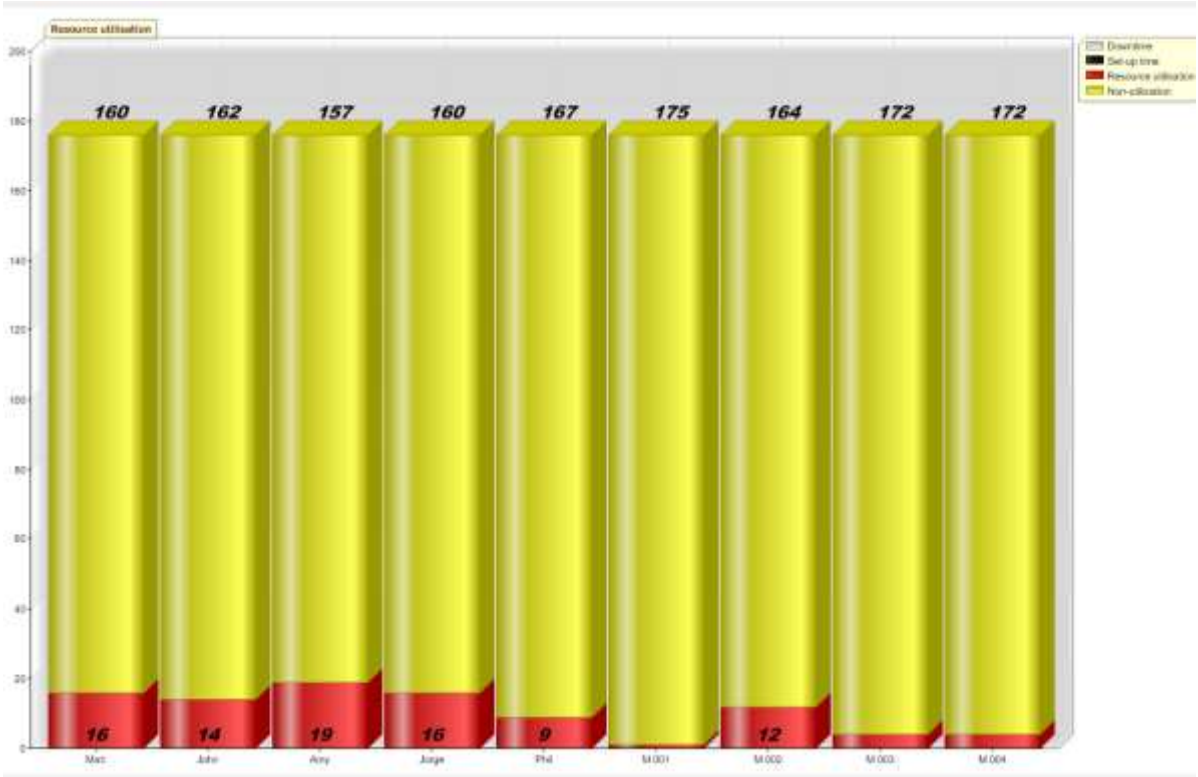


(See: infoBoard planning interface/column subdivision)
The progress bar shows the running production:



(See: infoBoard planning object/calculation parameters)

Queries on optimum machine performance are answered by infoBoard Controlling:



1.4 Projects and Multiple Project Planning

In many companies, orders are often called 'projects'. Therefore, different planning products will be tested at first.
Where new construction projects arise, where a task becomes complex by the variety of activities, or where a large task must be broken down into many small steps and subtasks before they will even conclude the project, there a project planning software is essential.

Normally projects are given to companies, as they are specialised on the given tasks and as they have already experience in the expiry of the order. They nearly 'trained' the different tasks.
But projects are often called 'projects' although they only consist of four or five work steps.
We could call them the daily business or the core business as an alternative.

So, if the company knows how to execute the order the only question that will remain is 'which resources can assume these tasks at the right time?'. (Example: Marketing companies)

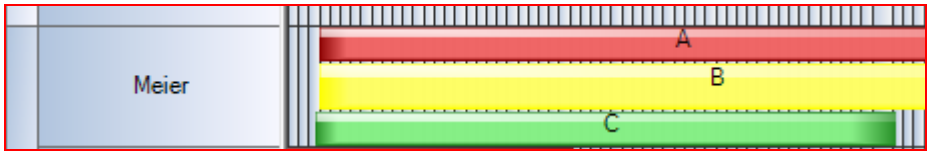
The **project planning** has been converted into a **resource planning**. The resource planning can be found in the resource manager.
Qualificated staff will be sent to different companies who run different projects, especially when they intend to bring in their expertise into international projects. We can find a project manager in these companies. (Example: companies for engineering sevices).

infoBoard supports a flexible, client-oriented daily business management in combination with an efficient resource planning, so that it generates profit in the end.

Companies that have many projects operate in a multiple project situation. The resource manager's tasks become more complex in that kind of situation: On the one hand, projects have to be provided with resources; on the other hand, a flexible reaction on urgent and important changes should be ensured. Project tasks should be balanced and priorities should be reordered – in between the projects.

In addition, the question of the search of spare capacity with certain (possibly several) qualifications is important. *(See: infoBoard Extras/Extended Row Filter).*

Another application in the project planning is the global division of staff capacity to different projects. Project A will be provided with 30 % of the staff capacity, project B receives 40 % and project C another 30 %.



(See: infoBoard planning object/calculation parameters/nominal capacity utilisation in %).

When planning a project, the desire for controlling functions might occur. This includes our additional expenses bar:

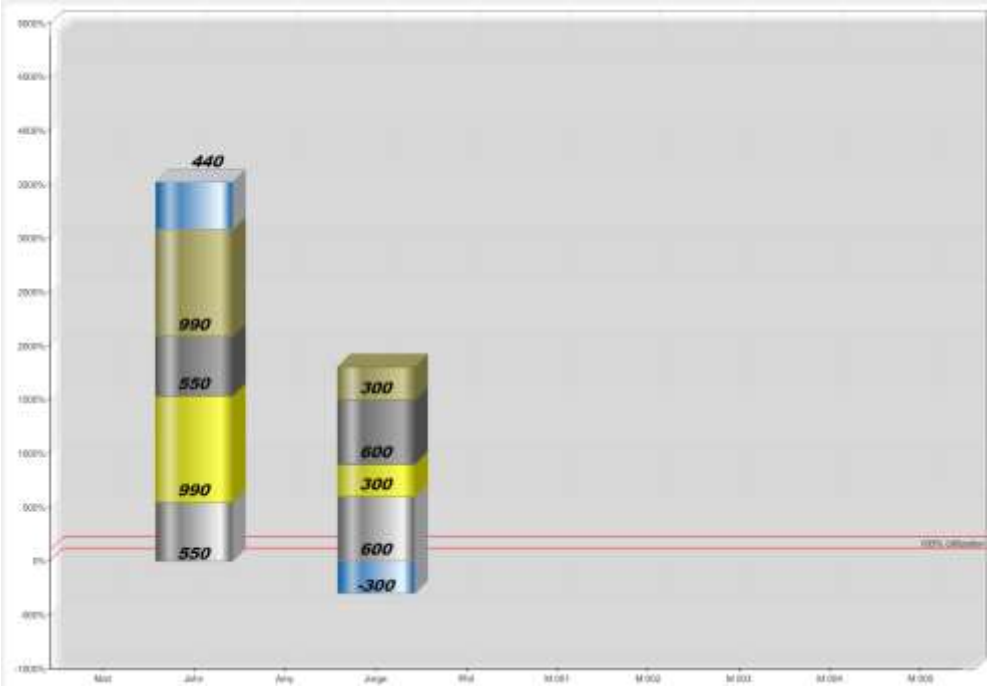
(See: infoBoard Planning Object/Calculation Parameters/Nominal Amount).

Support for priority setting:

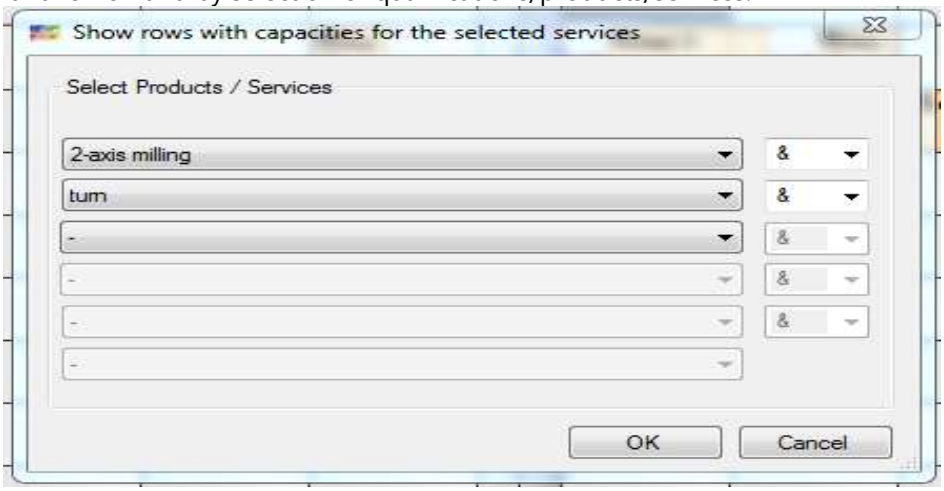
#	Zeile	Bezeichnung	Start	Dauer	Gesperrt
162	Zeile4	2 d	15.11.2009 18:5...	02:00:00	
163	Maschine 5	2 d	15.11.2009 19:0...	02:00:00	
164	Zeile2	2 c	15.11.2009 20:5...	02:00:00	
165	Zeile7	2 c	15.11.2009 21:0...	02:00:00	
166	A 2623	2 b	15.11.2009 22:5...	02:00:00	
167	Zeile3	2 b	15.11.2009 23:0...	02:00:00	
168	Zeile2	2 a	16.11.2009 00:5...	02:00:00	

(See: infoBoard extras/set priorities).

Expense control in the controlling module:



A filter using link compensation with supports searching for an adequate employee for special tasks 'and' or 'or' and by selection of qualifications/products/services:



(See: infoBoard extras/row filter).

1.5 Service, Installation and Construction Site Planning

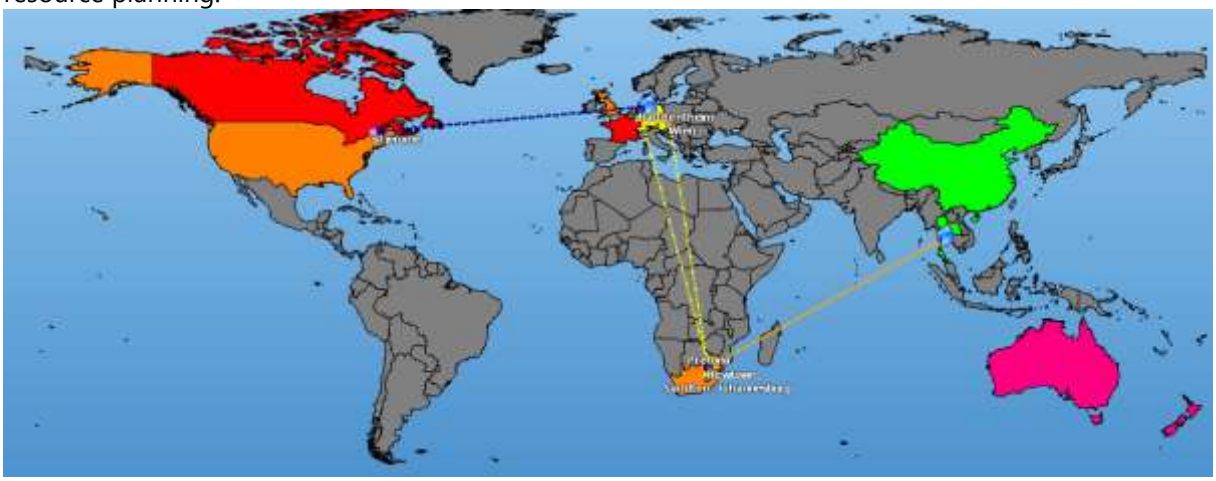
Employees are solely or mostly working outside the company or abroad with ever-changing locations - that is the main characteristic of this sort of planning.

Are employees tend to be used in the service-oriented service, we speak more of the planning and scheduling of tasks within a day.
Service and installation planning for larger plants often include an operation for several days, a whole week or many weeks.
For a better understanding, the tasks are listed below:

1. Fee-per-hour assignment at a client *(see: Planning Objects/Appointment Settings)*.
1.1 Messaging start and termination of working time via SMS to infoBoard *(see: SMS Module)*.
1.2 Controlling vehicle use via TOM-TOM Works *(see: Webfleet Module)*.
2. Day wise use *(see: infoBoard Map, Address Administration)*.
2.1 Tour planning *(see: infoBoard Map, Row: Optimising Tours)*.
2.2 Addressing clients between two destinations and terminating maintenances *(see: infoBoard Map, Show Customers)*.
3. Week-wise usage

The more detailed tasks are planned, the more precisely the tasks are illustrated and implemented.

Our **infoBoard Map** module embodies the response to an international application and a global resource planning.



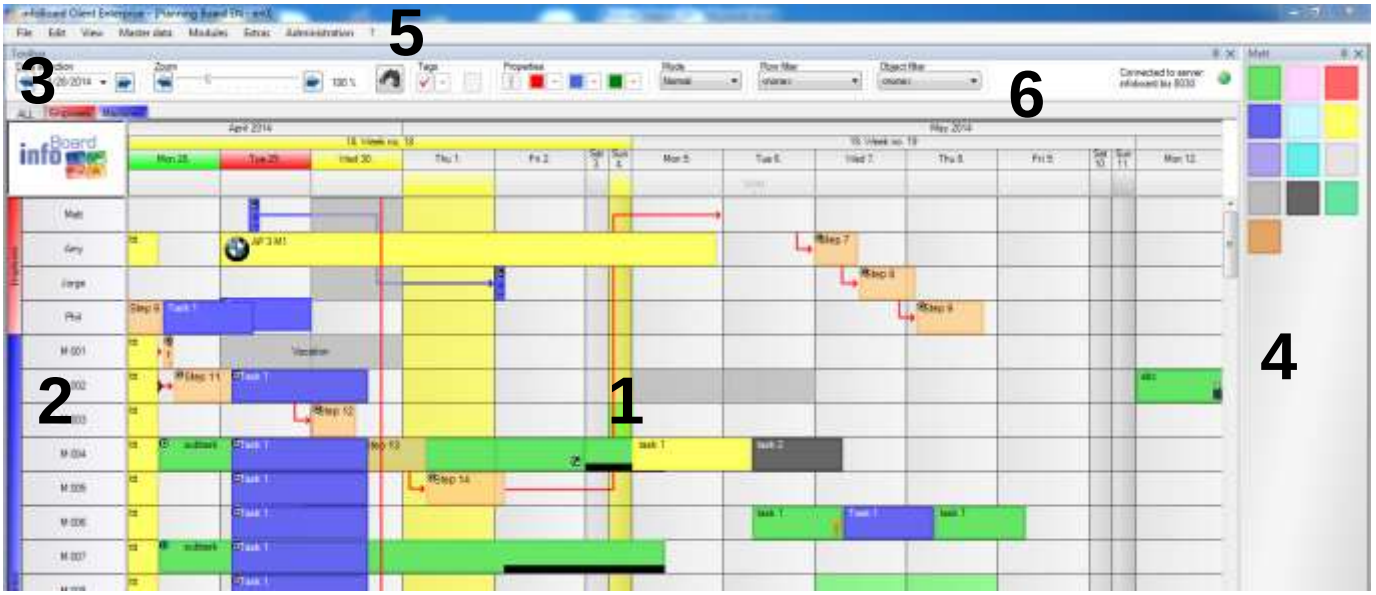
1.6 Range of Functions

The Craft Edition offers 30 planning rows for a single planning board and supports up to 10 users which you can setup in the infoBoard for a great price. Not available in that edition are the SyncTool, the extension modules and core data, comprehensive products/services, sample orders, material management and addresses.

Die Enterprise Edition bietet „Concurrent"-Nutzer, das heißt, Sie können dort beliebig viele Nutzer in infoBoard eintragen, gezählt werden nur die aktuell eingeloggten Nutzer.

2 Control Elements

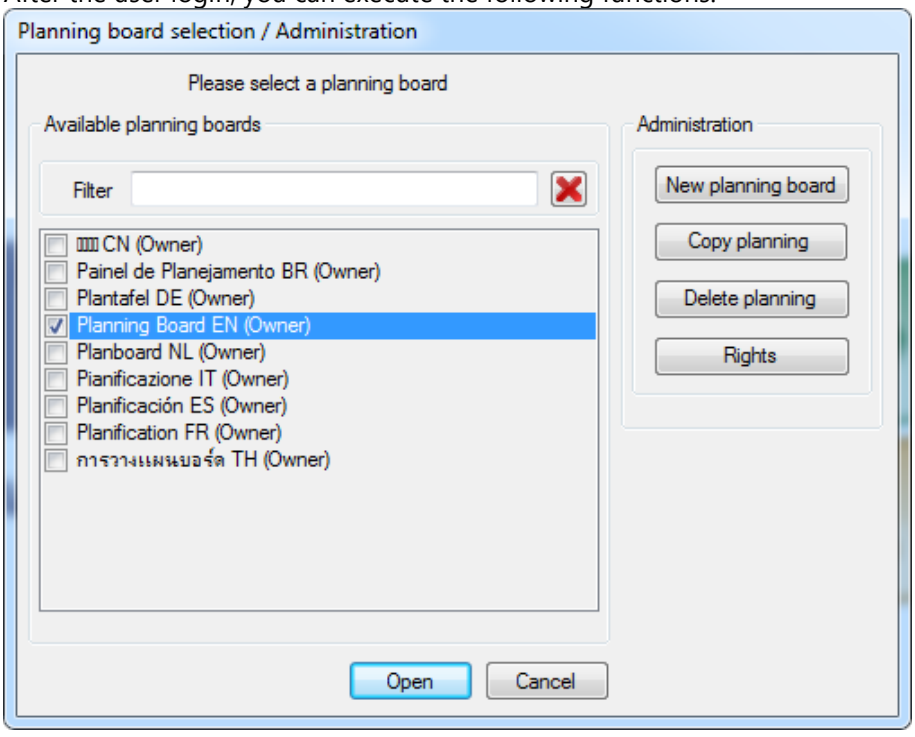
Control elements can be found on various levels of the user interface.



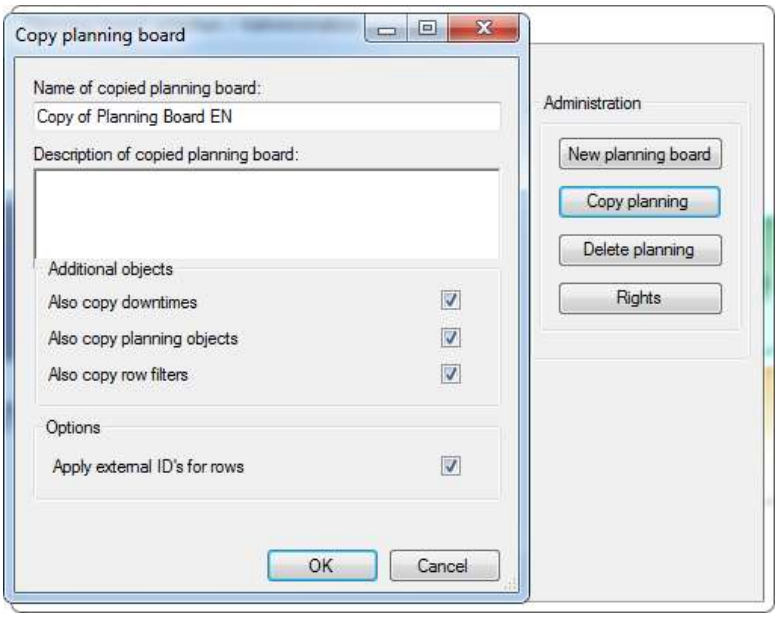
1 Planning interface
2 Row groups and rows
3 Calendar
4 Panel with defined planning objects (Point 7)
5 Menu bar (Point 2.3)
6 Tool bar

2.1 Creating, Copying and Deleting a Planning Board

After the user login, you can execute the following functions.



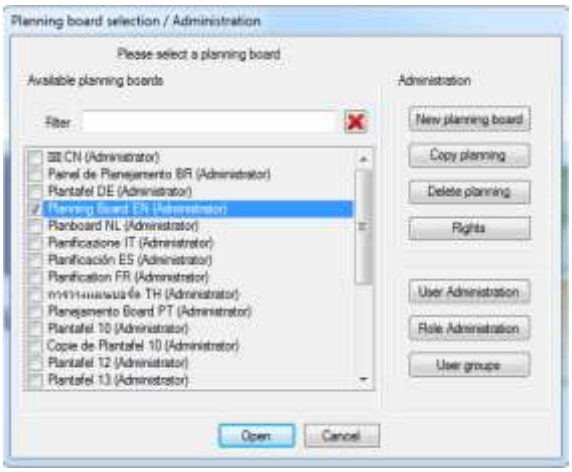
You get 4 more options when copying the planning board:

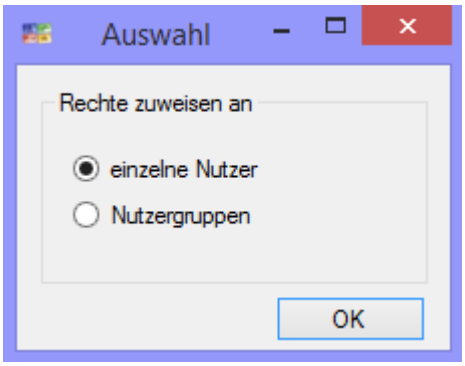


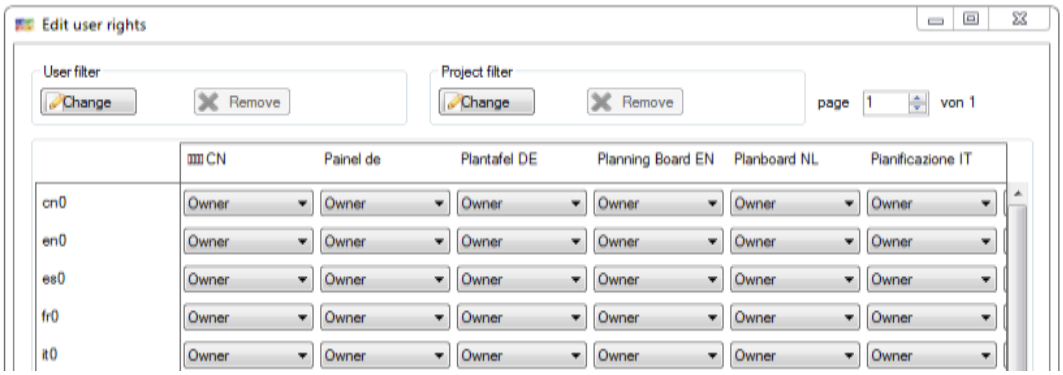
With the rights management the planning board owner or administrator can give the users - that are known by the infoBoard server - their roles (user group rights in EE version).

2.1.1 User Groups (only in EE Version)

Chose whether users or user groups receive rights for operating.





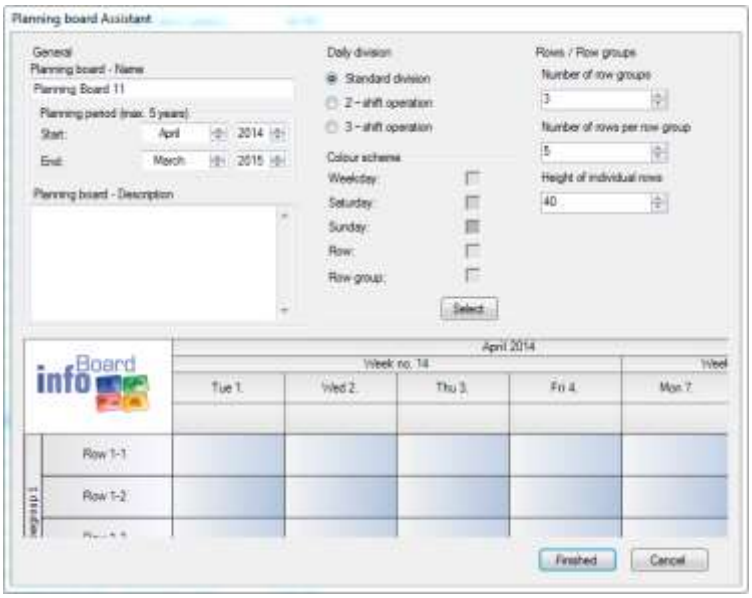


2.1.2 Planning Board Assistant

A new planning board can be created via the planning board assistant. The daily division, colour scheme, row groups and row numbers can be defined with that assistant.
Settings - except the names - can be changed later on.

Preselection:

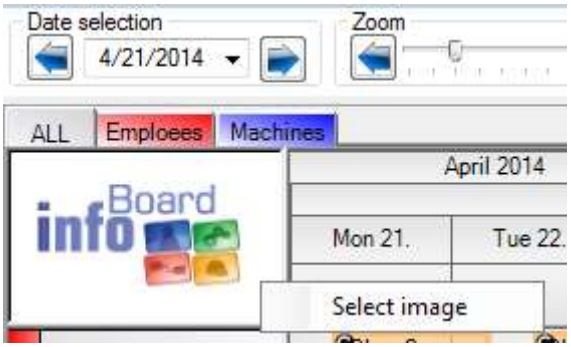
- **Daily division** (work time) in a two or three-shift operation
- Selection of a **colour scheme**
- Number and height of the **rows / row groups**
- **Preview** for all presettings



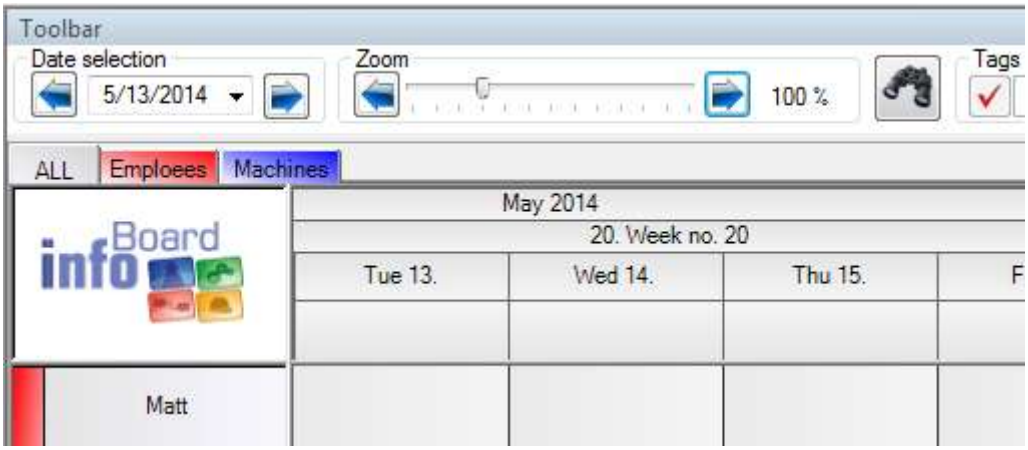
2.2 Upper Area

2.2.1 Planning Board Logo, Server Connection

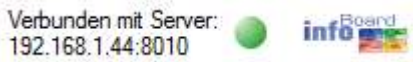
The logo on the left side of the planning board can be replaced by your own photo or logo by choosing a picture from your network via right click.



The chosen logo is also used for printouts.



The current server connection can be found on the right side of the board. A new connection has been established when the green sign flashes. If the connection is lost - often caused by bad network performances – the infoBoard client will automatically initiate a reconnection to the infoBoard server. The view is repositioned on the beginning of the week or on today corresponding to the *Local Settings* and the green sign flashes for a short time.

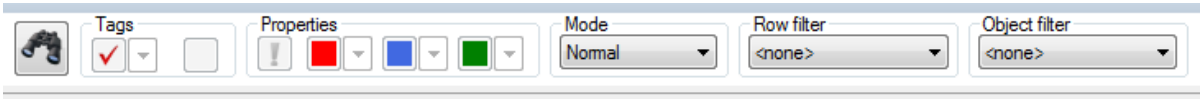


Only if the connection is permanently lost, the sign will flash in red to draw your attention. Another picture can also replace the logo besides this sign.

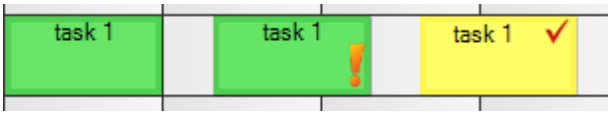
2.3 Menu Bar

2.3.1 In General

The menu bar gives - in version 2.6 - the possibility to fix the appointment for the planning object via **Features** (see Appointment Features – Planning Object Dialogue).
With a click, the planning object's colour can be changed to illustrate its status. Select the planning object and click on the button with the colour desired.
The possibility of pre-selection of a particular processing mode in the planning board is described in the next section more detailed.



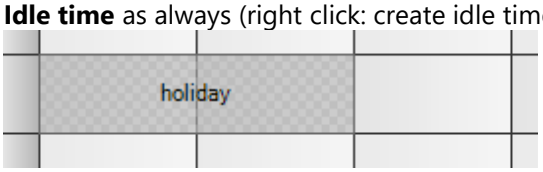
Tag the planning objects that have to be edited - in Features or Tags – select the colour or tag desired and click.



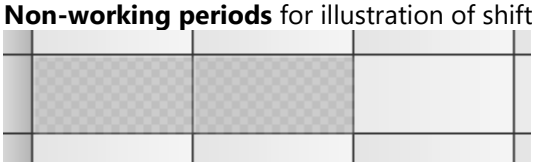
2.3.2 Mode

With the mode, pre-selection different functions/states can be assigned to different cells:

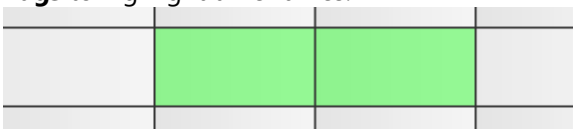
Idle time as always (right click: create idle time)



Non-working periods for illustration of shift work and part-time employment:



Tags to highlight timeframes:



That is how cell colouring is used in occupancy

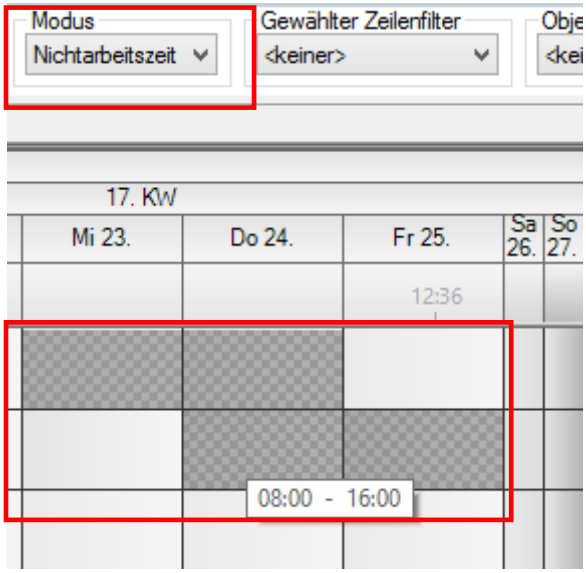
Single columns (timeframes) can be fast and individually defined with this mode. They can be defined as a non-working period or with a certain tag as an internally fixed status. The tag can be deleted in this mode with a click on the right mouse button.
Touch improves the extension of planning objects with the finger on the touch screen.

2.3.2.1 Touch

If the touch mode is activated, the planning board can be operated via touch screen.

2.3.2.2 Non-working Period

Non-working period is defined by pre-selection of the mode in the toolbar and the click on the period (day, shift):

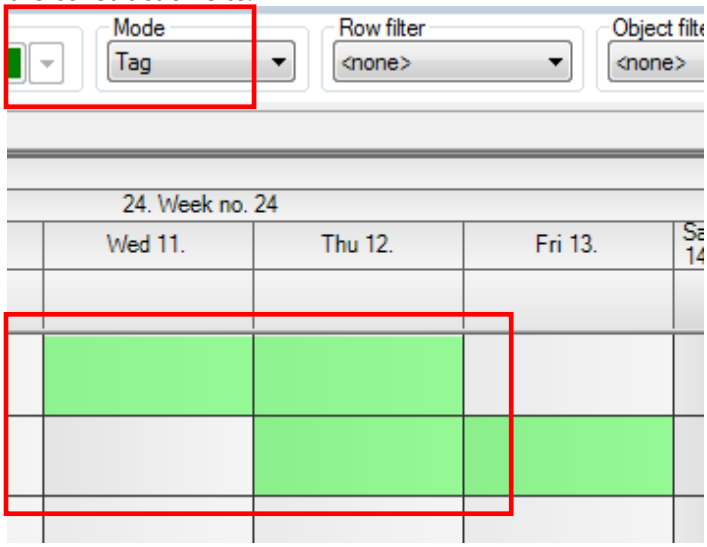


(Non-working periods seem like idle times on the planning board.)

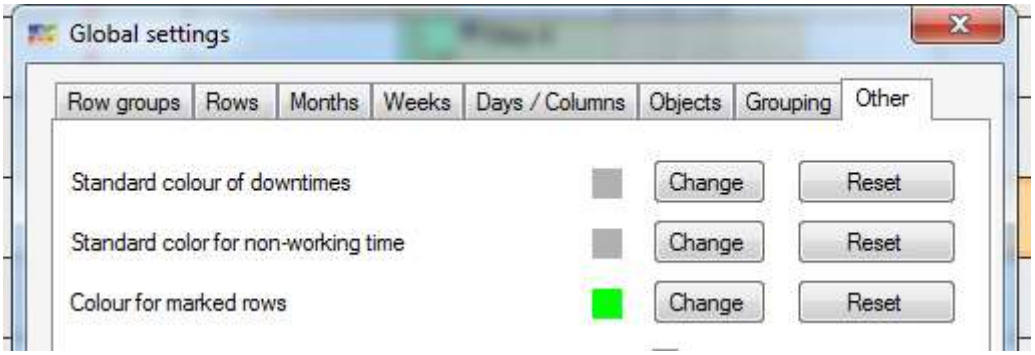
Deleting the non-working periods is possible any time with a right click on the complying fields (therefore the mode has to be selected).

2.3.2.3 Tag

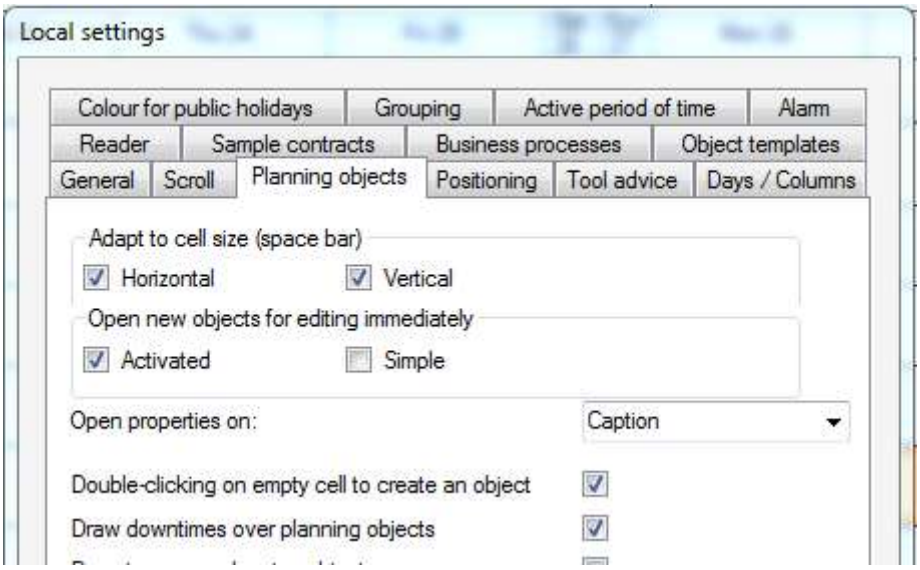
For simple, colored highlighting of the cells, without defining them as downtime.
The sense is to emphasize e.g. the times on the row for the construction sites when the craft can visit the construction site.



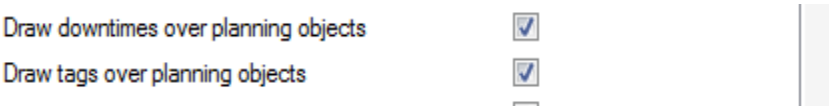
Deleting the markings is possible any time with a right click on the complying fields (therefore the mode has to be selected).
Pre-definition of the signal colours:
The desired signal colours for every mode will be assigned in the administration menu in *'Global Settings – Other'*:



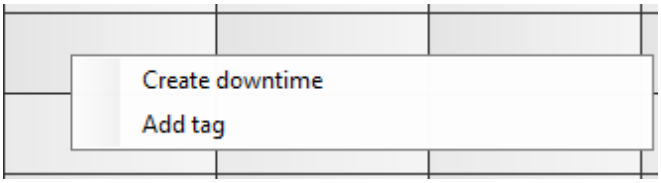
In *'Local Settings – Planning Objects'* you select whether idle times or tags are drawn on the planning objects.



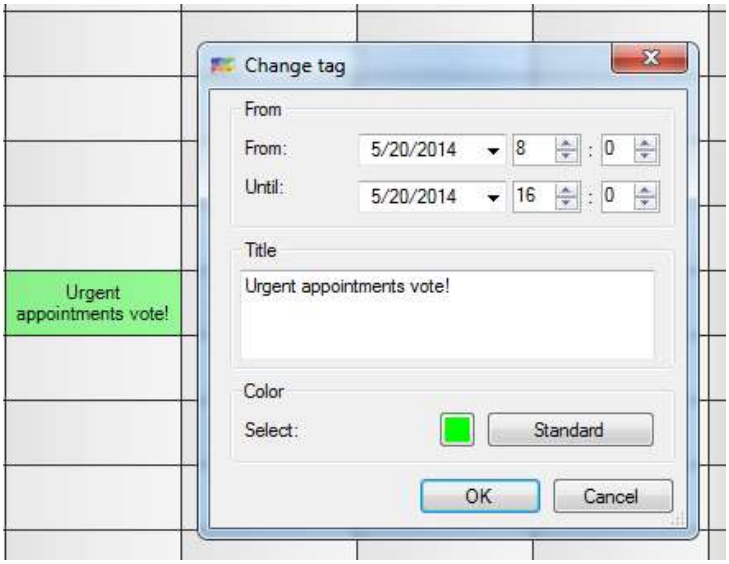
..



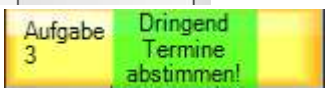
Another way: right click on an empty cell:



That opens a window where you can select individual colours, times and captions; cells can be inscribed now.

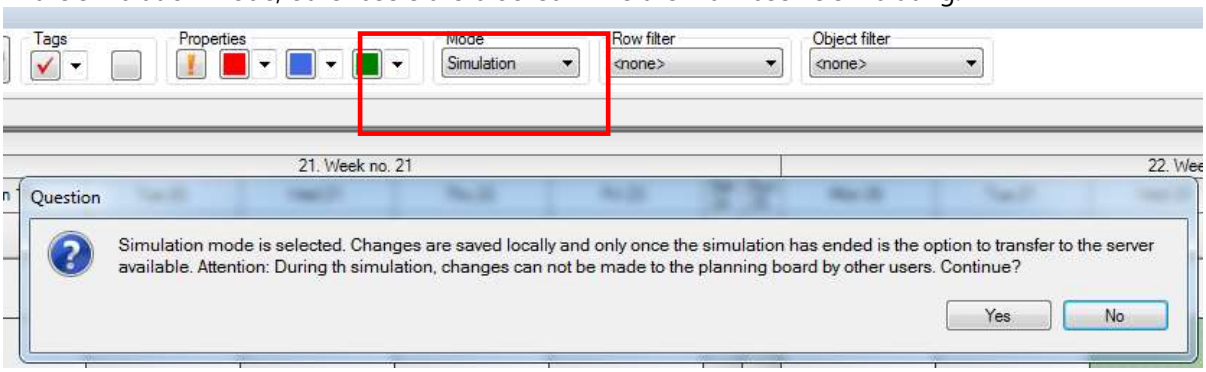


This information never gets lost:

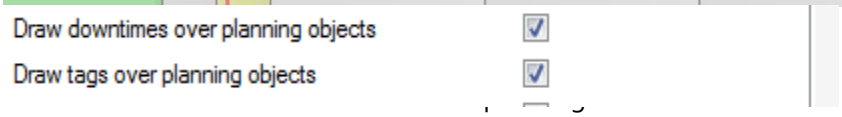


2.3.2.4 Simulation (only in EE Version)

In the simulation mode, other users are blocked while the main user is simulating.



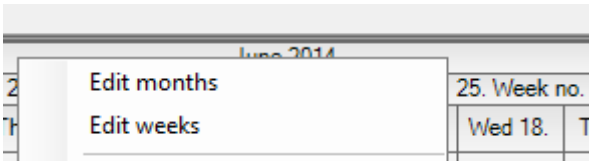
User's screens in simulation mode:

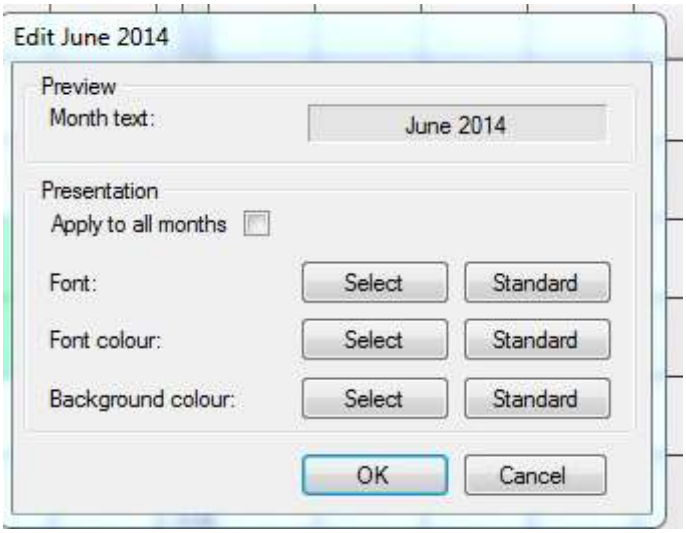


3 The Calendar - Column Division

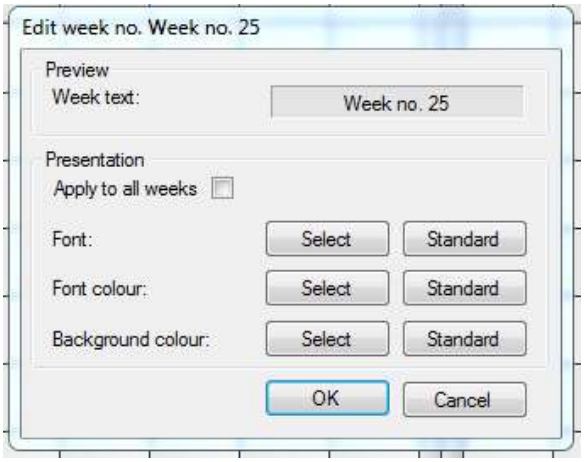
3.1 Column Headlines

3.1.1 Editing Months

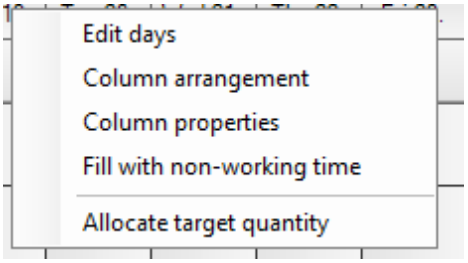


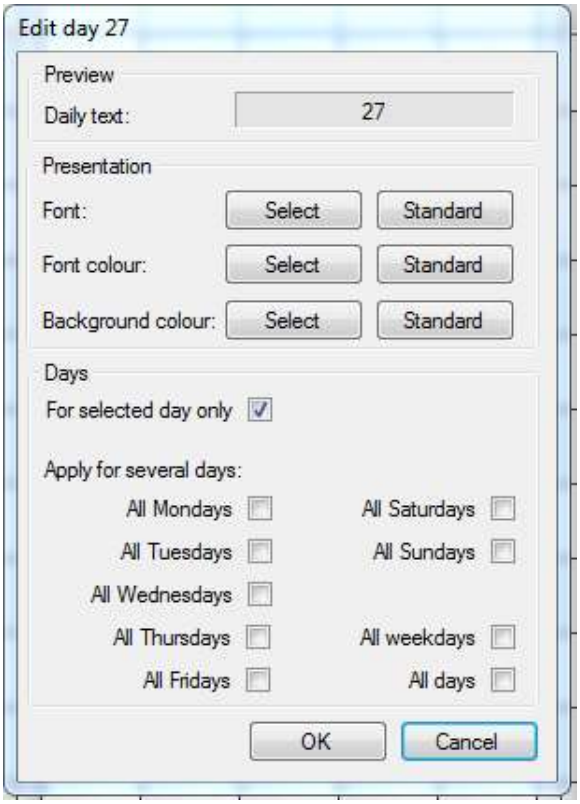


3.1.2 Editing Weeks

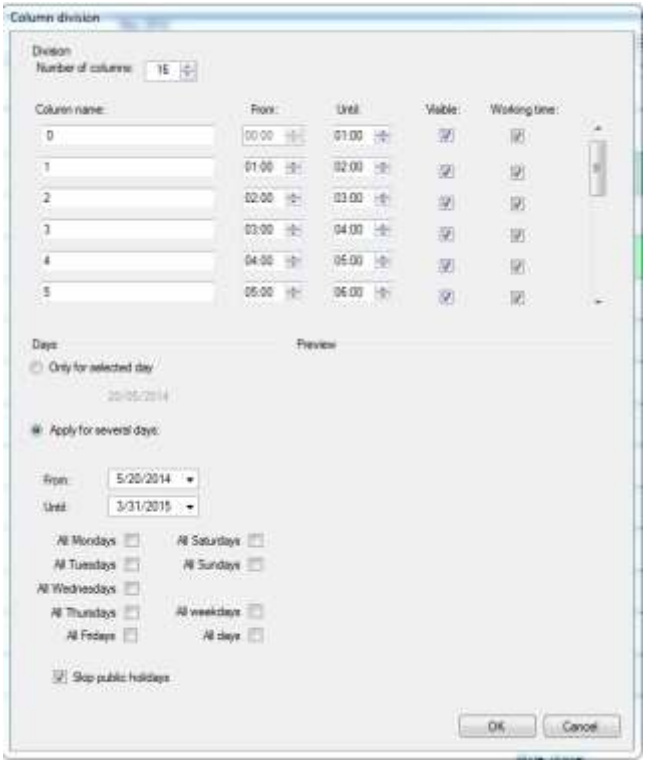


3.1.3 Editing Days





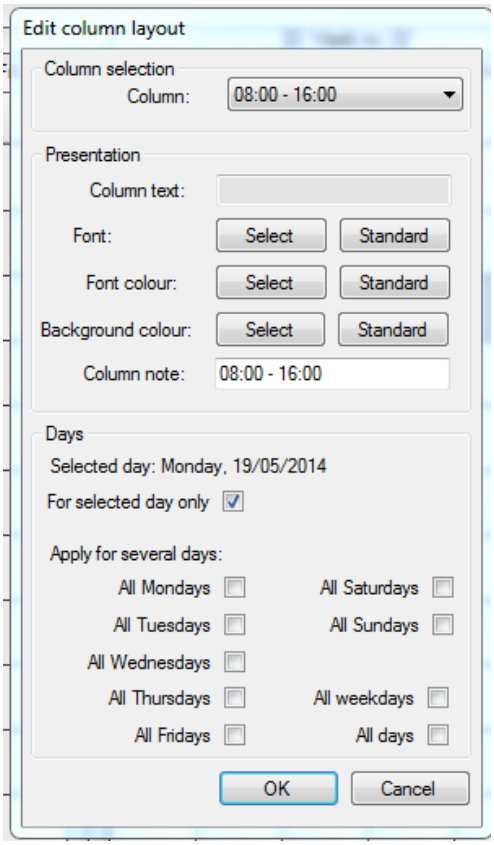
3.1.4 Column Division



Columns provide the infoBoard with working times. Much other competitive software has a problem with an acceptable solution.
infoBoard offers an individually designable interface.

Every column can receive an individual headline that is only exchanged by a clock time when zooming to 400 %.

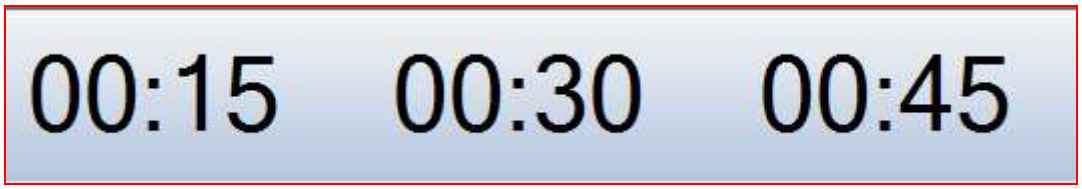
3.1.5 Column Features



3.1.6 Filling Non-working Periods (only in EE Version)

This function gives the opportunity to fill the whole column with non-working periods.

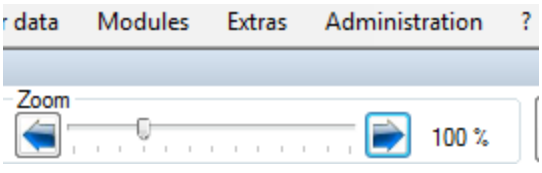
3.1.7 Display Settings



Instead of a calendar in the timeline, the reader can chose large clock times as an alternative.

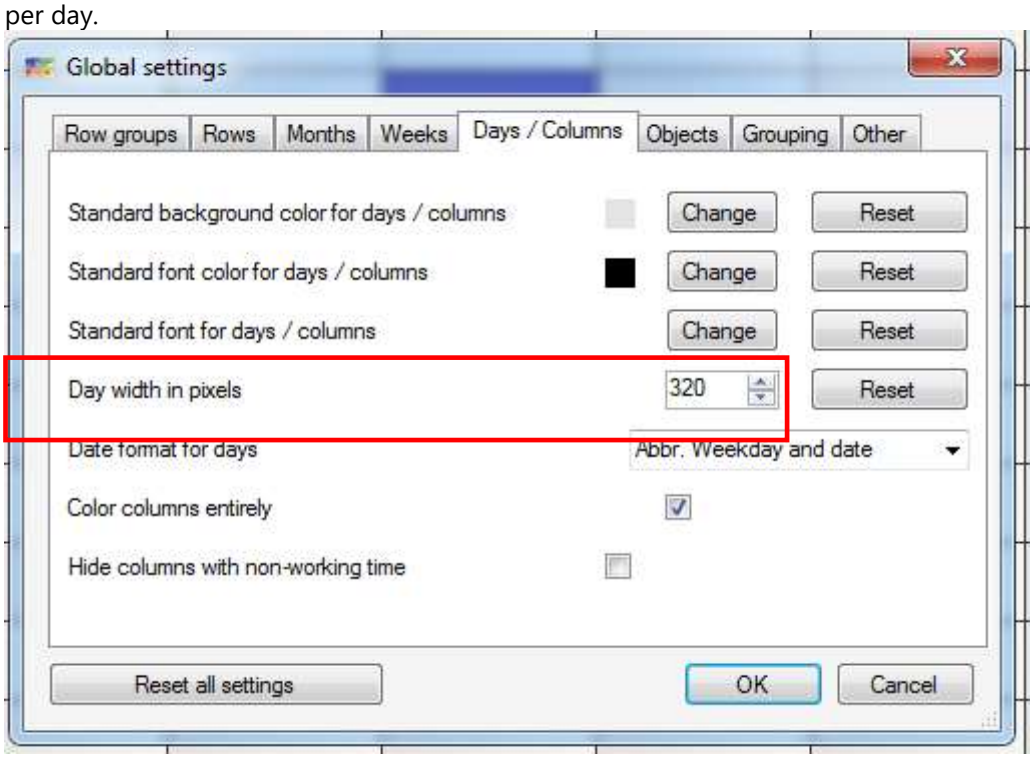
3.1.8 Planning Horizon, Zoom

The **horizontal zoom** reduces or enlarges the timeframe the user can see on his screen. The zoom is handled by the arrow keys or by sliding the regulator from left to right and the other way around.

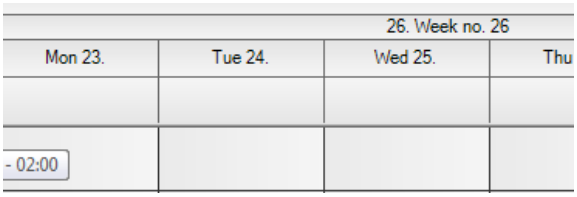


When defining the width of days with for example 100

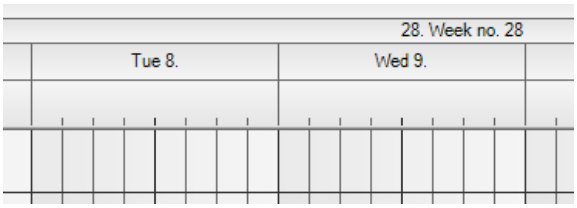
pixels and a zoom of 25% per day in the global settings, a quarter or even up to 13 months can be displayed on the screen. This is of course dependent on the screen resolution and the size of the screen.
When using the zoom, column lines and artificial lines are modified and illustrated in a different way. The change into time indication on top of the columns is only supported by a pixel value of 150 pixels per day.



