1. Interfacing an ERP with Direct Planning

> **ADMINISTRATION** ⚙
>
> This section is fully reserved to the Direct Planning administrator.

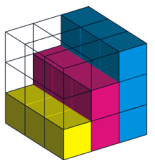## 1.1. Summary diagram

Overview

STANDARD IMPORT
Sending of schedule modification instruction

STANDARD EXPORT
Scheduling information sent back to ERP (*)

ERP (*) → DIRECT PLANNING

(*) ERP, CAPE, Excel

Example in the industry sector: ERP+MES

STANDARD IMPORT
WO Creation/Modification in the schedule

STANDARD EXPORT
Transmission of planned deadlines to the ERP

ERP → DIRECT PLANNING

STANDARD IMPORT
Transmission of the production progress status

STANDARD EXPORT
Transmission of planning modifications to the MES
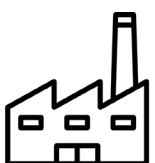
MES

1.1.1. Principles

An application managing jobs can send information to your schedule. The imported data can come from an ERP, a spreadsheet such as Microsoft Excel© or any other application generating data in CSV format.
The CSV format is one of the most widespread: data is recorded in a text file and separated by semicolons (more information below).

In addition to this import function, Direct Planning can transfer planning data to another application able to receive data in the CSV format or in the format of your choice via development of a plugin (following a study). You can use the export functionality without configuring the import beforehand.
Using the import and export functions together allow Direct Planning to send the external software scheduling information for previously imported jobs.

1.2. Importing data

As discussed, a third party application (e.g. ERP, CAPE, specific program or Excel macro) can generate instructions for Direct Planning. These CSV files can be automatically integrated to the schedule when they are placed in an import directory. To avoid disrupting the existing planning, imported jobs are assigned the "to schedule" status.

1.2.1. Direct Planning import capabilities

Direct Planning can import the following data:

- Reference data (DREF1 to DREF999)
- Entities (ENT1 to ENT10)
- Jobs with flags (TASK)
- Process Information (TASK-IP1 to TASK-IP999)
- Links (LINK)
- Technical elements (TEC1 to TEC20)
- Memos (MEMO)
- Standard Days/Weeks in calendars (CAL-JT-L, CAL-JT-C, CAL-ST-L, CAL-ST-C)

1.2.2. The CSV file

The imported data is contained in a csv file containing instructions for updating the schedule in Direct Planning.

| Name and location of file |

The file name must comply with the import_xxx.csv format and that file must be located in the folder configured by the administrator (**Configuration** > **General configuration** > **Automatic import**).
The import folder is scanned each time Direct Planning is started, and then every 2 minutes. Furthermore, the planning manager can occasionally perform "on demand" imports when visual alerts indicate that a new file is ready for import.

| Structure |

The file data is saved in a text file and semicolon-separated.
In a file to import, each line forms a record and must end by a carriage return and line feed (CR LF).
Below is an example of instruction to import in Direct Planning:

```
ENT1;4;CM;CR0549;CREATIVE TECH;Chateaubriant;44110;;BROCHARD Sébastien;+33 (0)2 36 45 78
99;s.brochard@creativetech.fr;;DEL;;\\SERVER\CLIENT\CR0549;RANDOM;;;;;;;;;
```

Lines starting with # will be ignored to avoid the import of certain lines, without deleting them from the

file, especially for test purposes.

Import directives are now strictly processed in the order in which they appear in each import file. This corrects the problems which may arise when there are creation and deletion directives of the same job in the same file.

You will find sample import files in your Direct Planning installation folder.

Exclusive locks

An external application writes import files while Direct Planning reads them. If these two actions happen simultaneously, there is a conflict. Direct Planning preserves data integrity thanks to a lock management which secures the imports:

*   When reading an import file, Direct Planning creates the **directplanning_read.lck** lock file in the import folder.
*   The external application must not attempt to write the file if this lock exists.

*   When writing to the import file, the external application must create the **external_write.lck** lock file in the import folder.
*   Direct Planning will not attempt to read the file of this lock exists.

Note

This management is available but optional.

If you know that the generation of import files is never performed when Direct Planning is being used (for example at night), this security feature is optional.

External ID (or ERP ID)

Jobs originating from an third party application (like an ERP) have an external identifier.

This identifier is assigned by the third party application for jobs created via import.

Its purpose is to allow the third party application to recognise a job it previously transferred to Direct Planning. For convenience, we will call it the external ID.