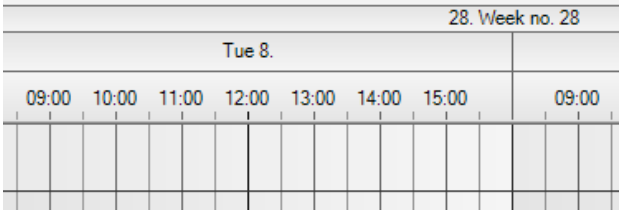
There are three examples illustrated in the following:
Example: 3 shifts, 24 hours, pixel per day 250, zoom factor 100%:



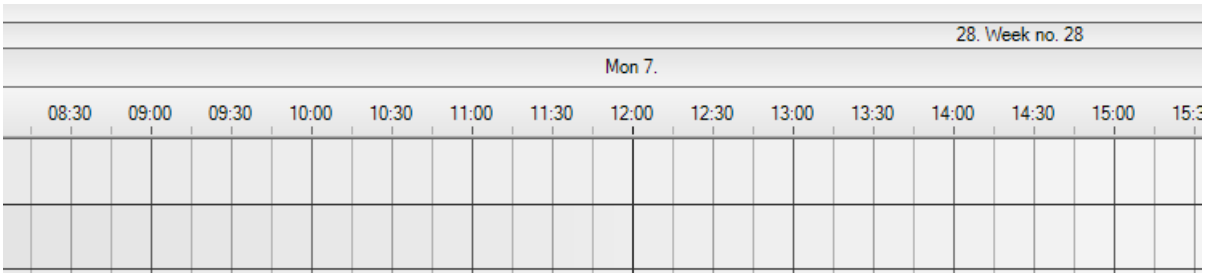
Example: 3 shifts, 24 hours, pixel per day 250, zoom factor 150%:
Auxiliary row fade-in (Hour)



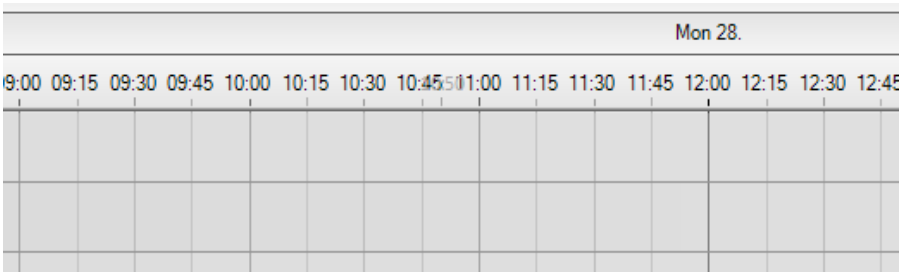
Example: 3 shifts, 24hours, pixel per day 250, zoom factor 300%:
Clock time fade-in (Full hours)



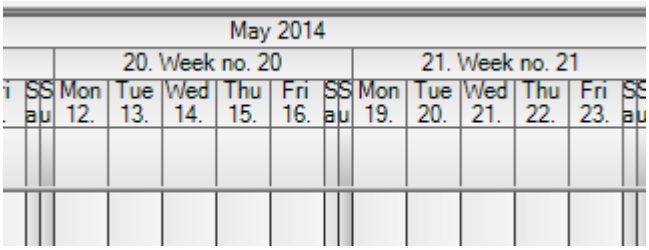
Example: 3 shifts, 24 hours, pixel per day 250, zoom factor 750%:
Clock time fade-in (Half-hours)



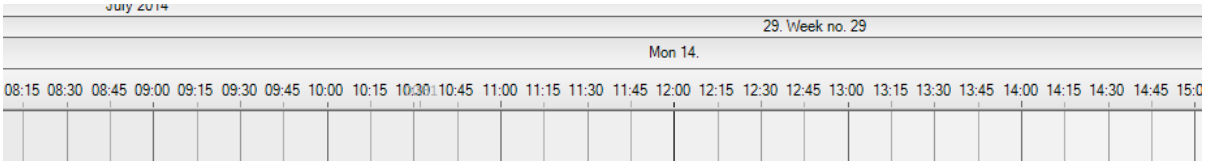
From zoom factor 1250%: quarter hours fade-in



Example: project planning in weeks, 3 columns per day, 8 work hours, pixel per day 40, zoom factor 100%:



The zoom factor 1000% goes with the project planning in weeks but makes it harder to orientate:



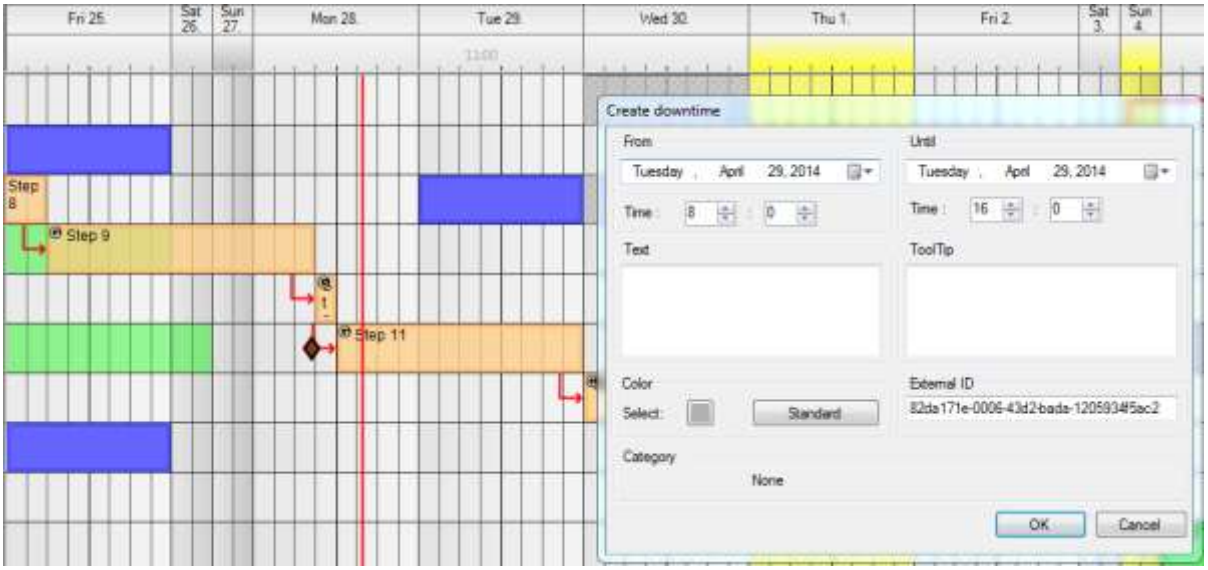
'Setting up holidays' is explained at the end of the manual.

3.2 Idle Times

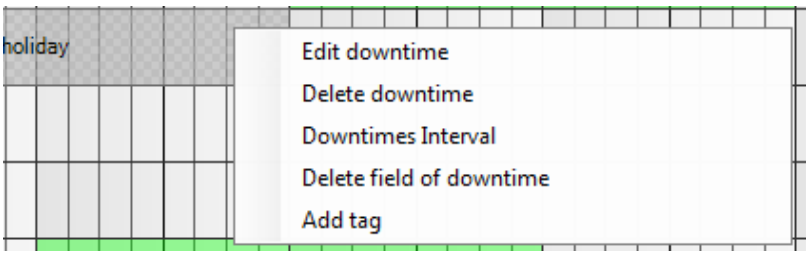
Idle times are defined periods that are visible but not outlined as work time. Planning objects become accordingly longer when they are put on an idle time. Idle times can be illustrated as planned **holidays** or suddenly appearing **illness** on the employee's defined row. Even part-time workers can be scheduled. The stratification of my employees can be edited via rows - define non-working period - and assigned to my resources over a longer period.
Furthermore, other idle times such as machine set-up or repair times can be outlined as such. Even for projects exist non-working periods.

3.2.1 Creating Idle Times

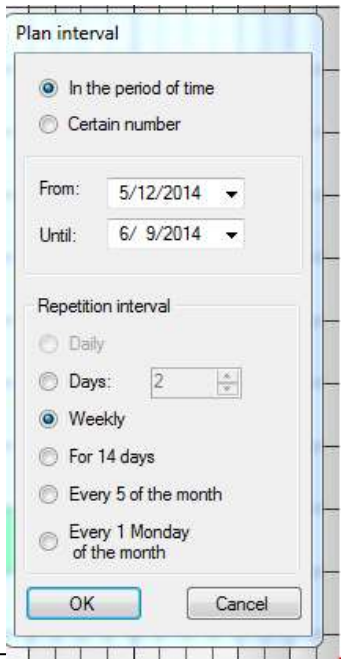
To define an idle time for a resource (row) you click with the right mouse button on the field where the idle time should start. A dialogue appears in which you can define the idle time's exact timeframe, term and its colour. Moreover, a tooltip can be added.
Via *Administration – Idle Time Categories* (point 4.8.7) predefined categories can be established and picked out fort he planning later on.



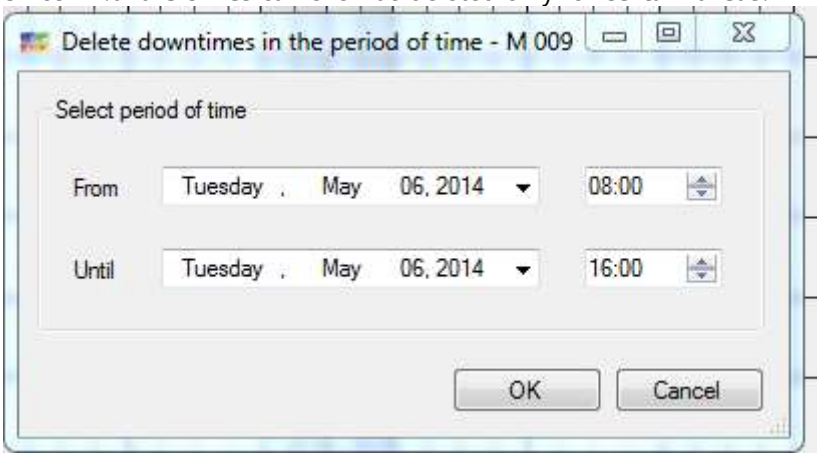
3.2.2 Editing and Deleting Idle Times



To **edit** the **idle time**'s timeframe and design you click with the right mouse button on the existing idle time. In this way idle times can be deleted or planned in interval.



The **interval planning** can be interesting especially for apprentices' vocational school planning or part-time workers.
Since V2.6 **idle times** can even be deleted only for **certain areas**:

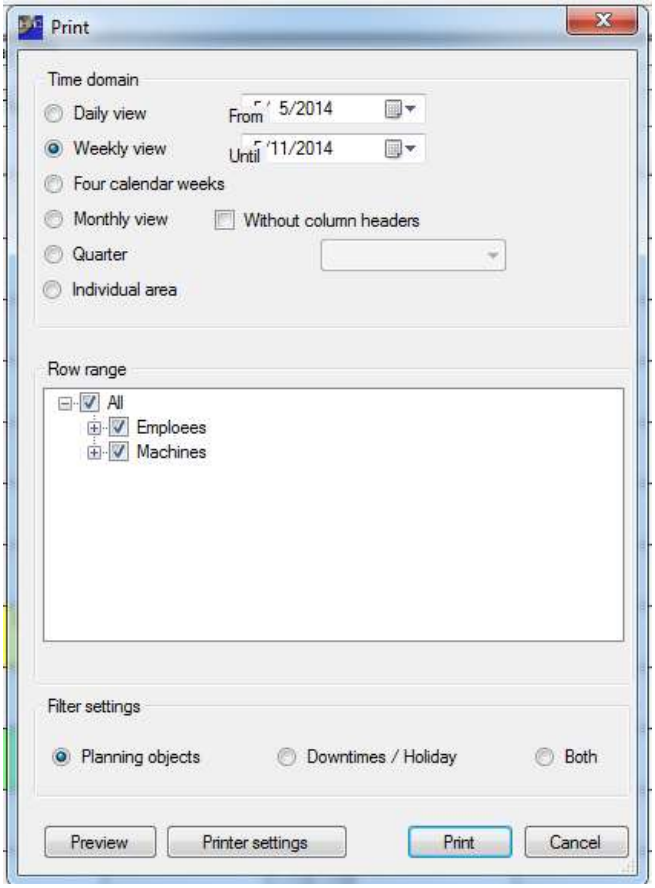


4 Menu

4.1 Menu Data

4.1.1 Printing

The user can chose the timeframe and single rows that have to be printed.



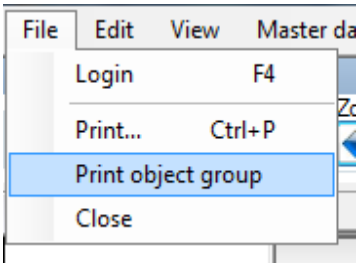
In 'filter settings' you can chose what shall be printed:

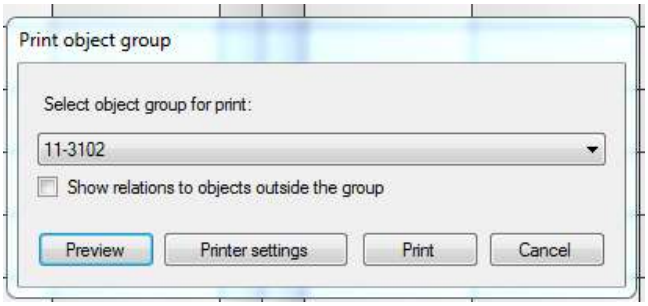
- idle times
- planning objects
- both

Via 'idle times / holiday' you can print the employee's holiday seasons or illness cases. Repair and maintenance times can be printed or given as a pdf document:

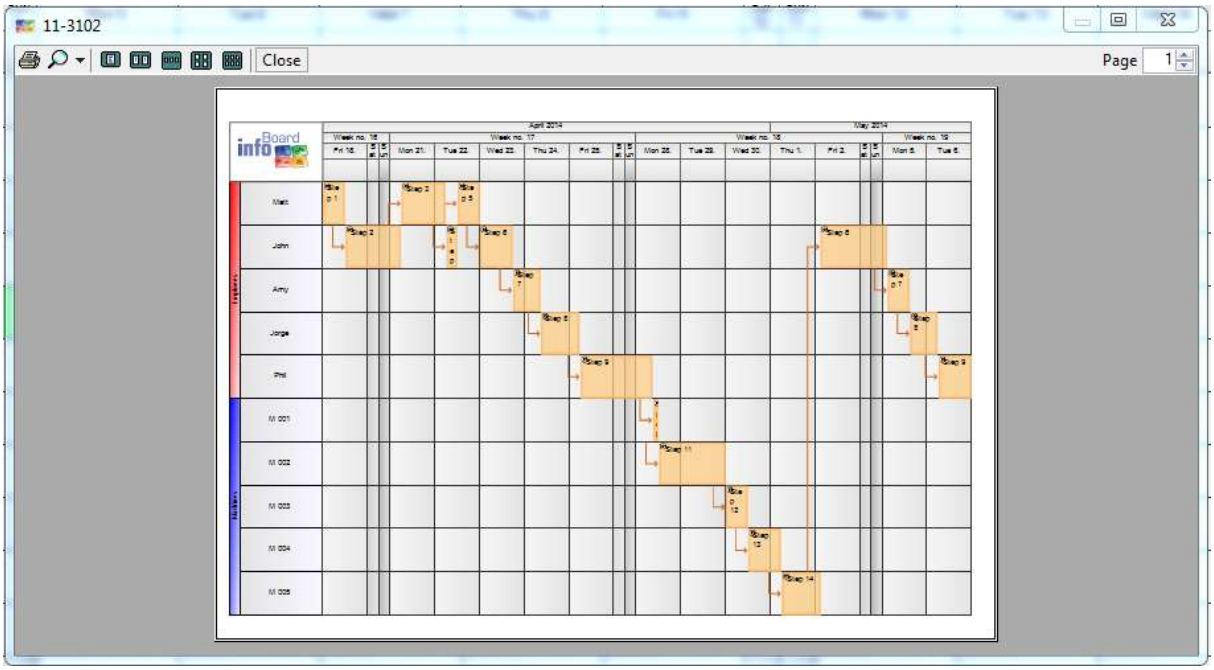
4.1.2 Printing Object Groups

To show a workflow, project plan or order for closer examination separately, one has the opportunity to select the corresponding object group by selecting File - Print Property Group, and then select to display on print preview. For employees or customers, projects and orders can be exported from .pdf or printed.



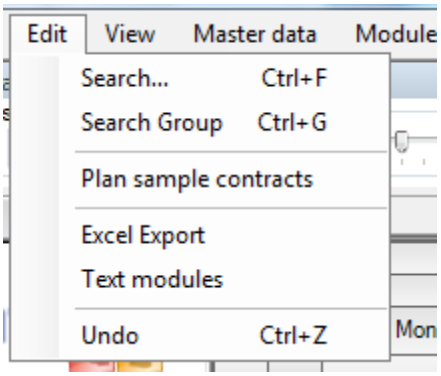


Here in the print preview we see that only the planning objects are given, which belong to this object group. Thus, individual projects, customer orders and workflows can be visualised excluding other work but including the resources involved and their periods.



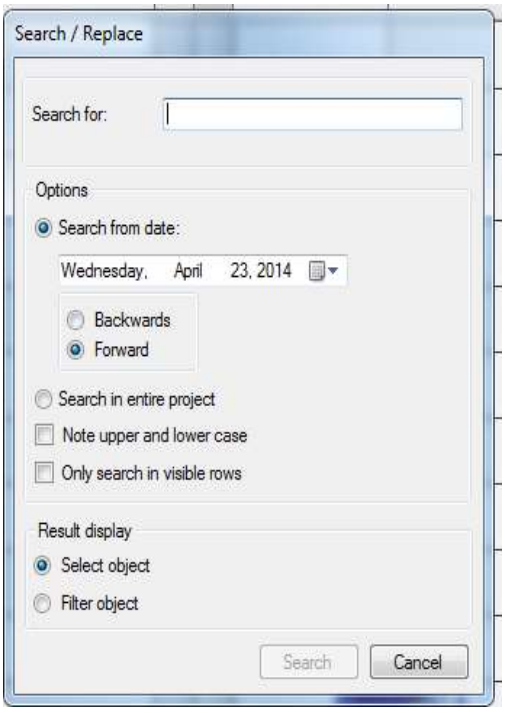
4.2 Editing Menu

In *Edit* you can find the following selection:

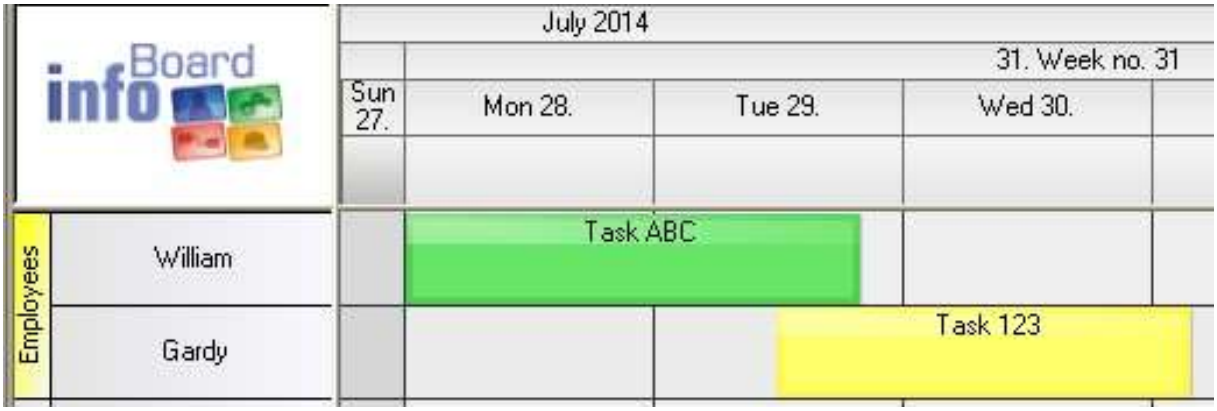


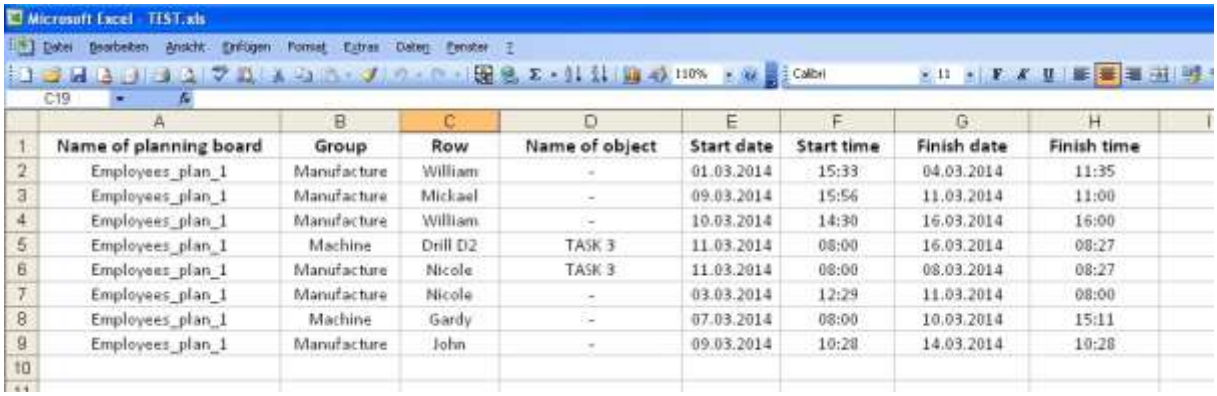
4.2.1 Searching

Searching opens a form which is self-explanatory.



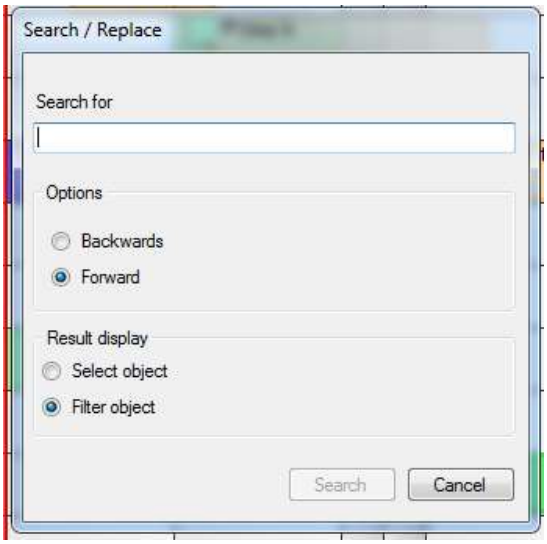
After a click on *'search'* the planning board aligns itself on the wanted planning object. The planning object is either on the upper left side or 'at the end' of the planning board; depending on how the planning board is aligned. Hatches mark the planning object found at first as a match.





	A	B	C	D	E	F	G	H
1	Name of planning board	Group	Row	Name of object	Start date	Start time	Finish date	Finish time
2	Employees_plan_1	Manufacture	William	-	01.03.2014	15:33	04.03.2014	11:35
3	Employees_plan_1	Manufacture	Mickael	-	09.03.2014	15:56	11.03.2014	11:00
4	Employees_plan_1	Manufacture	William	-	10.03.2014	14:30	16.03.2014	16:00
5	Employees_plan_1	Machine	Drill D2	TASK 3	11.03.2014	08:00	16.03.2014	08:27
6	Employees_plan_1	Manufacture	Nicole	TASK 3	11.03.2014	08:00	08.03.2014	08:27
7	Employees_plan_1	Manufacture	Nicole	-	03.03.2014	12:29	11.03.2014	08:00
8	Employees_plan_1	Machine	Gardy	-	07.03.2014	08:00	10.03.2014	15:11
9	Employees_plan_1	Manufacture	John	-	09.03.2014	10:28	14.03.2014	10:28
10								

4.2.2 Searching Groups

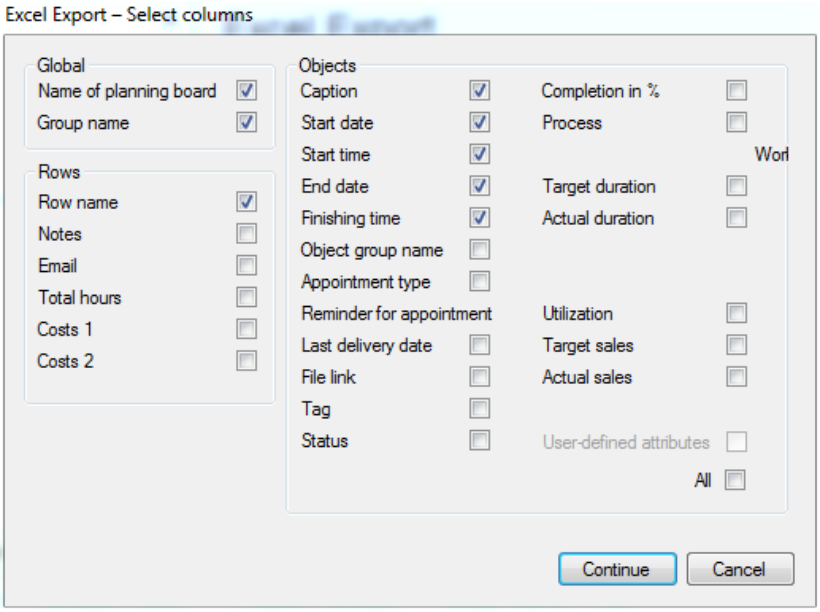


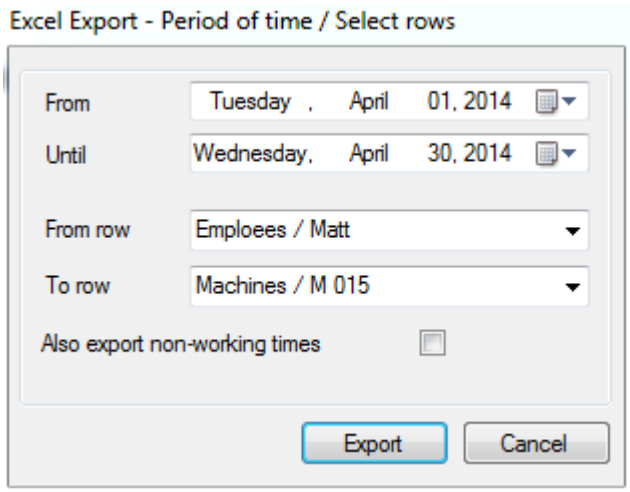
4.2.3 Planning Sample Orders

Predefined sample orders can be selected and planned in by the user who intends to plan.

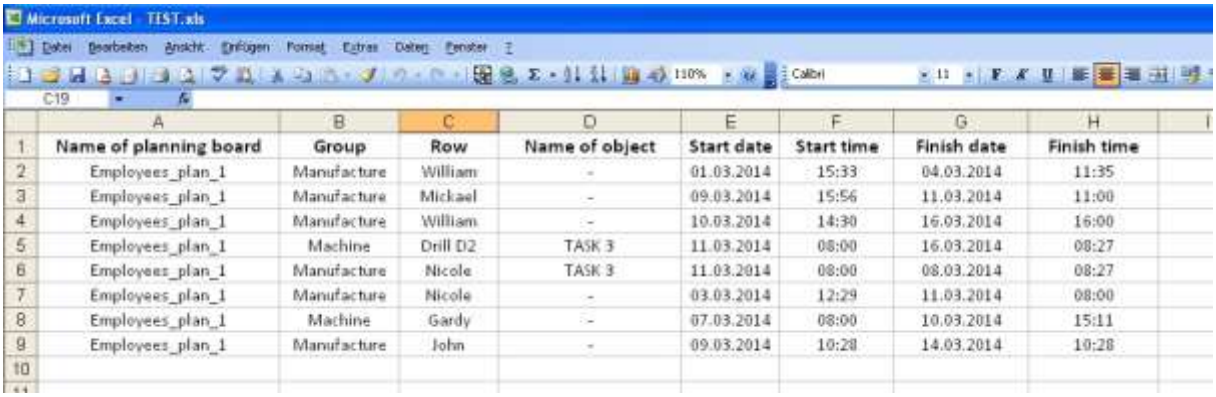
4.2.4 Excel Export

Exporting planned tasks including their attributes, such as name, start and termination times, appointments etc is possible via Excel Export. After selecting the attributes that should be exported timeframes or rows desired can be arranged:





Example of an exported Excel data.



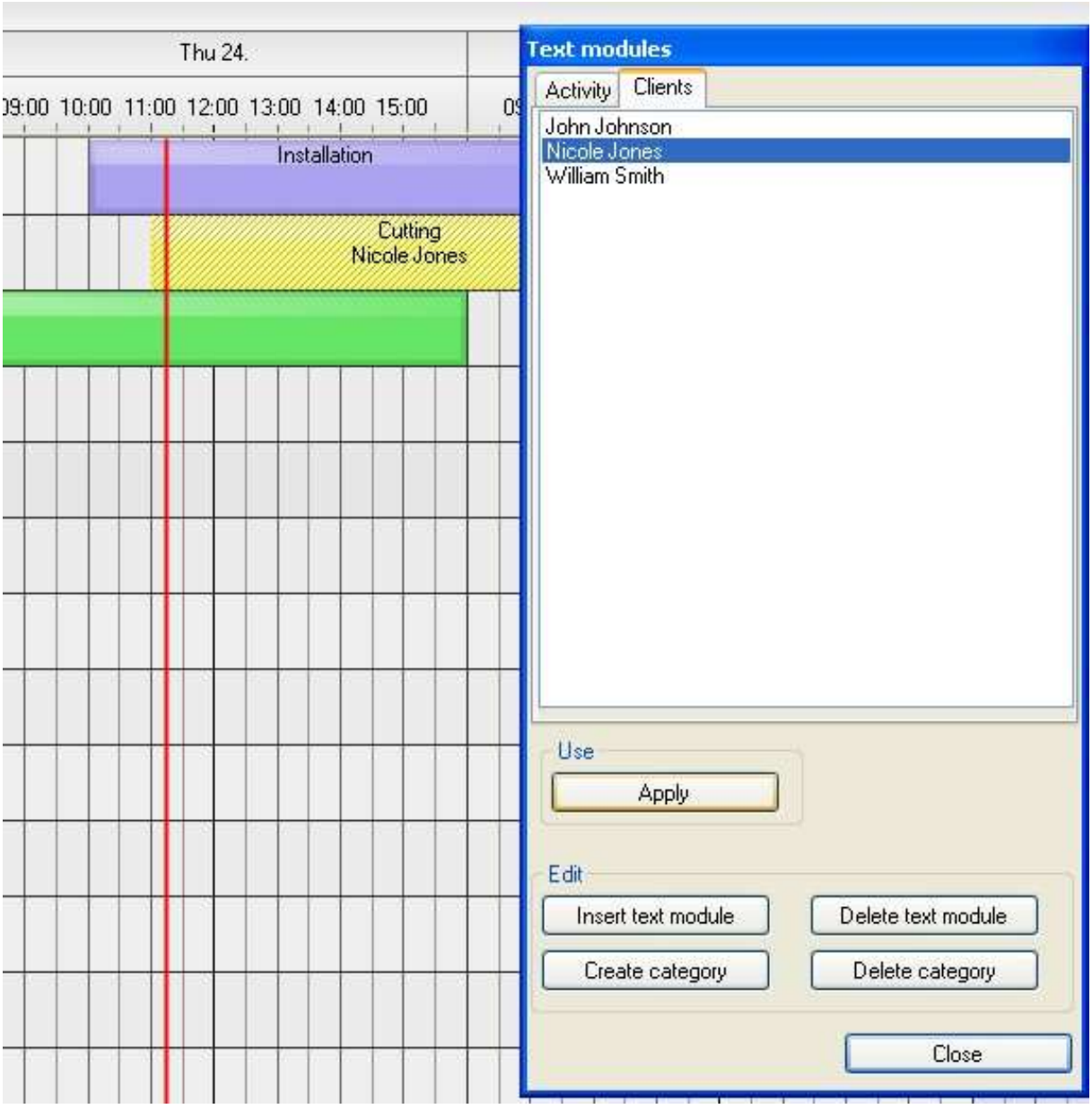
Microsoft Excel - TEST.xls

	A	B	C	D	E	F	G	H
1	Name of planning board	Group	Row	Name of object	Start date	Start time	Finish date	Finish time
2	Employees_plan_1	Manufacture	William	-	01.03.2014	15:33	04.03.2014	11:35
3	Employees_plan_1	Manufacture	Mickael	-	09.03.2014	15:56	11.03.2014	11:00
4	Employees_plan_1	Manufacture	William	-	10.03.2014	14:30	16.03.2014	16:00
5	Employees_plan_1	Machine	Drill D2	TASK 3	11.03.2014	08:00	16.03.2014	08:27
6	Employees_plan_1	Manufacture	Nicole	TASK 3	11.03.2014	08:00	08.03.2014	08:27
7	Employees_plan_1	Manufacture	Nicole	-	03.03.2014	12:29	11.03.2014	08:00
8	Employees_plan_1	Machine	Gardy	-	07.03.2014	08:00	10.03.2014	15:11
9	Employees_plan_1	Manufacture	John	-	09.03.2014	10:28	14.03.2014	10:28
10								

4.2.5 Text Modules

Text rows that are regularly required for labelling can be deposited in categories via Edit - text modules. This function gives another possibility to save time when planning.

The defined text rows can be transferred to planned objects afterwards. Therefore, you select the corresponding object at first and then the text row desired; a click on 'assume' gives the instruction to transfer the labelling to the text row.

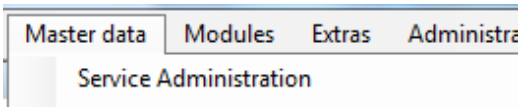


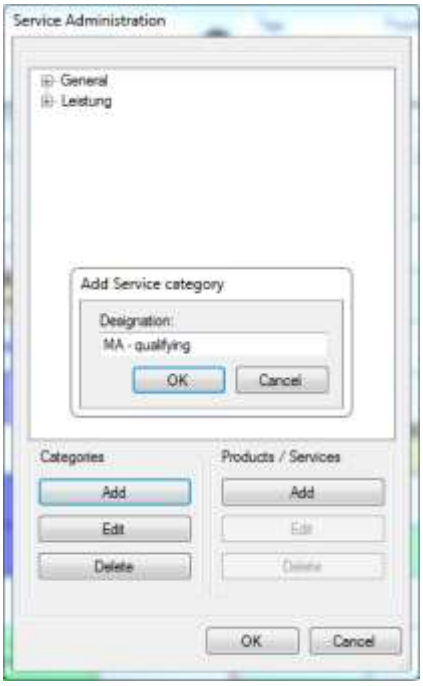
4.2.6 Undo

The last 10 actions can be undone via Ctrl + Z or Edit - Undo. This function only refers to the respective client that means every user can only undo his own actions; independent from other actions of other users on the planning board.

4.3 Menu Master Data

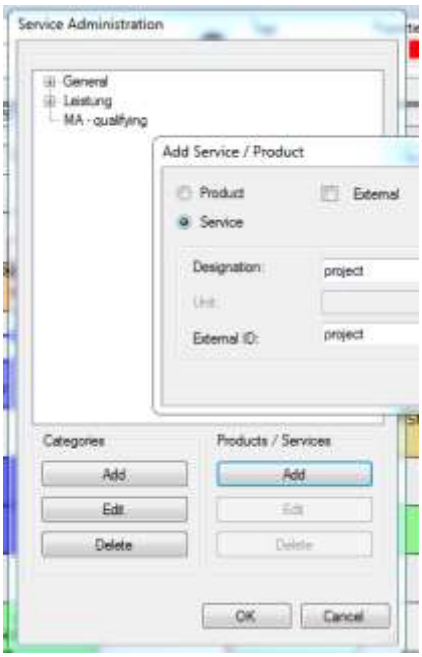
4.3.1 Service Management





Service Management defines services, products and employee's qualifications. Services can be produced items, services, qualifications, workflows, training courses, assembly operations etc. everything that should be planned and assigned by infoBoard is predefined here to plan automatically later on.

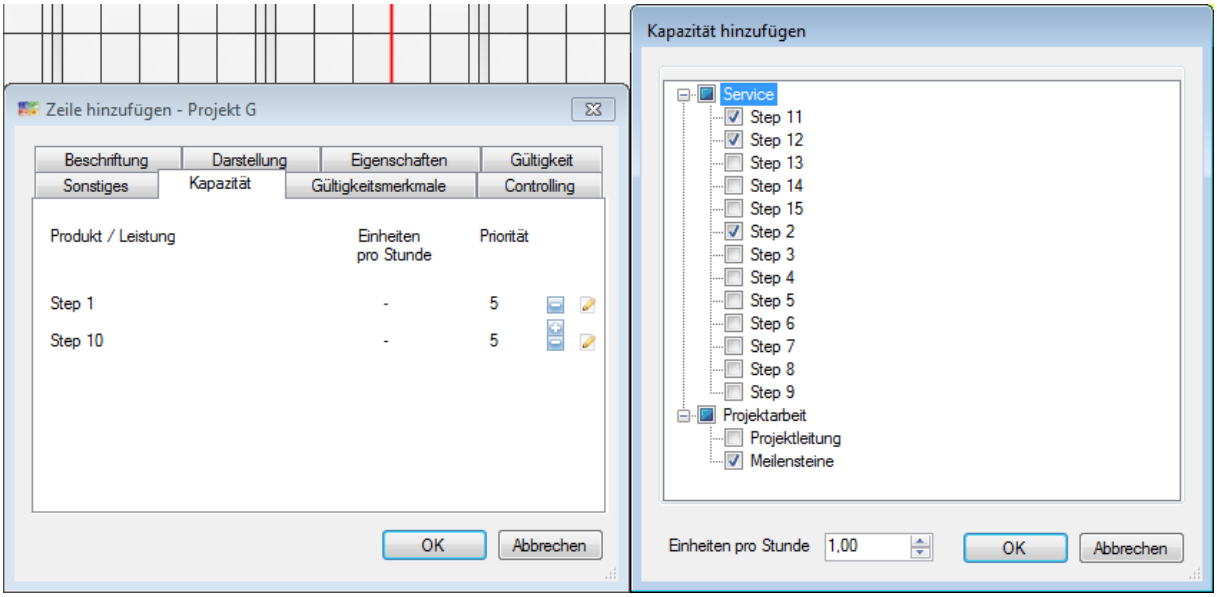
To keep track of the service and product variety it is useful to organise the services and products in categories:



Afterwards services and products can be added to the created categories. Services can be added either automatically - via Excel Export (see point 4.3.5) - or manually:

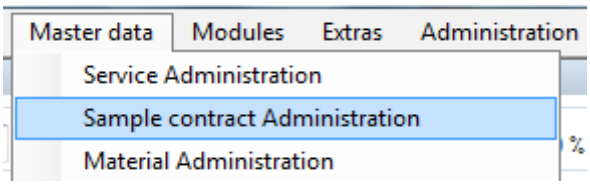
Is an element defined as a **product** a calculation unit should be assigned to it. Every user can freely define this unit.
With the defined calculation units (e.g. pieces (pcs), meters (m), kilometres (km), hours (hrs) or minutes (mins)) the planning board's capacity management adds the specification 'amounts per hour' to every row that is calculated. See chapter 5.2.3: rows – Administrating capacity. Predefined capacities (qualifications, products etc) can be assigned to resources (staff, machines etc) in Service Management via 'Editing rows'.

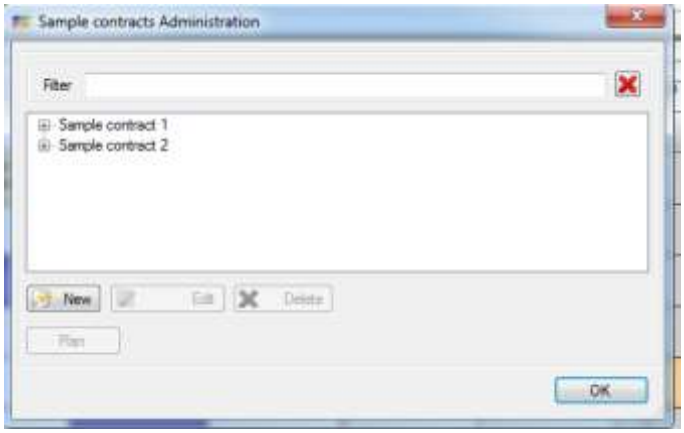
Is an element defined as a **service**, the calculation unit is automatically defined in hours.
How many units (predefined in pcs, hrs etc) the resource can complete in one hour can be specified under 'units per hour':



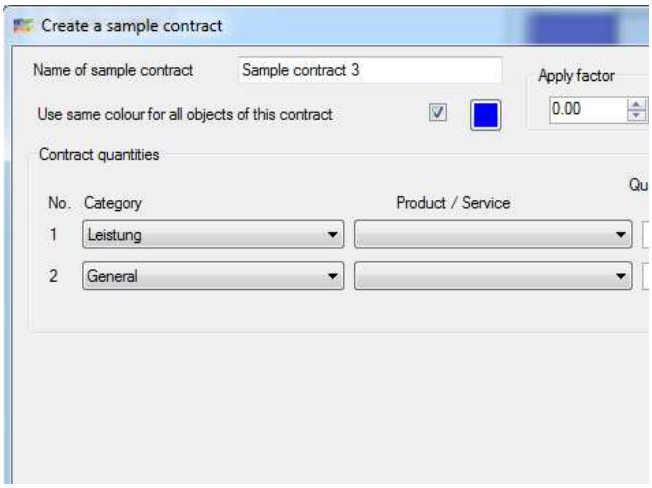
4.3.2 Sample Order Management

Models for production and workflows can be defined in infoBoard. These models can be automatically added to an object group later on. The sequence's definition and the dependence between the single steps will be effected in the Sample Order Management:



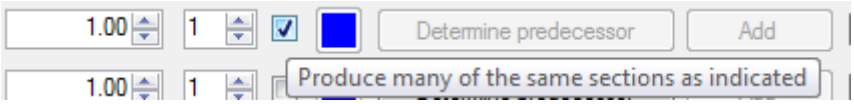


4.3.2.1 Creating Sample Orders



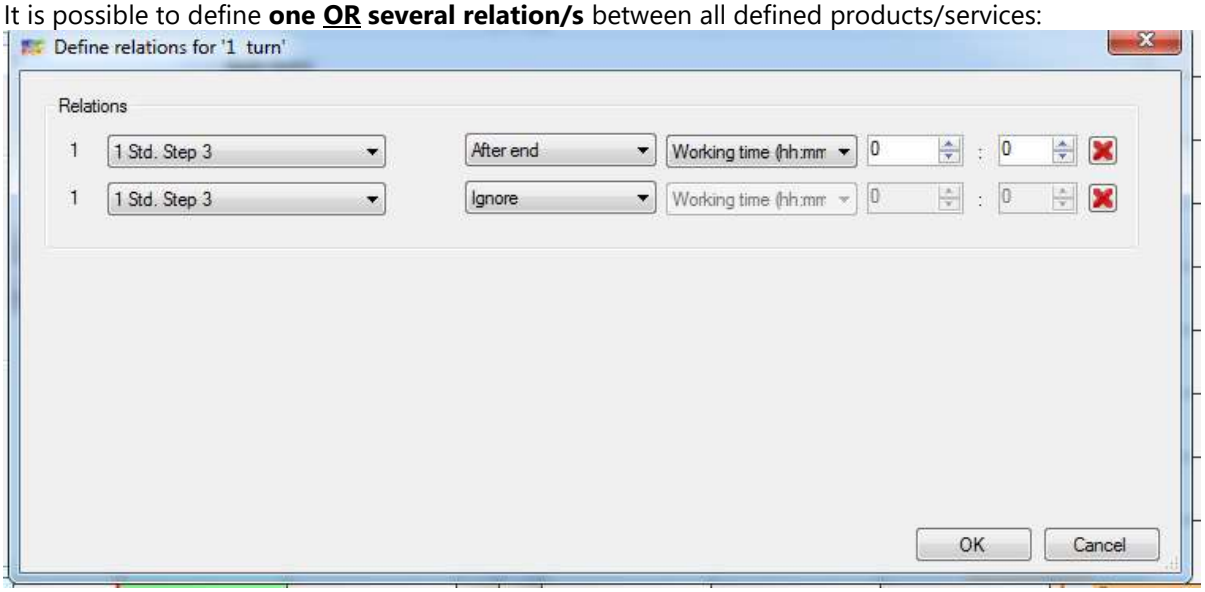
On the left side of the window for new sample orders, first it is given a name. That could be the article or product number or a denomination of the working process. You could now activate whether all objects of this order should receive the same colour. Otherwise, the colours for every single object are defined on the right side of the window.

On the right side of the window, general or user-defined attributes of the order are defined in general or in single steps (e.g. customer ID, order ID, material, machine allocation, etc).
Note: these attributes have to be applied in *Administration – user-defined attributes*!
The duration (in hrs) of the service respectively the amount (in predefined units) of a product are determined here. By entering a value in 'max. pieces' the divisibility of this step is activated, ie that objects with the same capacity on two or more lines will be divided.
The work step is divided in 'max. … Pieces' and optimally attuned to the resources with the mentioned service/product on the planning board. When ticking the following check box the duration/amount will be divided into the exact value with just as much and similar segments.



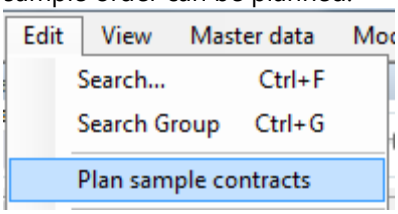
Dependences in-between the process are defined in the 'fixing predecessors' dialogue which is opened when pushing the 'fixing predecessors' button:

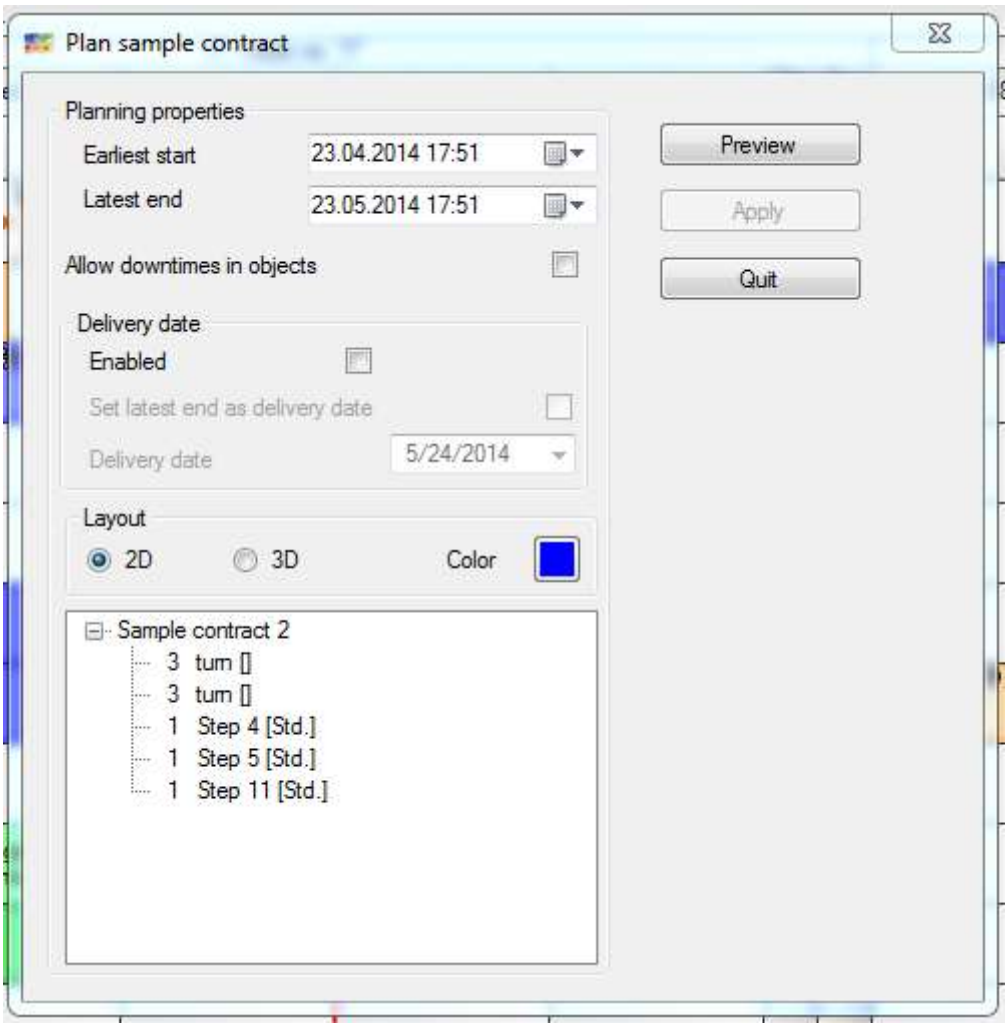
It is possible to define **one OR several relation/s** between all defined products/services:



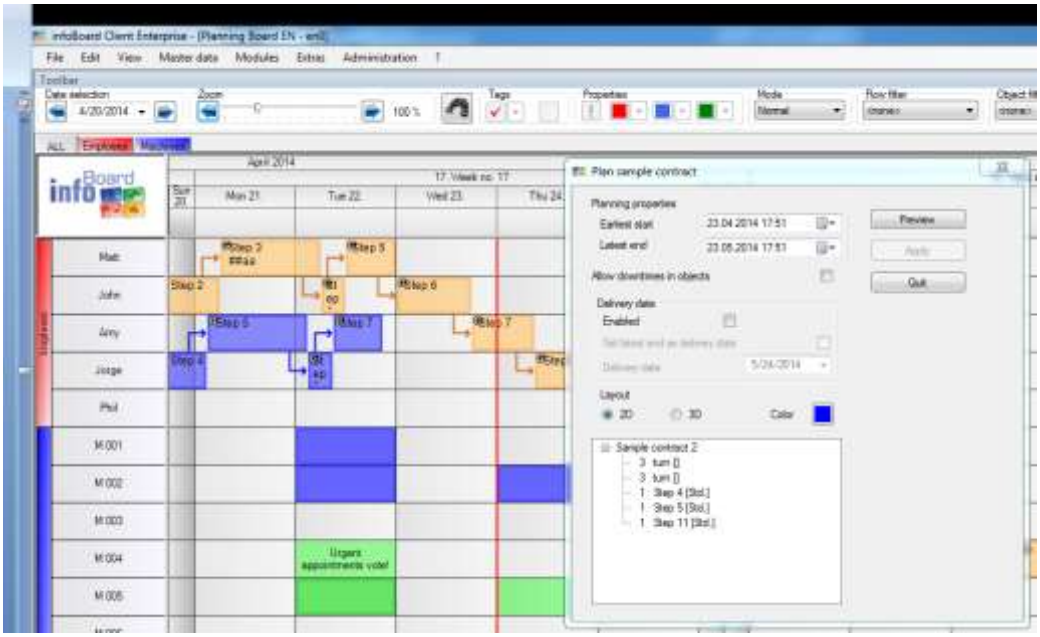
4.3.2.2 Planning Sample Orders

Predefined working and production processes can automatically be planned in by infoBoard under Edit - Planning sample order. Defining all working steps and products in the Service Management is a premise for this. The resources receive the working steps and products to execute the tasks. The process desired is configured in Sample Order Management. Have these preparations been made, the sample order can be planned:

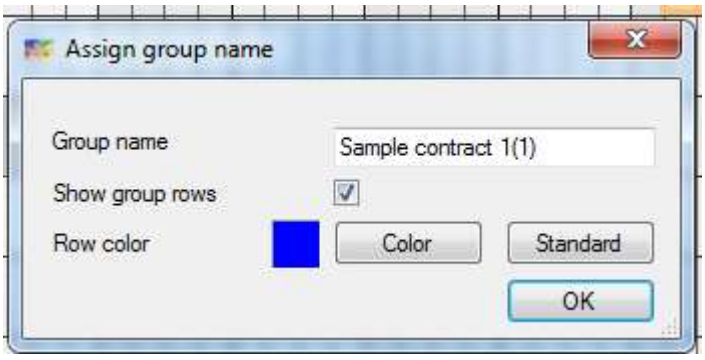




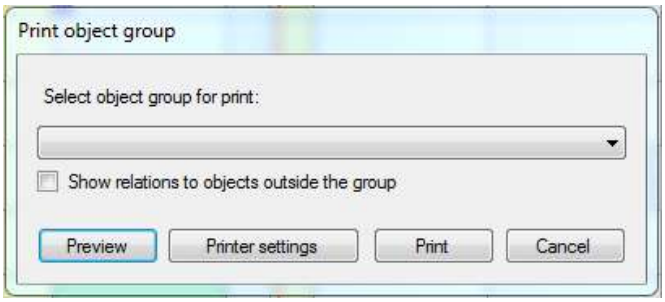
In the planning properties the start date desired is now defined. The order will be scheduled at the earliest possible date from that date. The system indicates if the period intended is not sufficient (4 weeks pre-defined).
In addition, an existing delivery date can be specified or the end of the order will be accepted as this. The representation of the objects and the color of the objects can be adjusted.



The preview shows the result of the planning previously. In case that the planning is not arranged as intended, the given data can be changed and reordered in a further preview. Shall that correspond to your wishes the order can be bindingly planned in via 'Assume'. Later on, a group name is asked. The company-internal order denomination or number can be registered here. Is there no name registered, the planned sample order is labelled with 'Object group + name'.

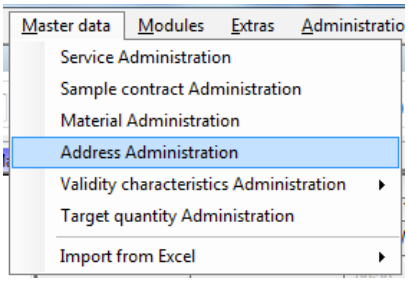


Via Menu - Data every object group can be printed. For printing a graph, the option 'show relations to objects outside the group' has to be activated:



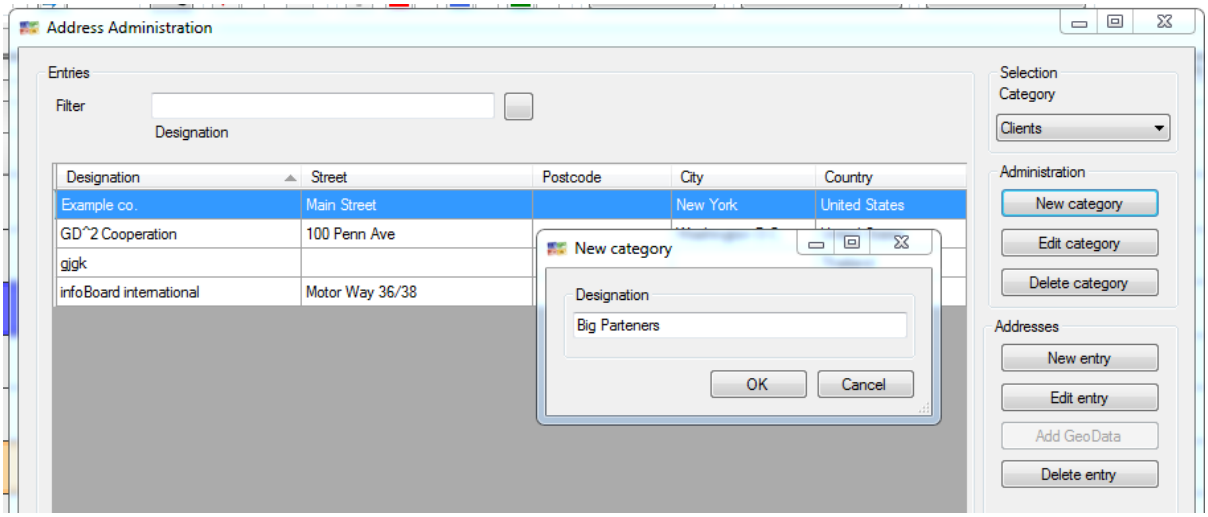
Via 'Cancel', this action can be stopped anytime.

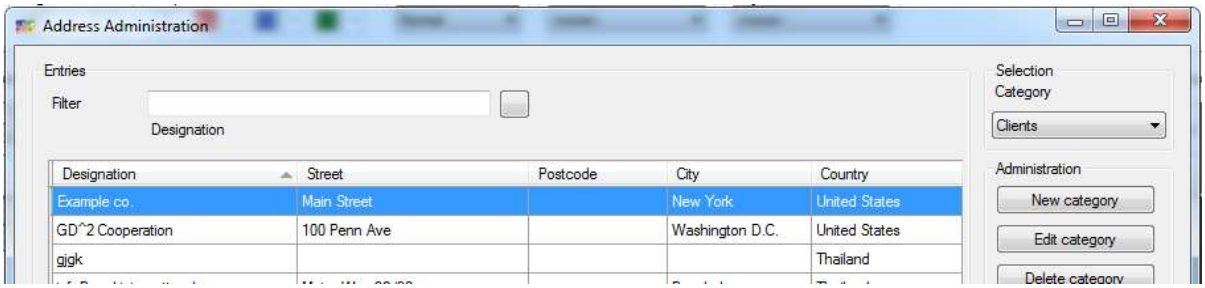
4.3.3 Master Data – Address Management

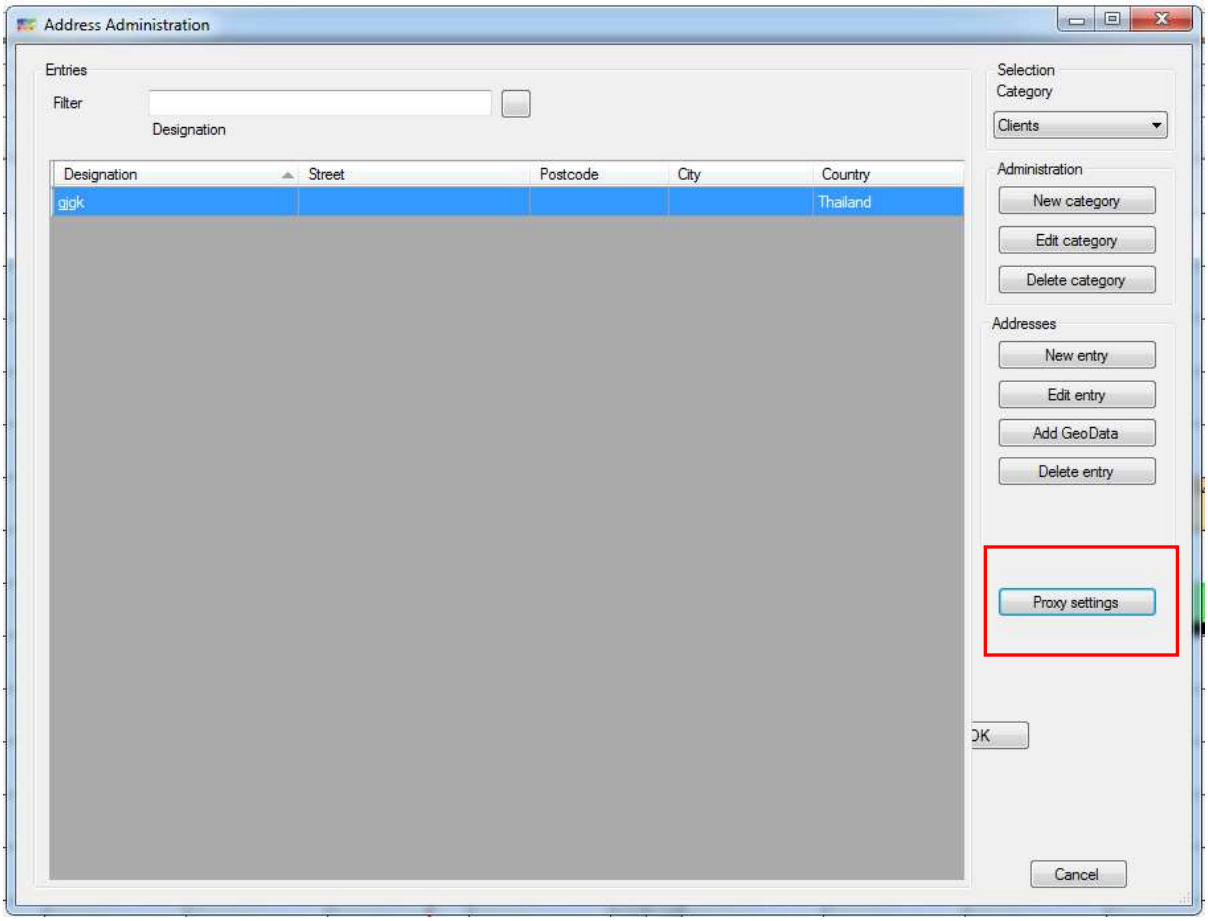


In the Address Management contact details of customers, settlements, furnishers, business partners, free staff, retailers can be deposited. The contacts are separated into categories to get a better overview.

The big use arises in the infoBoard Map Module which is necessary for the infoBoard Small Business Module.

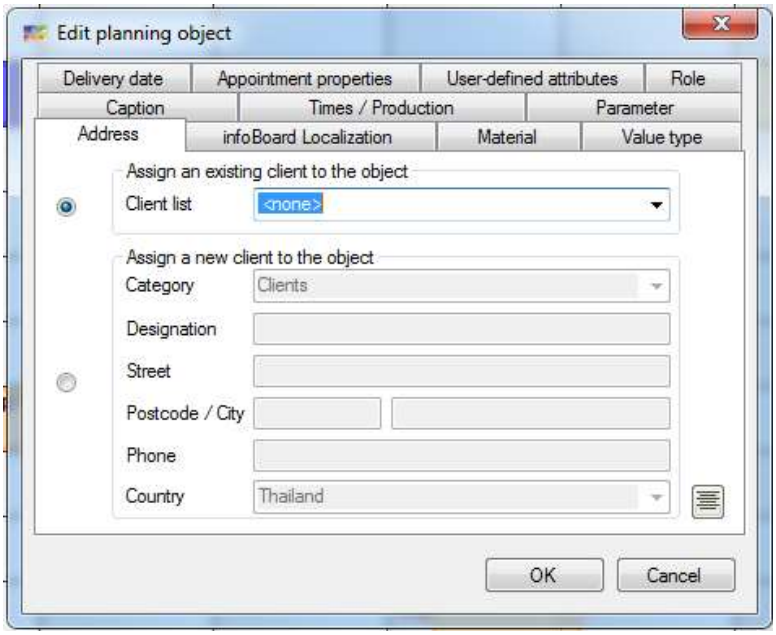


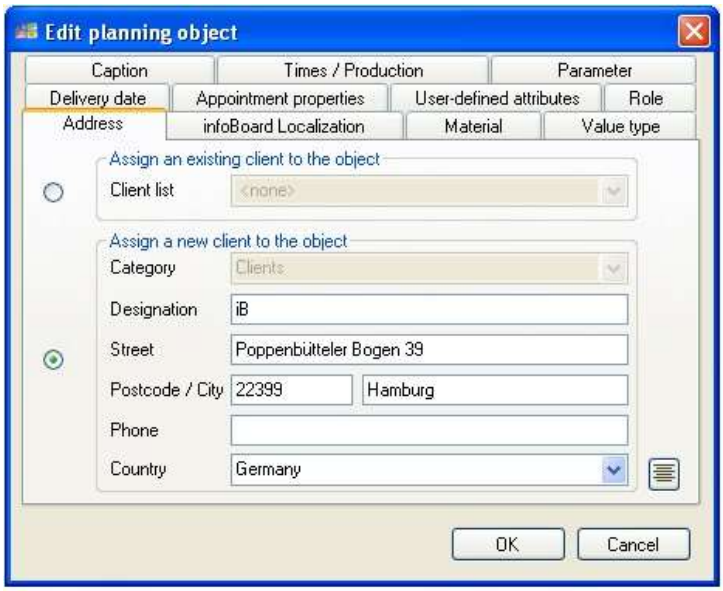




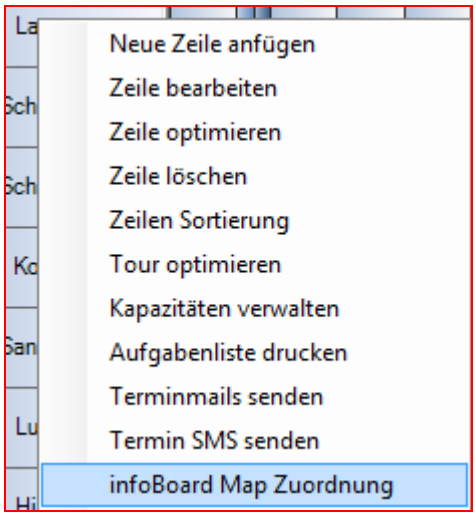
It is important to press 'Save' in the end.

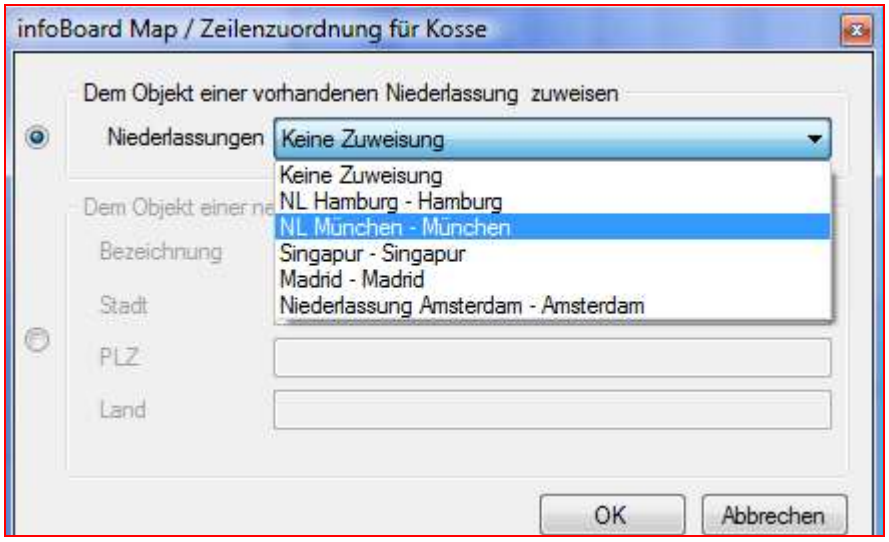
4.3.3.1 Address Assignment infoBoard Map - Planning Objects





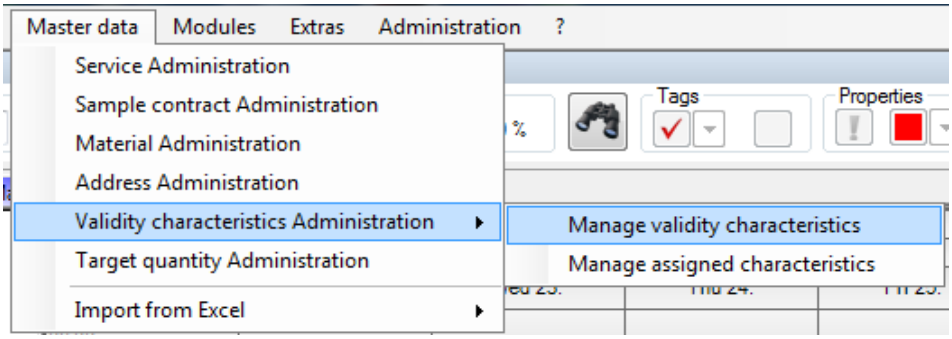
4.3.3.2 Address Assignment infoBoard Map - Rows



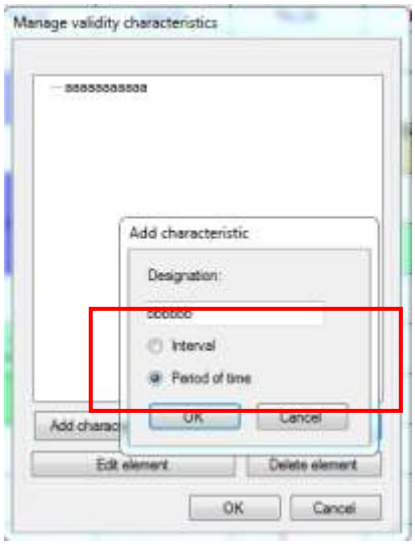


4.3.4 Validity Characteristic Management

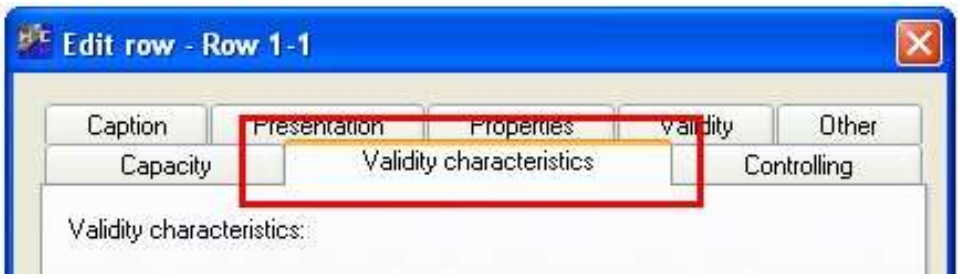
Time dependences for single rows can be created in Validity Characteristic Management in the menu 'Master Data'. That could be maintenance for machines, tools and company cars as well as Visa and vaccination appointments for staff that is currently on assembly operations abroad or material orders.

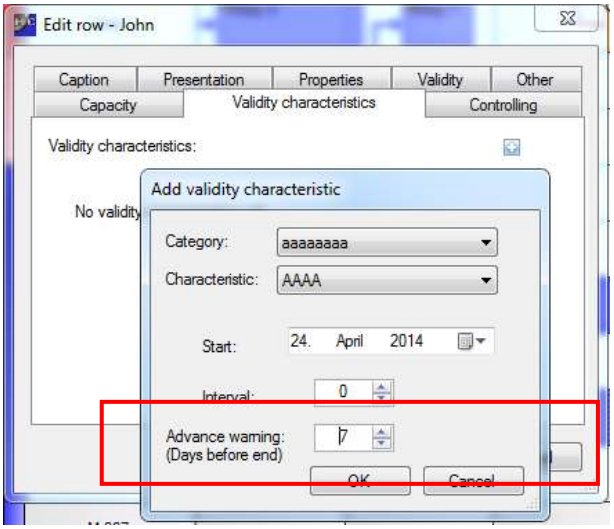


In the Managing Validity Characteristic dialogue, categories are defined at first. Then, **interval** or **timeframe** determined features could be added. The interval refers to an event, which is repeated regularly after a couple of days. Meanwhile the timeframe is defined by a start and termination time.

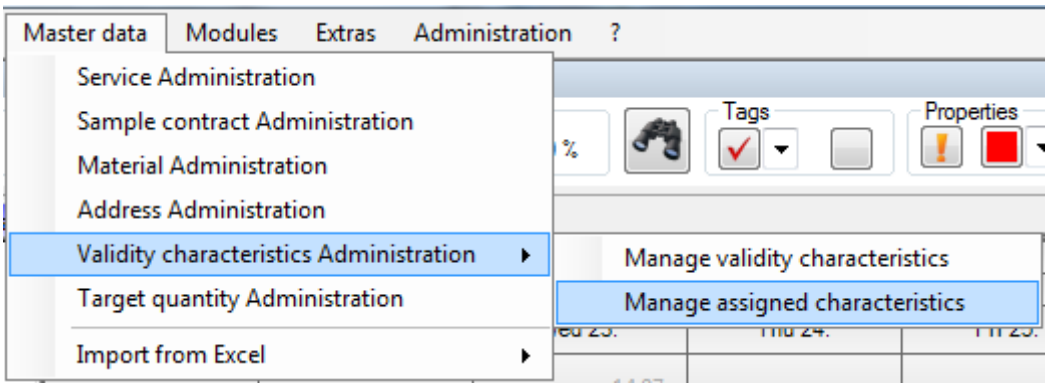


After all desired characteristics have been created; they can be assigned to the resources via the Edit row. It is possible to allocate several characteristics to one resource.

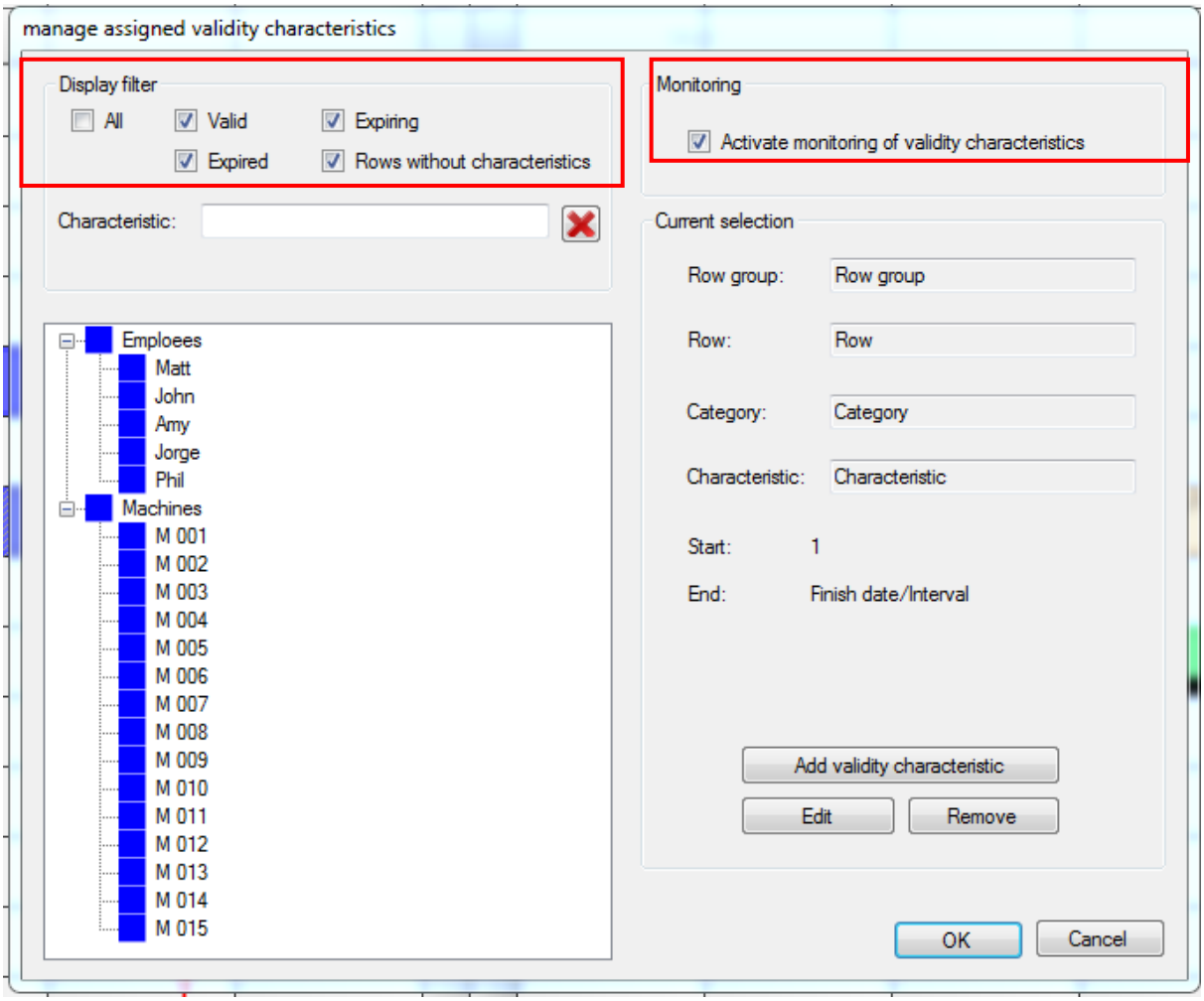




An advance warning that reminds of an appointment can be established here, too.
IMPORTANT: this appointment supervision has to be activated in the Validity Characteristic Management later on:



As soon as the validity characteristics have been activated, they can be assigned to the resources in the menu Edit. That is as well possible via Validity Characteristic Management – Administrating Assigned Features:
Via display filter, rows can be filtered that have the same status.
With a right click on the row, a new characteristic can be added or respectively an existing characteristic can be edited:



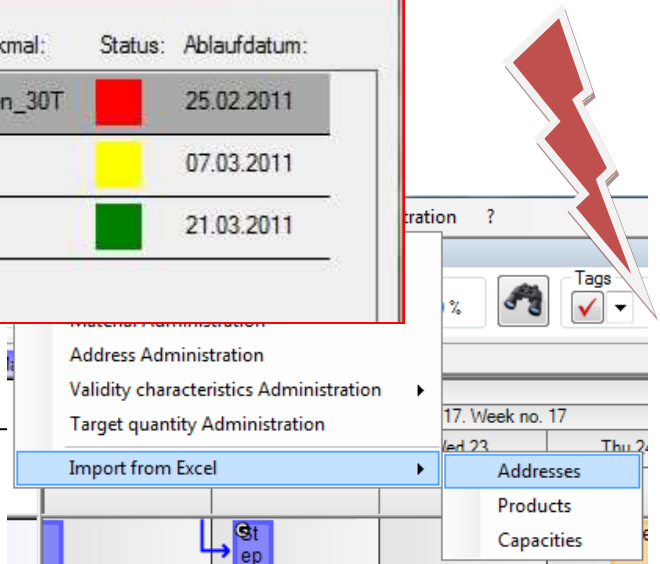
The diverse colours refer to the status of the validity characteristics:

- BLUE = no assigned features existing
- GREEN = valid characteristics
- YELLOW = expiring characteristics
- RED = expired characteristics

With an activation of one or several stati the display can be filtered.

If a time window for advance warning is given when allocating a characteristic, this function must also be activated in 'Managing Vadility Characteristics' on the right under supervision! If a sign reaches now the appointment which was assigned under fast forward, a status overview is indicated when starting the infoBoard. Then with double click on the corresponding row these can be edited immediately.

4.3.5 Excel Import



infoBoard can read out master data in the shape of an Excel list.
In addition to addresses, services/products for the Service Management and capacities for the row assignment of the services/products can be imported.
For an adequate import, the lists have to have the following format:

4.3.5.1 Importing Addresses

	A	B	C	D	E	F	G	H
1								
2	**Operation**	**ObjectID**	**Name**	**Country**	**Postcode**	**City**	**Street**	**Person1**
3	I	12533	GD^2 Cooperations	US	89801	Washington D.C	Main	
4	I	12781	Example Co.	US	83843	New York	1234 Penn	
5	I	12776	Big Box Things LTD.	TH	12345	Bangkok	100 Motorway	
6	I	12538	Store XZ	DE	50078	Berlin	GrossStr 85	
7								

Operation = 'I' for import
Object ID = chose explicit ID
Name = denomination and/or ID of the customer, partner, furnisher, settlement etc.
Country = ISO 3166 country codes
Postcode
City
Street

For customer addresses, further dates have to be imported:
Person1
EMail1
Phone1

Person2
EMail2
Phone2

F	G	H	I	J	K	L	M
Lat	Lon	Person1	EMail1	Phone1	Person2	EMail2	Phone2
45,7	30	Elvis	elvis@gmx.com	8789897 09787	Jimi	jimi@beam.com	1242323
24,89	164	Harig	harig@t-online.de	0033/45676789			
		Wunsch, A.	wunsch@gmx.de	0567/567890			

4.3.5.2 Importing Products

	A	B	C	D	E	F	G
1	Operation	ObjectId	Name	Unit	Category	IsService	IsExternal
2							
3	I	Produkt 1	Produkt 1	Stk	Produkt	0	
4	I	Produkt 2	Produkt 2	EUR	Produkt	0	
5	I	Produkt 3	Produkt 3	cm	Produkt	0	
6	I	Produkt 4	Produkt 4	pcs	Produkt		
7	I	Leistung 1	Leistung 1		Leistung	1	
8	I	Leistung 2	Leistung 2		Leistung	1	
9	I	Leistung 3	Leistung 3		Leistung	1	

Operation = 'I' for import
Object ID = chose explicit ID
Name = denomination of the service, product or planned object
Unit = object unit respectively no entry on services
Category = service category where the service/product is allocated
IsService = shall entries be defined as a service 1 should be enlisted; when there is an empty space or 0 the corresponding object is a product
IsExtern = the corresponding object is defined as an external service/product when 1 is enlisted in this column

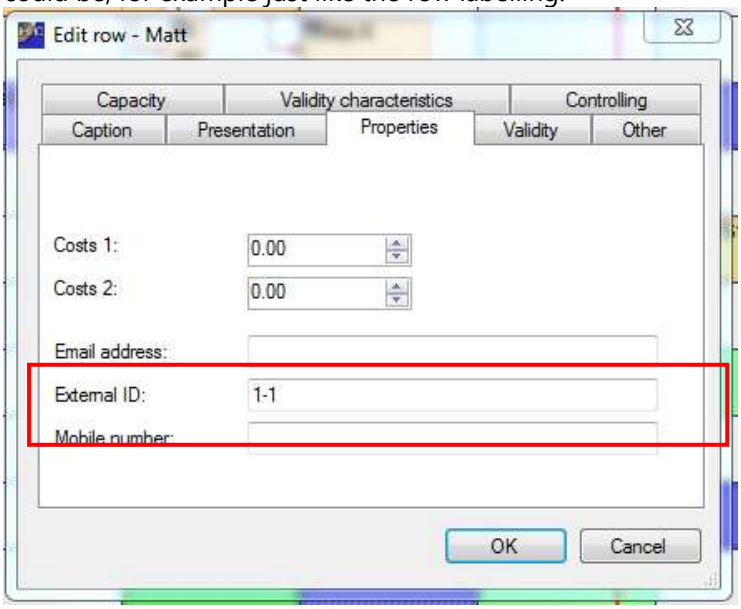
4.3.5.3 Importing Capacities

	A	B	C	D	E	F
1	Operation	ObjectId	RowUid	Service	Capacity	Priority
2						
3	I	12533	1-1	Step 1	1	5
4	I	12781	1-2	Step 2	1	5
5	I	12776	1-3	Step 3	1	5
6	I	12538	1-4	Step 4	1	5
7	I	12543	1-5	Step 5	1	5
8	I	12544	2-1	Step 6	1	5
9	I	12545	2-2	Step 7	1	5
10	I	12779	2-3	Step 8	1	5
11	I	12780	2-4	Step 9	1	5

Operation = 'I' for import
Object ID = chose explicit ID
RowUid = identification of the mentioned row (for an exact allocation of the services/products; see point 4.3.5.4)
Service = product or service that has to be allocated
Capacity = how many products can be realised per hour in a single row or how long does it take to fulfil a mentioned service
Priority = which priority shall be registered? (1 = High)

4.3.5.4 Row ID for Excel Import

In Editing Row Properties you can assign a row ID. This is relevant for imports from Excel (for importing capacities) and databases, not for the labelling anymore. The ID can be selected individually; they could be, for example just like the row labelling.



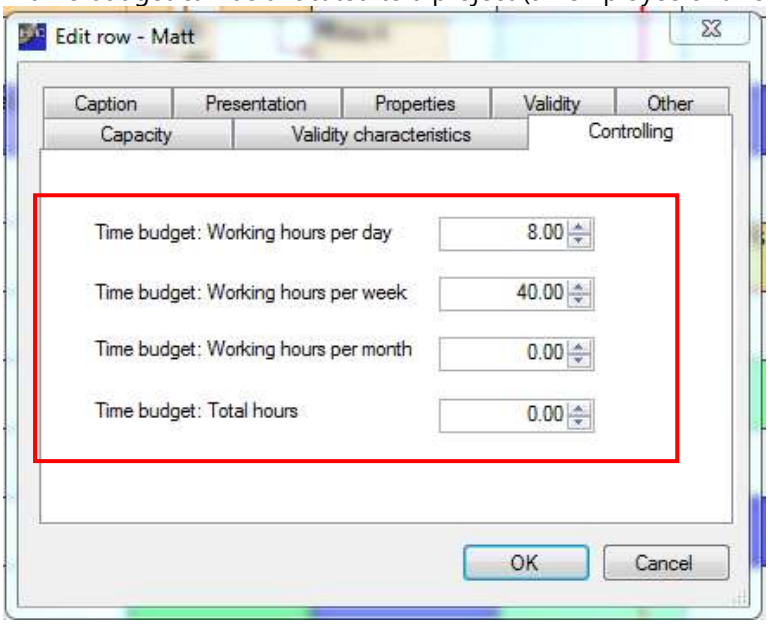
4.4 Menu Module

With additional infoBoard modules the planning board can be extended, the communication can be accelerated and the connections to external system can be established. If you have further queries please contact: info@infoBoard.biz or 040-69 66 486-40.

4.4.1 infoBoard Controlling

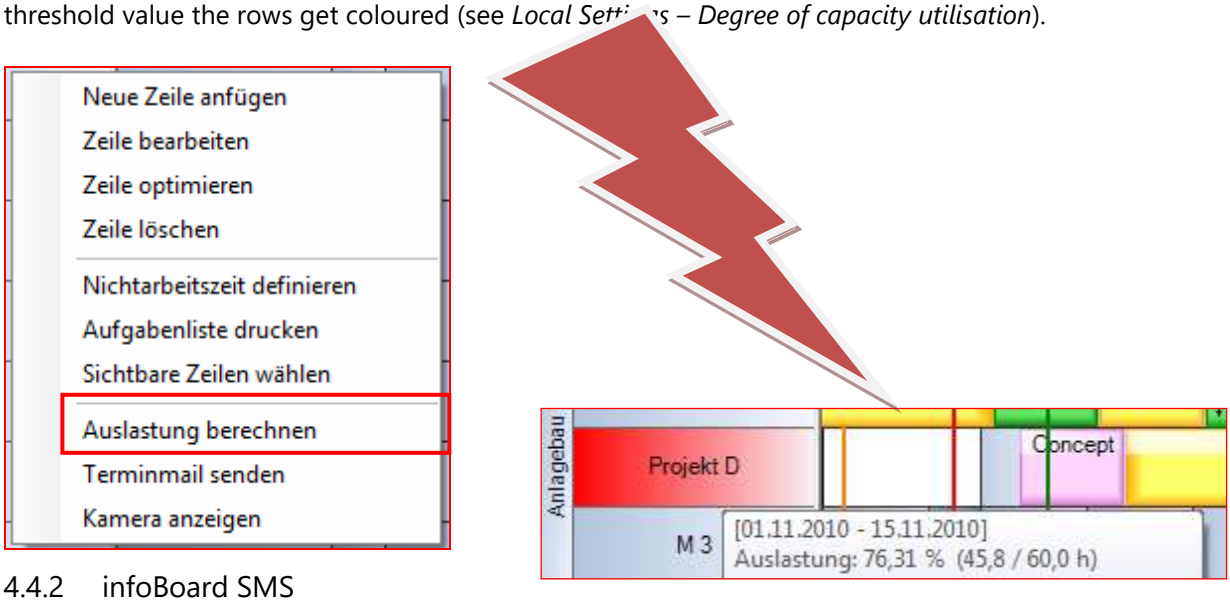
4.4.1.1 Time Budget

A time budget can be allocated to a project (an employee or a row) in Editing Rows - Controlling:



The standard settings are predefined as an 8-hours-day.
With a right click on the row the degree of capacity utilisation can be calculated concerning the time budget and the already planned time. The values (degree of capacity utilisation in percent + actual /

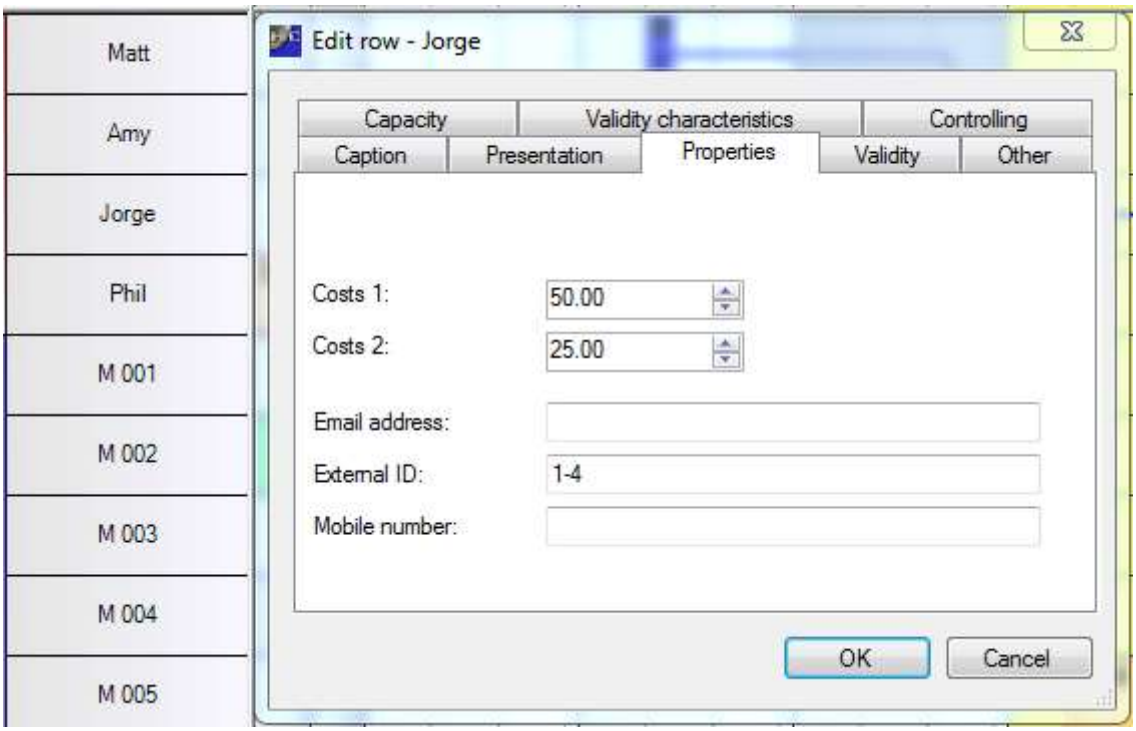
nominal-hours) are shown in the Tooltip (Mouse Over) afterwards. When reaching a predefined threshold value the rows get coloured (see *Local Settings – Degree of capacity utilisation*).



4.4.2 infoBoard SMS

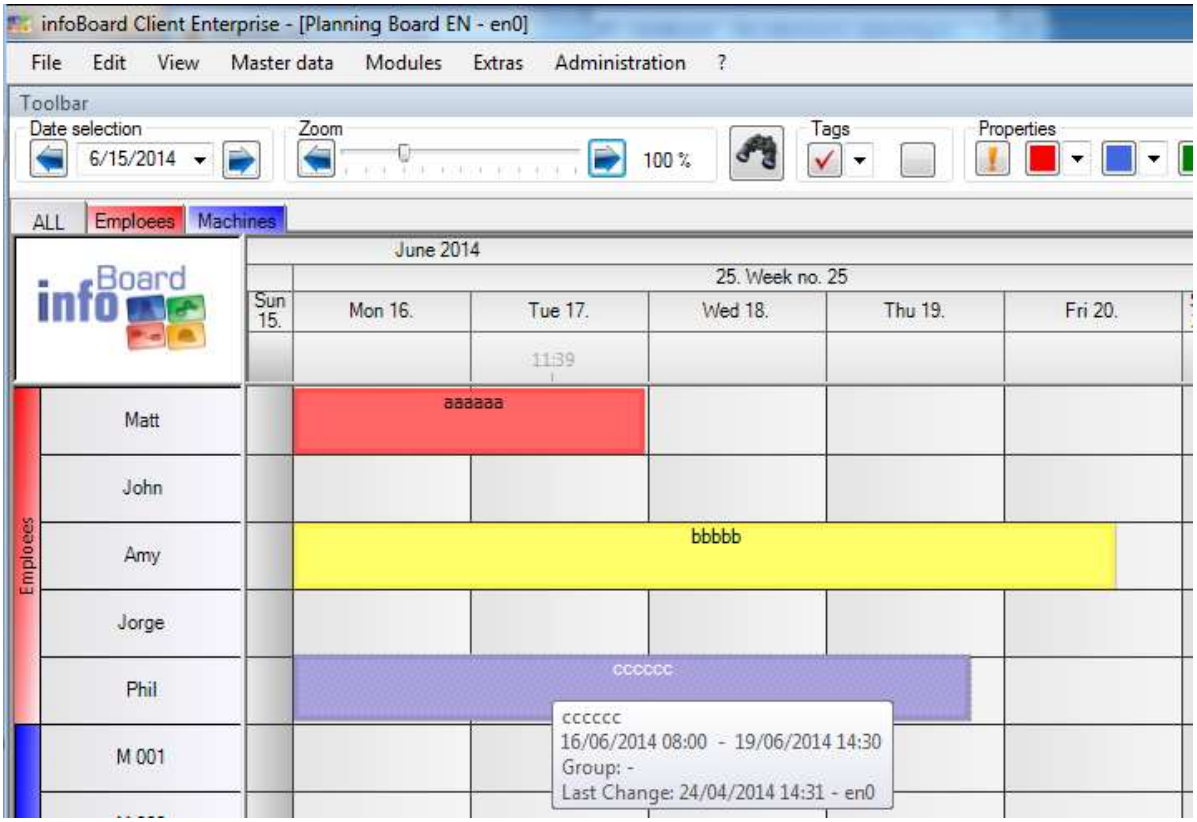
This module gives the opportunity to send planned exercises/orders or texts of single planning objects by SMS. Moreover, information can be sent to infoBoard via SMS and the content is directly illustrated on the planning board. This module is only available with an additional mobile phone contract, a SIM card and a GSM modem.

Register your mobile number to send and receive SMS. The information sent are directly submitted to the planning board.



An example:
An employee sends a SMS containing the beginning of his work.

SMS on the infoBoard:



4.4.3 infoBoard SyncTool

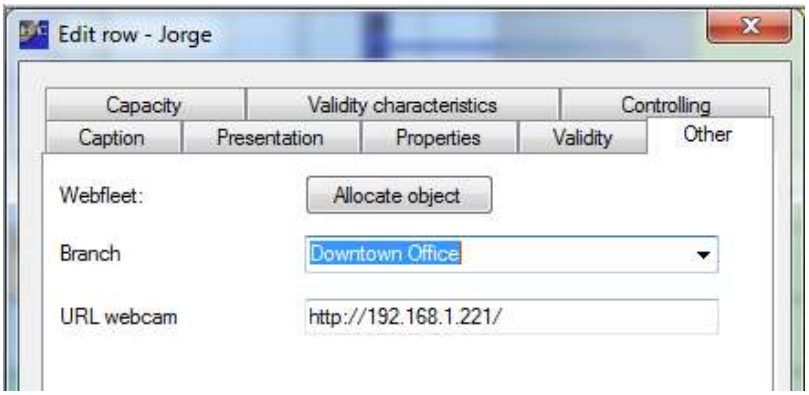
Synchronisation via SQL – Interface:

With the new import interface data from SQL databases can be assimilated in a consistant way. Data from foreign systems can be assigned and **directly placed** in the planning board.
Assigning imported properties to source columns happens via column names of the database. The planning object is automatically placed on the predefined rows and on the right date. The slide is effected by individual norms.

SyncTool is available in two versions: unidirectional (one-way information transmission to the planning board) and bidirectional (information transmission + feedback). Further information concerning this point can be obtained from the brochure infoBoard SyncTool.

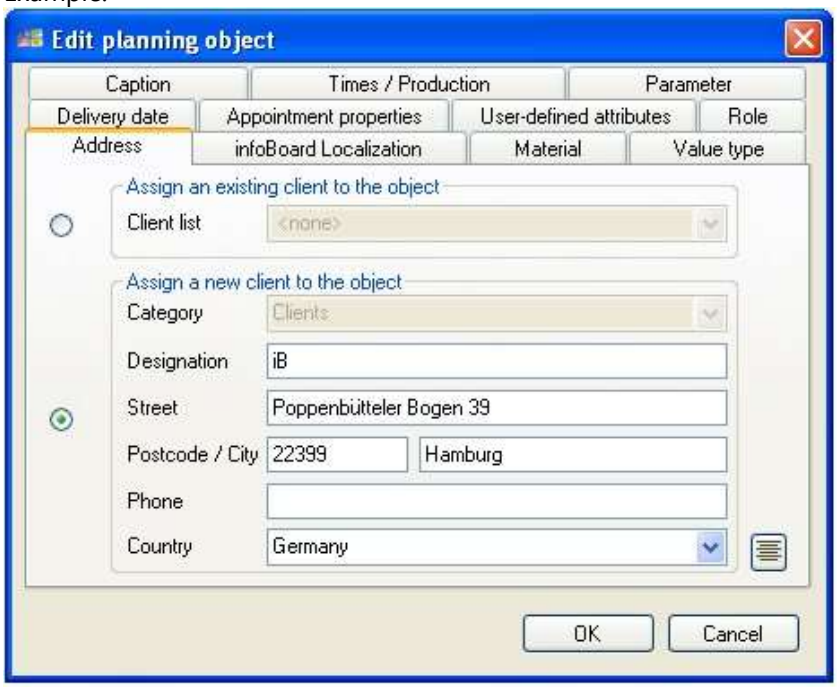
4.4.4 infoBoard TOM TOM Webfleet

This module provides the dispatch of a task via http protocol to the interface of TOM TOM Webfleet.

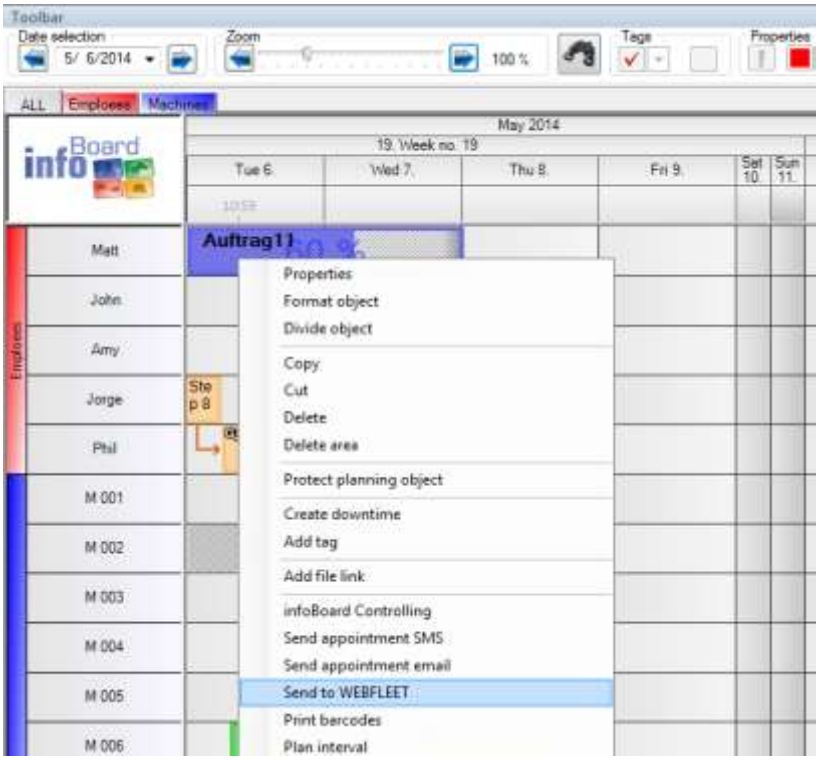


If the Webfleet account is deposited in the Local Settings a Webfleet object can be assigned to a row (Editing Row – Other). With an activated MAP Module, a settlement can be deposited.
The tasks (orders with text declaration and addresses) that are planned on the infoBoard are transmitted to the employee's TOM TOM tool via satellite. A TOM TOM Work Account is essential for this module.

Example:

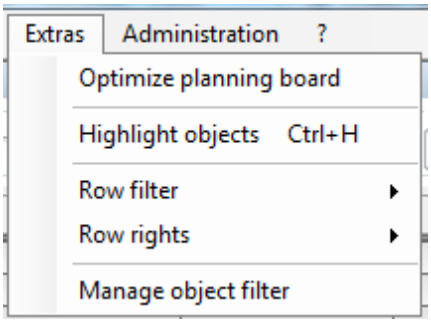


The address where the car should be headed to has to be deposited in the planning object (order) on the planning board. With a right click on the object, the order can be sent.



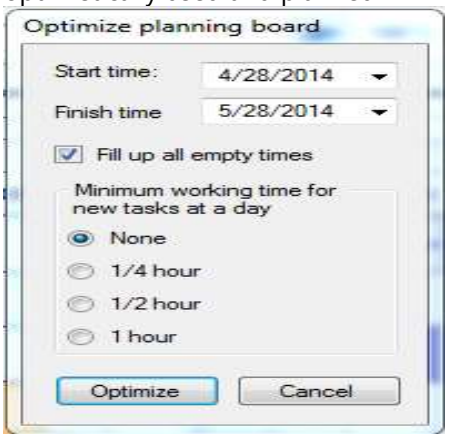
If the sending is successful, the order appears (after actualisation) in the category: Webfleet orders.

4.5 Menu Extras



4.5.1 Optimising Planning Board

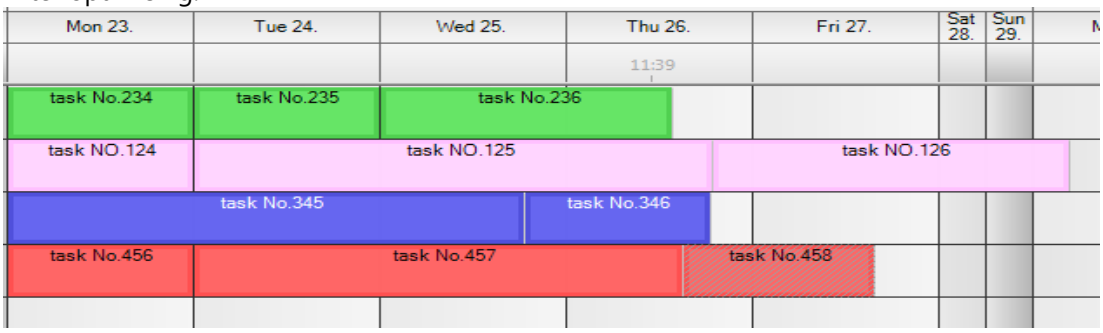
With *Optimising Planning Board* all the empty times - times that have not been planned yet - are filled. That means that the planning objects are shifted backwards and forwards. Working times are optimistically used and planned



Example:

Before optimising:

After optimising:

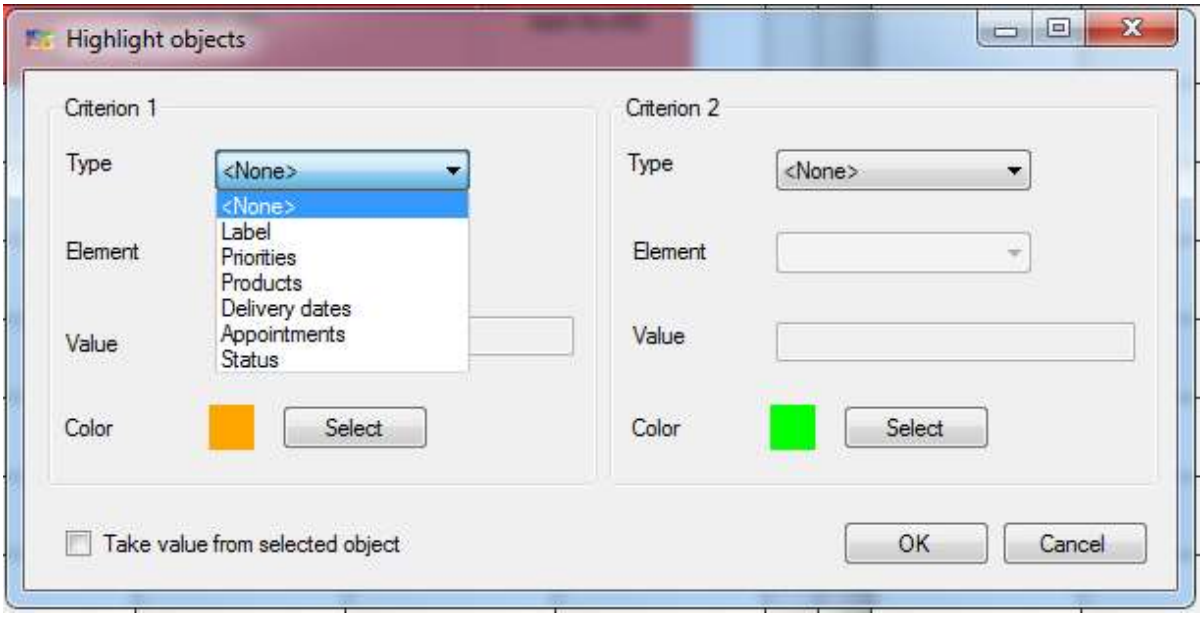


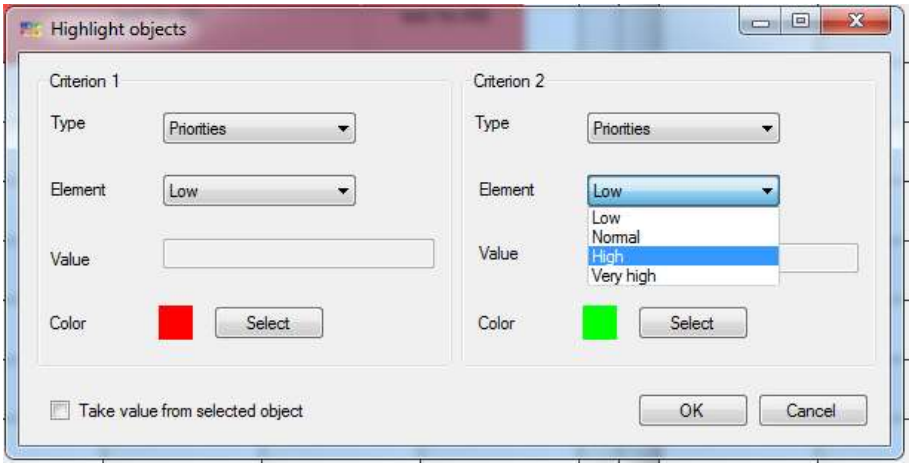
4.5.2 Accentuating Objects

Objects can be accentuated in *Extras - Accentuate Objects* to keep rack of the planning board. This is realised by defining certain objects and all others who do not meet the predefined criteria, are presented with reduced visibility (ie, as if through a frosted glass, transparency setting point 4.6.15). In addition, planning objects that meet the criteria can be highlighted with a coloured "milk glass".
The selection of the corresponding objects can be determined by the following criteria:

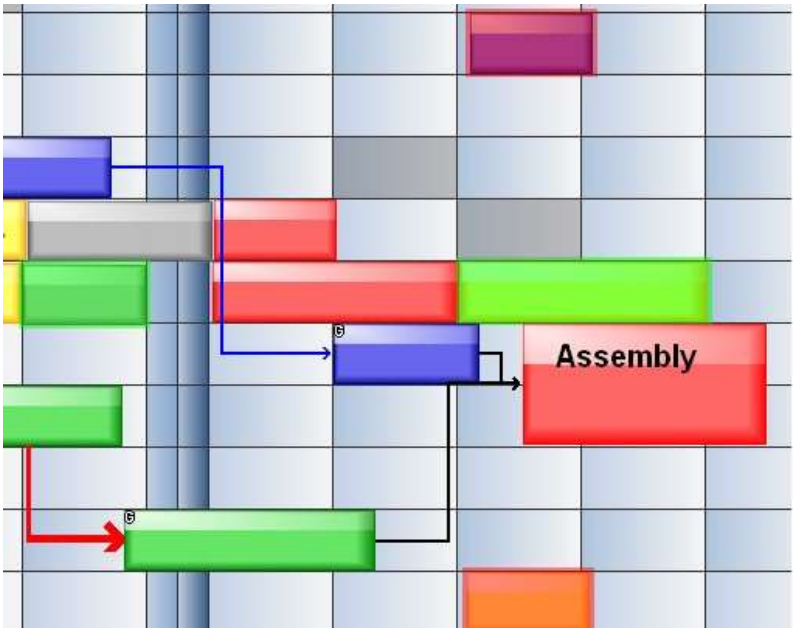
a) Labelling
b) Priorities
c) Products
d) Own Attributes
e) Devlivery Times
f) Appointments
g) Status

Products and user-defined attributes have to be predefined to be available in the Type Selection. If User-Defined Attributes is chosen, an additional value can be assigned to a certain element.
Exapmle: From the user-defined attribute 'customer', the planning objects customers 'Siemens' shall be highlighted. 'Siemens' is also coloured.