WARNING

The external ID must never contain the following signs :

*   **#** Hash
*   ***** Asterisk
*   **%** Percent
*   **[** Opening bracket
*   **]** Closing bracket

When a job is created in Direct Planning, its external ID is set to 0 (zero) and hidden.
The external ID is unique. It can be modified during the import in Direct Planning.
The identifiers are displayed in the job details window, via double-click in the schedule (see next page).

Direct Planning ID

ERP ID
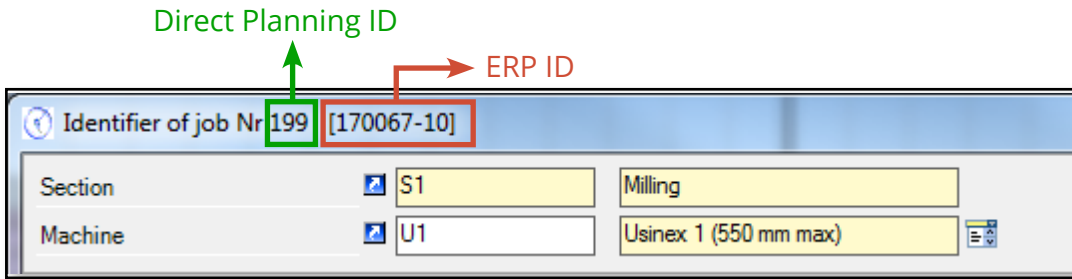
1.2.3. Data import formats

Formats and Direct Planning versions

Format version	Direct Planning version
4	Since Direct Planning 3.1
3	Direct Planning 3.0
2	Direct Planning 2.*

In creation, the required zones are specified in the **Comments** column.

Importing entities

No.	Designation	Format	Comments
1	Data type	alpha	Possible values: from **ENT1** to **ENT10** **Required**
2	Version of import format	alpha	Value: **4** **Required**
3	Action	alpha	**C** (Creation) **CM** (Creation when the entity does not exist, Modification if it already exists). In entity creation, the @ sign can be used to force a zone, following the @ ZONE format. However, if the entity already exists, this character indicates that the specified zone must not be modified. **Required**
4	Identifier	alpha	Job identifier for the ERP **Required**
5	Designation	alpha	
6	Configurable area 1	alpha	Configurable areas are typed. If the value transmitted in the import file does not match the type of zone, it will be ignored (e.g. an "ABC" string exported to a zone set as numeric).
7	Configurable area 2	alpha	
8	Configurable area 3	alpha	
9	Configurable area 4	alpha	
10	Configurable area 5	alpha	
11	Configurable area 6	alpha	
12	Configurable area 7	alpha	
13	Configurable area 8	alpha	
14	Configurable area 9	alpha	
15	Configurable area 10	alpha	
16	Colour	alpha	3 methods are available to express the colour: RGB: (3 comma-separated values) Html name The RANDOM keyword can be used to set a random colour when creating technical elements

No.	Designation	Format	Comments
17	Identifier of linked entity 1	alpha	
18	Identifier of linked entity 2	alpha	
19	Identifier of linked entity 3	alpha	Links between entities are optional.
20	Identifier of linked entity 4	alpha	
21	Identifier of linked entity 5	alpha	When links are included in the import file, the
22	Identifier of linked entity 6	alpha	presence of linked entities is checked.
23	Identifier of linked entity 7	alpha	
24	Identifier of linked entity 8	alpha	
25	Identifier of linked entity 9	alpha	

Notes:

- Alpha fields are limited to 50 characters for codes and 200 characters for any other text zone.

- There can be no link for entity 1 which sits at the top of the hierarchy.

- Entity links are always created "upwards": for instance, if entities 2 and 3 are linked, the link must be declared from entity 3 to entity 2, and not the opposite.

- Links must respect the hierarchy: for example, if entity 3 is linked with entity 2 and entity 2 is linked with entity 1, then entity 3 must also be linked with entity 1.

- There can be no duplicate, neither in the identifier nor in the designation of entities.

- If a duplicate is found in the identifier of an entity, a warning message is generated. This situation can be normal when importing a job attached to an existing customer: the customer is reimported with the new job, triggering a normal warning message.

- If there is a duplicate in the designation of an entity (different identifier but identical designation), the import will add the identifier in parentheses after the description.