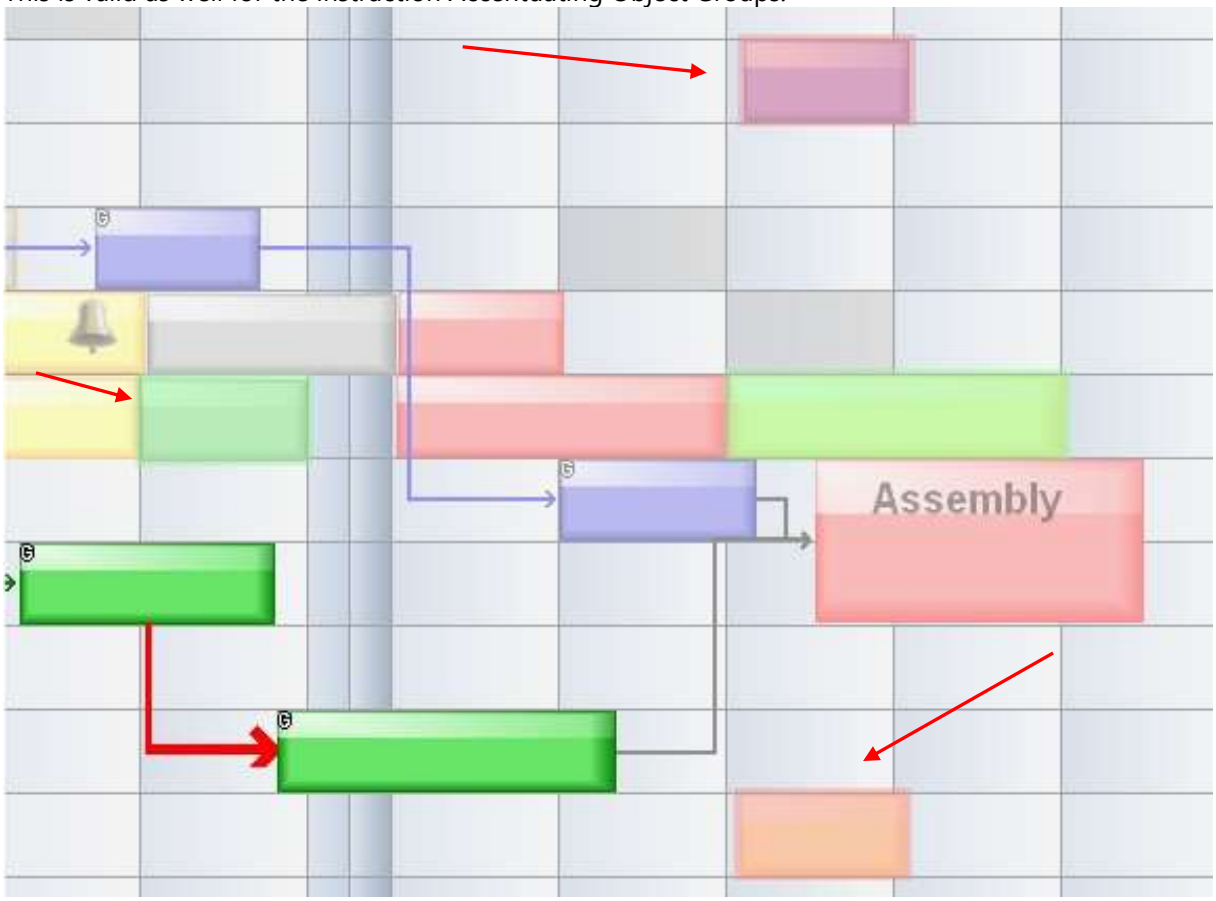




When pressing the **Esc key** the selection will be removed.

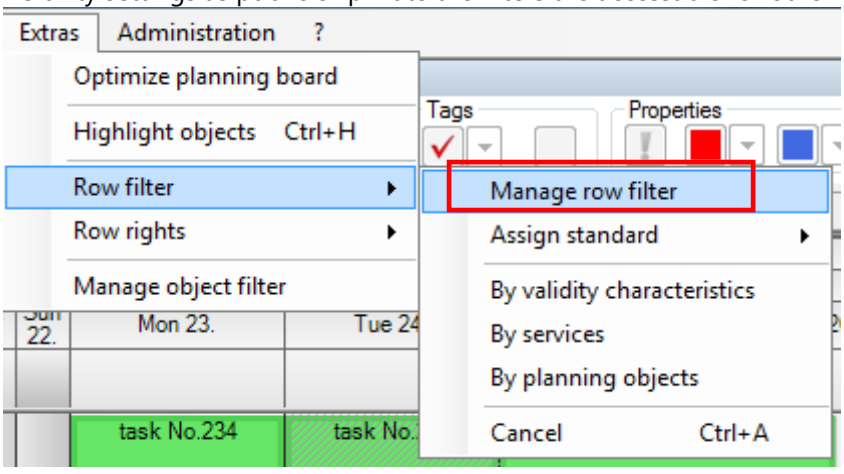


This is valid as well for the instruction Accentuating Object Groups:

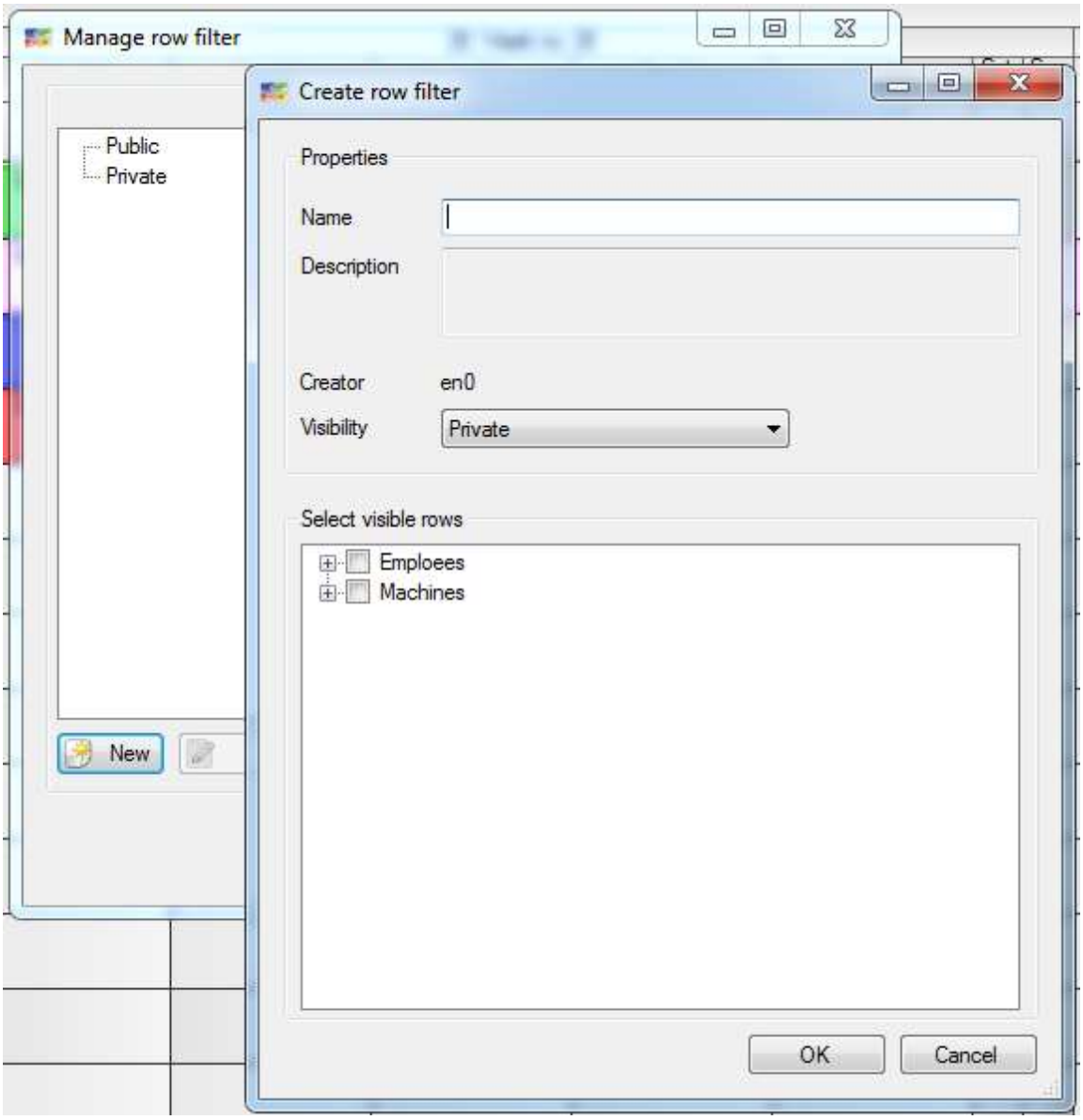


4.5.3 Row Filter

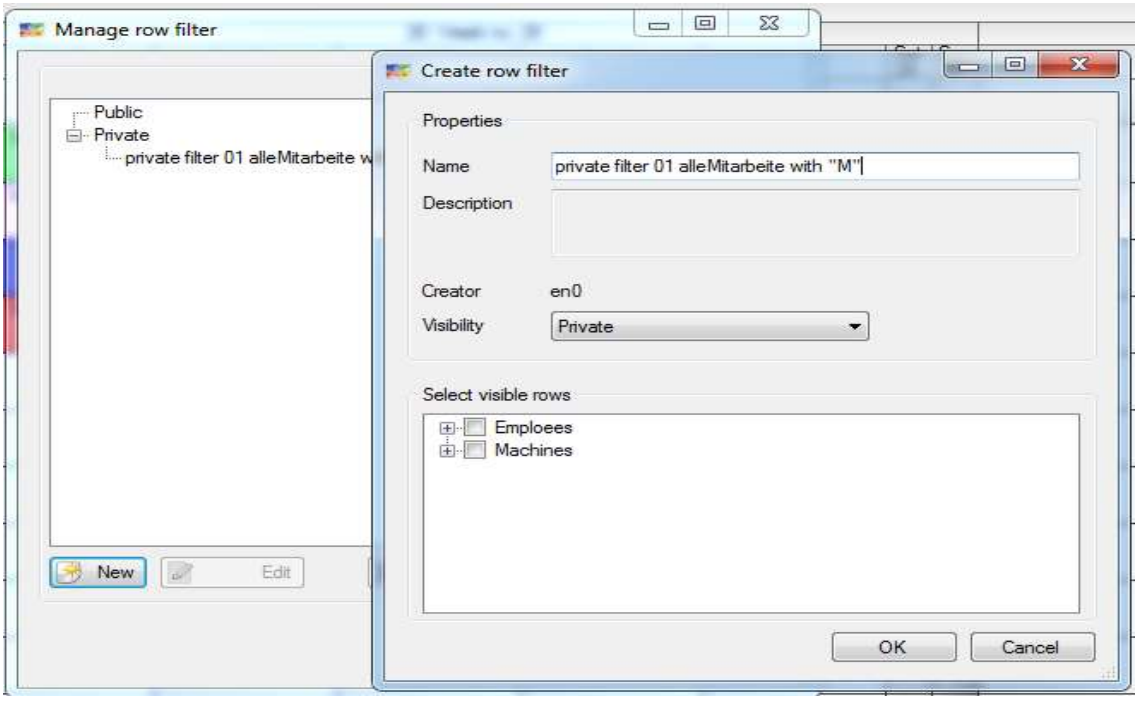
The row filter gives the possibility to illustrate the planning board individually depending on predefined criteria. With this function **Public Filters** (only for owners), **Role Filters** (only for memebers with corresponding role) and **Private Filters** (only for my login) can be created. Depending on the visibility settings as public or private the filters are accessable for other users, too.



- Public Filters:

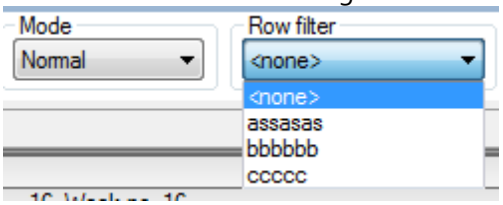

Manage row filter
Public
Private
New
Create row filter
Properties
Name
Description
Creator
en0
Visibility
Private
Select visible rows
Emploees
Machines
OK
Cancel

- Private Filters :



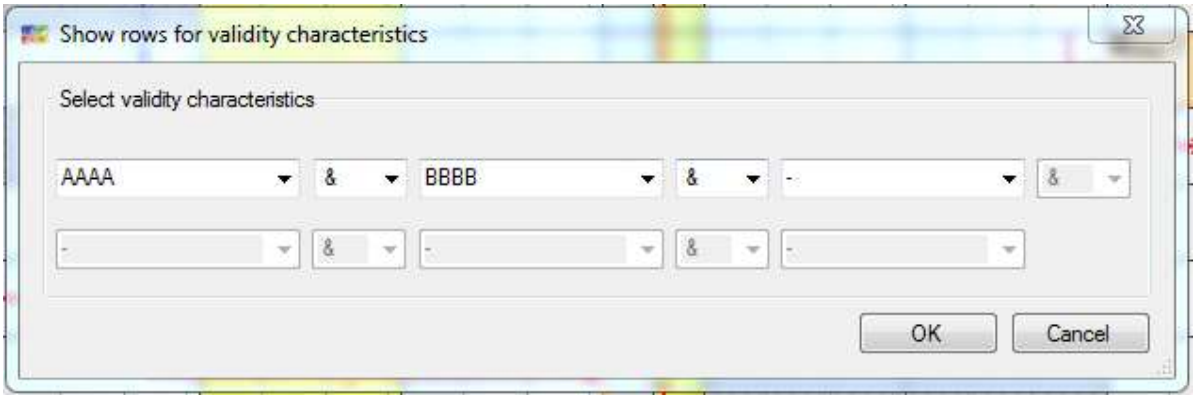
4.5.3.1 Using Own Filters

Row filters can be selected right besides the modes:



4.5.3.2 Row Filter according to Services

The properties that have to be filtered are already known. All rows containing the defined service get filtered.



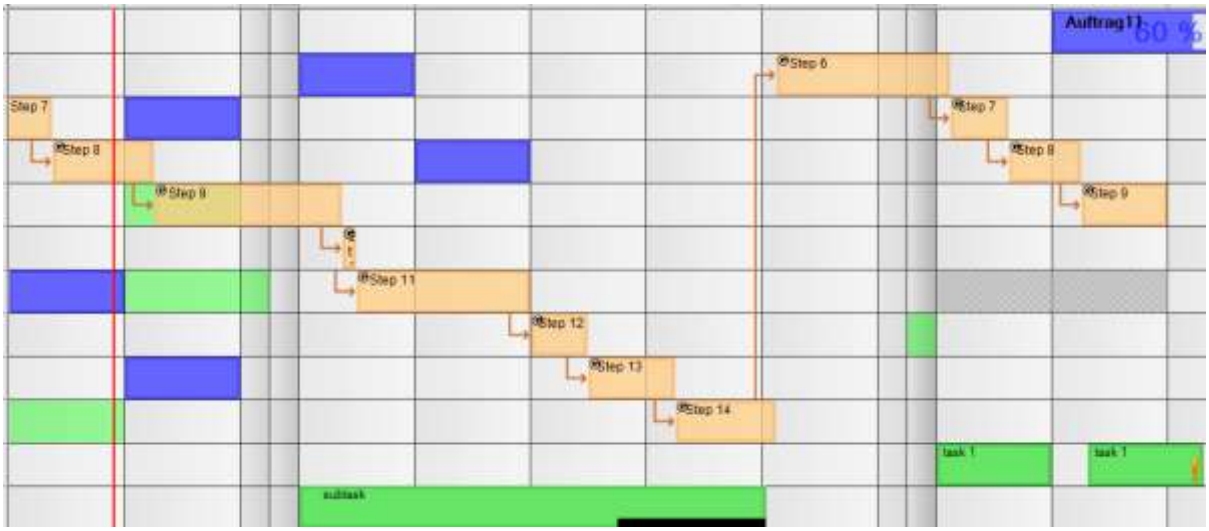
See point **Fehler! Verweisquelle konnte nicht gefunden werden.** *Automatic Product Filter when Shifting*

4.5.3.3 Row Filter according to Planning Objects

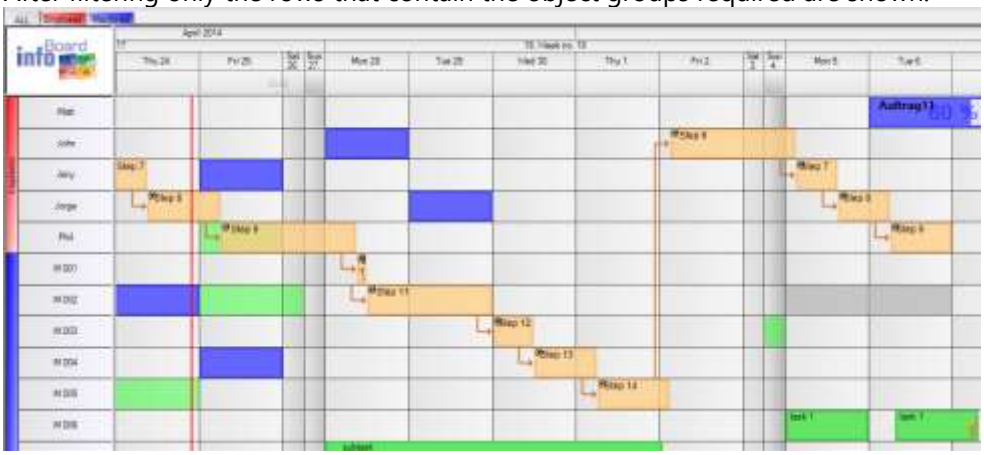
Perfomances that have been established in the planning object itself can be filtered, too. First of all these services have to be registered in Master Data - Service Administration. Only if there are planning

objects on the planning board containing one of the registered services the corresponding filter can be applied.

Row Filter for Object Groups
Object groups as work flows can run through several sub-steps in different resources. Especially when the number of resources planned is quite high keeping rack of some orders or projects (object groups) becomes difficult. The view can be filtered on the mentioned rows with a right click on the object group to make it easier:

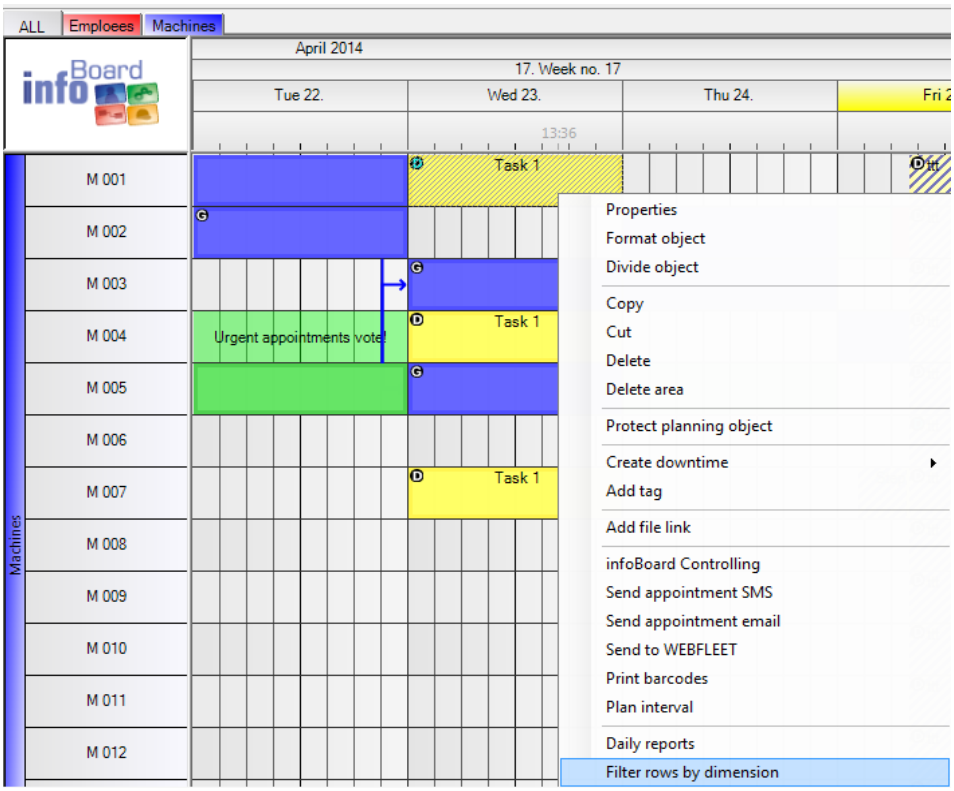


After filtering only the rows that contain the object groups required are shown:

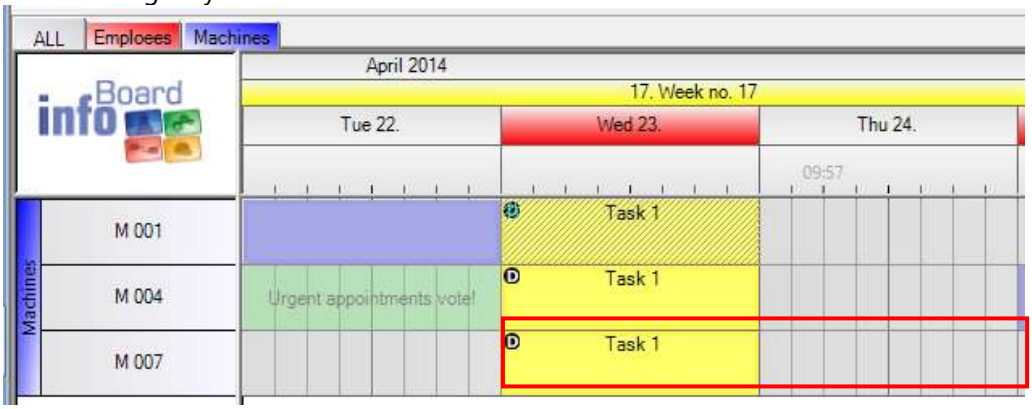


4.5.3.4 Row Filter according to Dimensions

With a right click on a multidimensional planning object the dimensions of a task can be filtered whereat the other rows are blinded out:



After filtering only the the mentioned rows are shown:

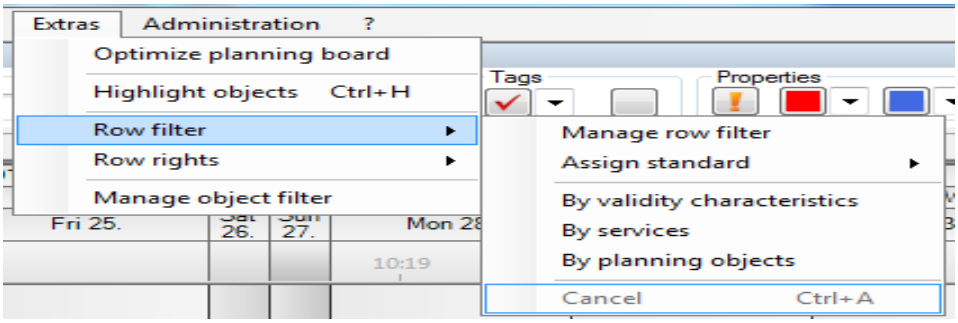


4.5.3.5 Row Filter according to Validity Features

The rows get filtered according to the characteristics deposited.

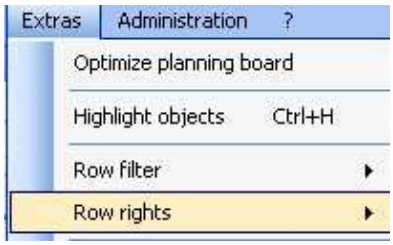
4.5.3.6 Removing Row Filter

In the menu or with *Ctrl + A* the row filter can be removed:

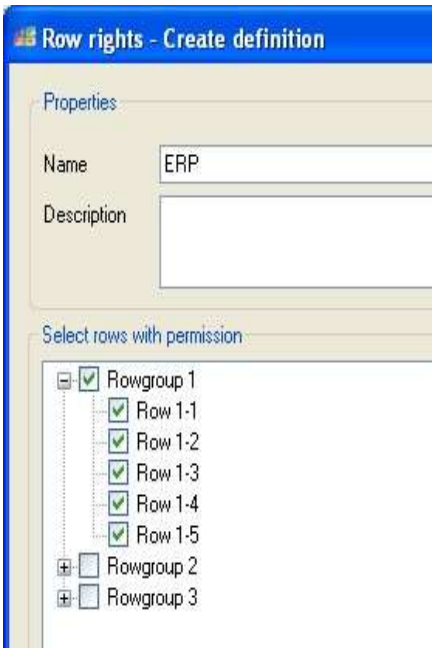


4.5.4 Row Authorities (only in EE Version)

Row authorities are defined and allocated to prohibit the write permission for rows.

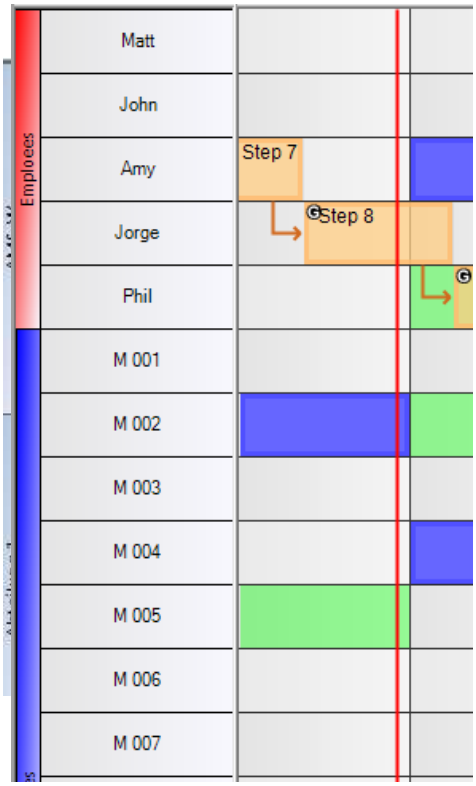


First the definition:



Then the allocation:

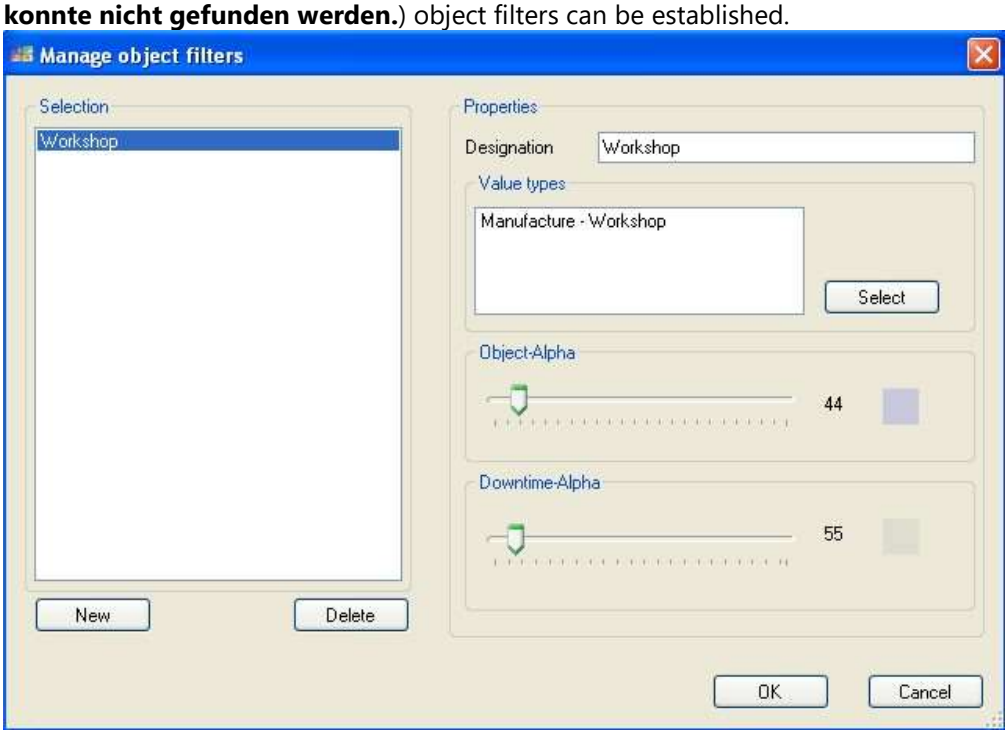
The rows that cannot be written on are provided with a lock. The user who is confined to this filter (see status row) is not able to place planning objects on this row (see red presentation).



The combination of limited writing roles, row filter and row authorization, and the individual protection of a planning object make a differentiated rights management possible.

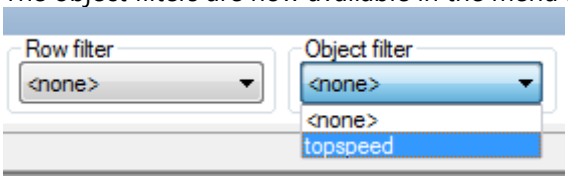
4.5.5 Managing Object Filter (only in EE Version)

If Type Values have been created in *Administration - Type Definition* (Point **Fehler! Verweisquelle konnte nicht gefunden werden.**) object filters can be established.



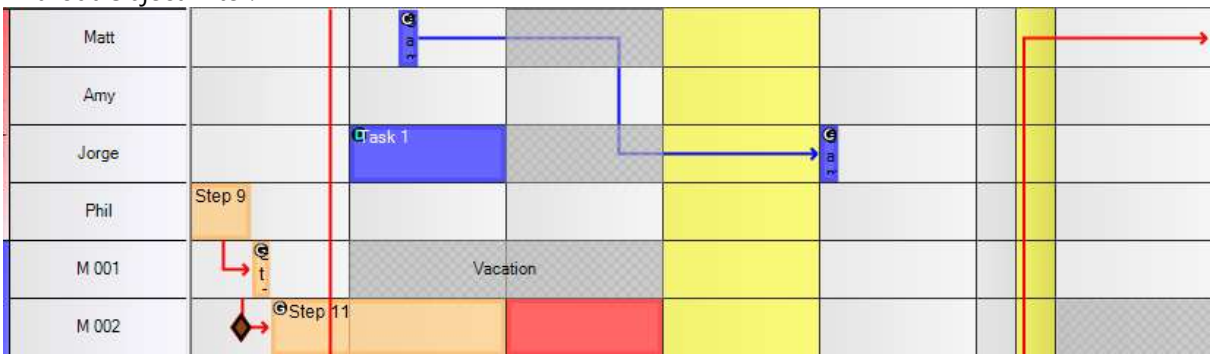
The object filter has to be denominated and type values need to be assigned. Furthermore, the transparency of other objects and idle times on the planning board can be set when filtering.

The object filters are now available in the menu bar:

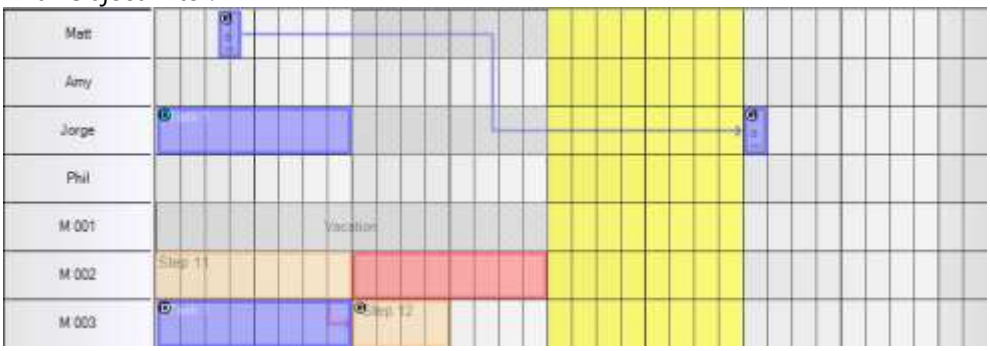


To adopt an object filter the type values have to be assigned to the objects (see point 0). Now you can use an object filter.

Without Object Filter:



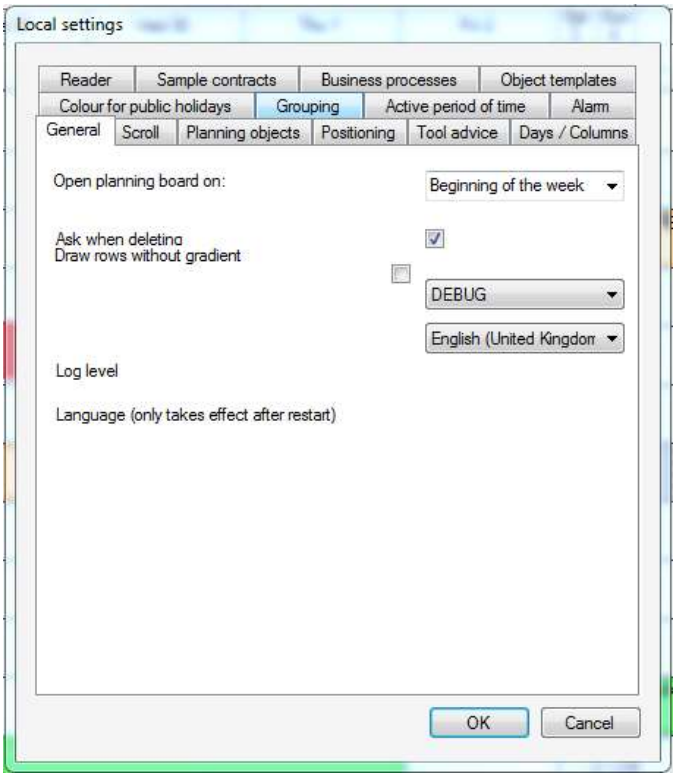
With Object Filter:



4.6 Menu Administration – Local Settings

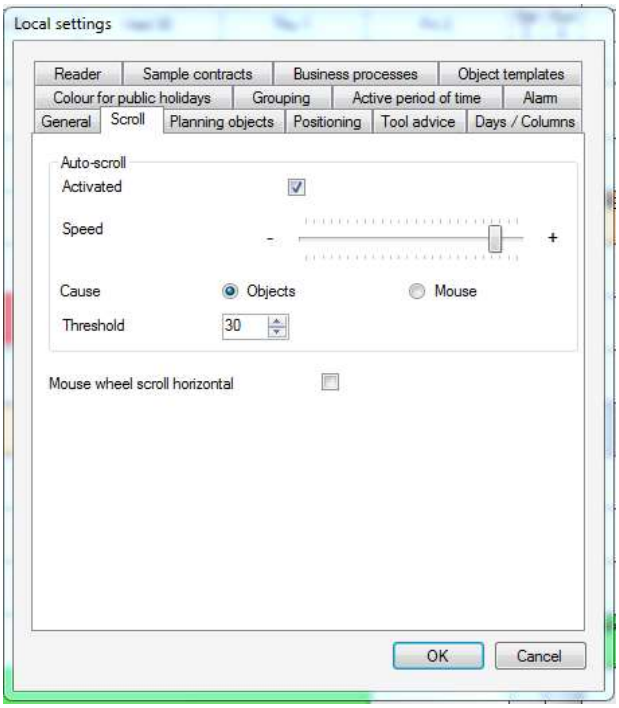
4.6.1 In General

The Local Settings differ from the Global Settings because they are only adjustable for the local individual user account. With this function, every user has the possibility to have the planning board individually illustrated. General planning board settings (e.g. Calendar etc.) are determined in the Global Settings. In case that a large screen is only running with a read permission but needs a special adjustment, they have to be set by another user account with more rights if necessary. Users with read permission only possess restricted access to the settings.



- In General Settings – Opening Planning Board On, we can define from which point in time we would like to have the planning board illustrated: *lastly closed, today, beginning of the week, beginning of the month.*
  This setting is important to keep track over the value-added process so that tasks initiated but also outstanding tasks do not disappear from sight.
- The language can be changed here from version 2.6. However, this modification only becomes active when restarting the planning board.

4.6.2 Scrolling



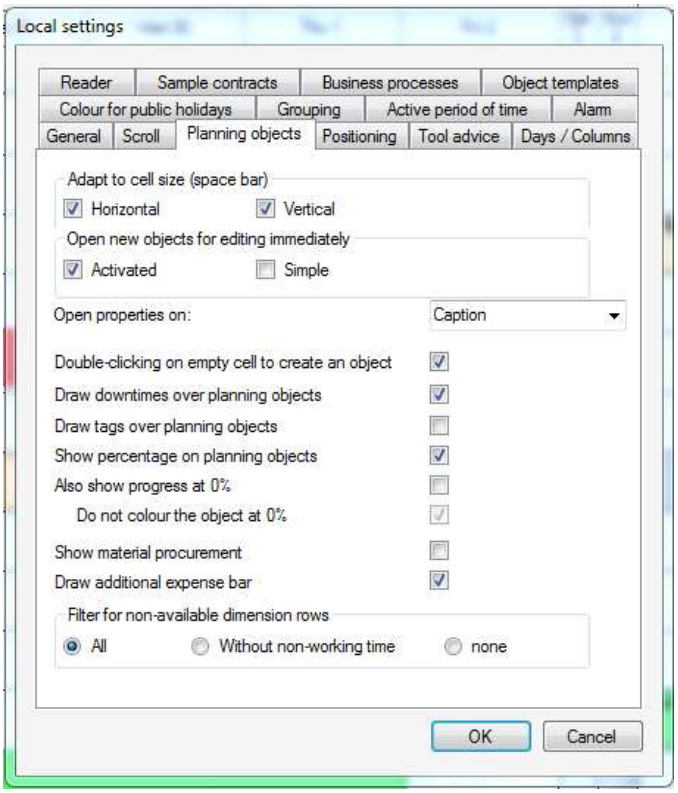
- The autoscroll activator prevents an uncontrolled scrolling initiated by an object.

- When scrolling with the mouse scroller horizontal the mouse function is redefined. The visible planning board section is then shifted horizontal not vertical.

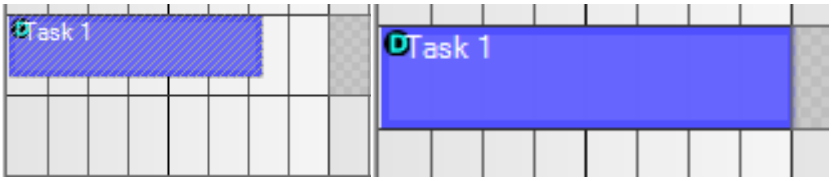
You can scroll horizontal with Shift + mouse scroller.

4.6.3 Planning Objects

The planning object's behaviour can be individualised here.



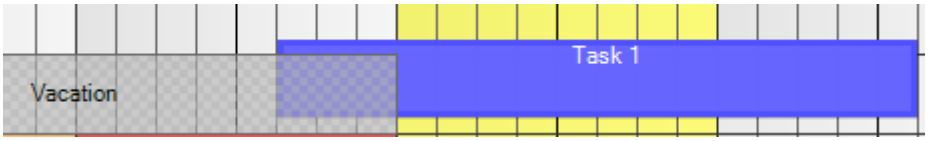
- An object is automatically attuned to the cell size when selecting it and hitting Space at the same time if this function is activated.



- It is possible to choose on which tab the settings are opened when opening new objects directly for editing.

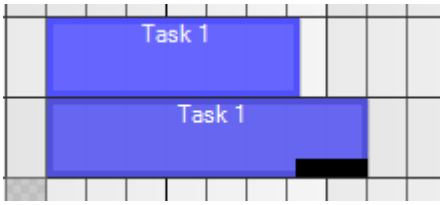
- With Drawing Downtimes on Objects, the presentation of an object is changed as follows (this setting is available for labellings, too):
  Deactivated:

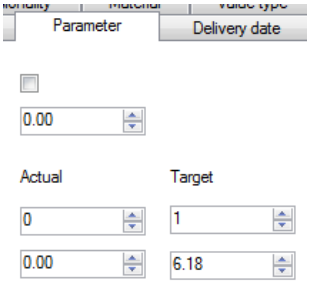
  Activated:

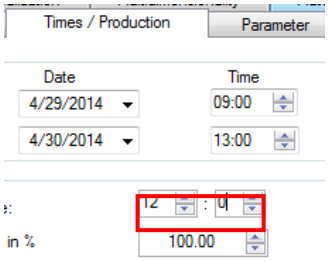


- Shall the calculation values be illustrated as nominal-actual-value (not percent) deactivate *Show Percentages on Planning Objects*!

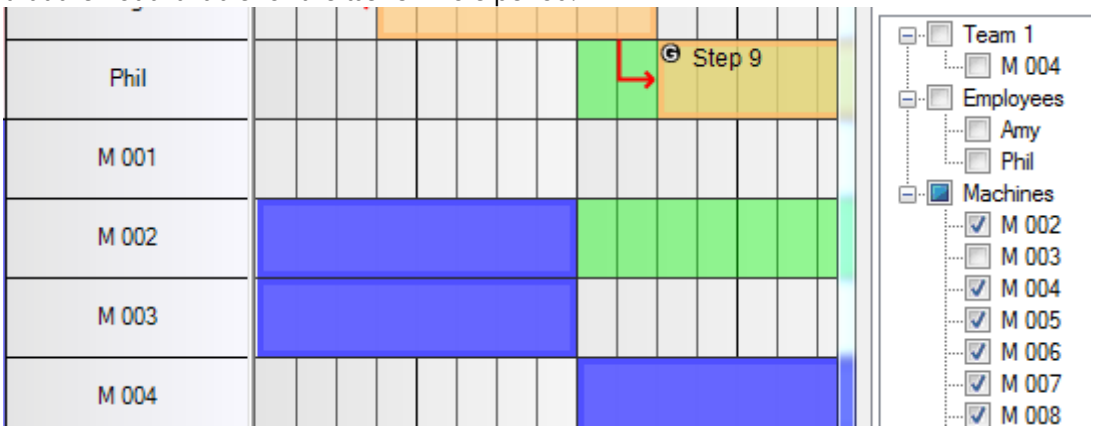
- The additional expenses bar is a black bar on the planning object. Additional expenses are calculated working time minus nominal value.

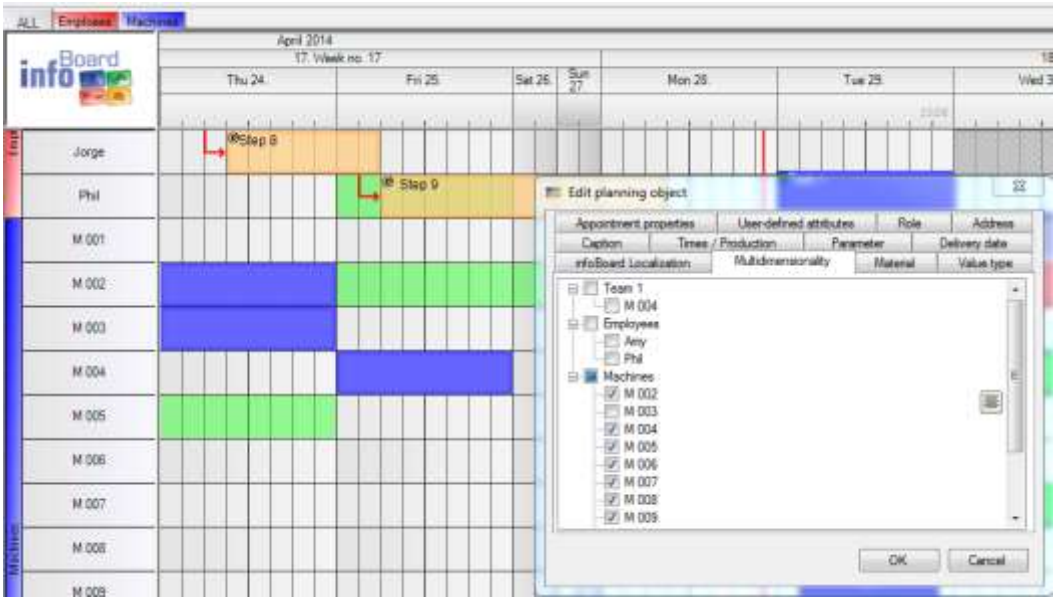




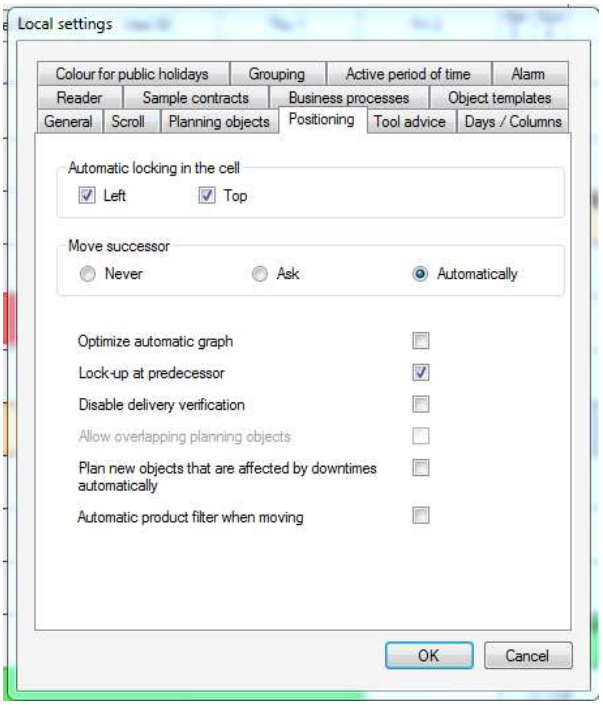


A double occupancy becomes impossible as the filter for free dimensions fades out all dimensions that are not available for the task's whole period:





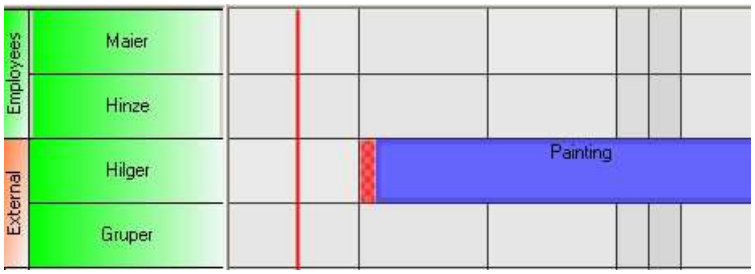
4.6.4 Positioning



- Planning object's lock behaviour
- With **Shifting Successor**, every user can determine the next planning object's (successor) behaviour by himself. This function is automatically activated. Even when extending a planning object this presetting would act. When shifting planning objects into the future, gaps between the single objects are automatically closed. This function can include an optimisation when it is activated.
- **Automatic Graph Optimisation,** when hitting an object in a group or graph.
- **Lock in predecessor object** or **overlapping planning** (requirement: *Shifting Successor= Never*) can be adjusted.
- The functionality of **delivery dates** can be oppressed.
- Planning objects can be replanned if they are **hit by a downtime**.
- When shifting the objects, you can adjust **product filters** (only in EE version)

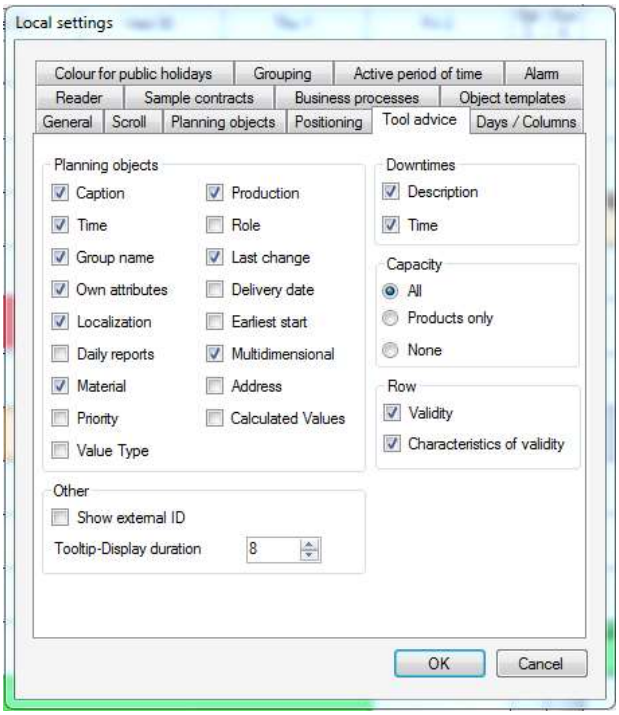
Without filter:

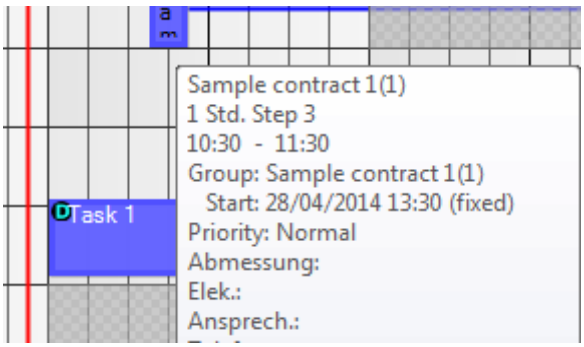
With Filter:



4.6.5 Tooltips

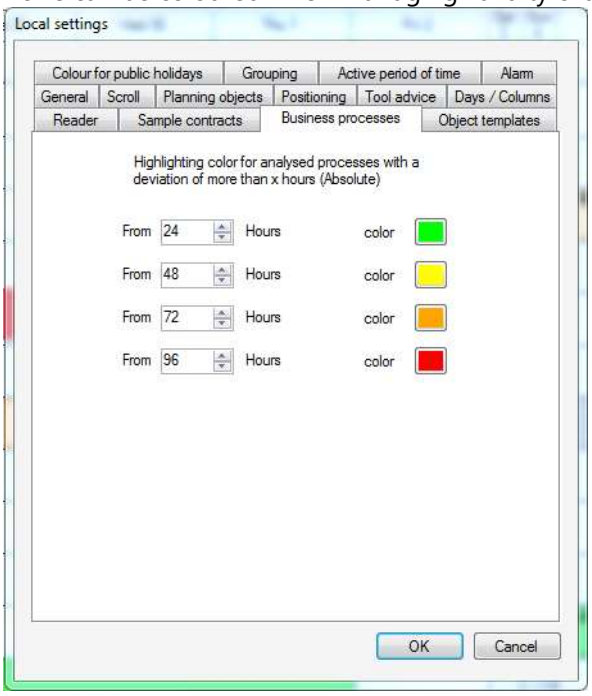
Rows and planning objects can receive further information in the background that is important for planning. You can have tooltips illustrated to prevent labelling every information. Information that is activated as tooltips (for planning objects, downtimes or rows) is visible when moving the mouse over a corresponding object.





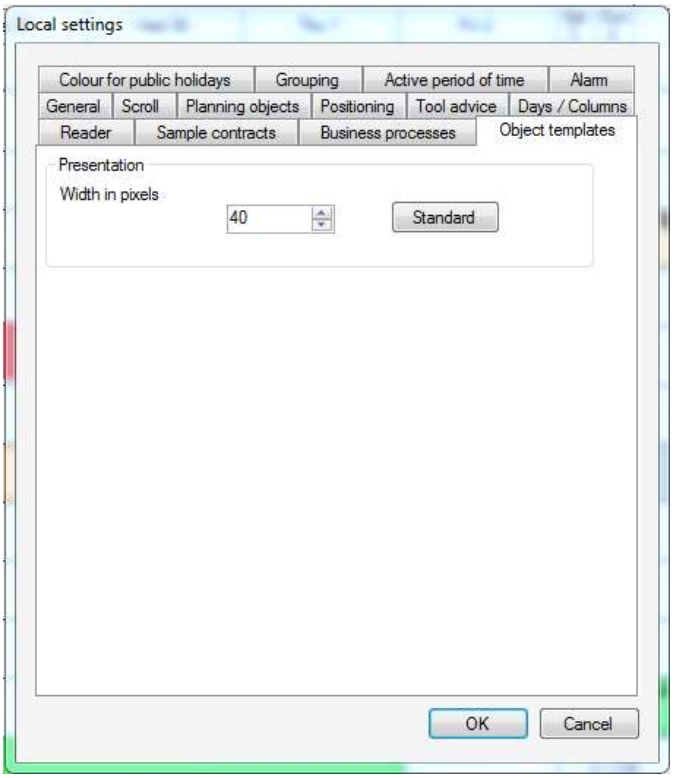
4.6.6 Business Processes

Rows can be coloured when managing validity characteristics (Point 4.3.4).



4.6.7 Object Templates

You can modify the object template's size for the panel in this menu.



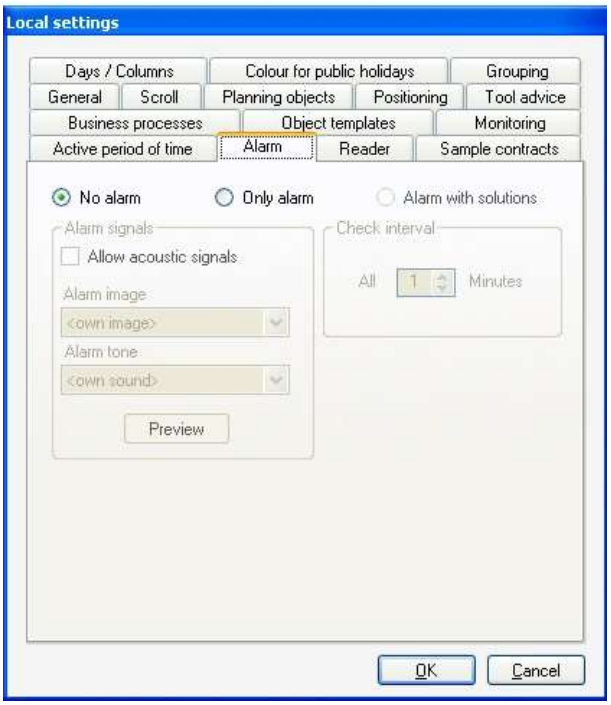
4.6.8 Supervision (only in EE Version)

You can adjust the planning object's behaviour that have not been terminated so far and that lay behind the daily line.