Example of instruction to import an entity (in creation/modification):

```
ENT2;4;CM;PA0001;AUTOM-Z/528;AUT;WB9752;16072;92.5 x 49 x 93.5;;;;;;;RANDOM;CR0549;;;;;;;;
```

Importing reference data

Reserved to the **Industry** mode.

No.	Designation	Format	Comments
1	Data type	alpha	Possible values: from **DREF1** to **DREF999** **Required**
2	Version of import format	alpha	Value: **4** **Required**
3	Action	alpha	**C** (Creation) **CM** (Creation when the reference data does not exist, Modification if it already exists) **Required**
4	Identifier of the reference data	alpha	**Required**
5	Designation of the reference data	alpha	
6	Colour	alpha	3 methods are available to express the colour: RGB: (3 comma-separated values) Html name The RANDOM keyword can be used to set a random colour when creating reference data. If CM: not modified

Notes:

- There can be no duplicate, neither in the identifier nor in the designation of reference data.

- If a duplicate is found in the identifier of reference data, a warning message is generated. This situation can be normal when importing a job with existing reference data: the reference data is reimported with the new job, triggering a normal warning message.

- If there is a duplicate in the designation of reference data (different identifier but identical designation), then the import will add the identifier in parentheses after the description.

Example of instruction to import reference data (in creation, designation in green):

```
DREF1;4;C-NOERROR;0;Nouveauté;RANDOM
```

Importing jobs

No.	Designation	Mode			Comments
		I	P	S	
01	Data type	✅	✅	✅	Value: **TASK** Format: **alpha** Required
02	Version of import format	✅	✅	✅	Values: **4** Format: **alpha** Required
03	Action	✅	✅	✅	Action code Format: **alpha** Required
04	Unique external identifier for this job (ERP ID)	✅	✅	✅	Your unique identifier for this job, or the Direct Planning identifier. Normally, this is where you indicate your unique identifier for this job. Instead of your identifier, you can specify the Direct Planning identifier preceded by the hash sign (#). Format: **alpha** Required
05	Move selection down	✅	✅	✅	Format: **alpha**
06	Identifier of resource	✅	✅	✅	Format: **alpha** When creating a job, use the @ character to pre-position the job on the specified resource. If the job already exists, it indicates that this resource must not be modified. Required
07	Operation identifier	✅	❌	❌	If it is #DEF, the job operation will be initialised to the machine default operation. If blank, content is forced to blank. Format: **alpha**
08	Start date and time	✅	✅	✅	The start or end time must be indicated, but not both. If none is entered, the start date is forced to the current date and time. Format: **datetime***
09	End date and time	✅	✅	✅	

*Datetime formats available:
- **DD.MM.YYYY hh:mm** (with a space between the year and time)
- **DD/MM/YYYY hh:mm** (with a space between the year and time)
- **DD.MM.YYYY**
- **DD/MM/YYYY**
- "**NOW**": conversion to the date and time of the import

No.	Designation	I	P	S	Comments
10	Planned quantity	✅	❌	❌	Format: **quantity**
11	Percentage of variable waste	✅	❌	❌	Only one decimal taken into account Format: 3 or 3.0 for 3% of variable waste Format: **decimal**
12	Number of WU to produce per operative WU	✅	❌	❌	The number of working units of quantity to produce contained in a working unit of operative quantity. e.g. the number of posters (representing the quantity recorded in production) per sheet (representing the quantity processed by the machine). By default: **1**.
13	Number of work rate WU per operative WU	✅	❌	❌	The number of working units for entering the work rate contained in a working unit of operative quantity. E.g. the linear footage (unit in which is entered the machine work rate) for a sheet (representing the quantity processed by the machine).

No.	Designation	Mode			Comments
		I	P	S	
14	Performed quantity	✓	✗	✗	Will be entered only if the ERP is to force the performed quantity. Forcing this value will automatically calculate the progress percentage. Format: **quantity**
15	Non-compliant quantity	✓	✓	✓	Non-compliant product quantity Format: **quantity**
16	Progress percentage	✓	✓	✗	Value: from 0 to 100. Not to be entered if the performed quantity is specified. If the planned quantity is entered, this value will allow the calculation of the performed quantity. Format: **integer**
17	Forced transition time (deprecated)	✓	✗	✗	Should be entered when forcing a transition duration (be careful, 0 is a value). Otherwise, leave it blank. The value must be ignored if management of transition times is not enabled in the schedule. Format: **duration****

** Durations can be expressed in two ways:
- An **integer** indicating the number of minutes (e.g. **120**)
- A number of hours and a number of minutes **separated by the character ":"** (e.g. **7:50**)

No.	Designation	Mode			Comments
18	Forced planned setting duration	✓	✗	✗	To be entered when forcing the planned setting duration. Leaving it blank will make DP calculate setting duration. Format: **duration**
19	Performed setting duration	✓	✗	✗	Should be entered when the ERP is aware of the performed setting duration. Format: **duration**
20	Performed durations of setting downtime	✓	✓	✓	Durations of downtime incurred by setting Format: **duration**
21	Completed setting	✓	✗	✗	Allows to indicate that the setting is complete. O/N or Y/N or 0/1 Format: **O/N**
22	Industry: Forced planned running duration Service: Duration Project: Planned duration	✓	✓	✓	Industry mode: to be entered when forcing the planned running duration. Leaving it blank will make Direct Planning calculate running duration. Format: **duration** **Required in Project and Service modes**
23	Industry mode: Performed running duration Project mode: Performed duration	✓	✓	✗	To be entered when the ERP is aware of the performed running duration. Format: **duration**
24	Duration of downtime	✓	✓	✗	Should be entered when the ERP is aware of the downtime durations during running. Format: **duration**
25	Earliest start date and time***	✓	✓	✗	Format: **datetime**
26	Latest end date and time***	✓	✓	✗	

*** In Industry and Project modes: if the format imported to this field is a short format (DD/MM/YYYY), the program will automatically set the default time configured.
Otherwise, the imported time is used even if it is 00h00.
If the field Earliest start date is not populated, it will be initialised by Direct Planning to the date of the import.
Of course, the Latest end date field is left blank if the expected element is not received.

No.	Designation	Mode			Comments
		I	P	S	
27	Manual alert message	✓	✓	✓	Used to force a manual alert message on the job. Format: **alpha**
28	Actual start date of job	✓	✓	✓	Format: **datetime**
29	Actual end date of job	✓	✓	✓	Format: **datetime**
30	Started job	✓	✓	✓	If value is O and field 28 is empty, the job current start date is used. Format: **O/N**
31	Completed job	✓	✓	✓	If value is O and field 32 = 0, field 29 is ignored. The job current end date is used. If value is O and field 32 = 1, field 29 is ignored. The calculation of end date is based on the performed durations. If value is O and field 32 = 2, field 29 is required. The performed running duration is calculated automatically. Format: **O/N**
32	Method of time entry	✓	✓	✓	0=none / 1=by performed duration / 2=by end date Format: **integer**
33	ID of entity 1	✓	✓	✓	alpha
34	ID of entity 2	✓	✓	✓	
35	ID of entity 3	✓	✓	✓	
36	ID of entity 4	✓	✓	✓	
37	ID of entity 5	✓	✓	✓	
38	ID of entity 6	✓	✓	✓	
39	ID of entity 7	✓	✓	✓	
40	ID of entity 8	✓	✓	✓	
41	ID of entity 9	✓	✓	✓	
42	ID of entity 10	✓	✓	✓	
43	Configurable area 1	✓	✓	✓	alpha
44	Configurable area 2	✓	✓	✓	
45	Configurable area 3	✓	✓	✓	
46	Configurable area 4	✓	✓	✓	
47	Configurable area 5	✓	✓	✓	
48	Configurable area 6	✓	✓	✓	
49	Configurable area 7	✓	✓	✓	
50	Configurable area 8	✓	✓	✓	
51	Configurable area 9	✓	✓	✓	
52	Configurable area 10	✓	✓	✓	