- **Checking interval**: How often shall the planning board check if an object has been terminated?
- **Test range**: How far in the past, shall the planning board check for the objects?
- Which **tag** do you use for the termination note?
- Shall the open planning objetcs be **shifted** or **extended**?

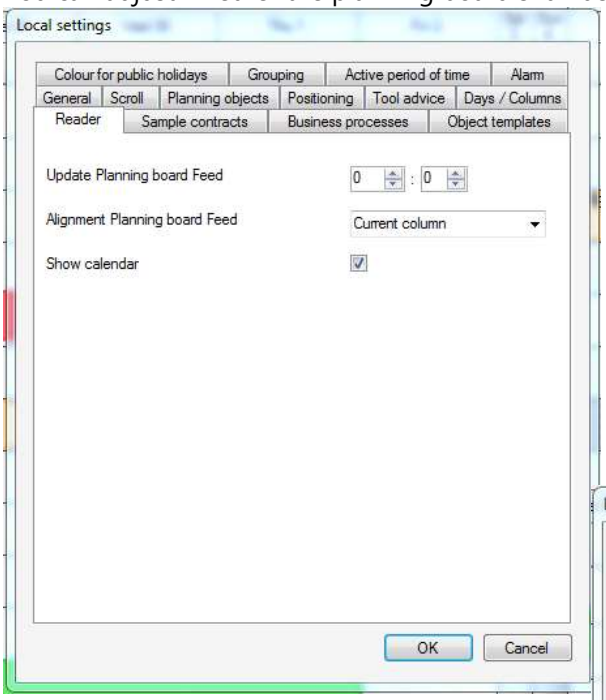
4.6.9 Alert

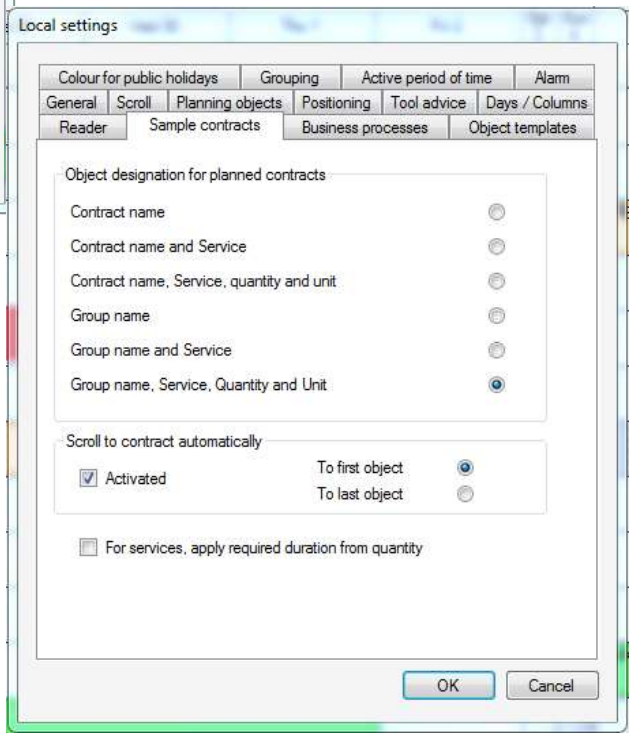
Alerts can be activated and administrated in Local Settings. Further settings are available in Administration - Rules.



4.6.10 Reader

You can adjust whether the planning board shall be automatically updated when shifting.

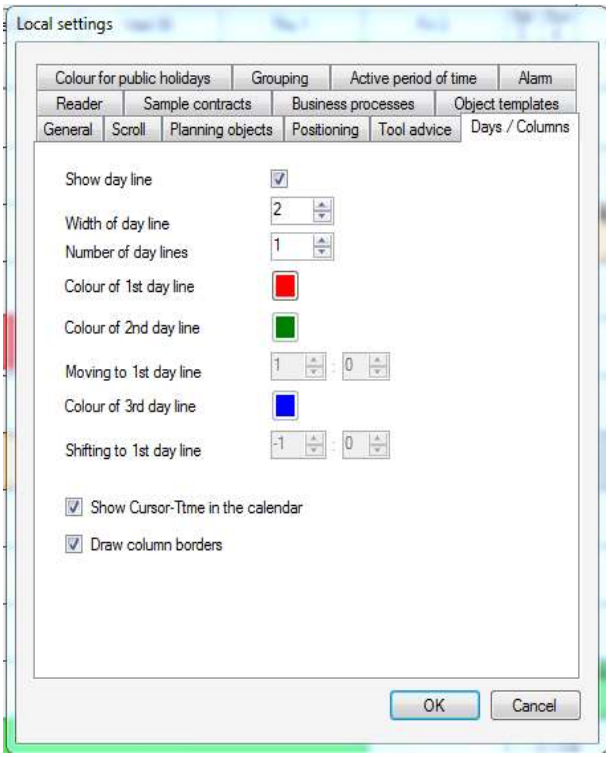




4.6.11 Sample Orders

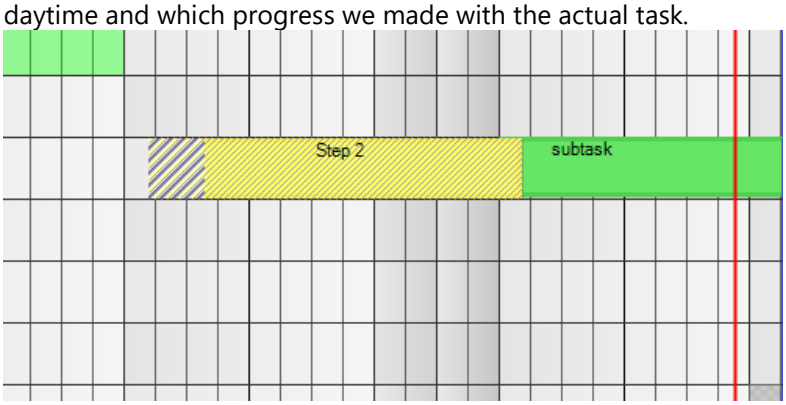
You can define the **object labelling for sample** orders here and automatically scroll to the first or last object in the group and whether the planned time, so target time shall be entered (affects overhead beams point 6.1.2).

4.6.12 Days / Columns

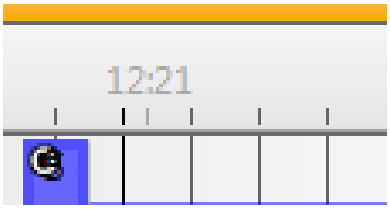


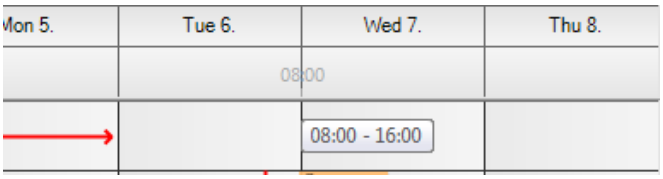
You can draw up to 3 daily lines to illustrate different world times e.g. USA, Germany and China.

The daily line shows which planning object is executed by whom. Tasks (planning objects) are placed at the intersection of time (calendar / columns) and resources (rows). The daily line show the actual daytime and which progress we made with the actual task.

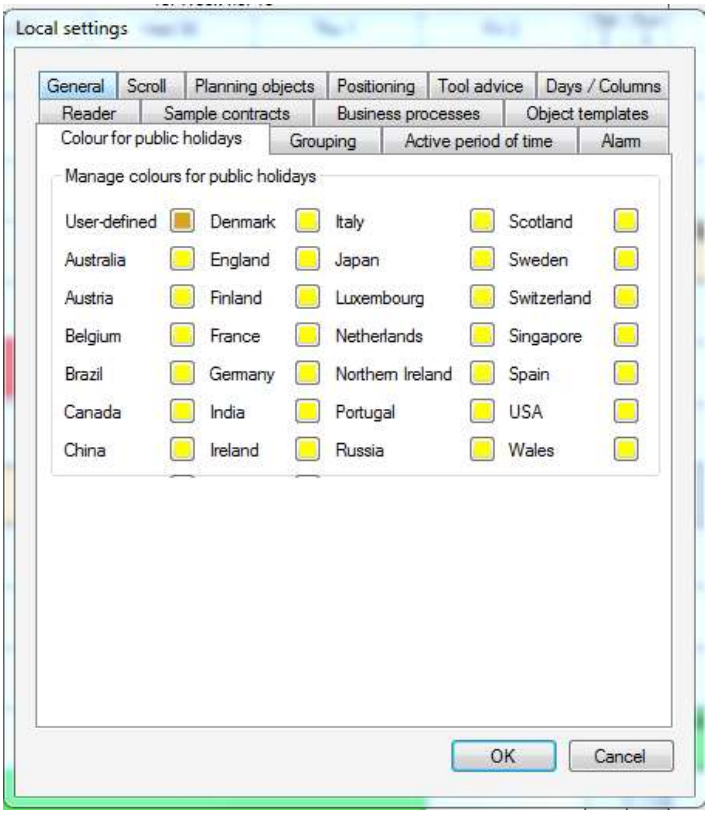


There is the possibility to display the cursor time in the calendar and it it is also possible to hide the column boundaries (lines).



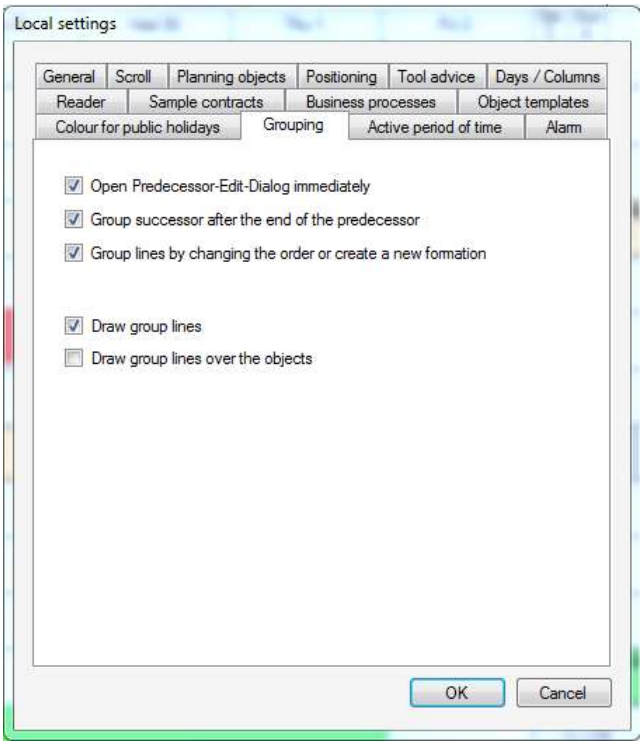


4.6.13 Holiday Colouring

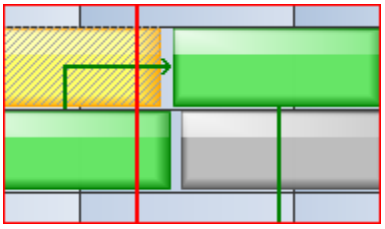


4.6.14 Grouping

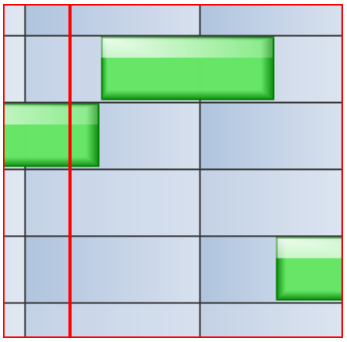
You can define the navigation behaviour of objects in an object group.



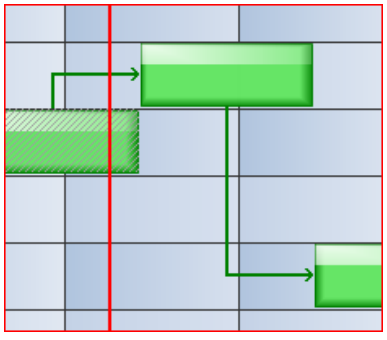
- Upon activation of the first function, the predecessor editing dialogue will be opened automatically when creating a connection between two engineering objects (to a graph).
- If a shifting of a planning object beyond its corresponding predecessor shall be prevented the function group-successor is activated at the end of the predecessor.
- If the order of group objects (Edit Object Group) is changed, the group of lines is to be re-created.
- Showing group lines can be pre-characterized by the activation or deactivation of the Drawing Group Lines function; furthermore, whether these should be drawn over the objects or not.



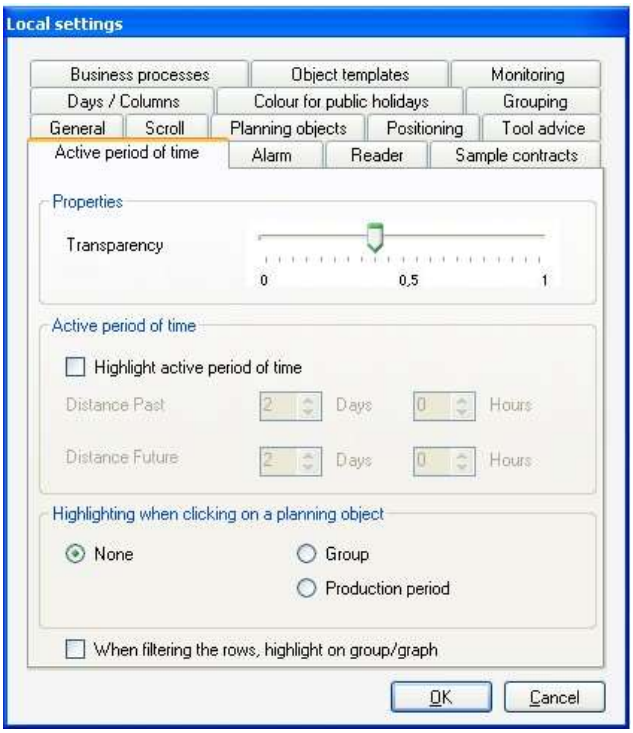
without group lines:



with group lines:

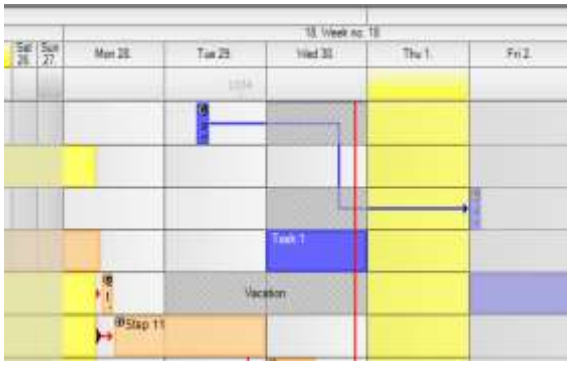


4.6.15 Accentuating

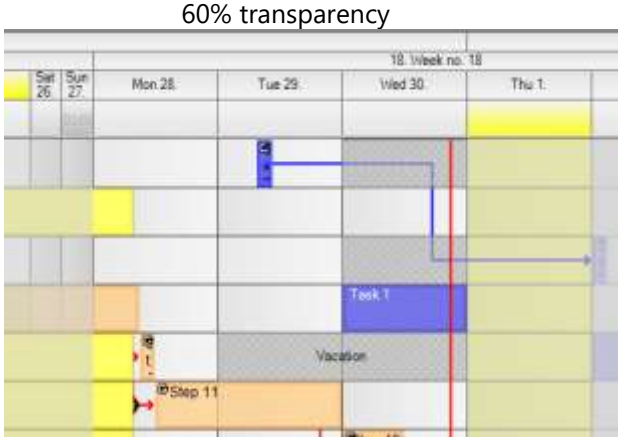


- You can set the **Transparency** for the accentuations (accentuating graph, accentuating production period, active period…) here.
- To accentuate the value creation period (**active planning timeframe**) you can accentuate the current planning process. Now the focus lies on the tasks with a value creation process.

10 % transparency



60% transparency

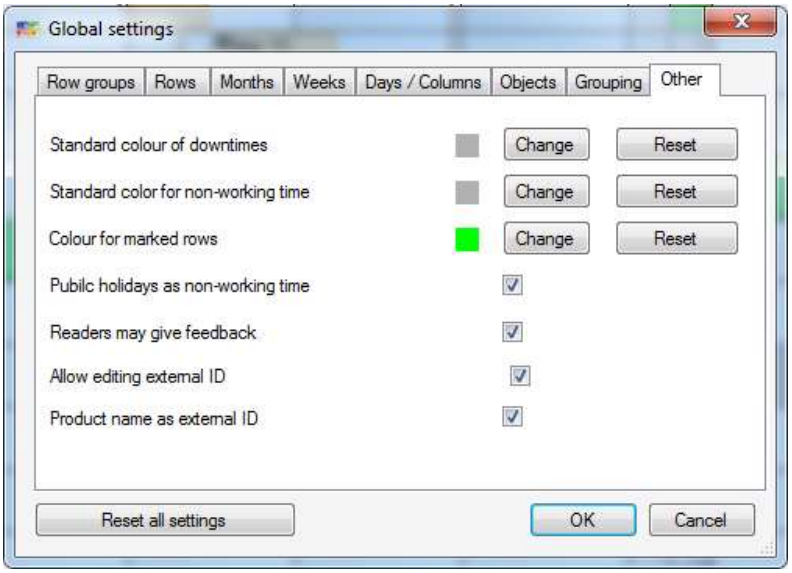


- You can also define whether **object groups are automatically accentuated when clicking on them** or that **production periods are accentuated** if earliest start and/or delivery date is deposited
- Furthermore, when **filtering on graphs or groups** the group/graph desired is **automatically accentuated**.

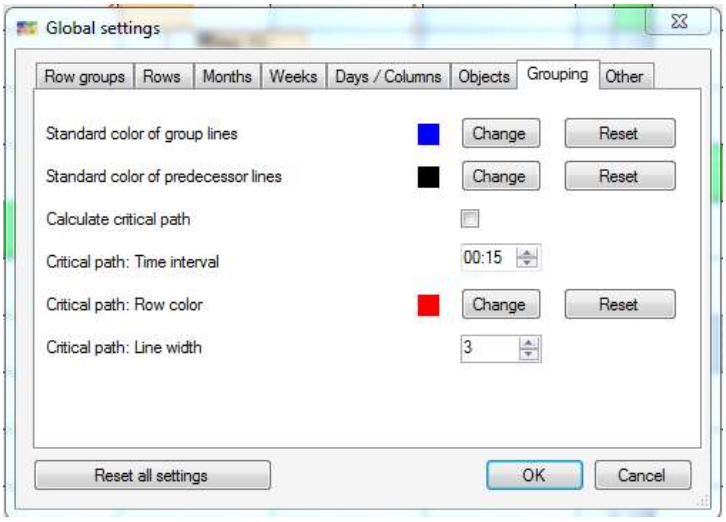
4.7 Administration Menu – Global Settings

You set up global settings that concern all users. Colours, standard sizes, labellings and typefaces are deposited here.

4.7.1 Other



4.7.2 Grouping



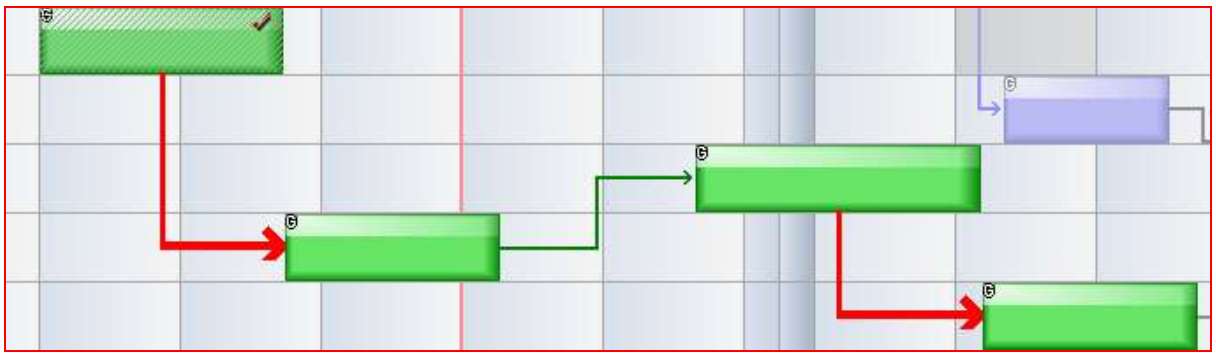
4.7.2.1 Critical Path

From version 2.7, it is possible to let **critical time intervals** between the single planning objects be illustrated. Therefore, you have to activate this function in *Global Settings – Grouping*:

Time intervals, line colour and line width can be individually defined. 15 minutes is standard limit for the time interval setting and the standard colour is red. That means, in case that two planning objects get too close and end up in a cricital situation their connection line gets automatically red an thicker.

4.7.2.1.1 Charting Critical Paths

If the interspace between two objects reaches the limit, the planning board draws automatically a thicker red line. (Here: line width 5)

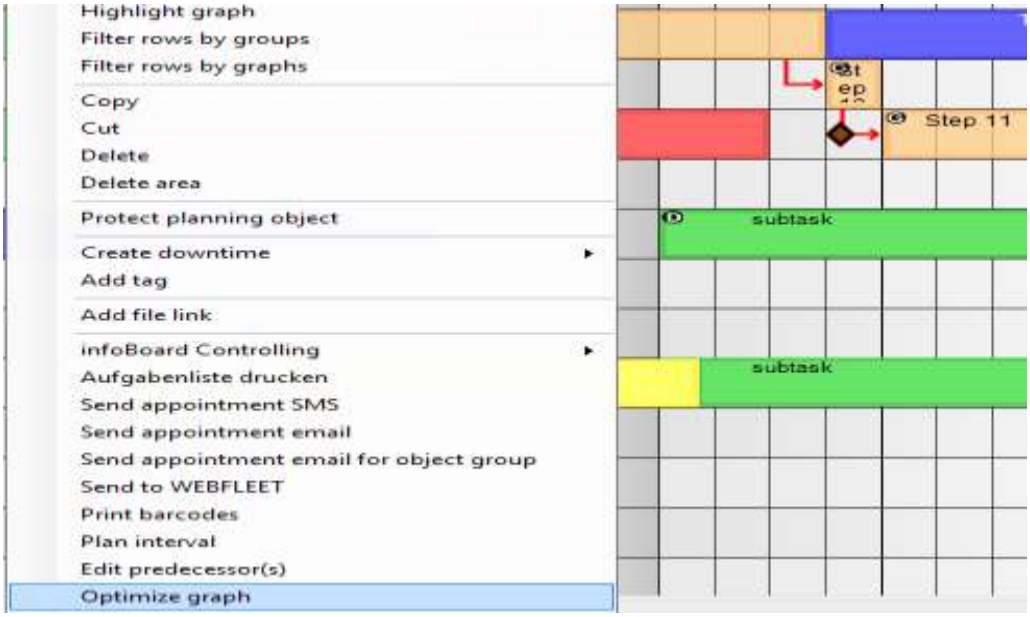


4.7.2.1.2 Optimising Graph

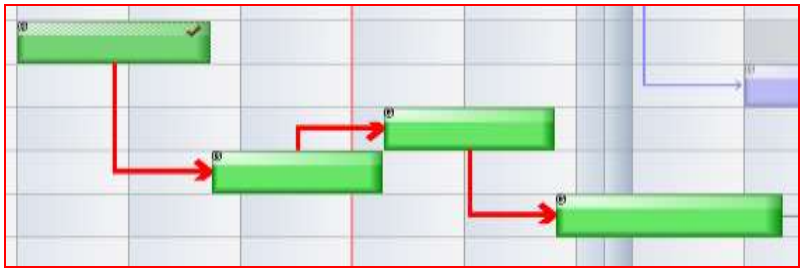
The user has the possibility to opitmise the orders and projects temporally when clicking with the right mouse button on the planning object and selecting *Optimising Graph*. infoBoard automatically searches for available resources and temporal free space to realise the single sub-steps.
(Keyword: "Recognising gaps by yourself ").

Hint:
Optimising graphs comprises every sub-dependance. The selected planning object is the benchmark where all following dependant objects are orientated on. However, the planning objects on the left side of the planning board are **not** orientated on the benchmark. There are all lines optimised, which are occupied by an object of the graph within the time range between the clicked objects and the last object of the graph.

Before:

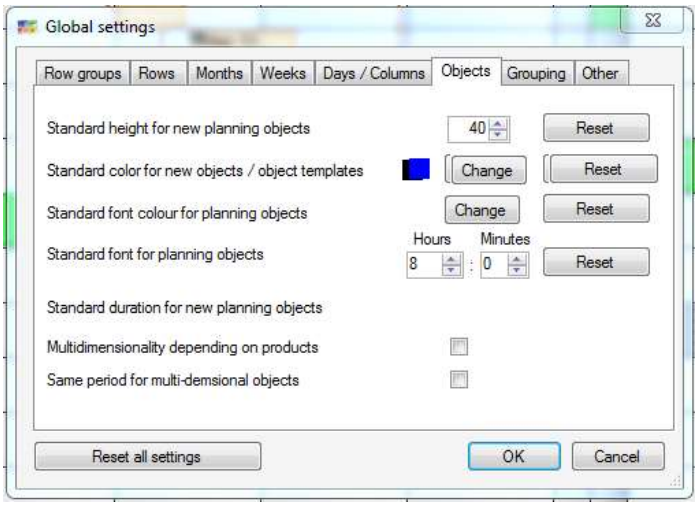


After:



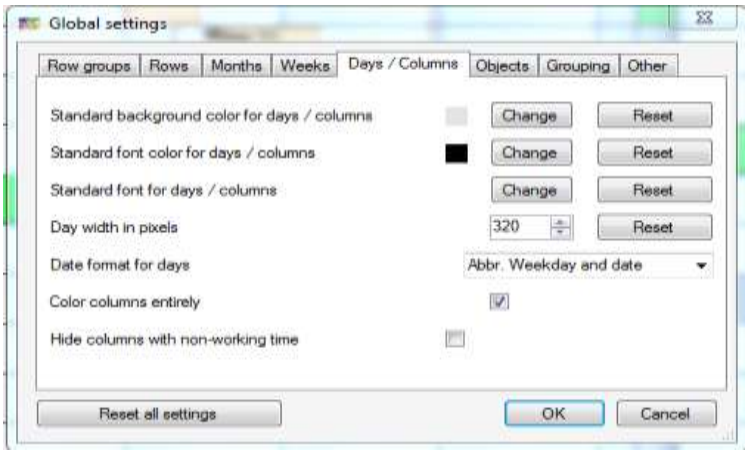
Objects are shifted to the critical path if possible!

4.7.3 Objects



4.7.4 Days / Columns

From 150 pixels per day, the columns are captioned with time. Please note that when using the planning boards for appointments.



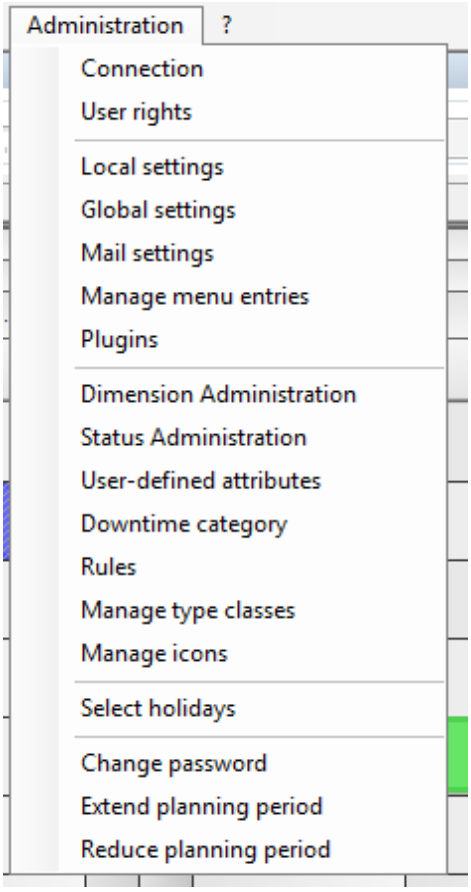
4.7.5 Weeks

4.7.6 Months

4.7.7 Rows

4.7.8 Row Groups

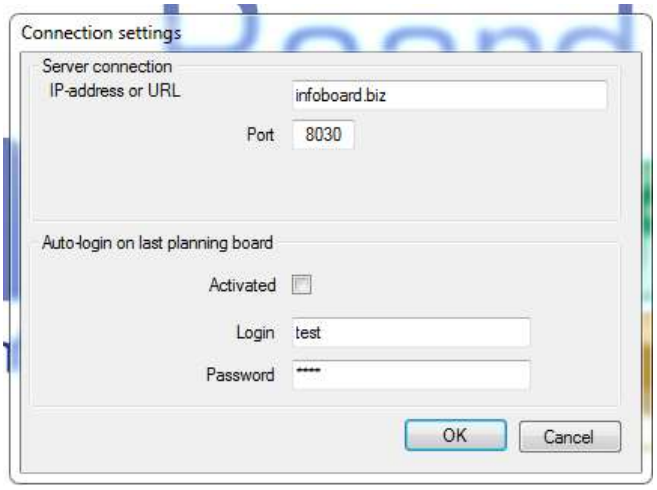
4.8 Menu Administration – Further Functions



4.8.1 Connection

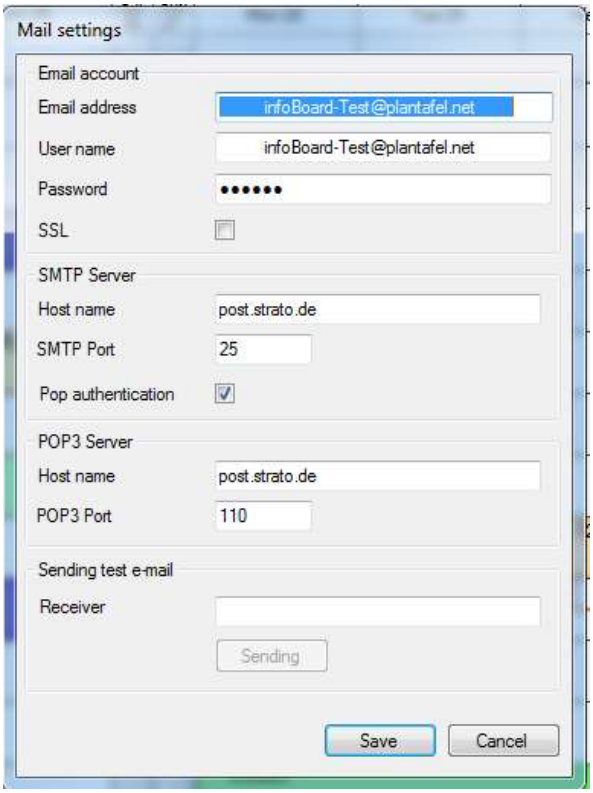
4.8.1.1 Auto – Login

Should only be one planning board of concern in the company, it is possible to start the planning board directly by activating the auto-logins.



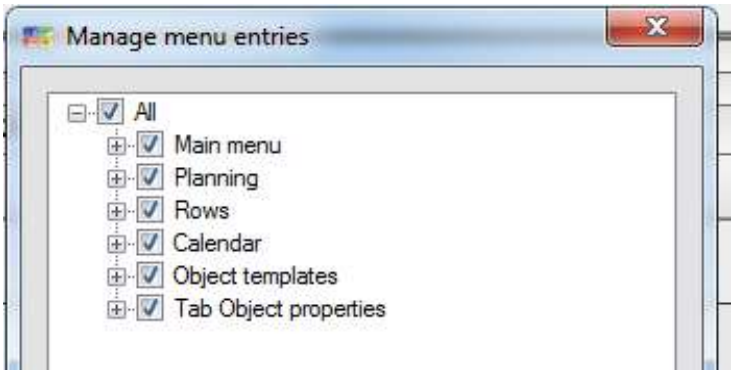
4.8.2 Mail Settings

In case that the infoBoard shall send emails to the users some settings have to be carried out.

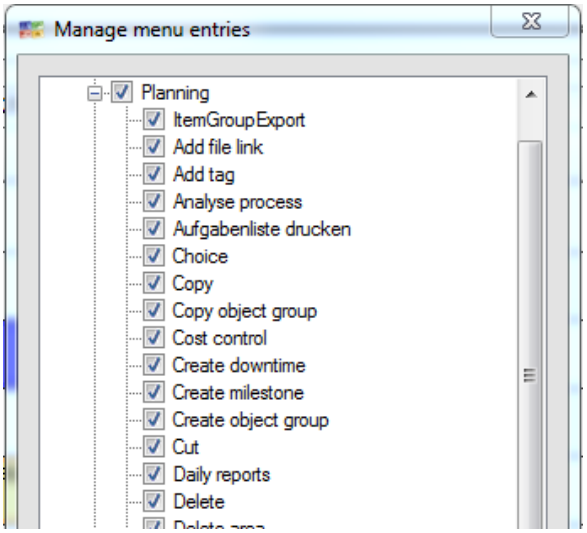


4.8.3 Managing Menu Entries

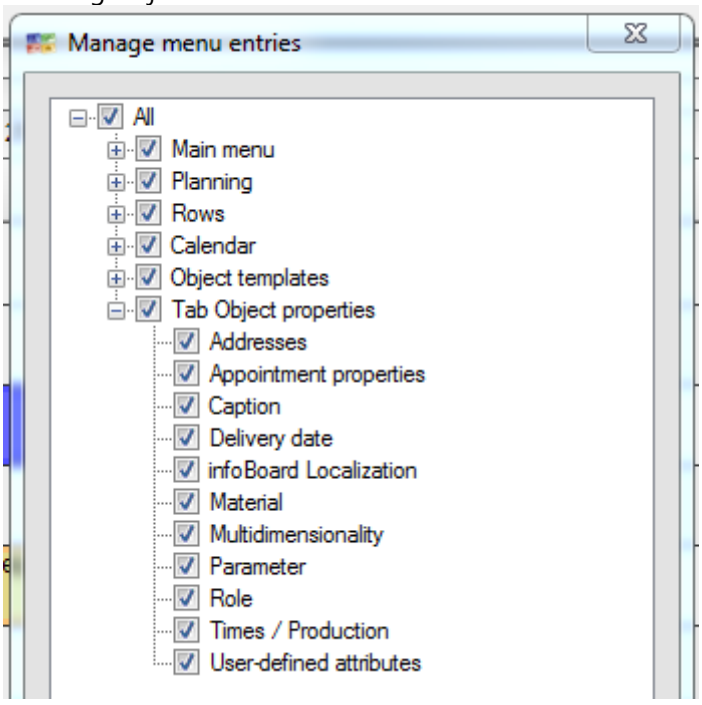
The planning board owner can decide which menu entries will be visible for the planning board. This view is valid for every planning board user that means that some menu entries are hold back.



Context Menu Restrictions:



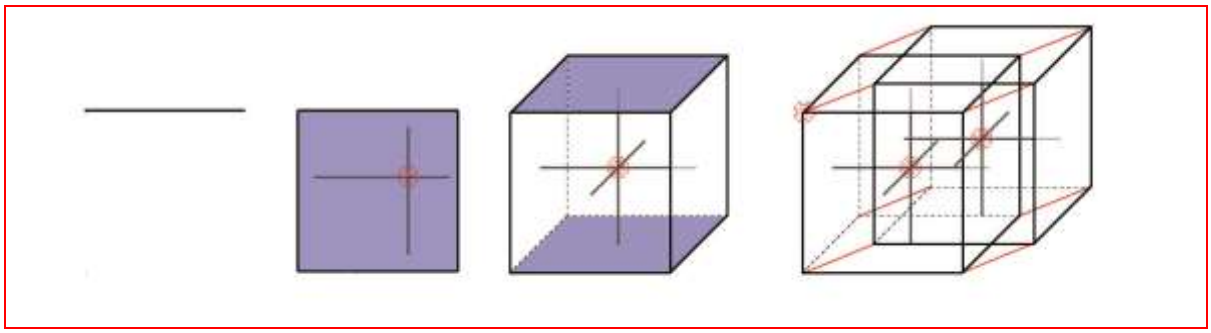
Planning Object Tabs:



4.8.4 Dimension Management

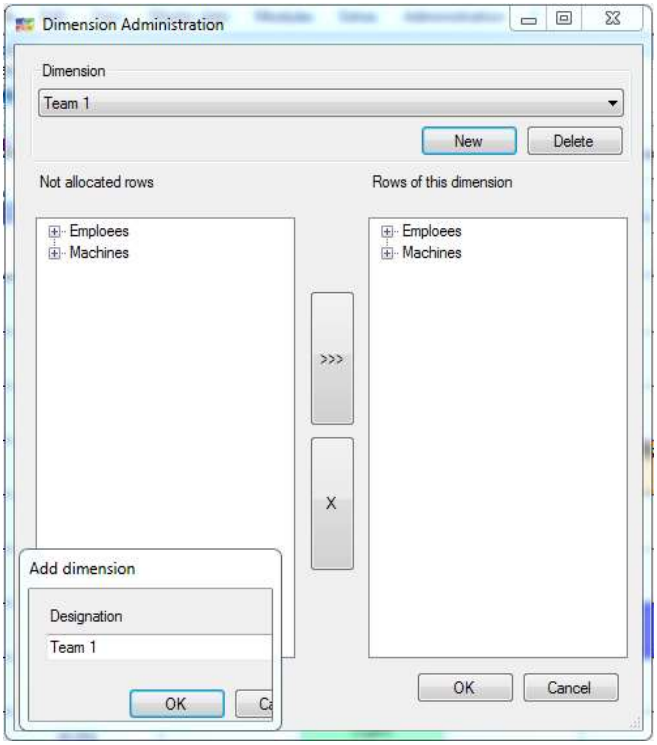
Dimensions:
If several resources are assigned to one task, we speak of multidimensionality. A typical example for such multidimensionality could be: projects are allocated to teams or employees; employees are assigned to machines, vehicles to drivers and material to machines.

one-dimensional two-dimensional three-dimensional four-dimensional



Humans can easily comprehend two-dimensional contexts. infoBoard facilitates the comprehension of more than two dimensions; it helps keeping track of the planning with more dimensions.

Configuration
New dimensions are installed in the Dimension Management. Later on, the row groups (resources, departments, machine groups) or single rows will be allocated to the dimensions.

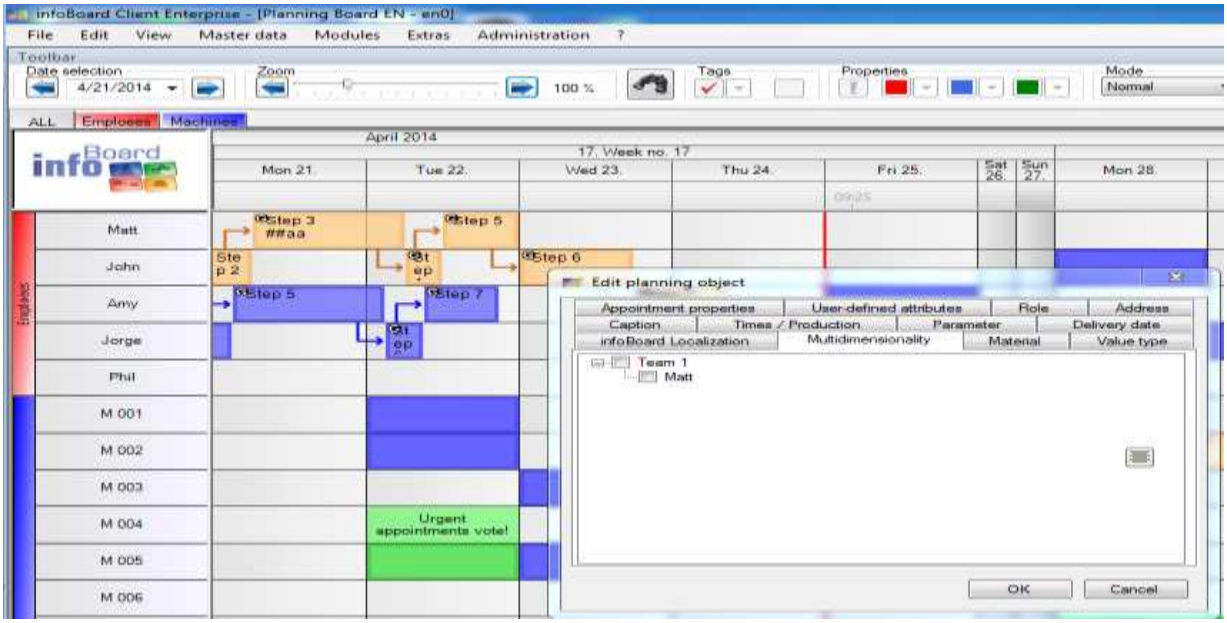


At first dimensions are installed for all resources that shall be allocated to others. That means if I want to assign an employee to another resource, such as vehicles, machines, working places or tools I have to define them as dimensions.
I create new dimensions and give new names via Add. After that, I chose the row group or row that shall be assigned to the new dimension and click on the arrow-button. Chose a resource on the left side and click on the X-button to delete.

ATTENTION: Every row (resource) can only be allocated to one dimension.

4.8.5 Multidimensional Planning

The planning object is automatically allocated to its dimension (machines) by placing it on the corresponding row (e.g. Machine X3000). With a right click on the planning object, you can define the second dimension (e.g. Matt) in *Properties - Multidimensionality*. Even a third and fourth dimension can be allocated (e.g. John and Amy).
This process can be realised the other way around: the planning object is placed on the employee row at first and then the machine is allocated.

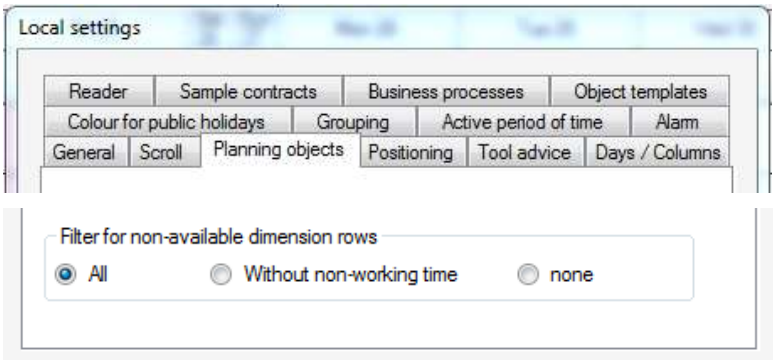


NOTE: On the planning board, both objects behave the same concerning any changes. If one planning object is moved to another date or changed in its labelling the other will do so, too.

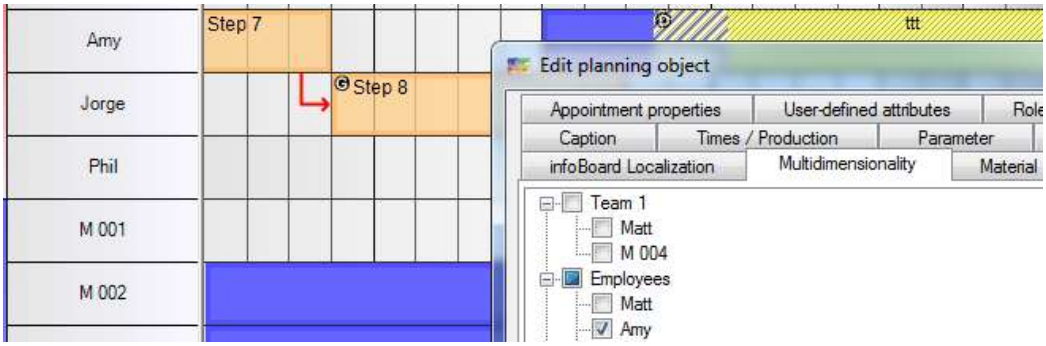
Dimensions are connected by selecting the rows desired in *Multidimensionality* in the edit dialogue of a planning object.

No resources that are already planned in the planning object's timeframe are illustrated (e.g. M004 and M005 are planned for the green task and not available in the timeframe of the yellow task).

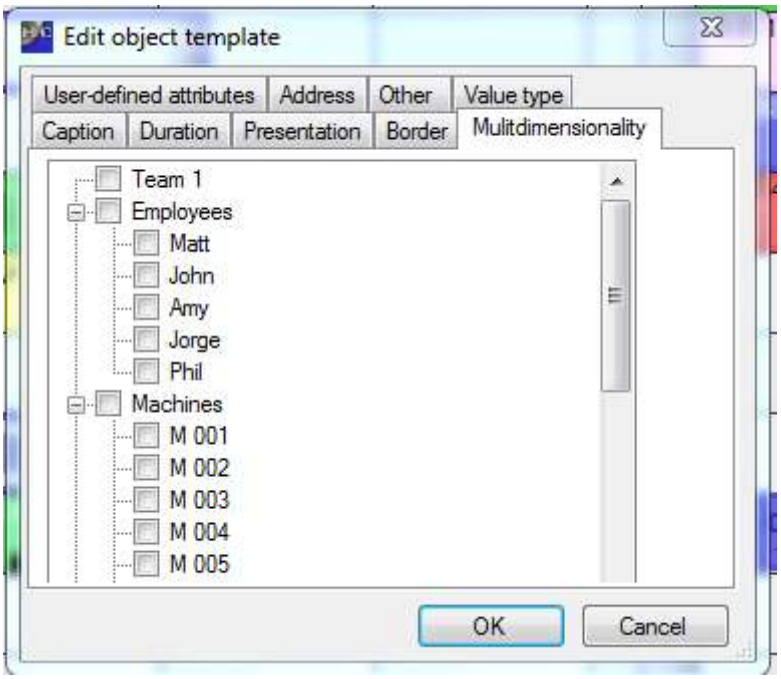
This function can be deactivated in the Local Settings of a planning object. That would be reasonable if the employees change the machine although 2-3 shifts a day for orders on a machine are registered on a planning board.



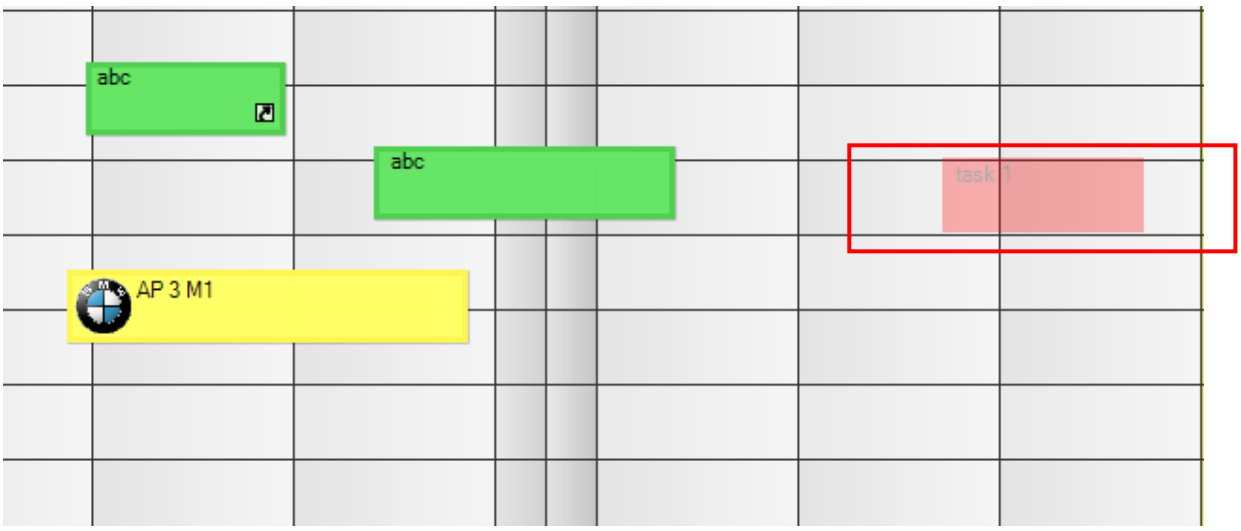
Example: Mr Schultz and Mr Brown are allocated to order 2124. Task 1 is running for the product 123 on machine X3000 where Mr Miller is working:



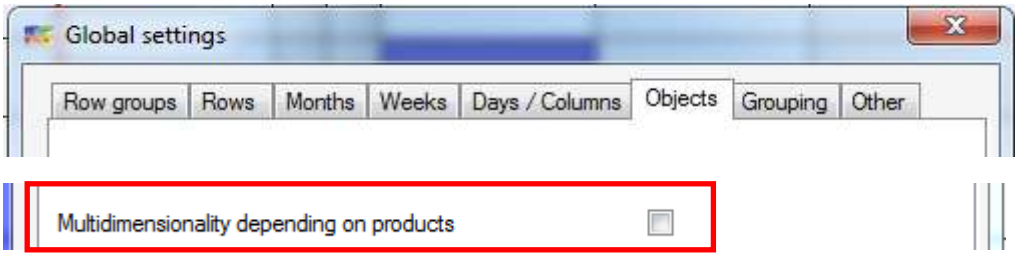
Shall already be checked during the planning process, whether desired resources for this task or this job are free on the scheduled date, they can be selected in multi-dimensionality's pre-definition of the planning object in the panel on the right side of the planning board:



These days (columns) where all rows are planned with other tasks are now coloured red when trying to place them via Drag & Drop. Furthermore, the planning object becomes red (see task 1) if a placing in the timeframe desired is not possible:

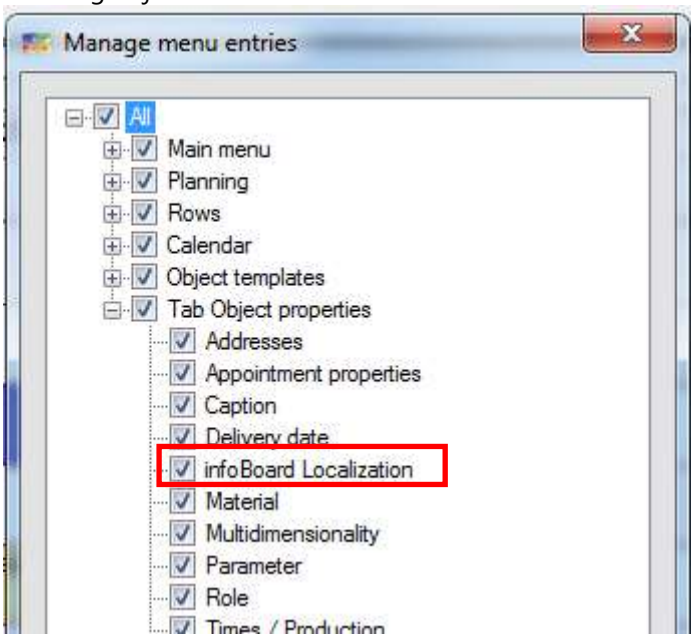


The examination can be tightened when adjusting the filter to Qualifications in the *Global Settings* - normally this filter is deactivated:

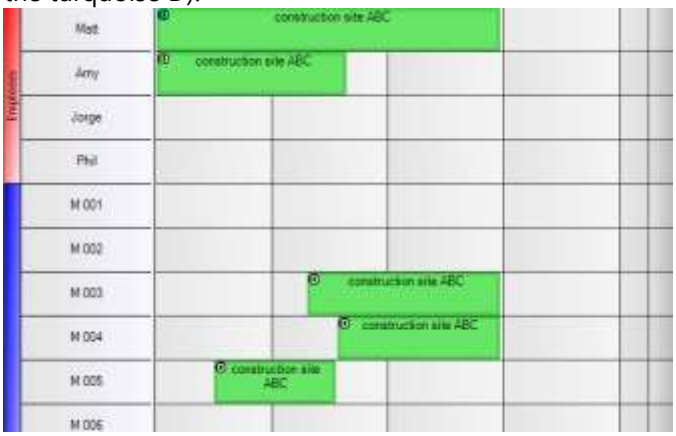


Now the program no longer only checks if someone has time but if he has the qualification required to execute the task (row capacity).

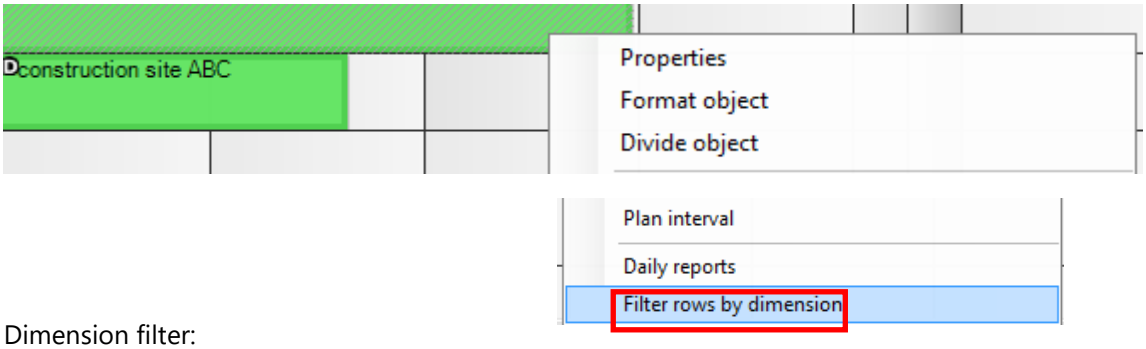
Planning object's tab has to be faded in to use the multidimensionality of an object:



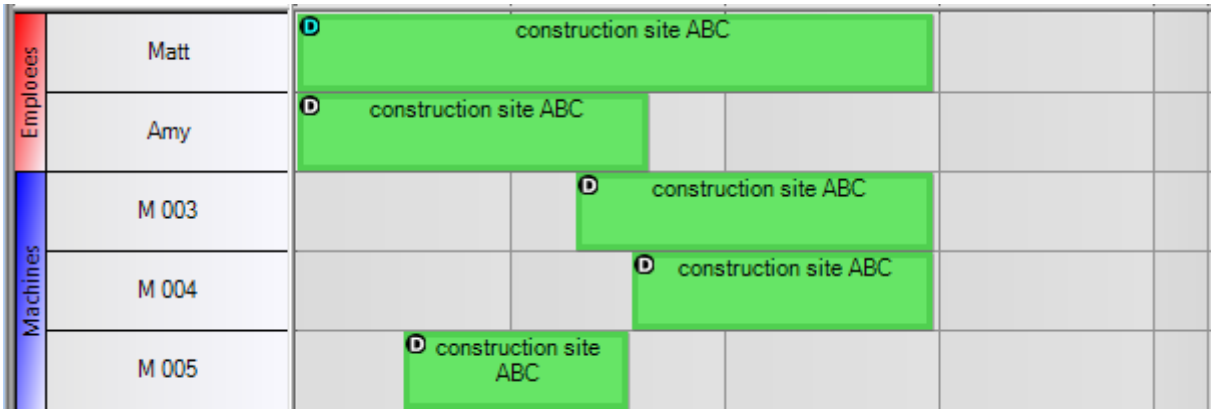
From infoBoard version 3.0 the objects that have been planned multidimensional can be modified in its length. Maximum length and the placing possibilities are limited by the Master Object (tagged with the turquoise D).



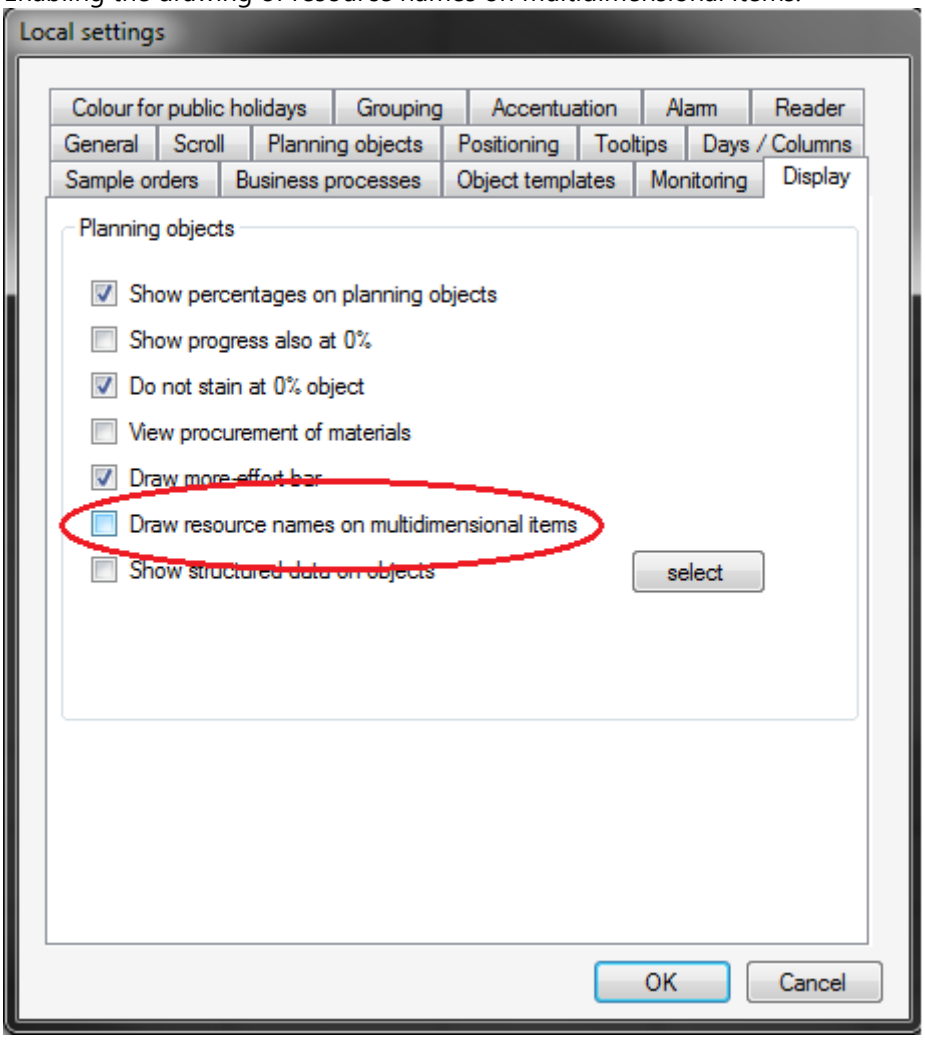
With a right click on a multidimensional planning object, you can select a dimension filter:



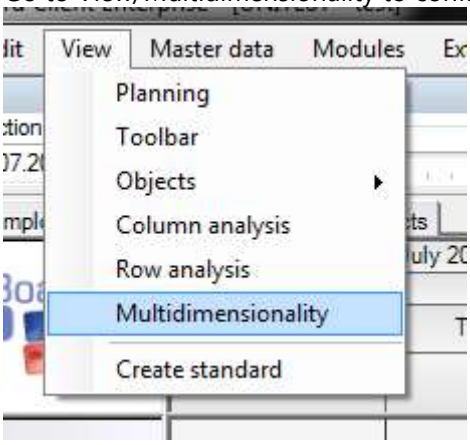
Dimension filter:



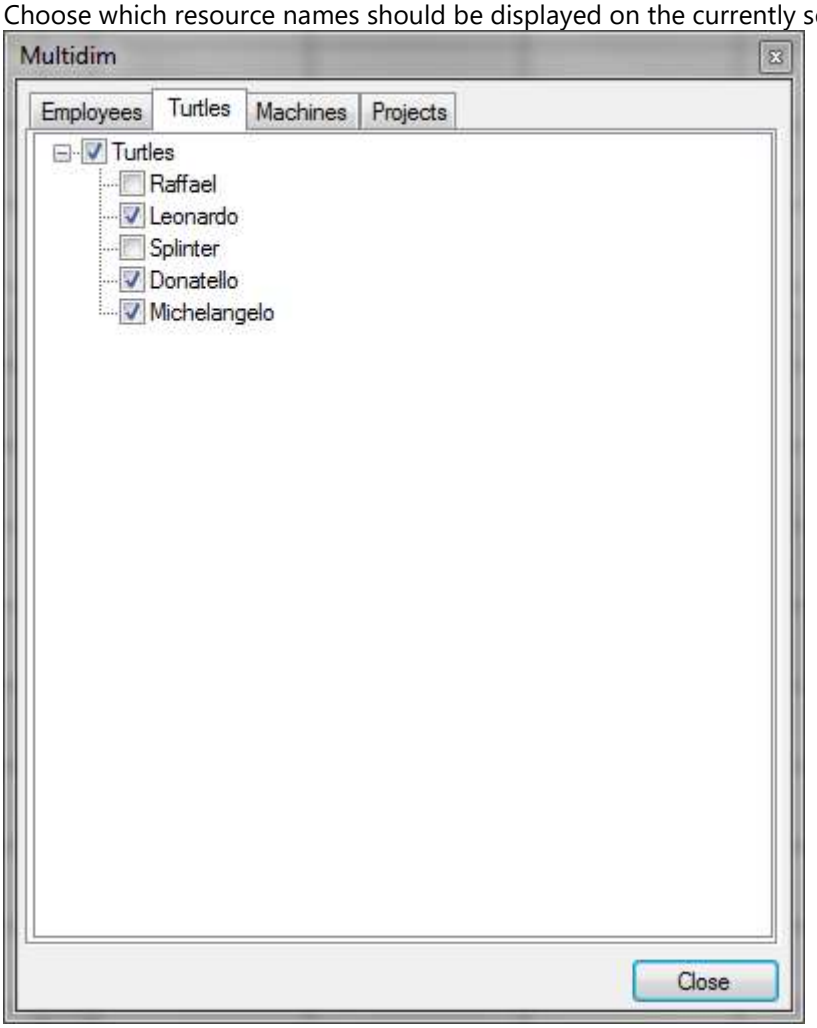
Enabling the drawing of resource names on multidimensional items:



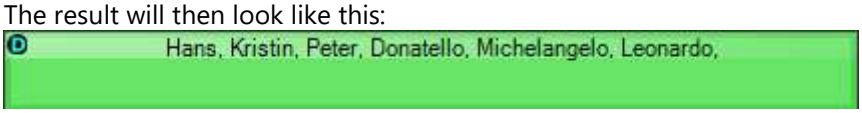
Go to View/Multidimensionality to configure the items:



Choose which resource names should be displayed on the currently selected item:

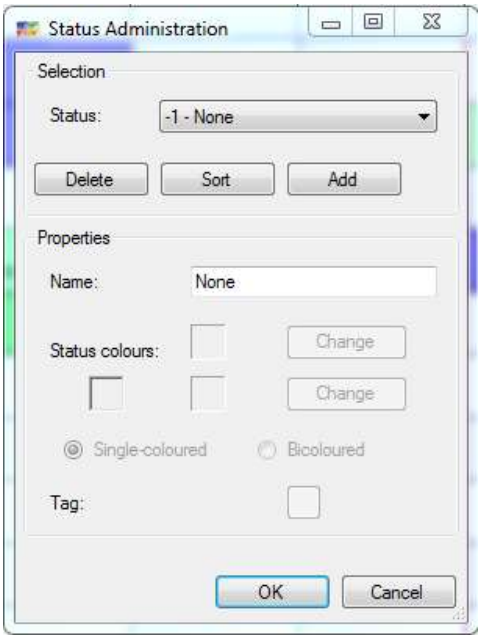


The result will then look like this:

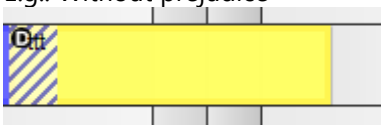


4.8.6 Status Administration

Statuses can be installed or deleted here. These can be allocated to planning objects in *Properties-Appointment Properties-Status* (Point **Fehler! Verweisquelle konnte nicht gefunden werden.**).

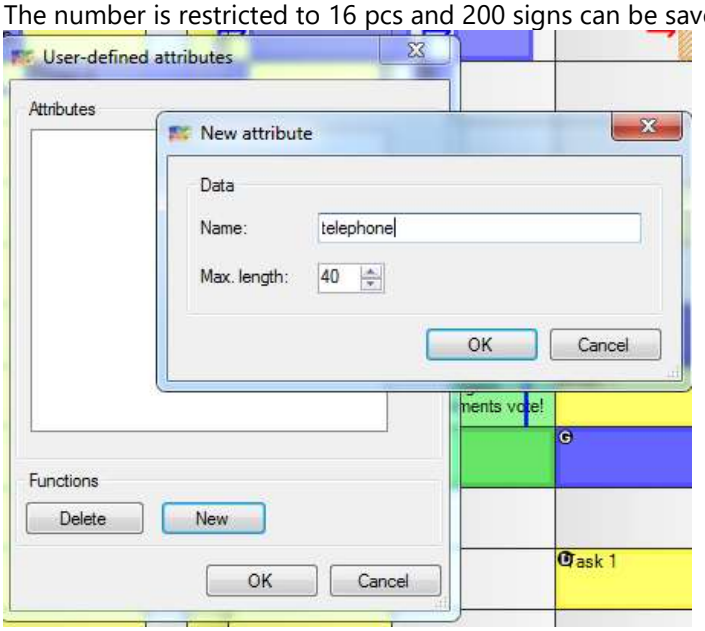


E.g.: Without prejudice

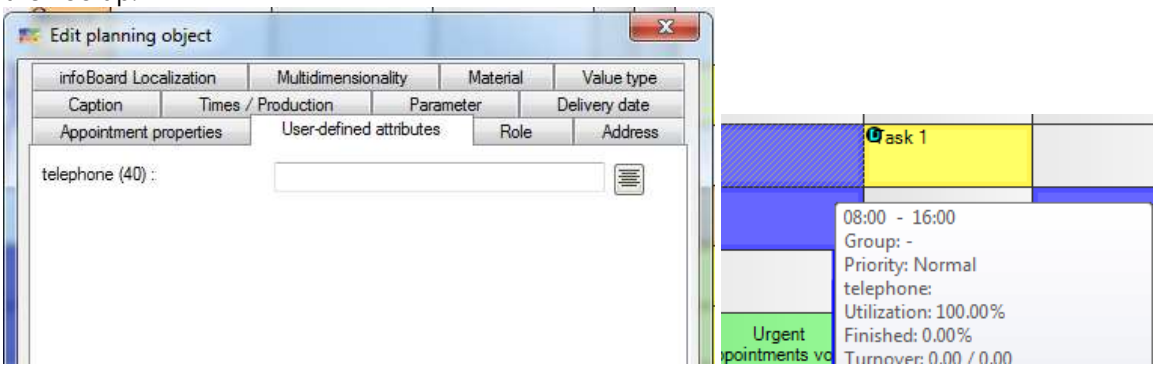


4.8.7 User-defined Attributes

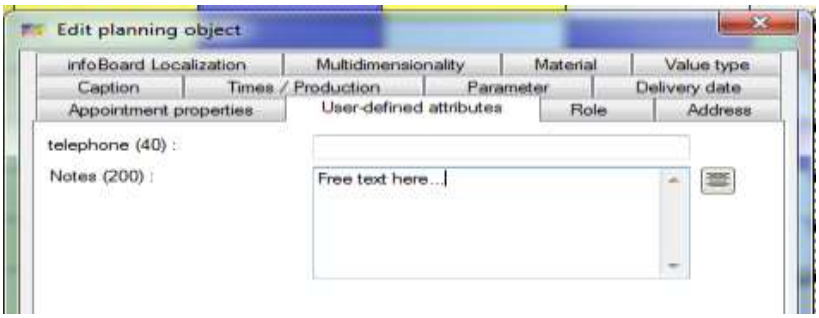
The planning board user defines data and their dimensions to illustrate them structured in the Tooltip text and the task list (in the example 40 signs).
The number is restricted to 16 pcs and 200 signs can be saved as maximum.



Phone numbers can be registered in the properties of a planning object. The contents are illustrated in the Tooltip:

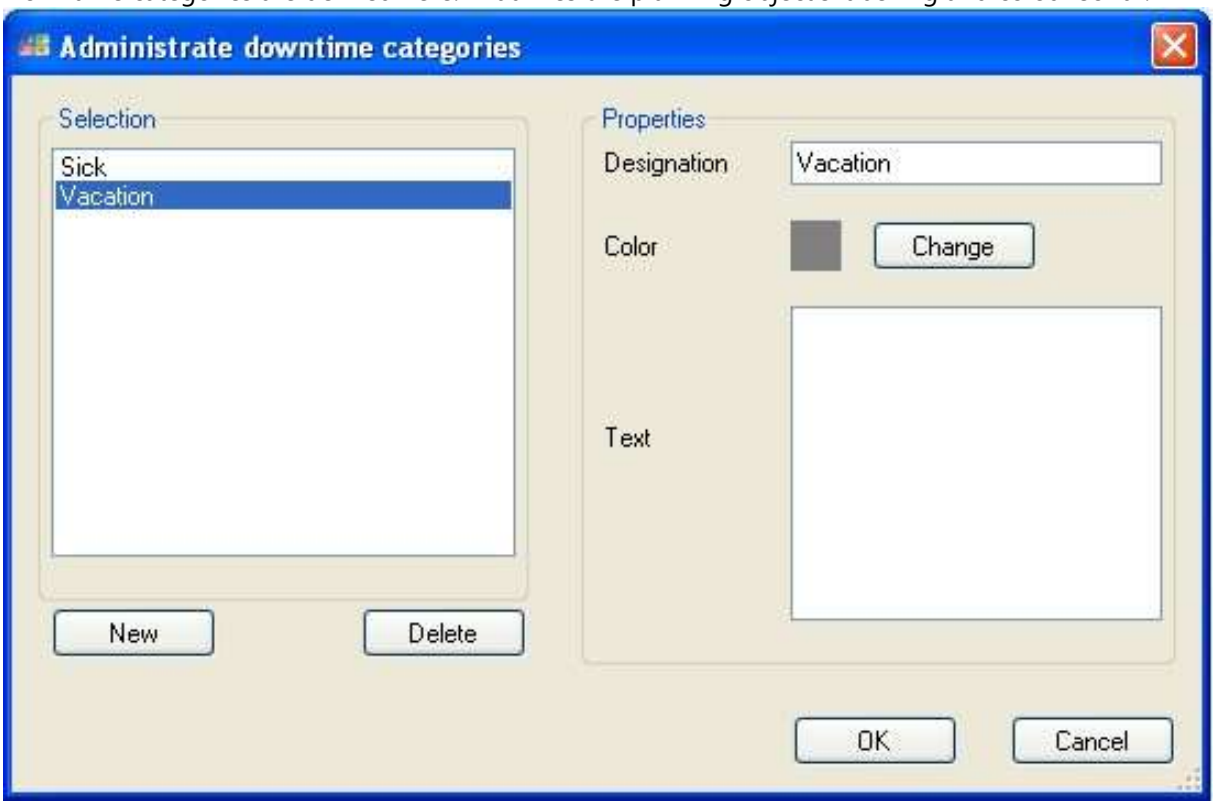


Large fields look like this:

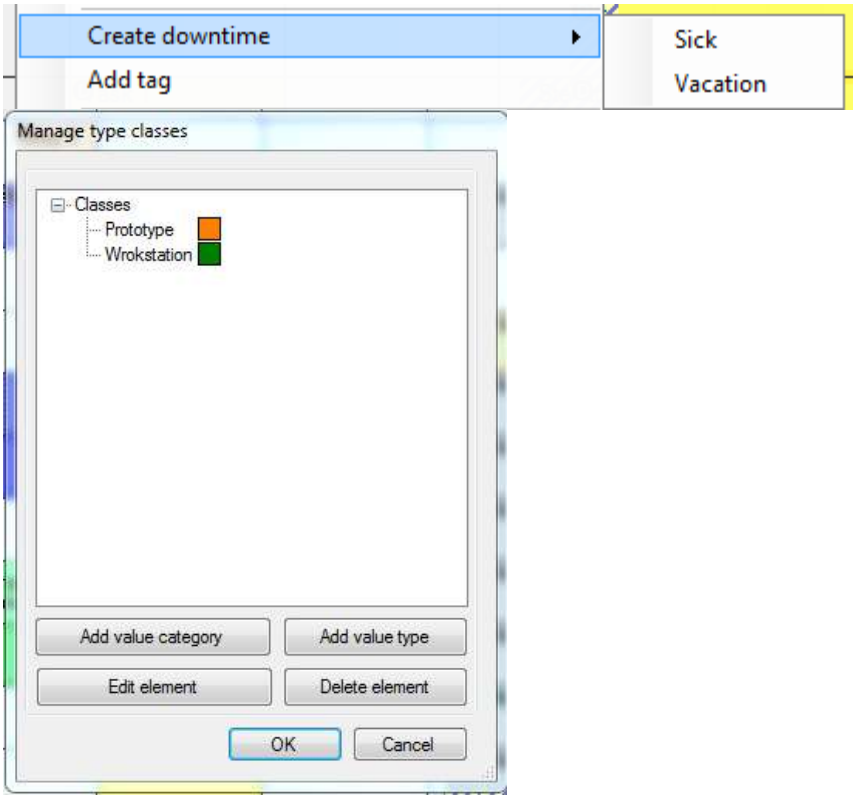


4.8.8 Downtime Categories

Downtime categories are defined here. That fixes the planning object's labelling and colour so far.



With a right click on a row, you can create downtimes and the categories defined are available now.



4.8.9 Type Definitions

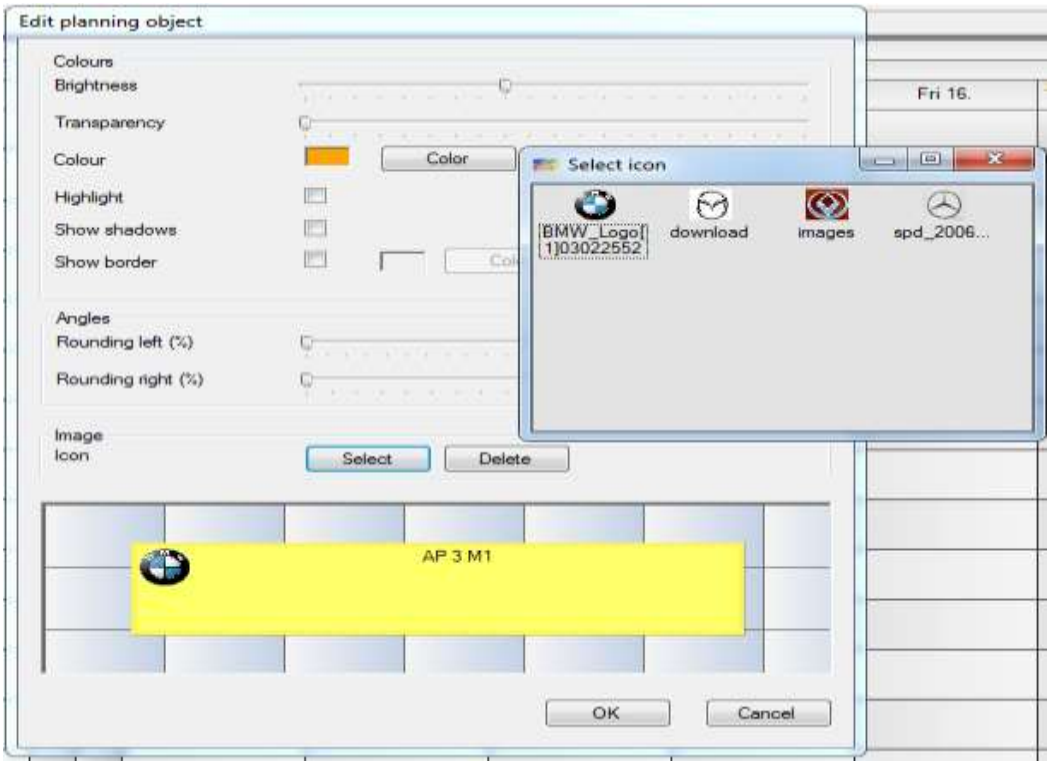
You can edify type definitions in this menu. Type values can be allocated to planning objects then or they can be filtered with the object filter.

Allocating types to planning objects: Point **Fehler! Verweisquelle konnte nicht gefunden werden.**
Selecting object filter: Point 4.5.5

4.8.10 Managing Icons

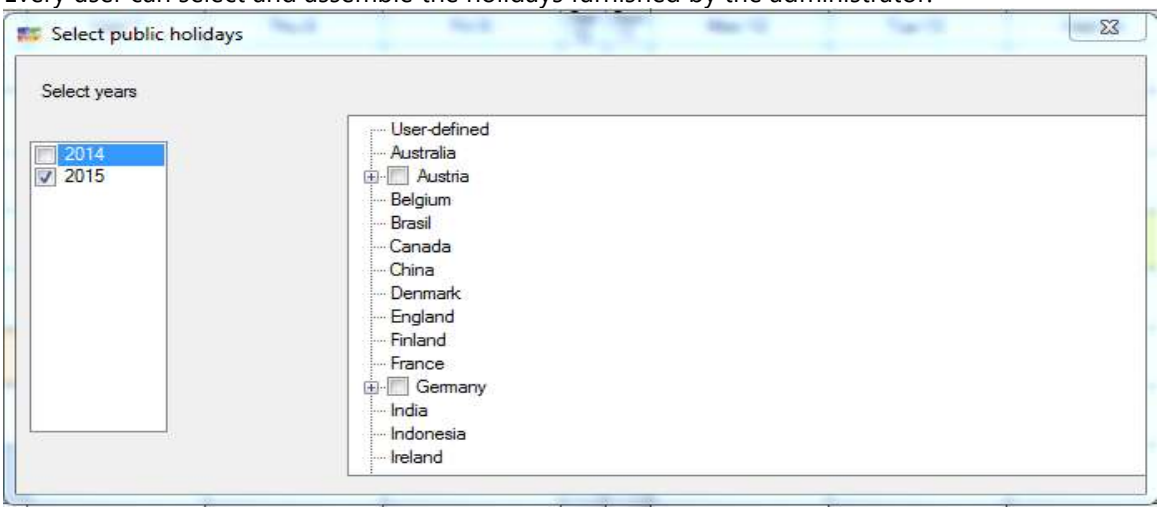
Icons that are placed on planning objects are loaded into the Icon Management and saved in the infoBoard database at first. Later on, you can allocate these icons to an object template.

Icons are now available:



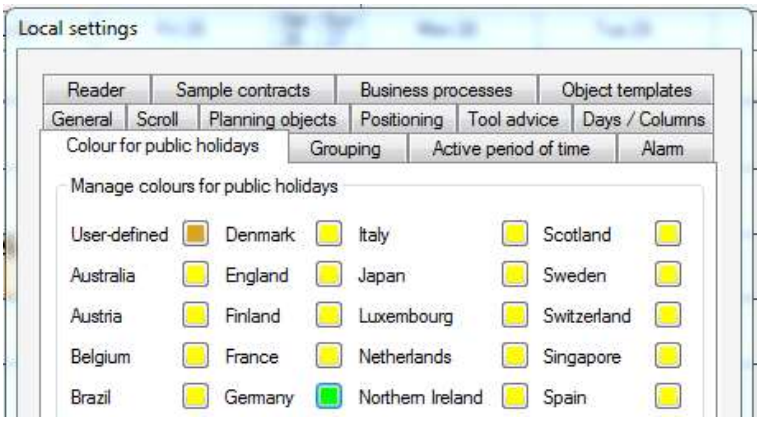
4.8.11 Selecting Holidays

Every user can select and assemble the holidays furnished by the administrator.

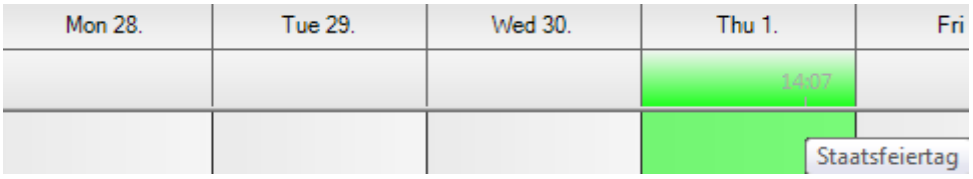


The holiday columns are registered, highlighted and they receive their own tooltip in the Local Settings.

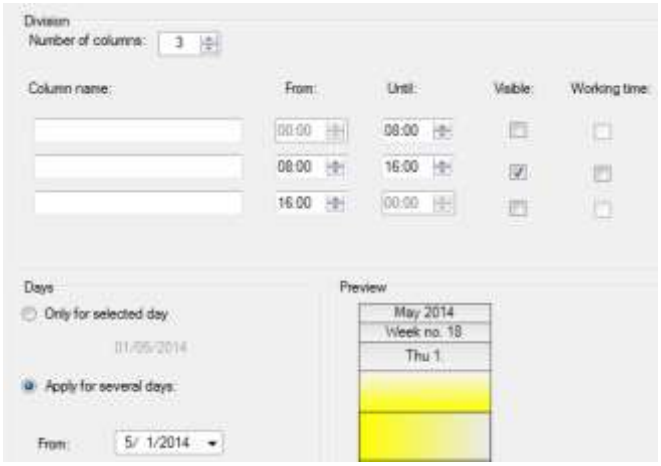
International holidays can be coloured individually to separate them from others. Therefore, you select the single colours in the Local Settings.



After:



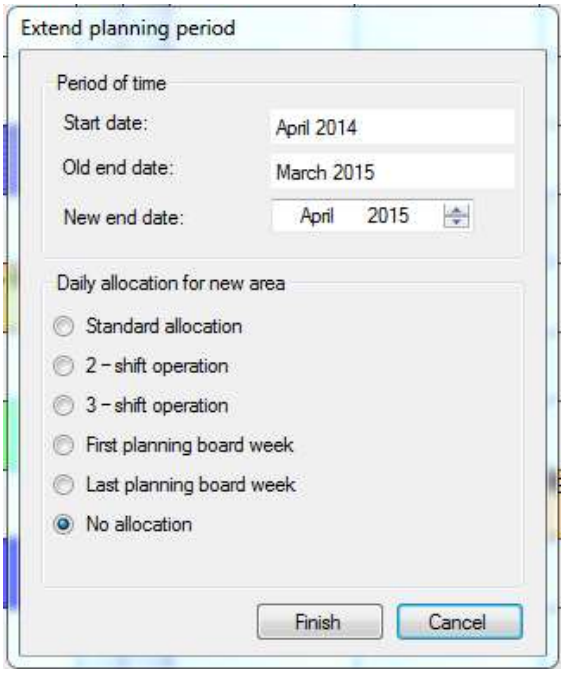
Column Division:



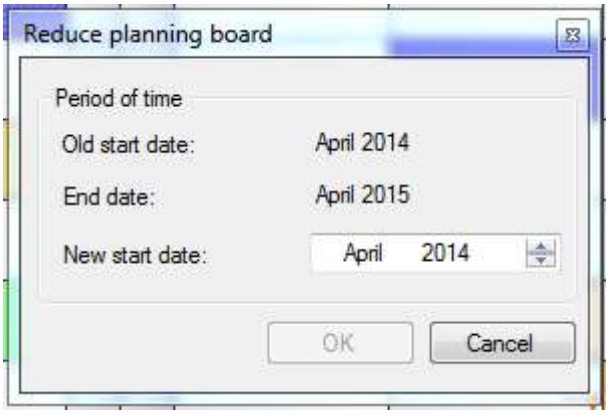
If you would like to declare single days as working times again, you tick the box *Working time*.

4.8.12 Expand and Abbreviating Planning timeframe

These functions expand the planning board in the future and/or abbreviate it in the past. **(Prior to this, generate a database backup!)**
Maybe you have to edit the column settings used by clicking on an existing definition and simply adopt it for the new period.



To delete old planning data you maybe abbreviate this timeframe.
Caution: data are deleted irrecoverably!

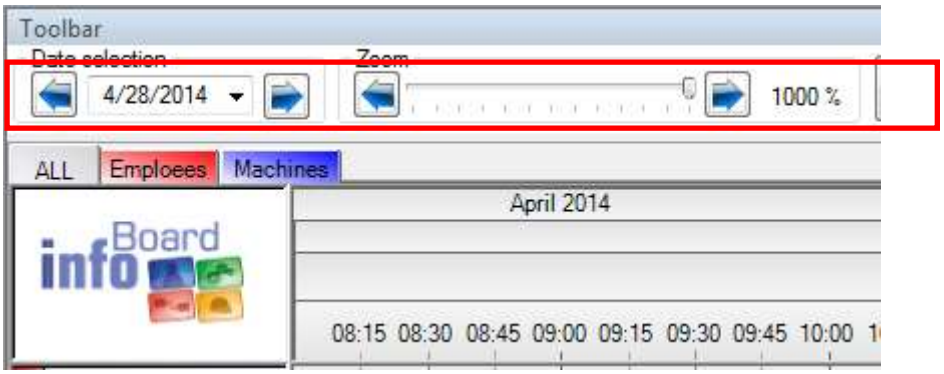


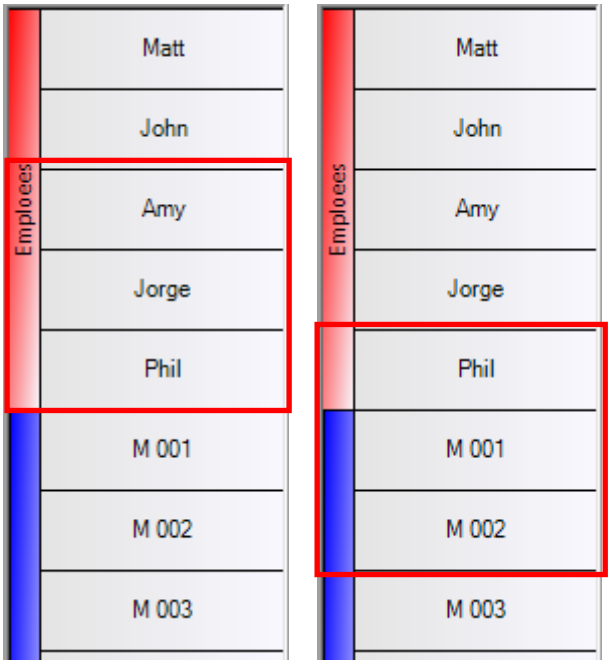
It could be helpful to make a planning board copy to have access on the data later on.

5 Rows and Row Groups

5.1 Shifting Rows and Row Groups

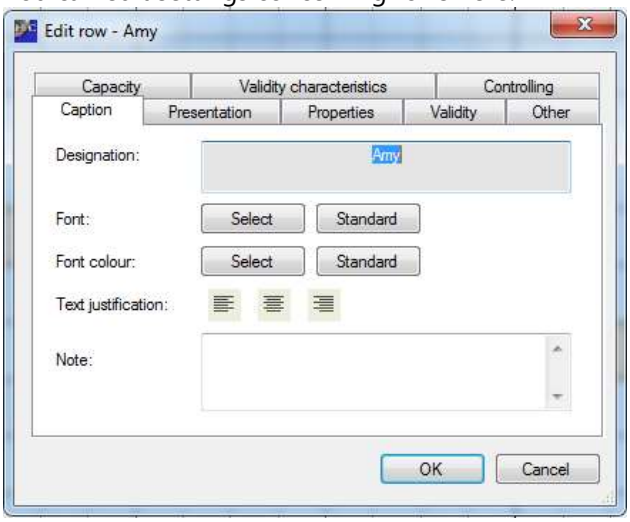
Row groups or single rows can be shifted via drag & drop. This is an individual setting so that every user can change it for himself in the Local Settings.





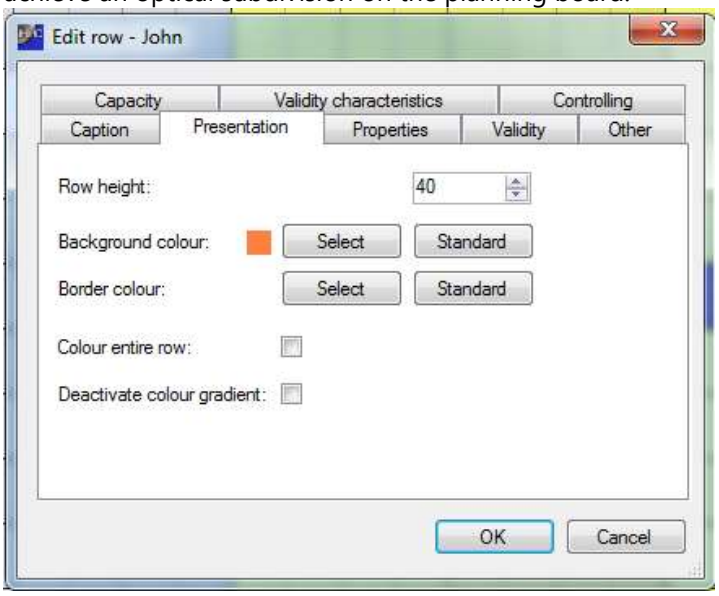
5.2 Editing Rows

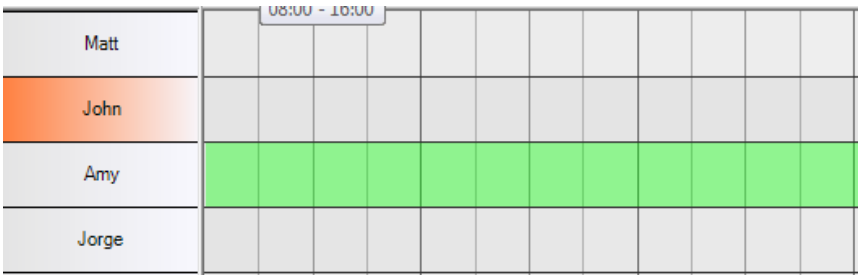
You can edit settings concerning rows here.



5.2.1 Managing Presentation

The row height and the background color can be customized. The row can be completely dyed to achieve an optical subdivision on the planning board.

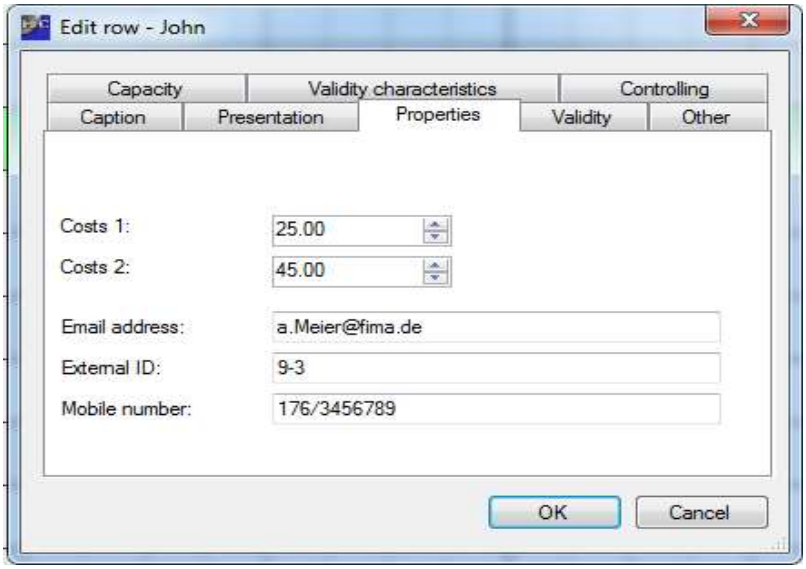




5.2.2 Managing Properties

An email address is necessary to let the planning board send appointment mails.

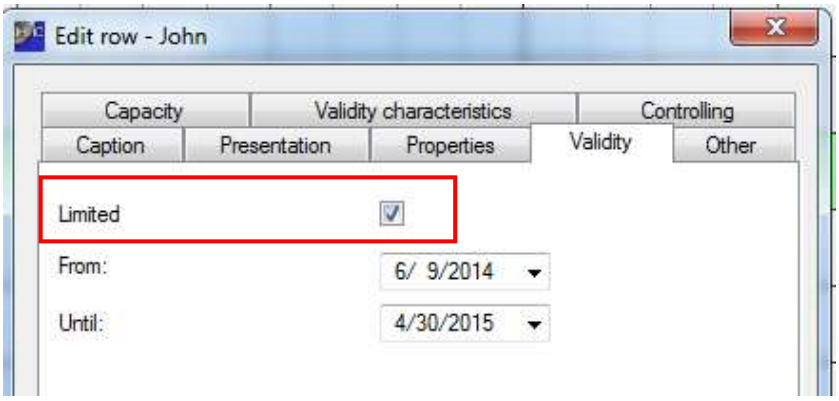
The external ID is necessary for the Excel import.

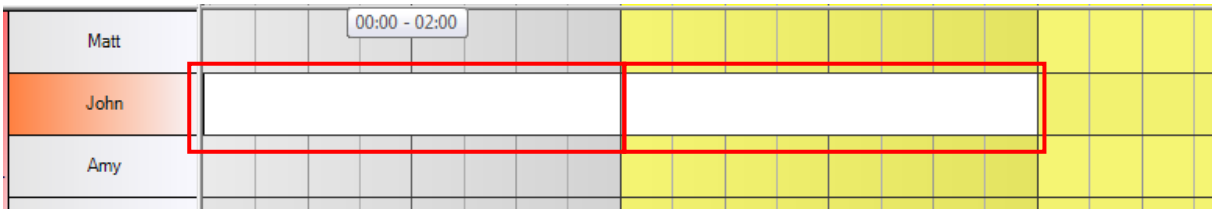


Cost one and two are used in the infoBoard Controlling Module.
The mobile number is necessary for the infoBoard SMS Module.
External ID is for the infoBoard SyncTool Server.

5.2.2.1 Validity

In validity, a row can be temporally restricted that means that it is only visible for that timeframe. Has the validity period not started yet or is already out of date, it will not be shown on the planning board. These rows could be defined as projects or temporary resources such as temporary workers or special machines that are only rented.





5.2.3 Managing Capacities

Predefined capacities (qualifications, products etc.) can be allocated to resources (machines, employees etc.) in *Editing Rows - Service Managemnt*.

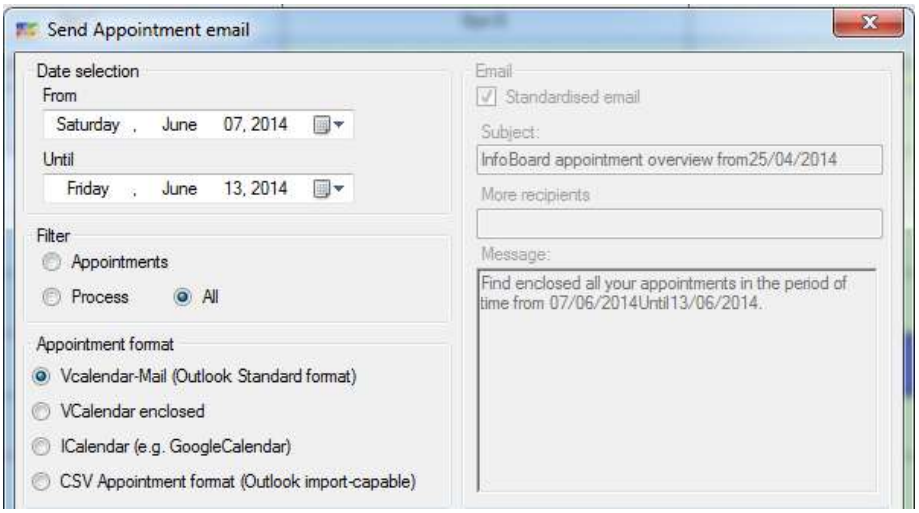
Units per hour indicate how many units (point 4.3.1 was predefined in the Service Management, pcs, hrs, etc.) are to be created in an hour of this resource.

5.3 Other Row Functions

5.3.1 Sending Appointment Mails

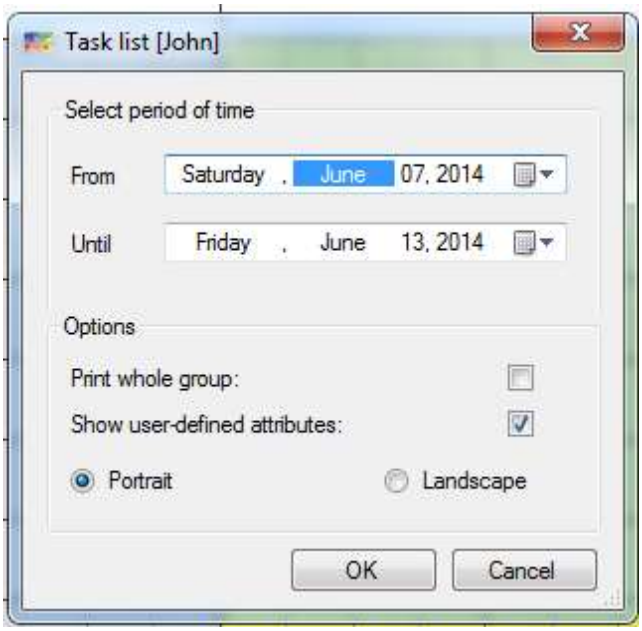
The prerequisite is that there are mail settings entered in the infoBoard Server Configuration (before 3.2: A registered mail server in *Administration – Email* is required). Except that, there must be an email address (used as sender address) given in the user settings (see section 8.1).

You chose out of three different appointment formats (left at the bottom) and you can take the standard phrasing or create an individual one.

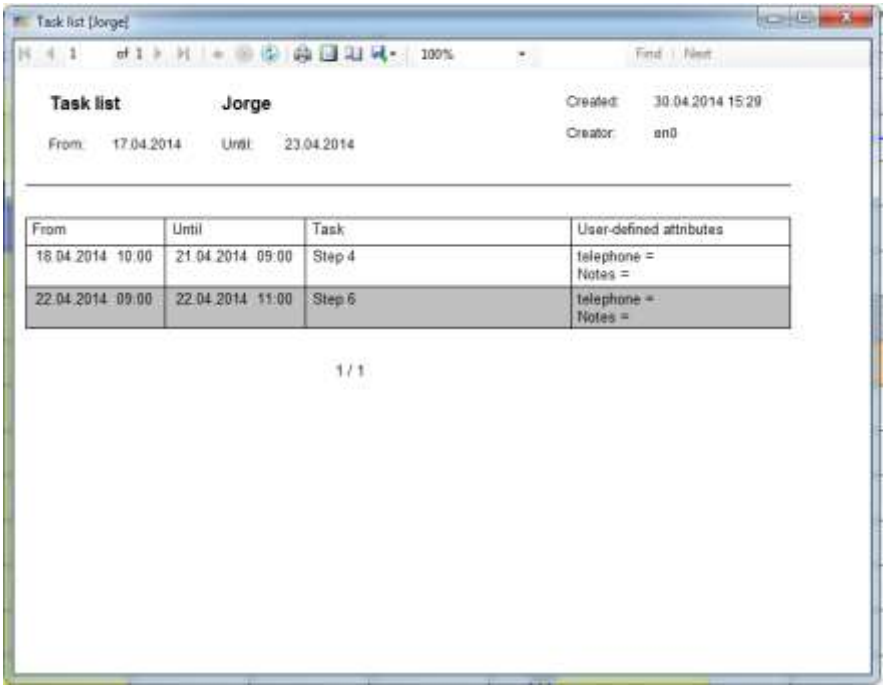


5.3.2 Printing Taks List

To provide employees with the machine occupancy, you can print the task list for everyone.



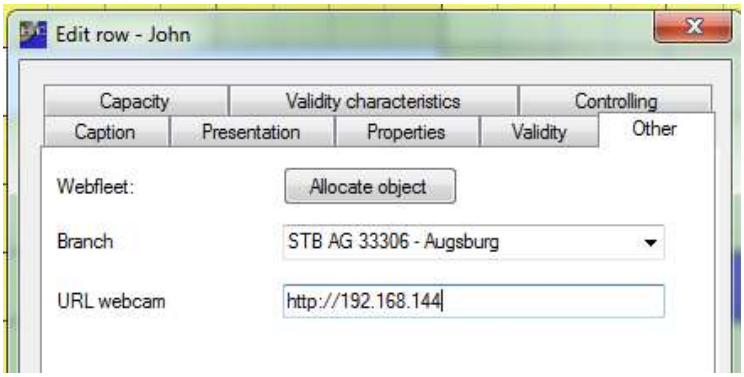
This task list is available in the Web Module again.



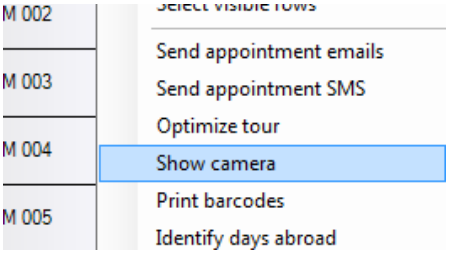
There is the choice to print the task list for the whole group. This means that the tasks of the entire target group are printed. Here, the rows are sorted alphabetically and located therein tasks listed from start time in ascending order.

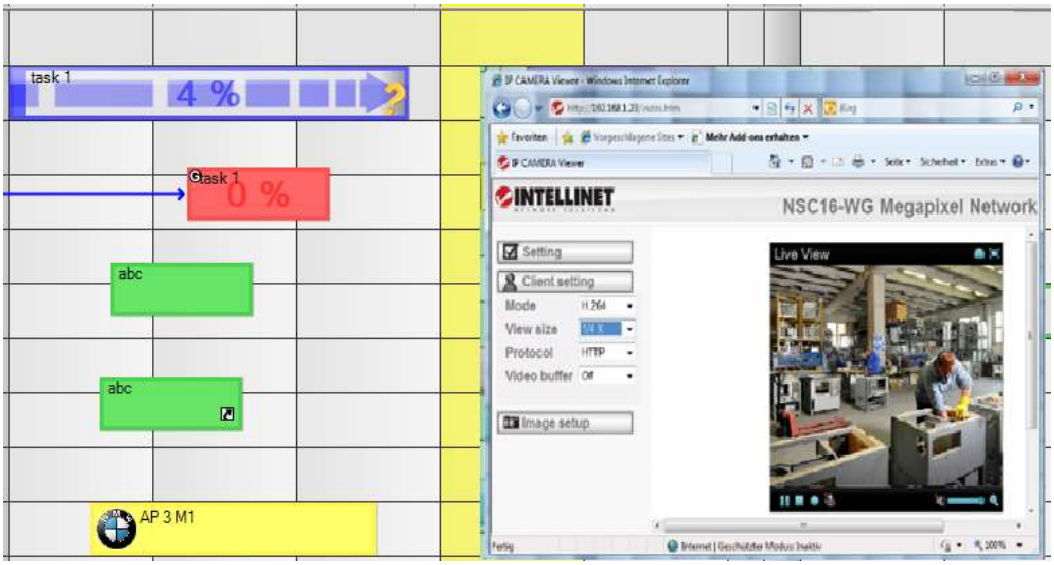
5.3.3 Webcam

In Editing Rows – Other you register the URL of the installed webcam. This webcam (and its material) is assigned to a row. You could observe machines and production site with this function.



You can have a preview with a right click and *Show Camera*.

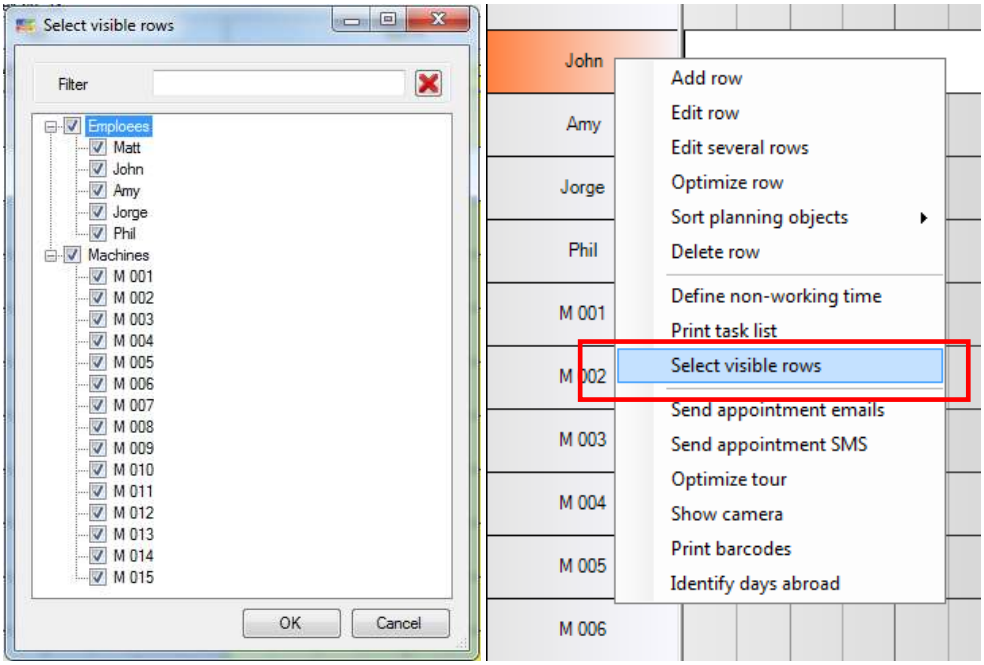




You could use this menu point to deposit a PDF document that can be sselected whenever it is necessary.

5.3.4 Visible Rows

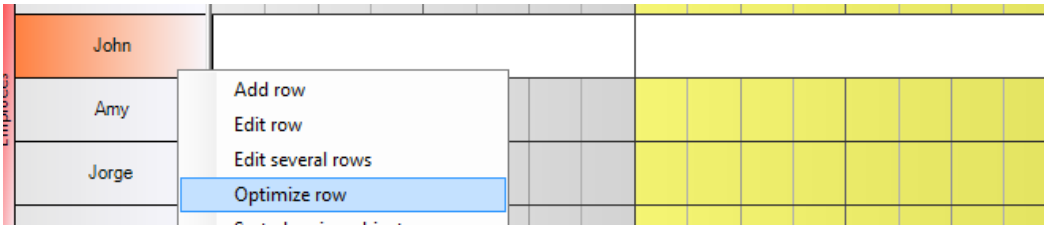
You chose the rows that shall be visible with this function (right cklick on the row). This setting can be individualised by every user as it is saved in the local settings. This function is especially interestant for companies with many different departments, subsidiaries and their responsibilities.



TIP: To select individual rows quickly, it is advisable to disable the groups and to enable individual rows. With the key combination Ctrl + A you can display all rows again.

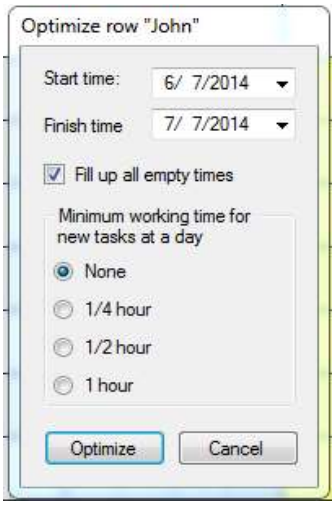
5.3.5 Optimising Rows

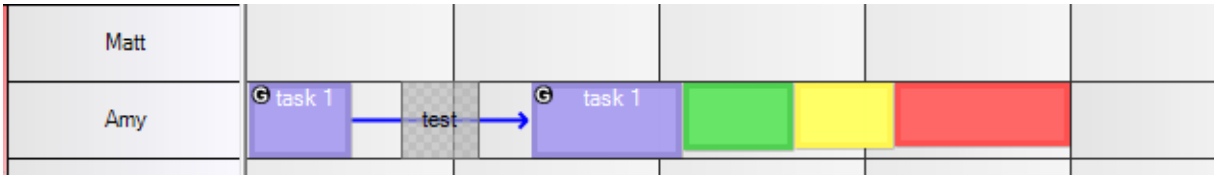
To remove occupancy gaps, infoBoard can close gaps with the Optimising Rows function. Objects are pulled to their predecessors. This prevents undesired production stops.



The planning board optimisation is only active up to the actual date. That prevents any changes in the past planning. Through defining minimum working hours, it becomes nearly impossible to plan new tasks right before closing time.

Relations to other objects that do not lie on the same row are not optimised. Objects in other rows are only influenced by multidimensionality.

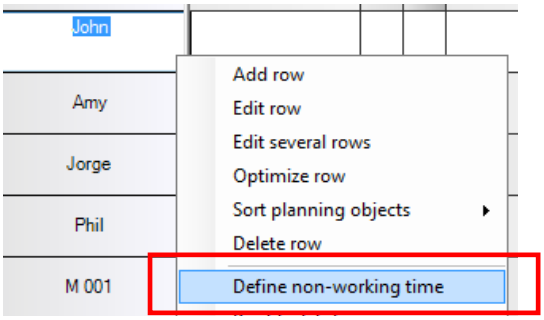




5.3.6 Working-time Models

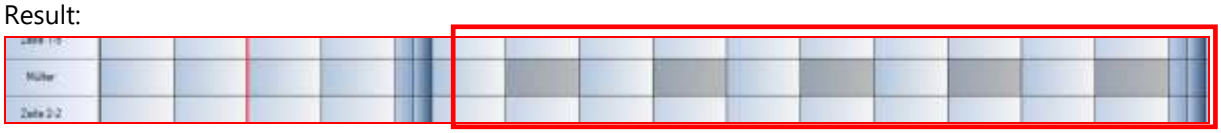
First, you have to define various working-time models (e.g. shift working) in general by column division.
Every row can contain another working-time model. This happens by defining coloured non-working times or downtimes.

E.g. employee 1 works late shift for two weeks



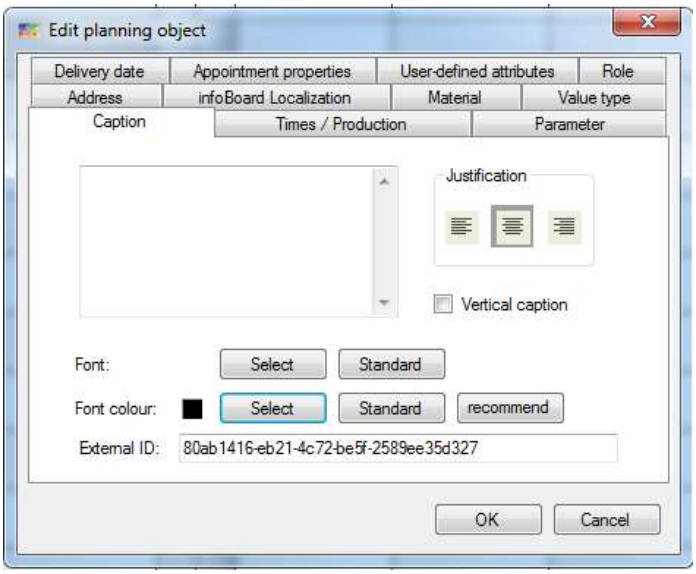
Of course desired layers with different timings should be defined before under column division (point). Subsequently, under Edit Row (right mouse button on the row) - non-working times can be defined. Therefore, a sample day is chosen, from which the stratification is to be used.
From the available layers (columns) those are selected in which the machine or the employee for the period to be defined below, does not work (also these days are selected for which this layer model is to be deposited).

Result:



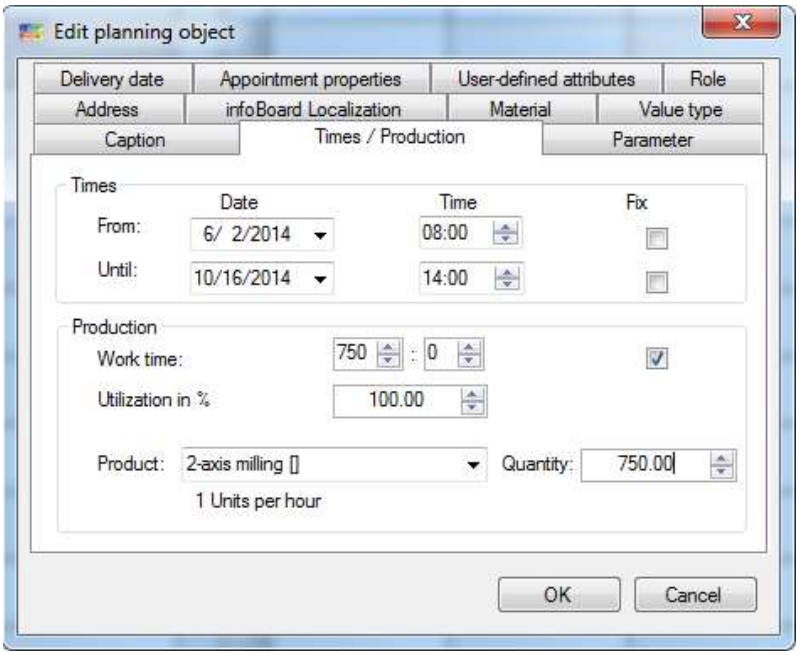
6 Planning Objects

6.1 Editing Planning Objects



You can open the Edit window with a double or right click on the planning object.
Menu entries can be edited point 4.8.3

6.1.1 Times / Production



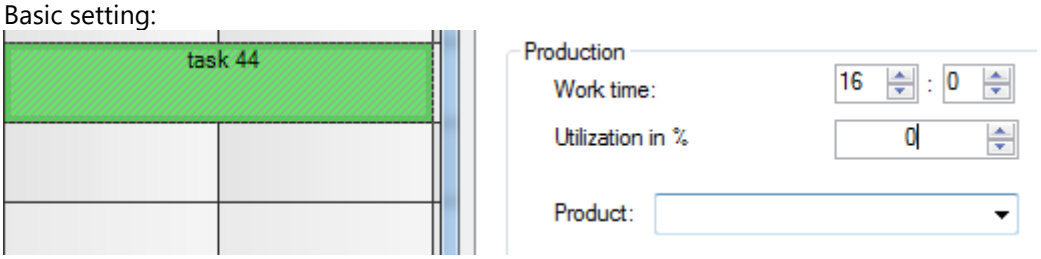
You define start and termination times, working and production times, indication of degree of utilisation, service and products including amounts in this category.

When predefining a product, the planning board can calculate the exact production time via amounts. Through fixing start and termination appointments, the program can calucalate a approximate delivery date or the last start of the task.

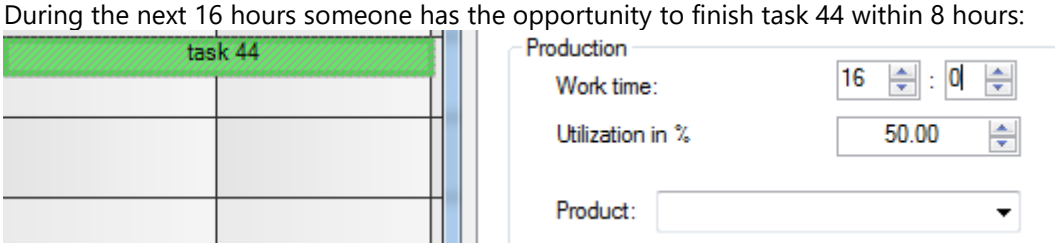
Planning objects that have been predefined with a product cannot be extended with the mouse. The last row in the production area shows the capacity deposited.

Utilisation in %:
Main use is to show the percental occupation of an employee when working on his task.
There are two alternatives when illustrating:

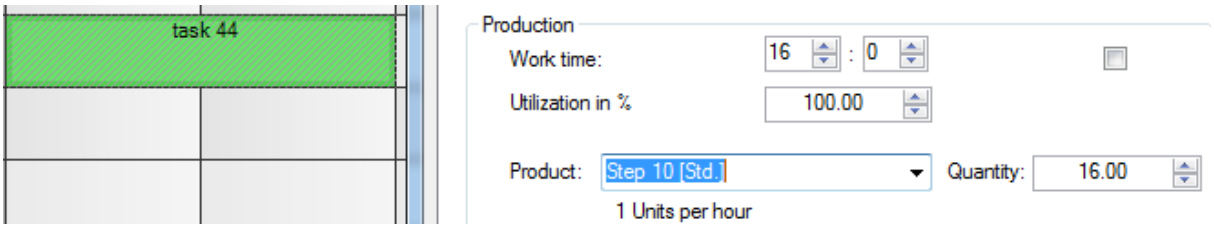
Basic setting:



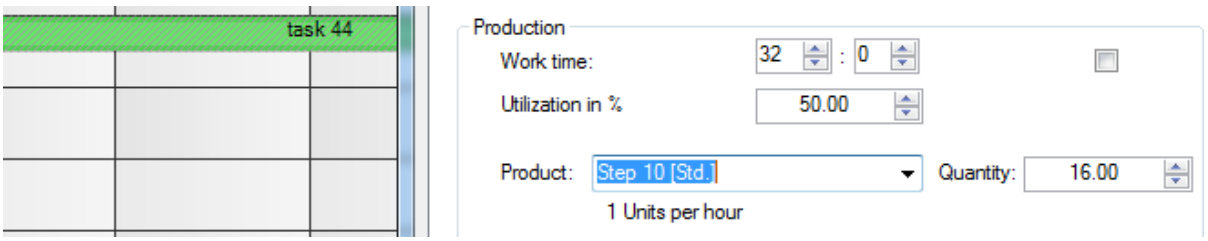
Alternative A
Result at 50 %:
During the next 16 hours someone has the opportunity to finish task 44 within 8 hours:



Alternative B
Result at 50 % and Service/Product selected:
The power is calculated at 100%, it will set the amount calculated and this amount, and in this case 16 hours repair will be calculated as working time
hours.

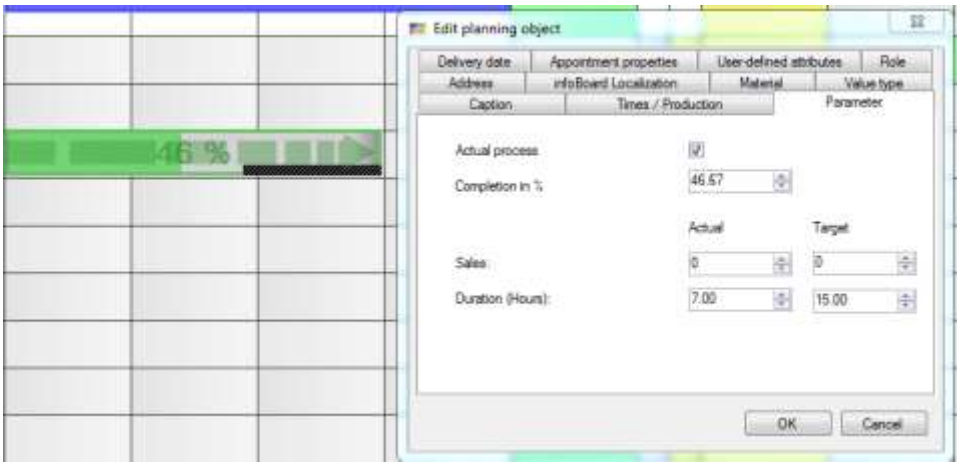


The selected factor of 50% results in this combination for automatic renewal of the required working days to completion: The planning object is longer.

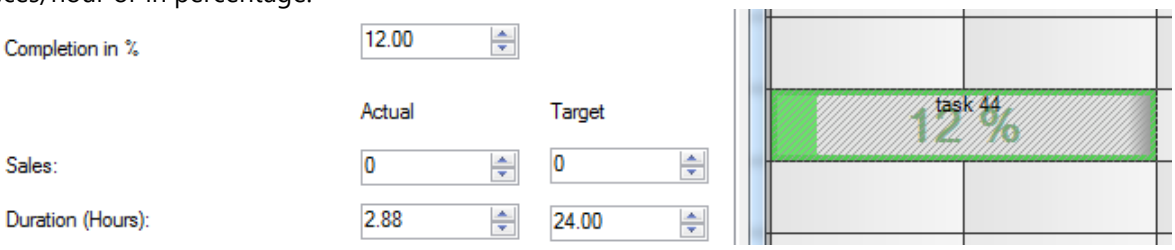


6.1.2 Parameters

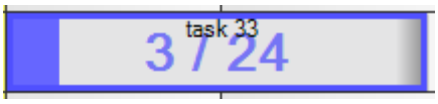
In the tab *Parameters*, the planner can give a nominal value, which can be defined in units (production). In case you do not work with units but with hours or completion in % you can use these fields too:



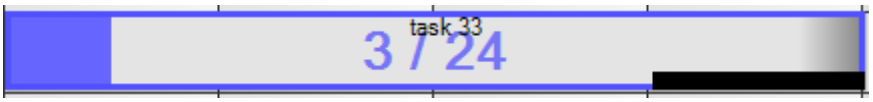
You can define in *Local Settings – Planning Objects* whether the **progress** shall be illustrated in pieces/hour or in percentage.



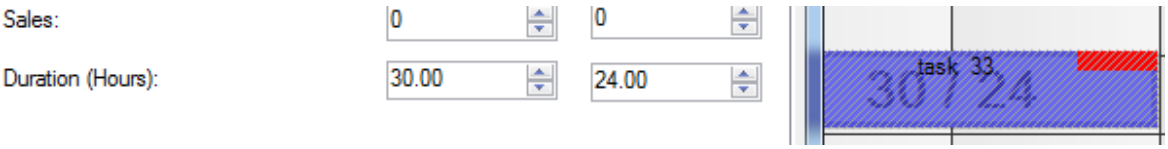
Or



Additional Expenses are illustrated as a black bar when assigning a nominal and actual value to the object. When increasing the actual value it is proportionately illustrated.



In case that the actual value exceeds the nominal value, that additional expense is illustrated as a red bar on the planning object. Such additional expenses are **overtime hours after internal working time.**



The **actual process** shows an arrow on the planning object, which means that the task is **now** executed. This arrow is externally selected via infoBoard web and mobile solutions.

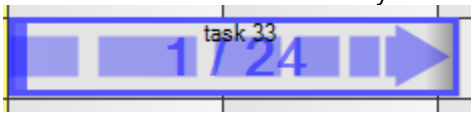
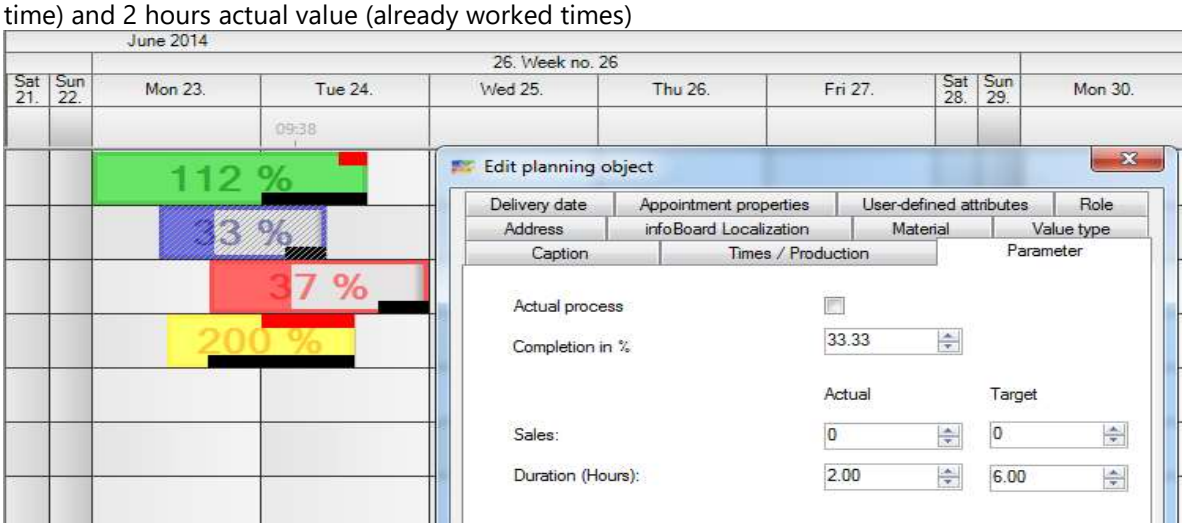


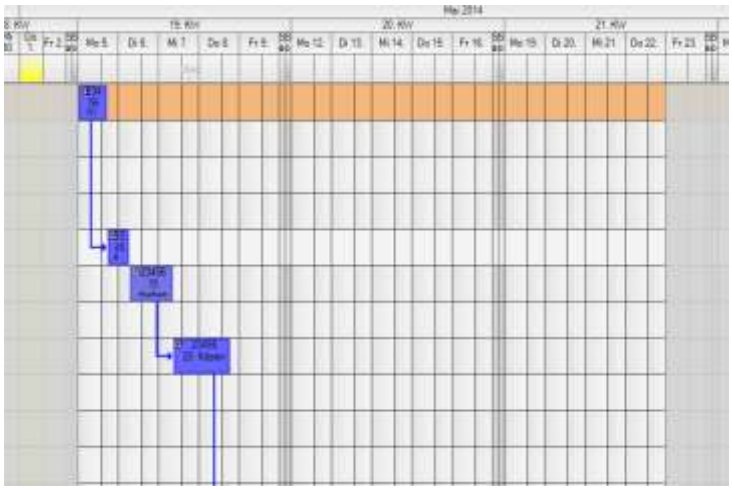
Figure below: Example blue objekt: 6 hours nominal value (hours), 8 hours planned value (working time) and 2 hours actual value (already worked times)



6.1.3 Last Delivery Date and Earliest Start

Defining the last delivery date prevents a accidentally shifting of a task or order beyond this appointment.

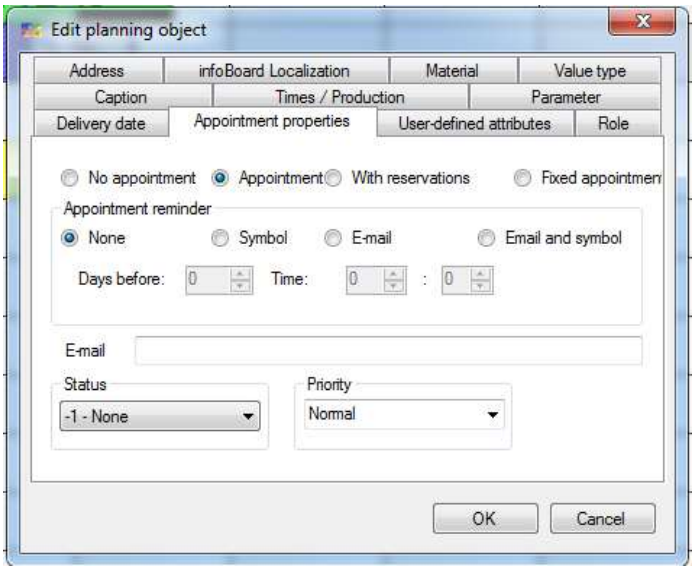
The production period (earliest start until delivery date) can be highlighted in *Local Settings - Accentuation* when clicking on a planning object containing this information.



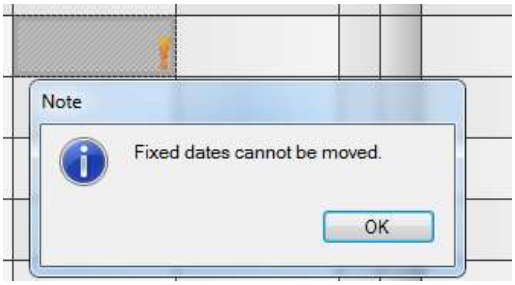
If you try to shift the planning object beyond the fixed appointment a deposition will be impossible and the concerning columns will be coloured (yellow).

6.1.4

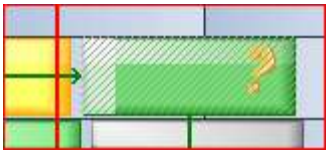
6.1.4 Appoinment Properties

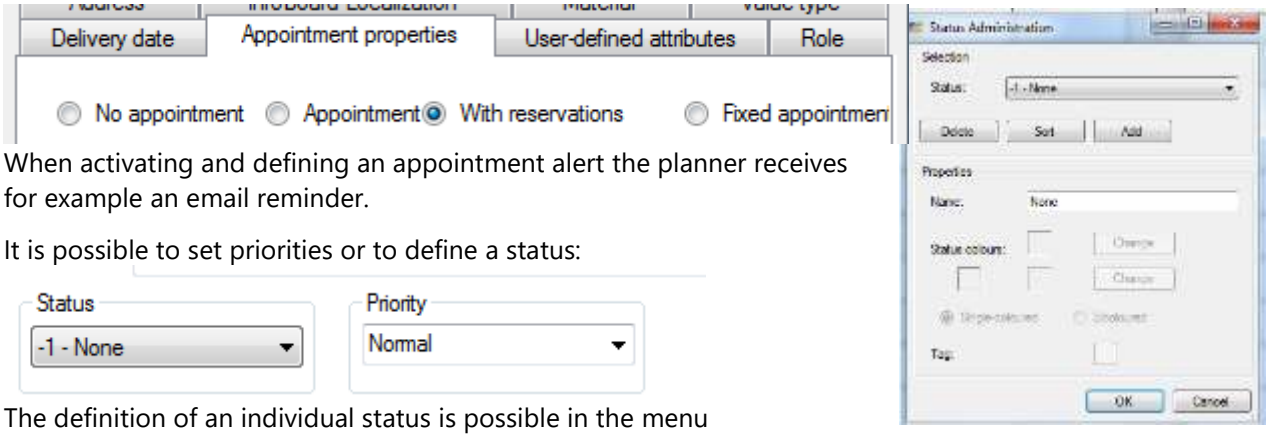


A fixed planning object appointment can be deposited in appointment properties. The concerning planning object is tagged with a large exclamation mark. When trying to shift the planning object the following warning notice appears:



In case that a planning object (order, task) is not completely confirmed, the appointment can be set *With Reservation*. The object is now tagged with a question mark.





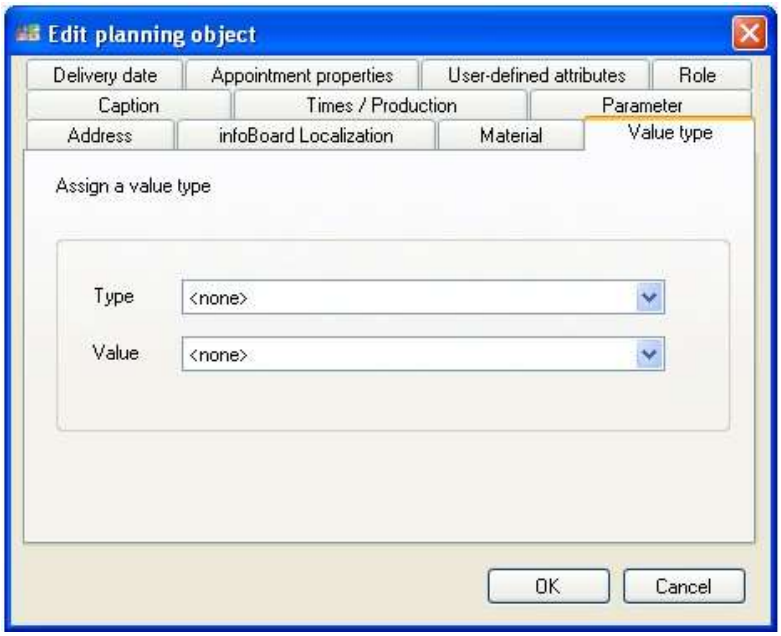
When activating and defining an appointment alert the planner receives for example an email reminder.

It is possible to set priorities or to define a status:

The definition of an individual status is possible in the menu Administration – Status Administration.

6.1.5 Type Value

Predefined type values, such as in point **Fehler! Verweisquelle konnte nicht gefunden werden.** can be deposited in the objects. Type values can be deposited in the panel as well.

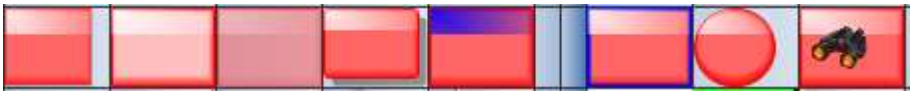


6.2 Further Functions

6.2.1 Formatting Planning Objects

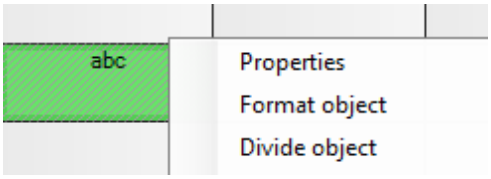
Here the planning object's appearance can be influenced in many ways:
Right click on the planning object and chose *Format*.

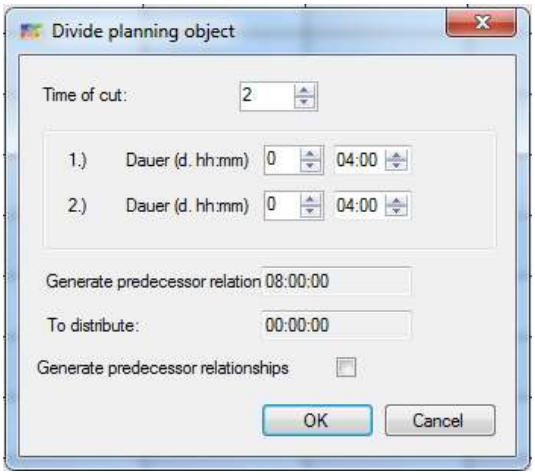
In order of settings you can use and combine individual settings from the normal object:



6.2.2 Dividing Planning Objects

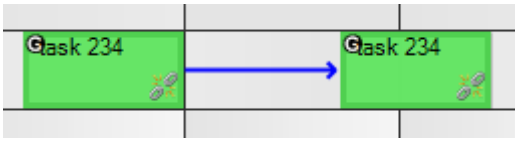
The planning object can be divided into parts if an idle time has to be planned in.





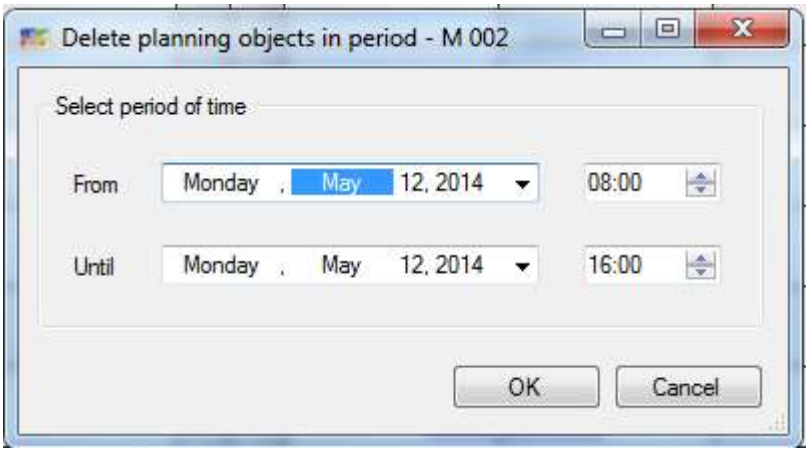
There is the possibility to define the number and length of the parts individually.

A connection line and predecessor relation is generated between the different parts. In addition, the parts get marked as divided. You can draw a connection line between single planning objects and place tags on the objects.



If product amounts are deposited they are split between the objects, calculated with the time that is available on the object.

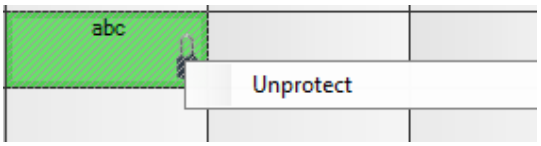
6.2.3 Deleting Areas



This function facilitates deleting planning objects from certain areas on the infoBoard.

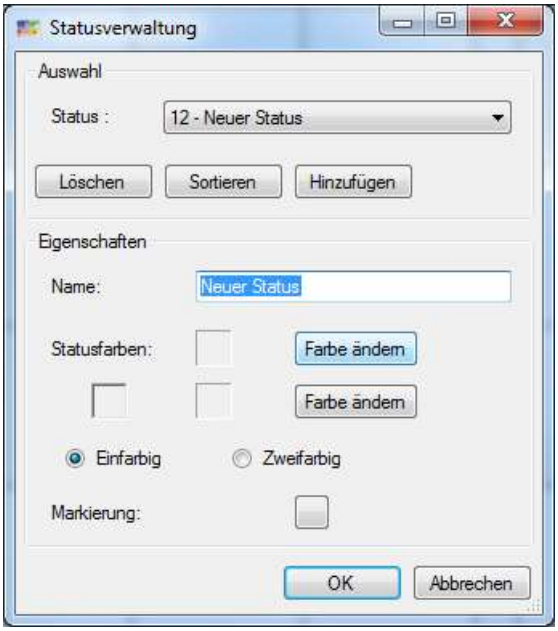
6.2.4 Protecting Planning Objects

Every user can protect a planning object. Only he himself can dissolve the protection. Symbol: lock on the right side.

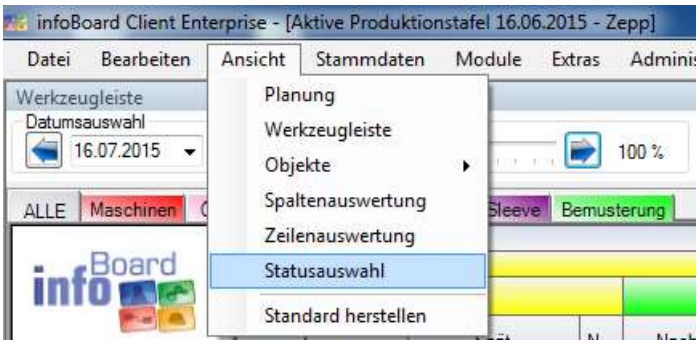


6.2.5 Assign Statuses for Planning Objects

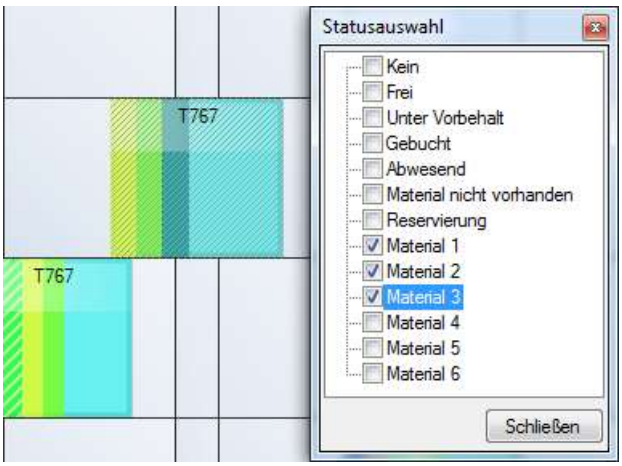
It is possible to display several statuses with colored stripes on planning objects. They must be defined under the menu point **Administration ► Status Management** first:



Open the **Status Selection** under **View** to assign the statuses on planning objects:



In the new window one can now assign defined statuses for the currently selected planning object:

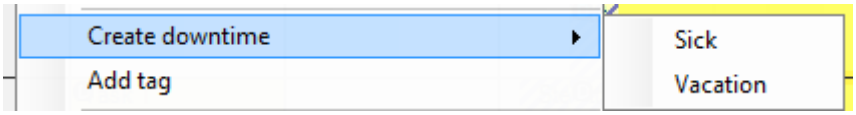


6.2.6 Register Idle Times on Planning Objects

If an exercise gets stretched - e.g. by machine breakdowns or absence of an employee – an idle time can be planned into the exercise. The planning object extends itself automatically.

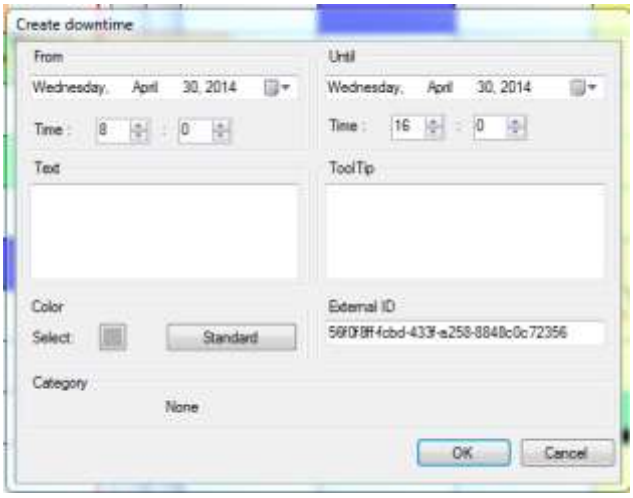
Before: After:

Right click on a marked planning object:

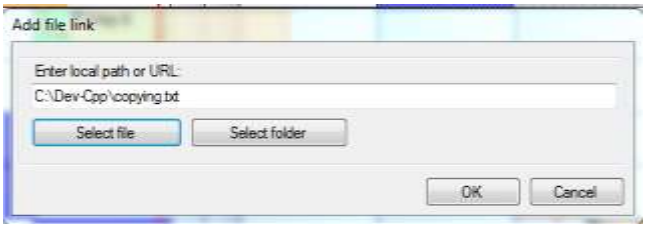


Choosing time (if there is no category deposited) or

Choosing category:

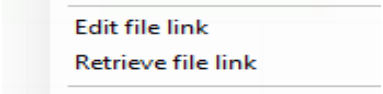


6.2.7 Adding and Using Data Links on Planning Objects

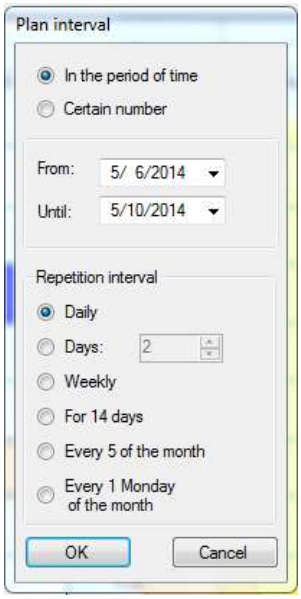


The documentation of the contract in PDF format, a central folder with all documents, a. Zip file, a web address or an IP address to an IP camera can be inserted here.

A LINK symbol appears on the planning object and the context menu is extended:



6.2.8 Planning intervals

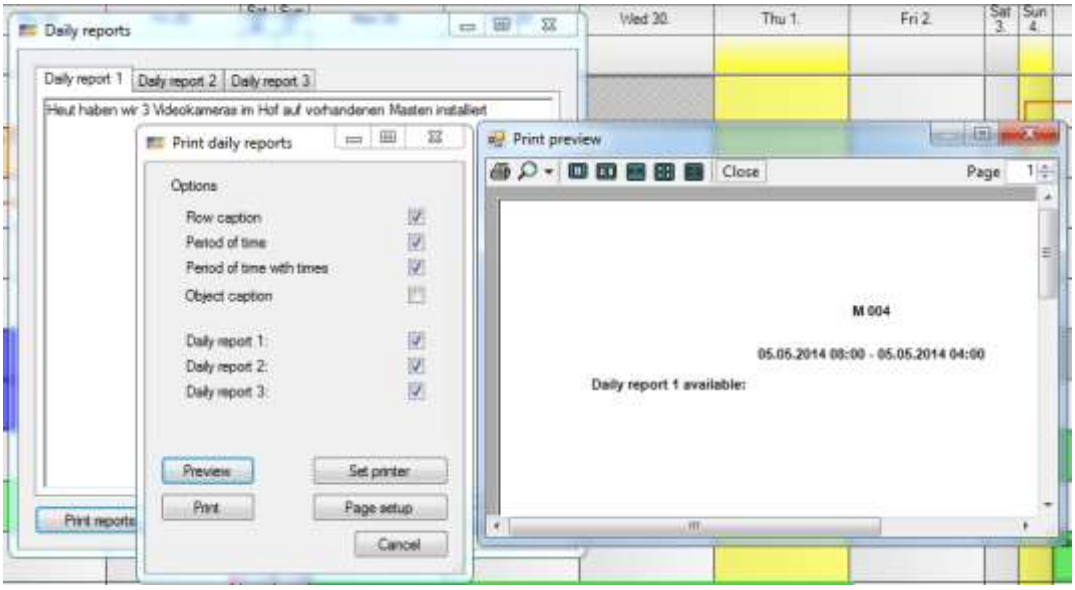


Regularly recurring exercises are planned in the interval to facilitate planning. These intervals are available every month - depending on the length and the position of the planning object:

The planning object is on Monday 25; that is the fourth Monday in the month.

6.2.9 Daily Report

The daily reports are especially important for external work and the assemblymen. Daily reports support the news coverage and they facilitate stating invoices. Even users with only a read permission can use this feedback function.



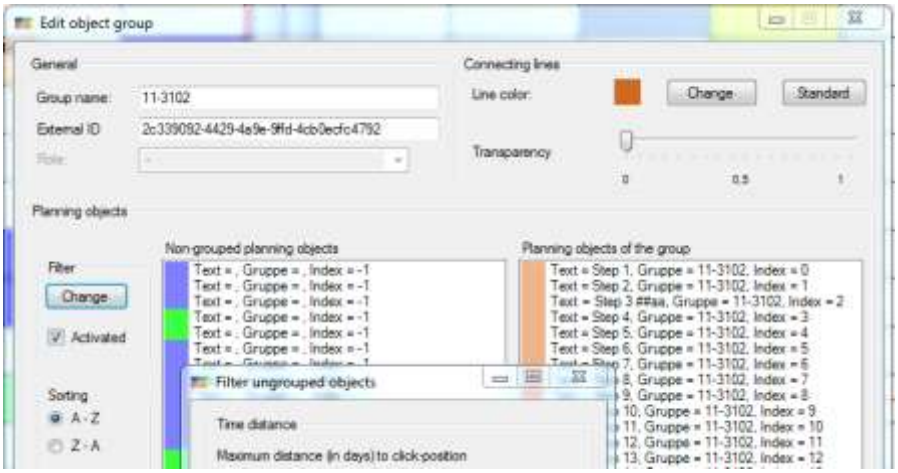
6.3 Object Groups

There is the possibility to arrange several planning objects in a group; this is called an object group. An object group is - roughly translated - an order consisting of many working packs.
Predecessor relations are established e.g. when defining sample orders or when creating object groups. The arrow's colour is automatically given.

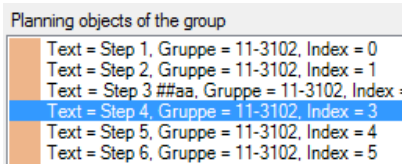
With the left mouse button click the planning objects in the order in which the work packages shall run, and keep the Ctrl key pressed. Then with the right mouse button you create and label object groups. Per default, in the local settings the predecessor relation is defined until the end. Later they can be edited.

6.3.1 Editing Object Groups

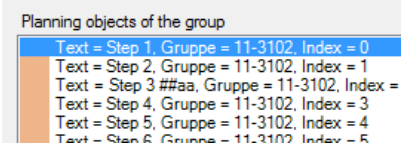
The Object Group Administration opens with a right click on one of the planning objects in a group. You can change the arrow's colour or make them 'disappear' with 100% transparency; they are transparent now.
In left window, all non-arranged planning objects are listed. 'Forgotten' working packs that probably have to be integrated into the order could be registered here.

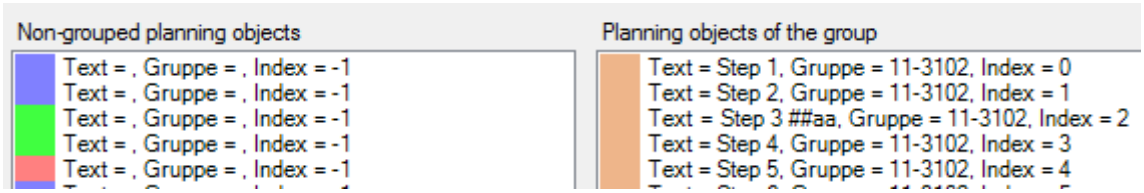


In the right window, the object group members are listed. The member's order can easily be changed by pulling the objects with the left mouse button:

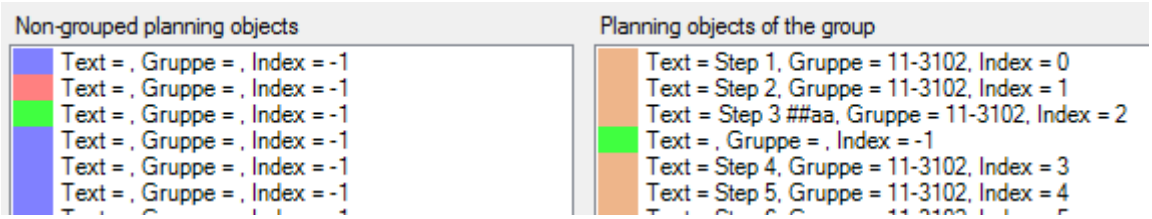


touch and push

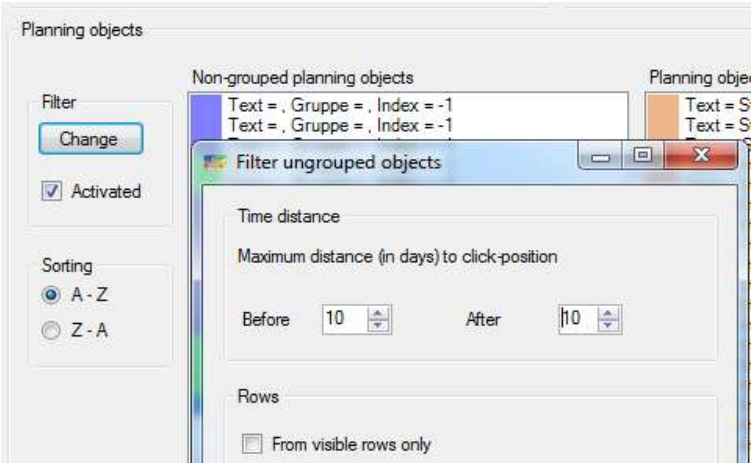




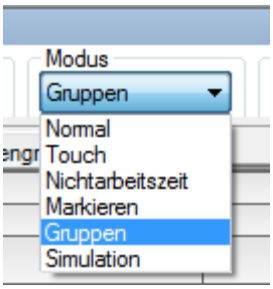
Integrating the planning object „11"into the group: Pull the object - with the left mouse button pressed - from the left side to the right side where it is in the right order:



In case that you do not find the desired working pack in the list the preset filter could be too narrow. It is possible to enlarge or to reduce the list of non-arranged objects by changing the filter and indicating the timeframe required:

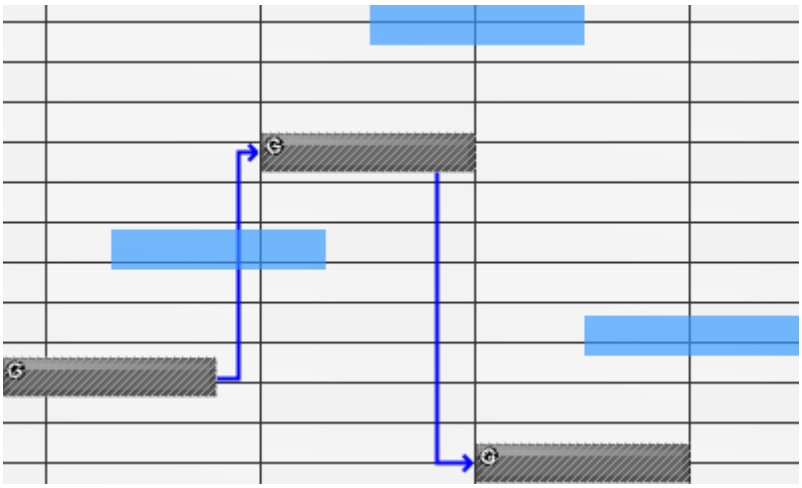


6.3.2 Moving Object Groups



infoBoard features a mode “Group” that allows easy the easy moving of whole object groups that can be activated in the mode dropdown:

Now all parts of an object group can be moved at once:

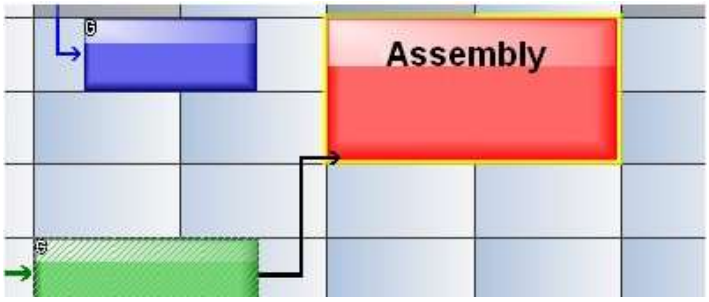


6.4 Predecessor Relations

Additional individual connections can be established by pressing SHIFT and holding and pulling the left mouse button or by clicking with the right mouse button on the following planning object (=Graph).
TIP: Enable the automatic opening of the predecessor dialogue in Local Settings!

6.4.1 Creating Predecessor Relations

Dependences and intervals between different working processes and steps are defined in Predecessor Relations.
Obviously, there are dependences between different object groups (e.g. between creating construction group 1 and creating construction group 2).



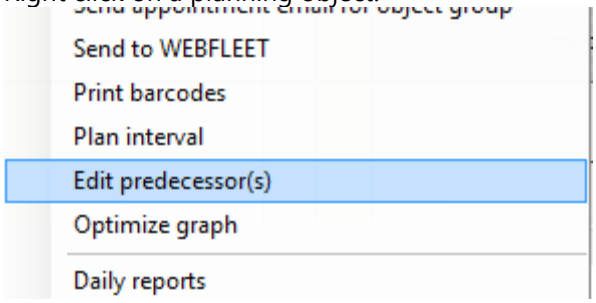
Another way to build connections especially between several working processes that run parallel is to define a graph.

Press SHIFT and the left mouse button. Hold both keys and draw the connection from one object to the other.

6.4.2 Editing Predecessor Relations

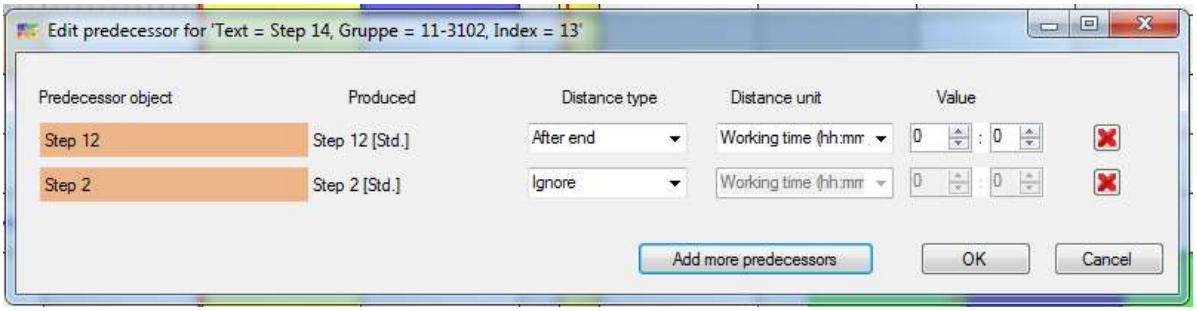
The configurations are either effected in the definitions of a sample order or via 'Editing Predecessor Relations'-function.

Right click on a planning object:

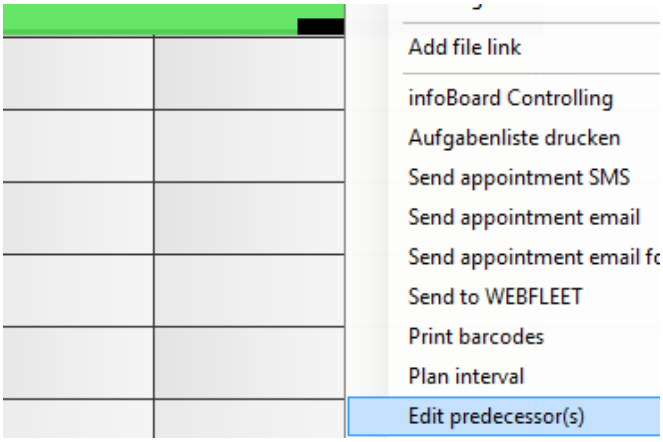


or simply with a double click at the beginning of a planning object:

In the opened dialog only existing sequences and dependencies after the beginning or end of the predecessor and the observed distance in working hours, time or absolute numbers can now be defined with the respective value. Shifting or changing a time component of a planning object in the group the successors is moved by these criteria.



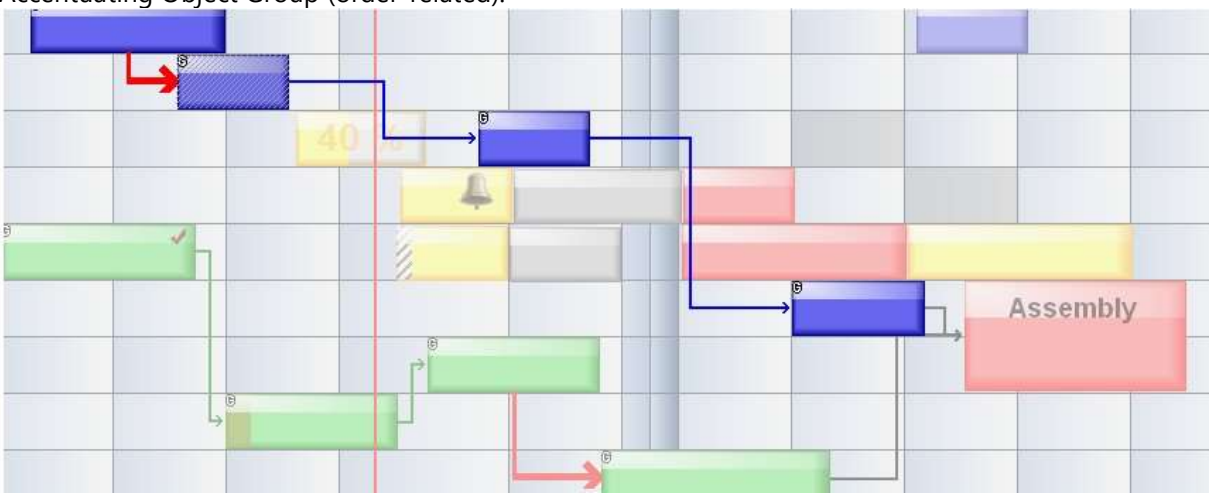
Mark the mentioned planning objects and press the right mouse button to delete the predecessor relations.



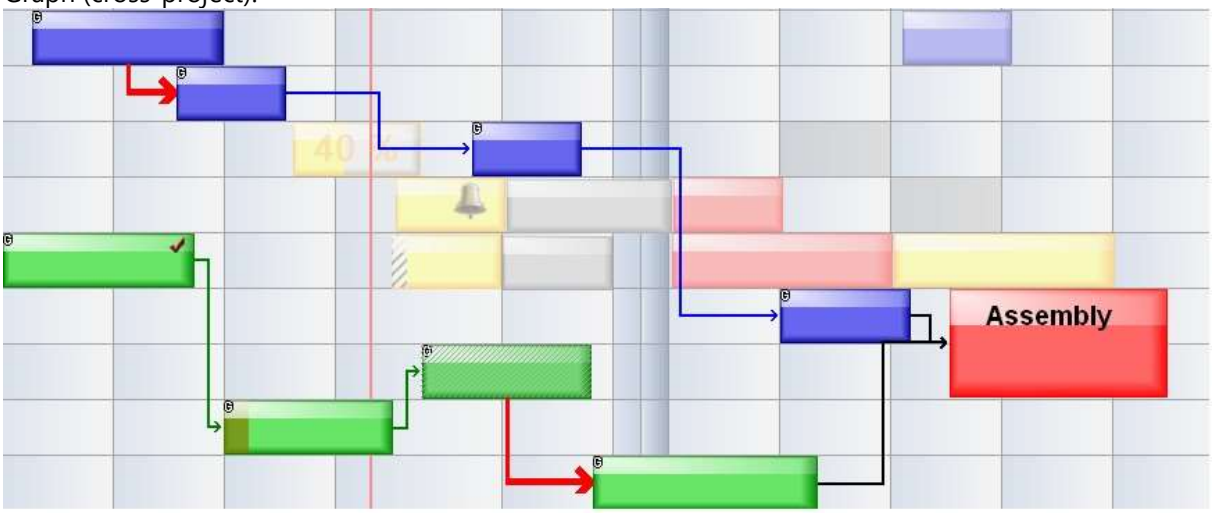
6.5 Accentuating Object Groups and Graphs

With a right click on the mentioned object group or graph it is possible to accentuate the group/graph compared to the other planning objects. ESC cancels this function.

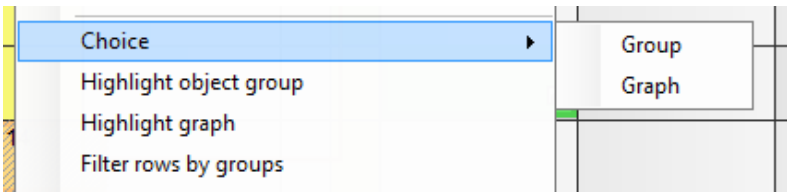
Accentuating Object Group (order-related):



Graph (cross-project):

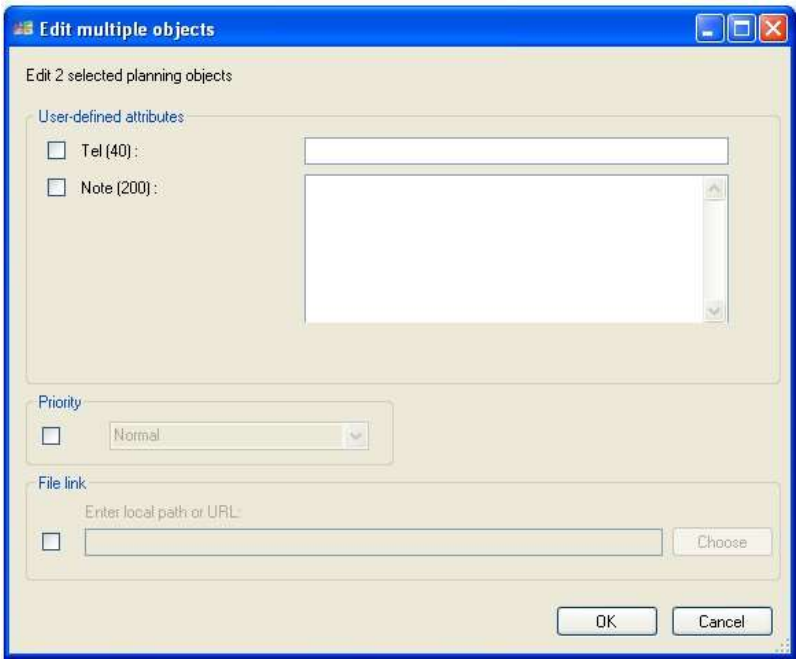


6.6 Selection Group/Graph



With *Selection Group* e.g. the colour or features of all objects in the selected group can be changed at the same time.

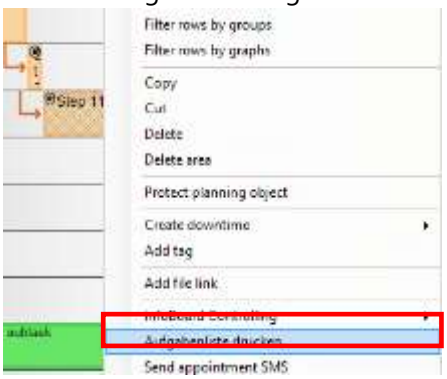
6.6.1 Changing Features of divers objects

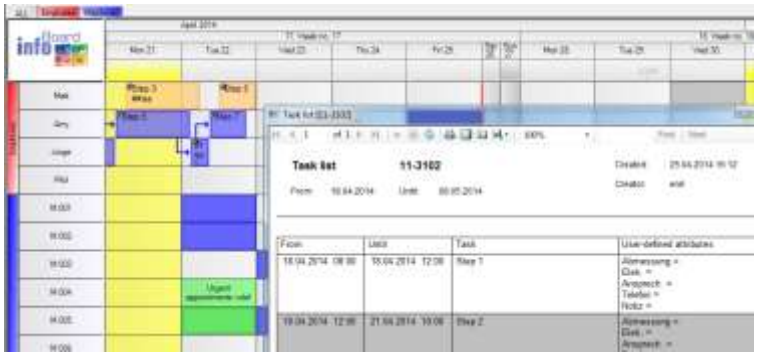


When opening Group Features all object data described above can be changed.

6.7 Printing Exercise Lists for Groups

When clicking with the right mouse button on a planning object of a group you can select 'Printing Exercise List'. An exercise list is now generated only for this group.



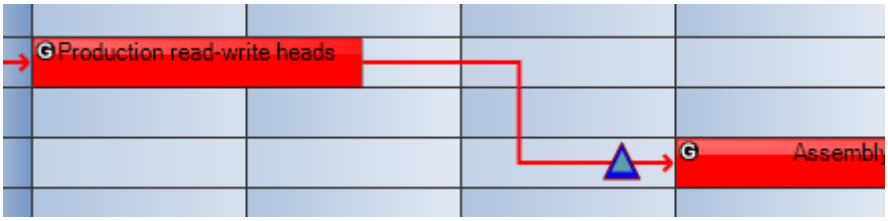


6.8 Milestones and Measuring Points (only in EE Version)

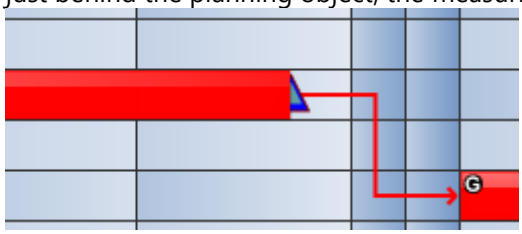
The following functions demonstrate the Enterprise Edition as a high quality analysing tool. The visualisation of analyses and solutions to abbreviate the cycle time, better priority setting, automatic optimisation of the planning objects – all this is realised by evaluating milestones in the web application infoBoard BusinessController.

6.8.1 Measuring Points (Workflow)

A **measuring point** (for business processes) is an independent triangle object on a line or at the end of a connecting line; it is blue.

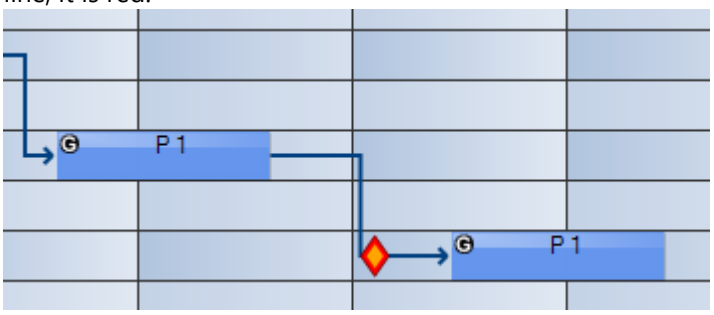


The measuring point is defined by a start date + x days and after which planning object the measuring point should be reached. Even if a start date is shifted, the measuring point stays on the line with certain distance + x days from the start date.
When the planning object moves so far behind the measuring point that the measuring point is now just behind the planning object, the measuring point is exceeded.

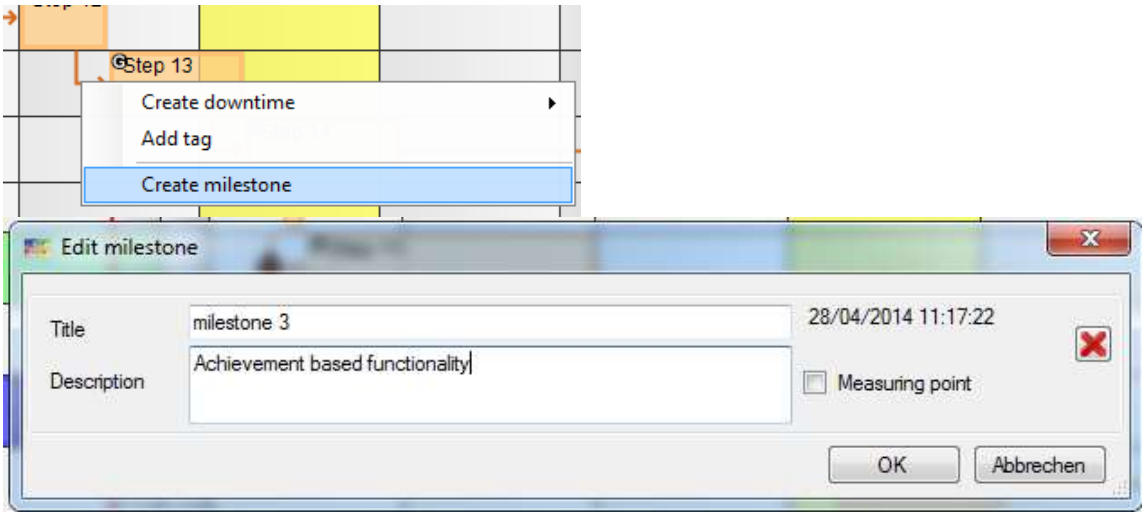


6.8.2 Milestones (Projects)

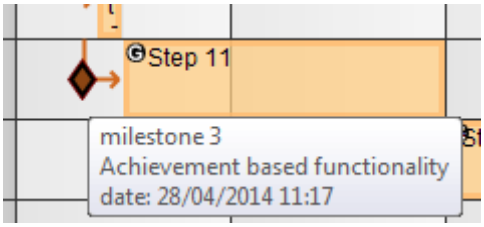
A milestone (for projects) is an independent hash key object on a line or at the end of a connecting line; it is red.



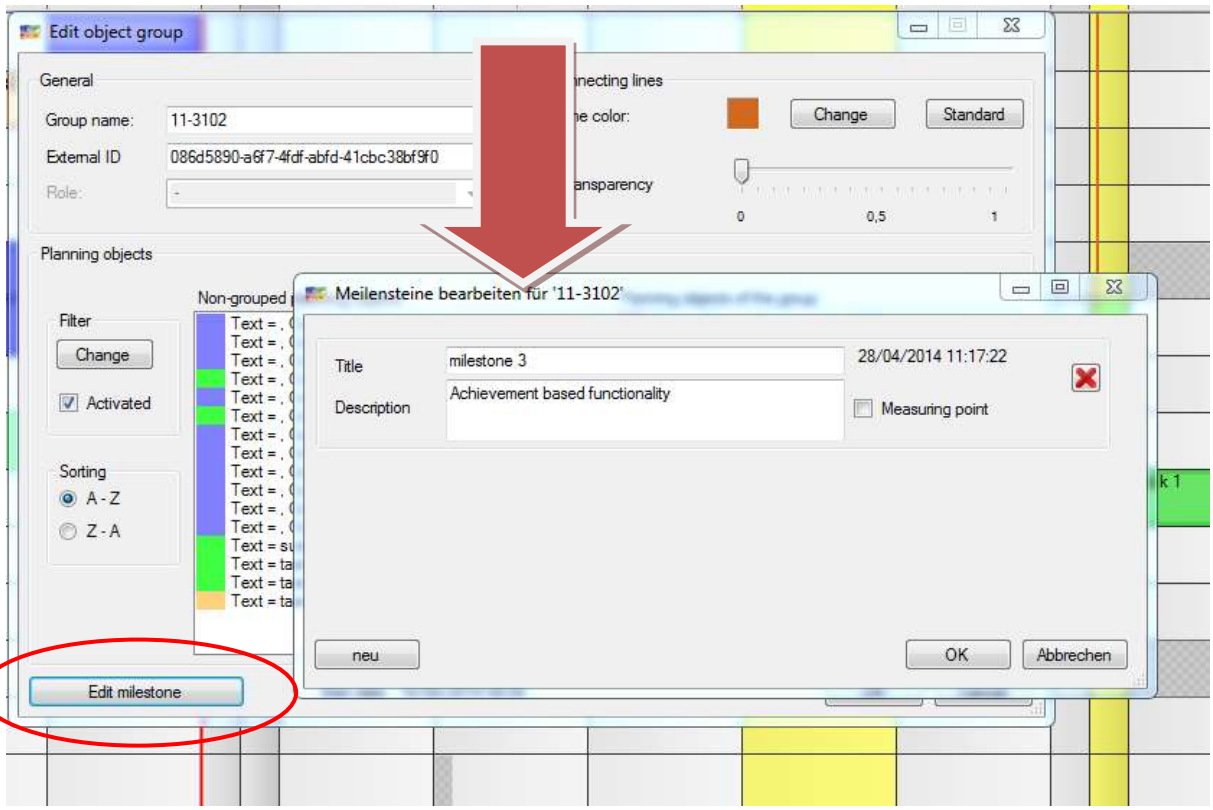
Can be placed on the planning board with a right click on a group line:



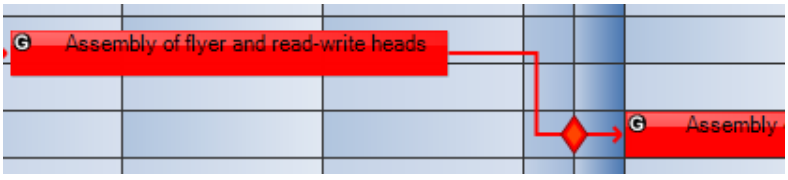
The description appears in the Tooltipptext:



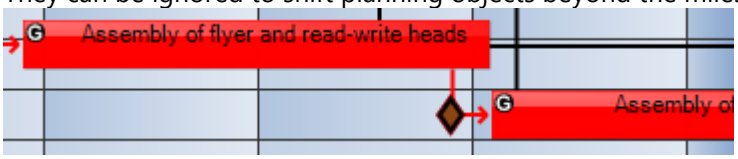
And can be edited in *Editing Group* or Tooltipptext.

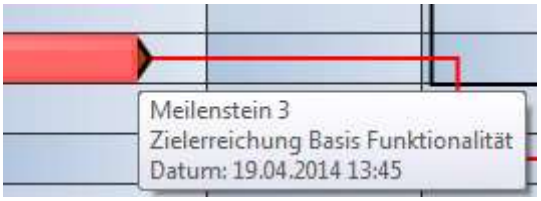


If a basis date (group start date) is established the milestone becomes a fixed date. The yellow inner dye becomes more orange/red.



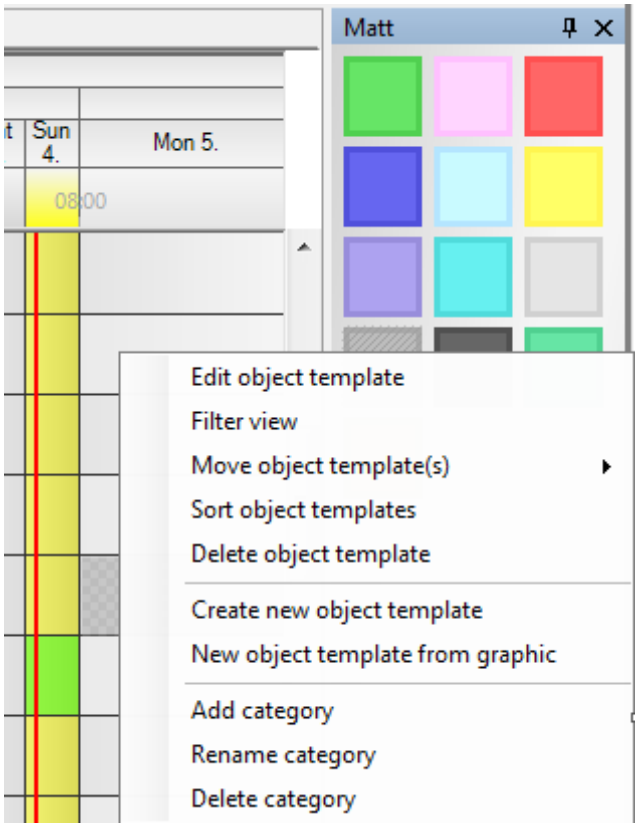
Is the follower shifted the milestone is dyed in black.
They can be ignored to shift planning objects beyond the milestone's date. It turns black in that case.

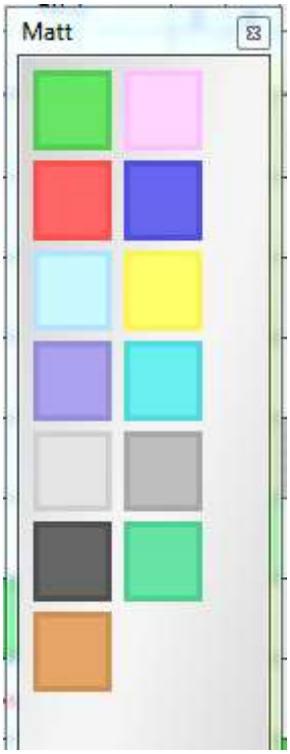




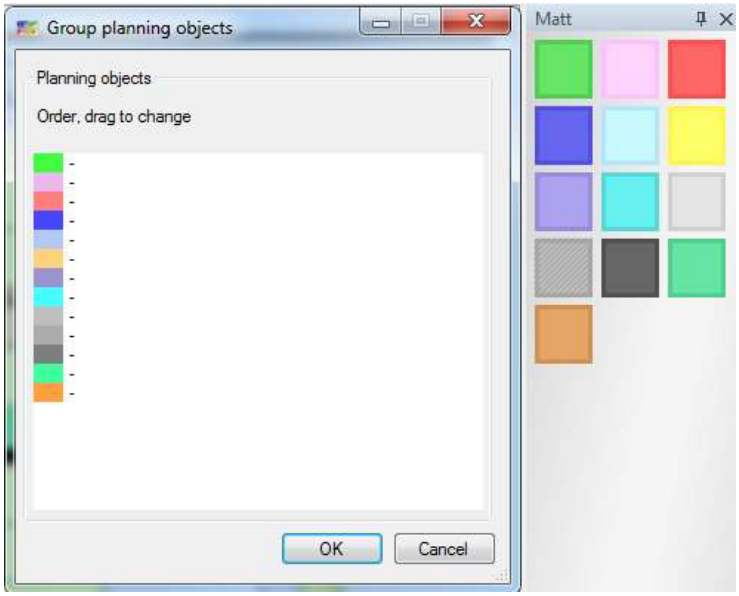
7 The Panel

The panel has the function to provide the users who have write permission with the planning objects. How to use the different colours would be an internal question. Many users chose five colours to keep track of the work types, stati and projects on the planning board. With the help of the predefined colours, it is easier to recognise the single planning objects.





7.1 Panel - Categories



Filtering View:
Are the planning objects in a category already labelled (e.g. with 'internal') it is possible to filter certain labelling.

Arranging Object Models:
The planning object's sequence in the window can be changed via Drag & Drop.

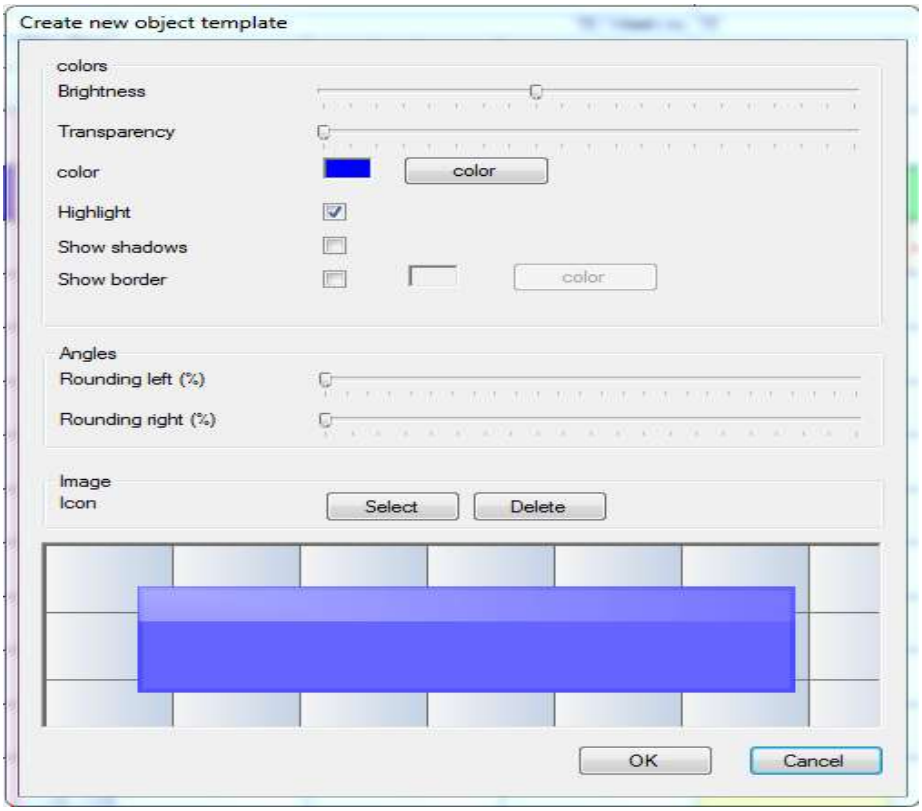
Shifting Object Models:
Object models can be shifted into other categories.

Categories:
Tabs are offered to arrange different planning objects in groups. Categories can be edited with the right mouse button.

Planning Objects:
There are four menu points offered only for the planning object itself. In the first menu point, graphics that do not exceed a certain size can be imported. They behave - apart from some limitations - similar to the vector graphics provided by infoBoard.

7.1.1 Creating a new object model

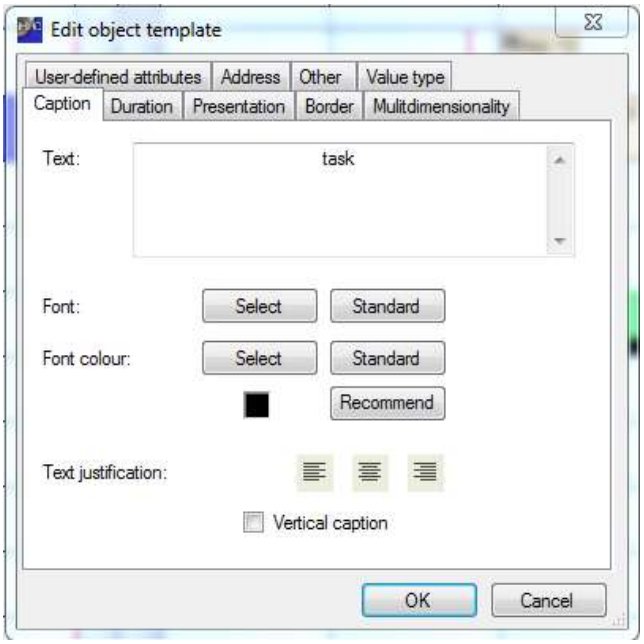
If you decide to create a new planning object, you can select the following configurations. After finishing the creation, the planning object is available on the panel.



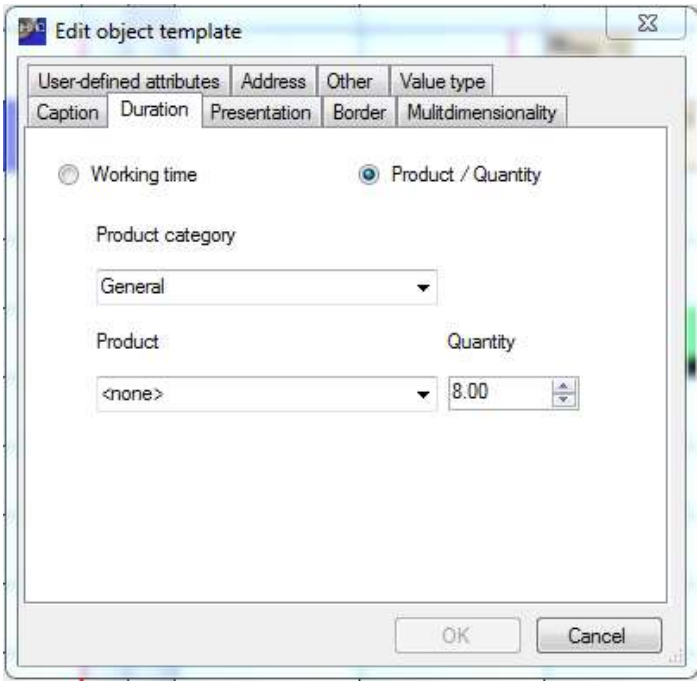
7.1.2 Editing Object Model

With a right click on *Editing Object Model* in the panel area planning objects can be equipped with labelling, services, amounts, frames and addresses.

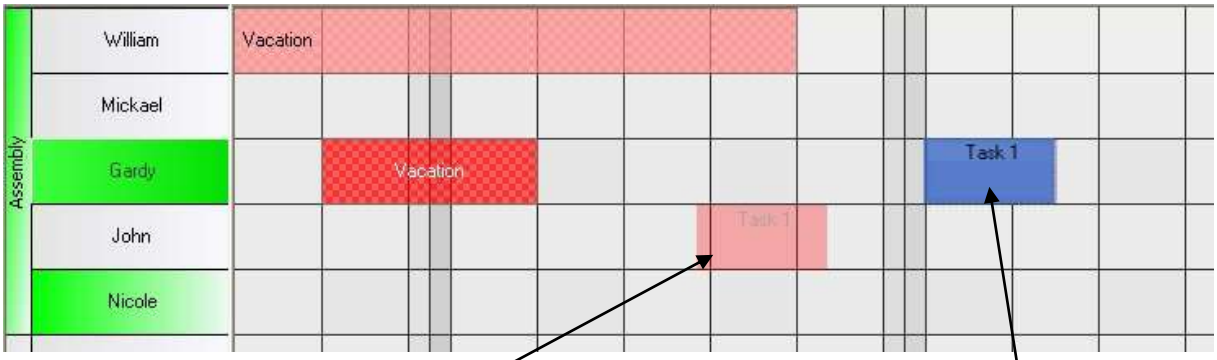
Labelling:



Working time or rather Product/Service:

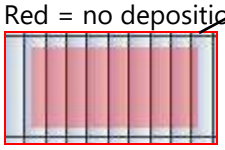


Objects that are predefined as a product or a service can only be deposited on such rows that received a corresponding service as a capacity.

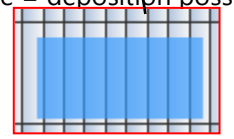


These rows are coloured green when selecting the corresponding predefined planning object. Objects can only be placed on the following rows:

Red = no deposition possible

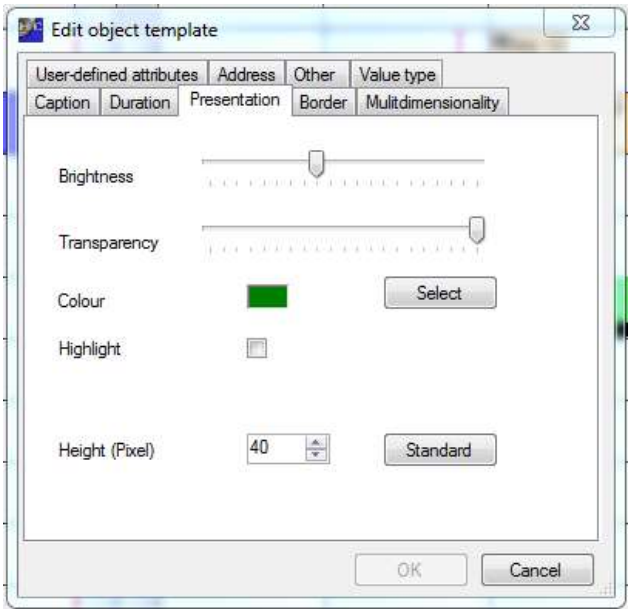


Blue = deposition possible

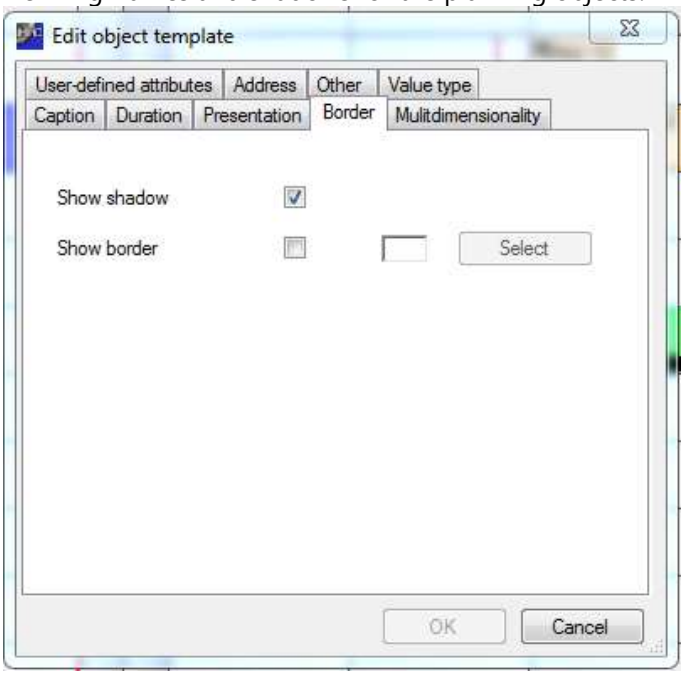


The capacities and the amounts on the predefined planning objects calculate the length of the planning object on the planning board. Information can be obtained from the Tooltiptext.

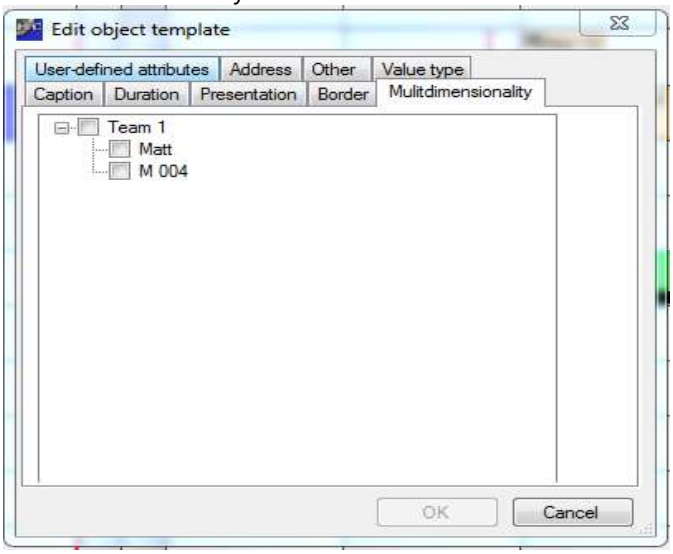
The colours and the colour saturation of the planning objects can be modified unproblematic later on.



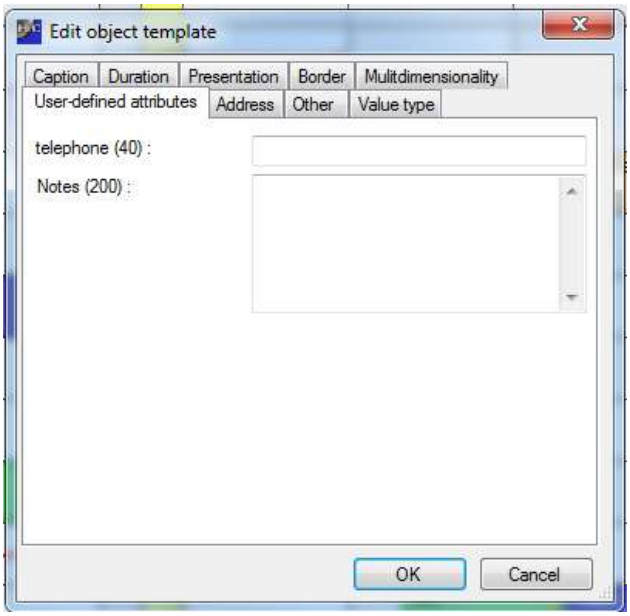
Defining frames and shadows for the planning objects:



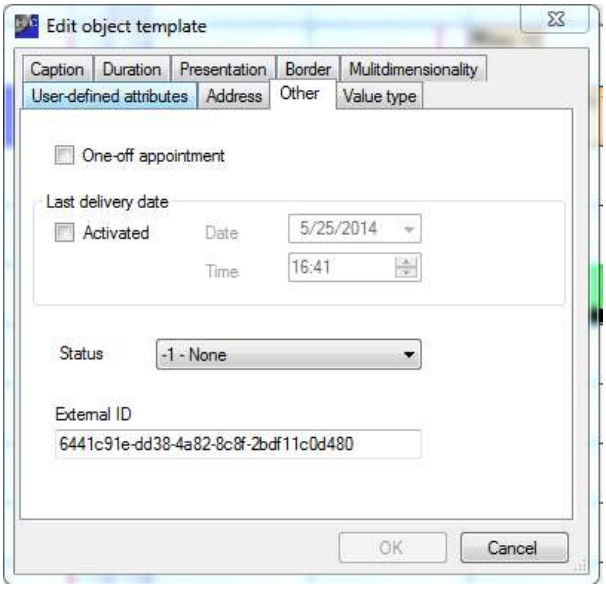
Multi-dimensionality:



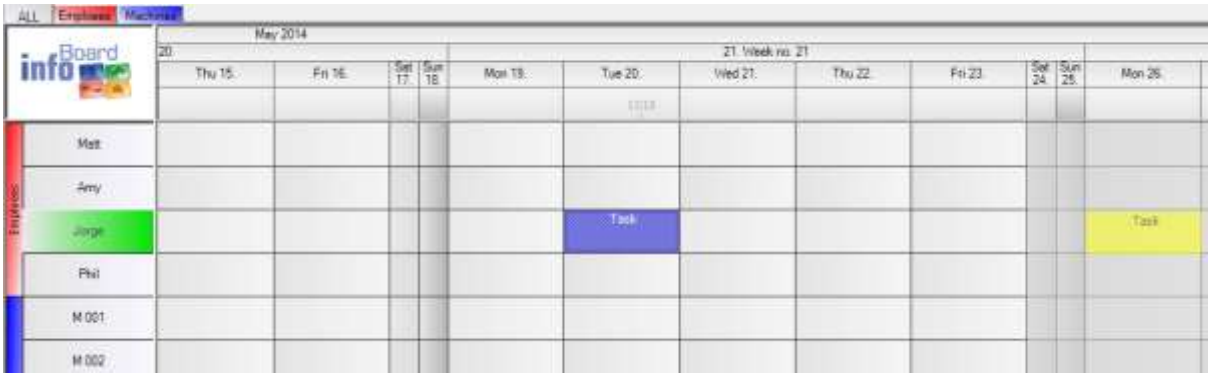
Depositing user-defined attributes in the planning object:
If the user-defined attributes are already created in the planning board they can be easily registered for planning objects in the panel area.



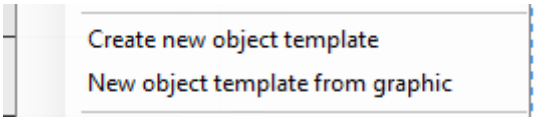
There is the possibility to outline a planning object as a *Unique Appointment* in the menu point *Other*. Objects disappear automatically from the panel area when it is moved to the calendar via Drag & Drop.



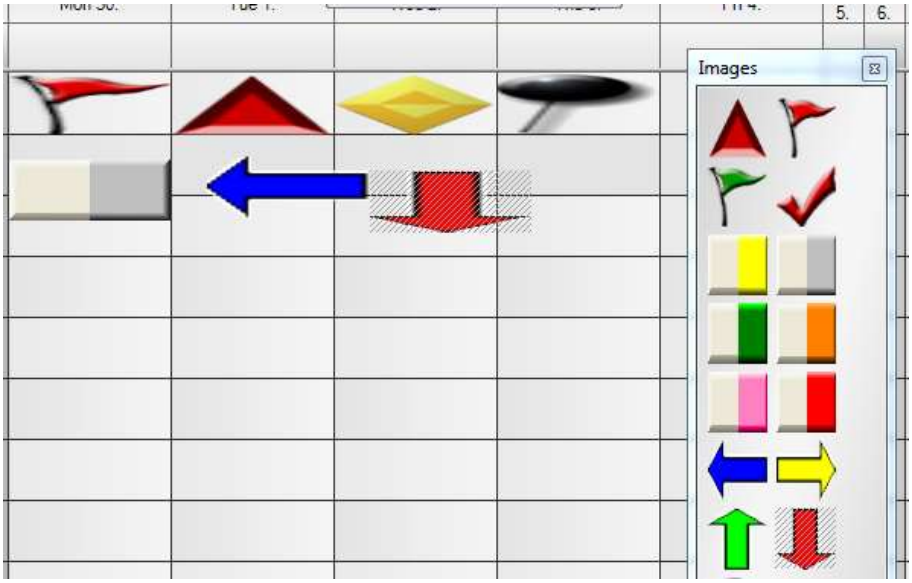
Furthermore, delivery appointments and a status for objects can be deposited. infoBoard prevents a planning after the delivery appointment. Objects that are placed on the planning board after the delivery appointment appear in yellow and cannot be dropped.



7.1.3 New Object Model (Graphic)



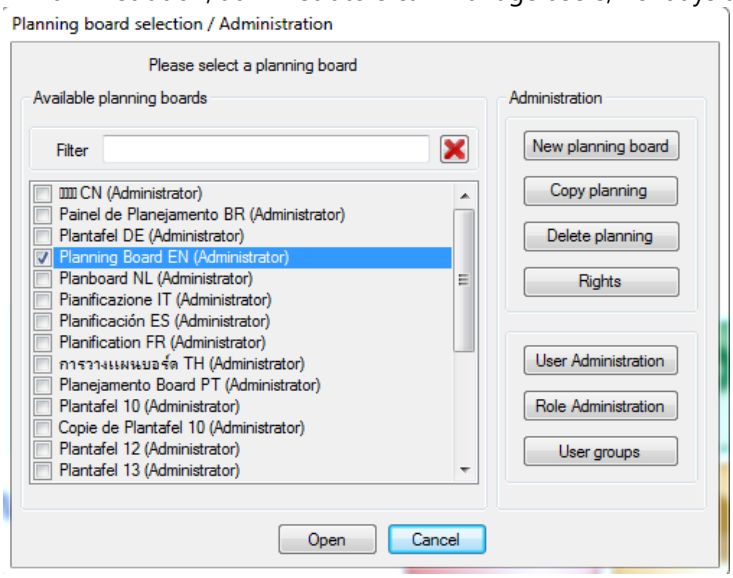
You can import small pictures and photos up to 200 KB and then use them:



8 Login Administrator

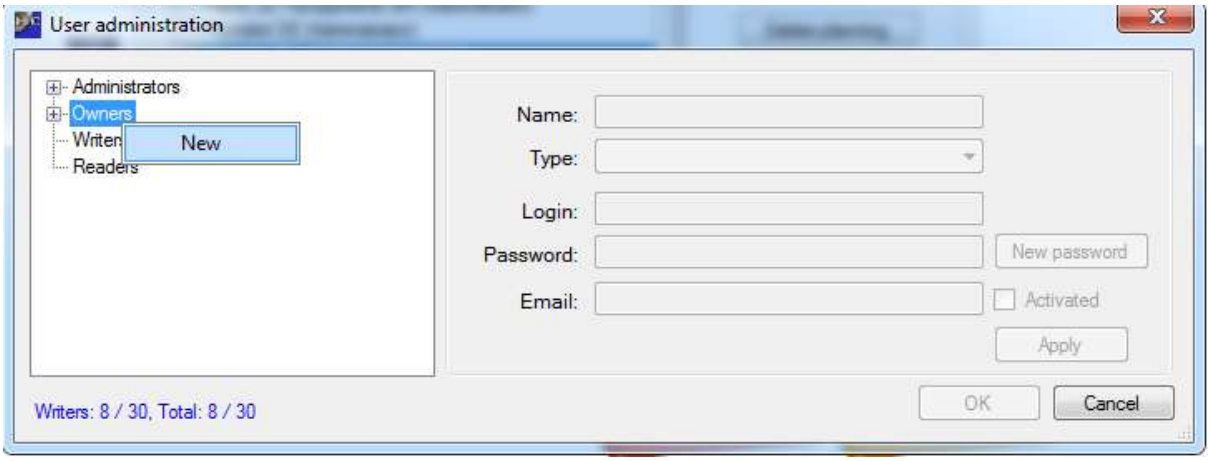
Administrators always use 'Administrator' and as password '1234' to login.

In Administration, administrators can manage users, holidays and planning boards.



8.1 User Administration

In *User Administration* new users can be established up to the number of the licences purchased. One administrator login is additionally available and does not occupy a license.

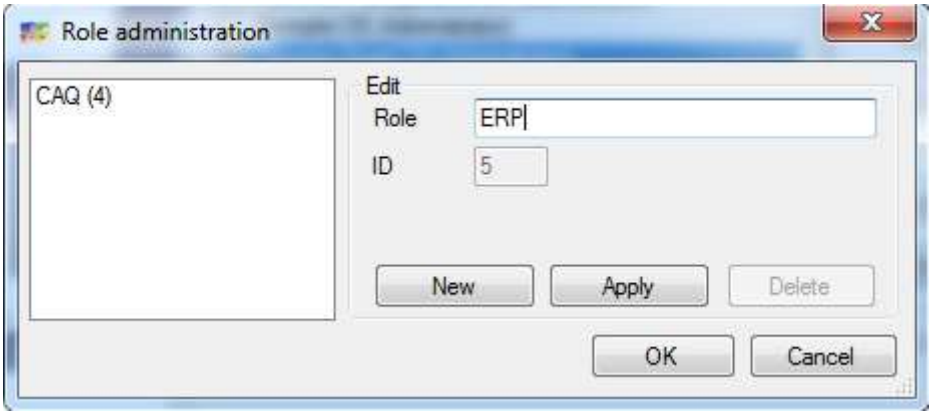


New users can be registered with a click on the right mouse button. In the subsequent allocation of a specific planning board right, a user can get assigned to a lower right or to a lower-rated role.

Note: The email address serves as sender address and must be given to be able to send emails from the infoBoard Client.

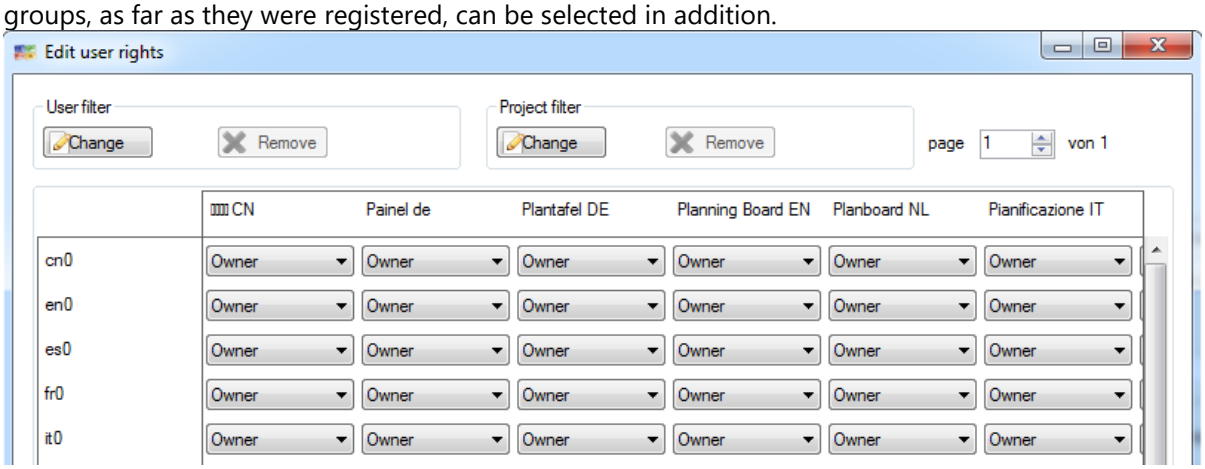
8.2 Role Administration

In *Role Administration,* roles with a limited write permission can be established. A user with that permission for example is only allowed to see certain rows and to modify them:



8.3 User Rights Administration

The allocation of a planning board right to that kind of role happens in *Rights Administration*. Owner, writing and reading rights are normally predefined and can be assigned to the user. Role and user groups, as far as they were registered, can be selected in addition.

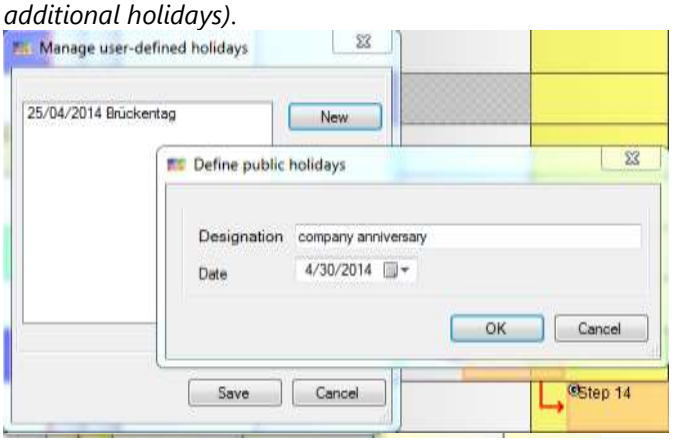


8.4 User Groups (only EE Version)

In *User Groups* several users can be organised in a group so that rights can be automatically assigned to different users. (only in EE Version)

8.5 Furnishing National Holidays

The administrator has to unlock the national holidays. It is possible to edify user-defined holidays *(administrating additional holidays)*.



After the administrator has done the settings the planning board owner can adopt the available national holidays.

8.6 System Premises

Processor	2,5 GHz
Main storage	2 GB
Graphic board	Standard graphic board
Free hard drive storage	200 MB
Journal (Web service)	TCP/IP (Port free selectable)
Foreign software: Data base Communication	 SQL-Server (2005, 2008, Normal or Express) .net Framework 3.5 SP1
Licence control	.dll has to be registered (regsvr32)

FAQ:

- Are administrator rights necessary when installing?
  - Yes.
- Which indexes are necessary on the devices?
  - A program index on the devices is necessary for the server.
    For the client, the following additional index to the program index is required:
    C: \ Documents and Settings \ User \ Application Data
    (under WinXP. Running under Windows 7, the corresponding path to "Application Data" or "AppData")
- Which rights are necessary when using?
  - The service must write to the application index and has to have access to the database. The client must be able to write in the exporting Windows user's AppData index.

8.7 User Administration / Active Directory

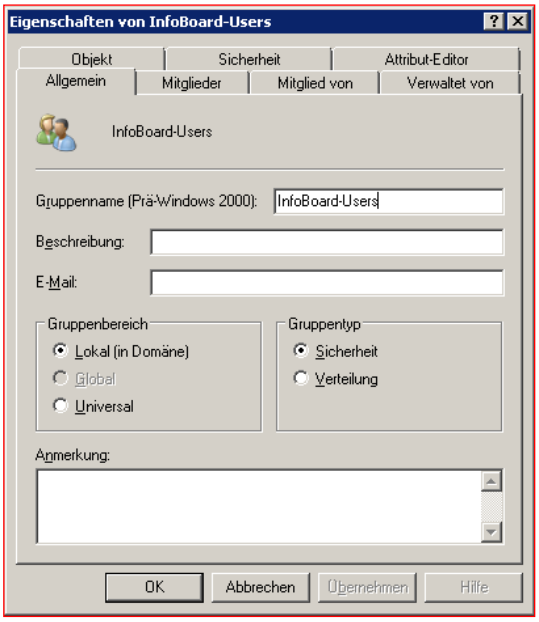
The user rights of the infoBoard users are administrated in the infoBoard database. The client login happens via infoBoard login and the password (infoBoard-Login).

It is now possible to administrate the user rights for infoBoard in the Active Directory and to allocate them to Windows accounts. The client login is effected by the latest Windows user name including domain (Windows Login).

8.7.1 Premises

The user administration via Active Directory requires a Windows server operation system. A Concurrent licence for infoBoard; that means there is no limit for the number of existing users but for the number of users that are logged in at the same time.

Configuration in Active Directory
Applying a user group for the infoBoard users; name is optional:

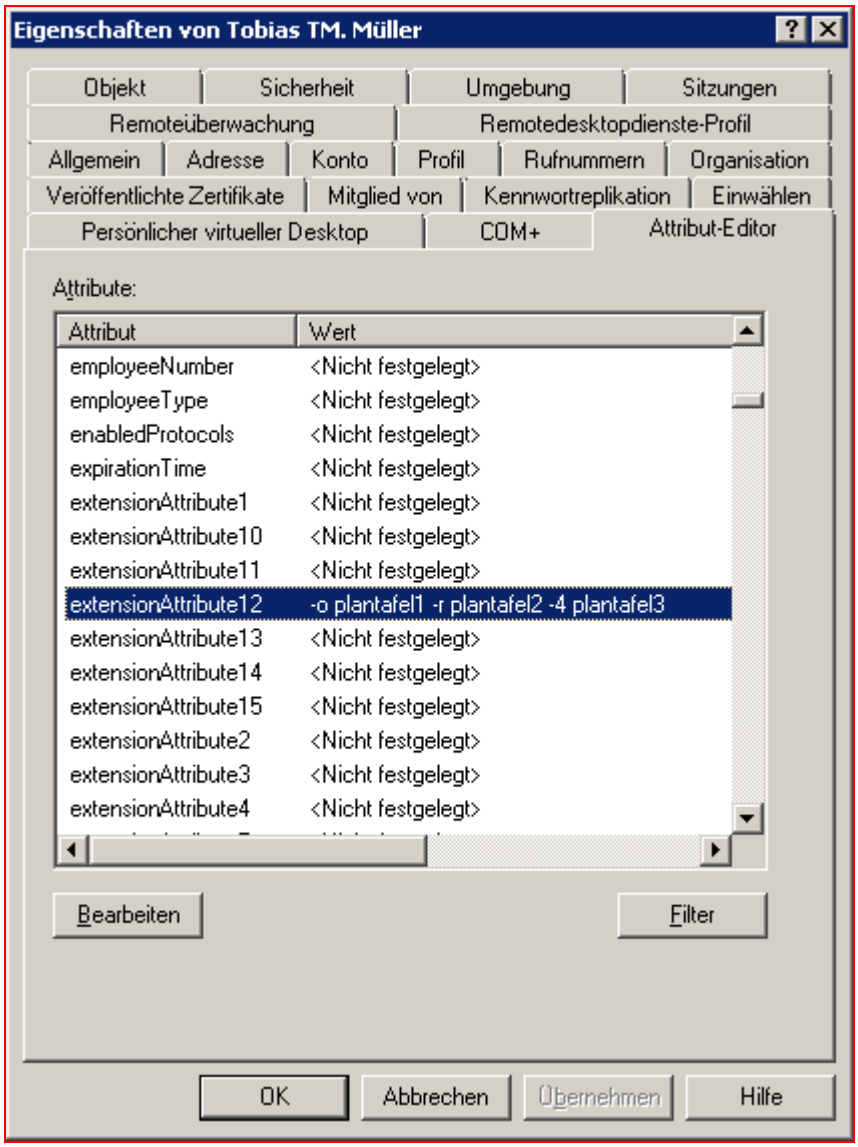


All Windows users who use infoBoard will be added to this group:

8.7.2

8.7.2 Filling any univalent attribute with infoBoard rights.

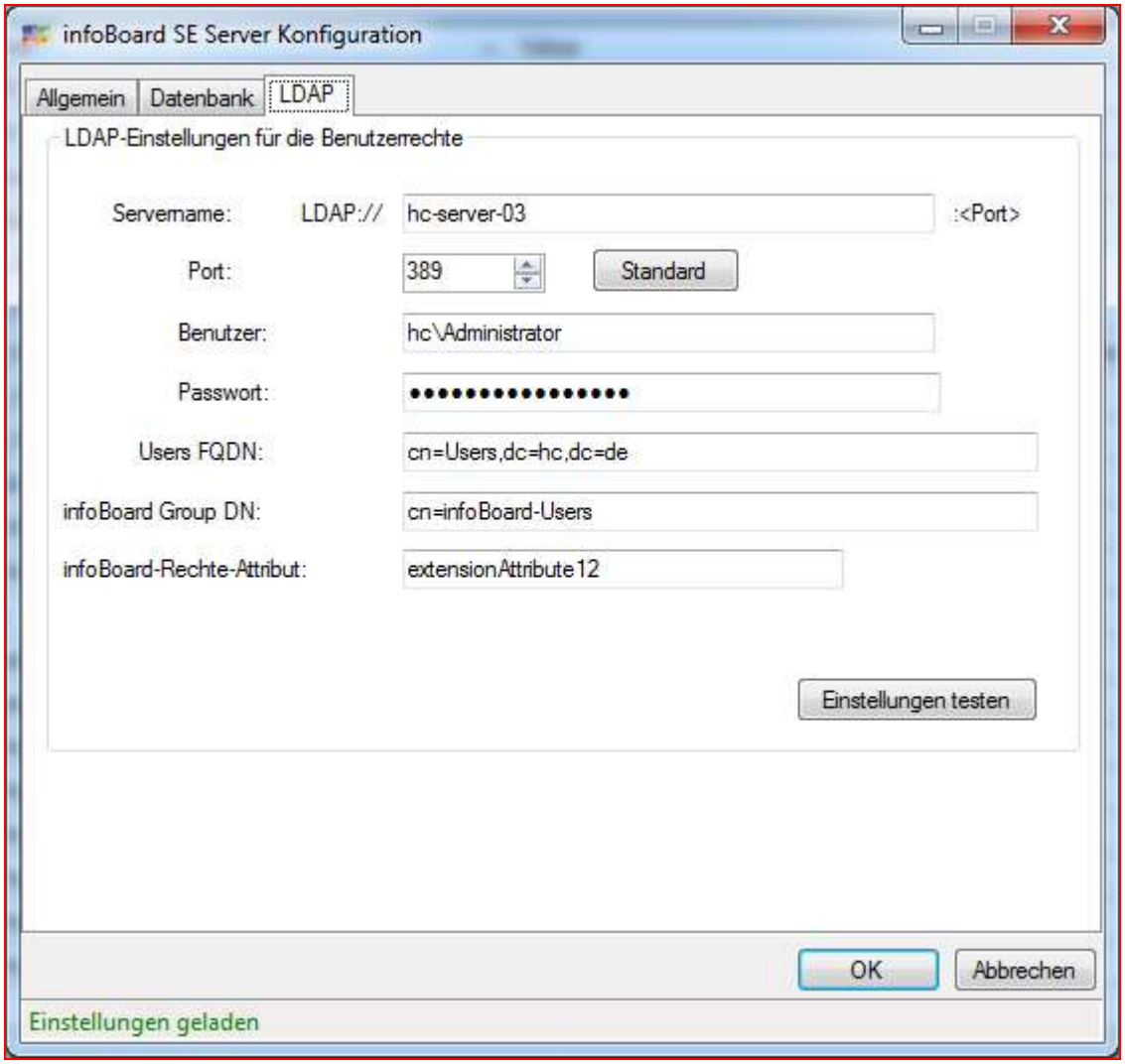
The format is -<right> <planning board name>. As a right you can indicate o, w, r, (for owner, writer, reader) or a number or a. a denominates the infoBoard administrator who has no further rights on the infoBoard; that means there is no planning board name necessary and that this would be ignored. Is a number indicated it has to be in agreement with the rights ID, a self-defined role.



Remark: You will find how to create an arbitrary attribute in the Active Directory under https://social.technet.microsoft.com/wiki/contents/articles/20319.how-to-create-a-custom-attribute-in-active-directory.aspx. For the Attribute-Editor to be shown, the Advanced Features in the Active Directory management must be switched on.

8.7.3 Configuration in the infoBoard Server

In the main window of the infoBoard server configuration (Category: General) the LDAP box is ticked to activate the user administration. Afterwards further settings can be made in the LDAP category:



Under 'Server Name', the name of the LDAP server (Windows server with Active Directory) is registered. In 'Port', the corresponding port number of the LDAP server is specified. In 'User' and 'Password', the login dates of a Windows user who is allowed to access the Active Directory with a reading licence have to be filled in. With these login dates, the infoBoard server is registered for Active Directory accesses. In 'Users FQDN' the name of the group where the Windows users are implied, is stated. Now register the relative name for our infoBoard user group in 'infoBoard Group DN'. In infoBoard-Rights-Attribute, the predefined attribute that should be used for the description of the planning board rights is indicated.

8.7.4 Blinded Out Functions

As users and user rights are administrated in the LDAP and not in the infoBoard server, the following functions are not available:

- User administration
- User rights administration
- Standard row filter allocation (to different users)

9 Key Combination

Esc	Ado of the 'frosted glass function'
Ctrl + Z	Undo
Ctrl + A	Remove filter
Ctrl +/-	Change between the single working steps in-between an object group
Space	The planning object adapts itself to a column horizontally and vertically (*local settings - planning object*)
Ctrl + mouse wheel	Zoom
Shift + mouse wheel	Horizontal scrolling

10 Glossary

Most important terms	
Multi-dimensionality	One task is planned for many resources
Reports	Evaluation
Planning object	Tasks, bars, timeframes
CE	Craft Edition
SE	Server Edition
EE	Enterprise Edition