No.	Designation	Mode			Comments
		I	P	S	
53	ID of technical element 1	✓	✗	✗	alpha
54	ID of technical element 2	✓	✗	✗	
55	ID of technical element 3	✓	✗	✗	
56	ID of technical element 4	✓	✗	✗	
57	ID of technical element 5	✓	✗	✗	
58	ID of technical element 6	✓	✗	✗	
59	ID of technical element 7	✓	✗	✗	
60	ID of technical element 8	✓	✗	✗	
61	ID of technical element 9	✓	✗	✗	
62	ID of technical element 10	✓	✗	✗	
63	ID of technical element 11	✓	✗	✗	
64	ID of technical element 12	✓	✗	✗	
65	ID of technical element 13	✓	✗	✗	
66	ID of technical element 14	✓	✗	✗	
67	ID of technical element 15	✓	✗	✗	
68	ID of technical element 16	✓	✗	✗	
69	ID of technical element 17	✓	✗	✗	
60	ID of technical element 18	✓	✗	✗	
71	ID of technical element 19	✓	✗	✗	
72	ID of technical element 20	✓	✗	✗	
Flag 1					
73	Status	✓	✓	✓	Values: 0 to 5 Format: **num**
If this zone is not populated, the zero value is set by default, meaning that the flag is inactive. When dealing with an indicative flag, this zone accepts values 0 (inactive) or 1 (active). When dealing with-a multi-status flag, this zone accepts values ranging from 0 (inactive) to 5.					
74	Planned date of receipt***	✓	✓	✓	Applies only to Waiting for element receipt flags Format: **datetime*****
*** In Industry and Project modes: if the format imported to this field is a short format (DD/MM/YYYY), the program will automatically set the default time configured. Otherwise, the imported time is used even if it is 00h00.					
75	Actual date of receipt	✓	✓	✓	Only for Waiting for receipt types of flags. Will only be taken into account if the status of the flag corresponds to a received element. Format: **datetime**
76	Configurable area 1	✓	✓	✓	
77	Configurable area 2	✓	✓	✓	
78	Configurable area 3	✓	✓	✓	
79	Configurable area 4	✓	✓	✓	

No.	Designation	Mode			Comments
		I	P	S	
80	Configurable area 5	✓	✓	✓	
81	Configurable area 6	✓	✓	✓	
82	Configurable area 7	✓	✓	✓	
83	Configurable area 8	✓	✓	✓	
84	Configurable area 9	✓	✓	✓	
85	Configurable area 10	✓	✓	✓	
	Flag 2				
86	Status	✓	✓	✓	Values: 0 to 5 Format: **num**
87	Planned date of receipt	✓	✓	✓	Applies only to Waiting for element receipt flags Format: **datetime**
88	Actual date of receipt	✓	✓	✓	Only for Waiting for receipt types of flags. Will only be taken into account if the status of the flag corresponds to a received element. Format: **datetime**
89 ▼ 98	Configurable area 1 Configurable area 10	✓	✓	✓	
	Flag 3				
99	Status	✓	✓	✓	Values: 0 to 5 Format: **num**
100	Planned date of receipt	✓	✓	✓	Applies only to Waiting for element receipt flags Format: **datetime**
101	Actual date of receipt	✓	✓	✓	Only for Waiting for receipt types of flags. Will only be taken into account if the status of the flag corresponds to a received element. Format: **datetime**
102 ▼ 111	Configurable area 1 Configurable area 10	✓	✓	✓	
	Flag 4				
112	Status	✓	✓	✓	Values: 0 to 5 Format: **num**
113	Planned date of receipt	✓	✓	✓	Applies only to Waiting for element receipt flags Format: **datetime**
114	Actual date of receipt	✓	✓	✓	Only for Waiting for receipt types of flags. Will only be taken into account if the status of the flag corresponds to a received element. Format: **datetime**
115 ▼ 124	Configurable area 1 Configurable area 10	✓	✓	✓	
	Flag 5				

13

No.	Designation	Mode			Comments
		I	P	S	
125	Status	✓	✓	✓	Values: 0 to 5 Format: **num**
126	Planned date of receipt	✓	✓	✓	Applies only to Waiting for element receipt flags Format: **datetime**
127	Actual date of receipt	✓	✓	✓	Only for Waiting for receipt types of flags. Will only be taken into account if the status of the flag corresponds to a received element. Format: **datetime**
128 ▼ 137	Configurable area 1 Configurable area 10	✓	✓	✓	
Flag 6					
138	Status	✓	✓	✓	Values: 0 to 5 Format: **num**
139	Planned date of receipt	✓	✓	✓	Applies only to Waiting for element receipt flags Format: **datetime**
140	Actual date of receipt	✓	✓	✓	Only for Waiting for receipt types of flags. Will only be taken into account if the status of the flag corresponds to a received element. Format: **datetime**
141 ▼ 150	Configurable area 1 Configurable area 10	✓	✓	✓	
Flag 7					
151	Status	✓	✓	✓	Values: 0 to 5 Format: **num**
152	Planned date of receipt	✓	✓	✓	Applies only to Waiting for element receipt flags Format: **datetime**
153	Actual date of receipt	✓	✓	✓	Only for Waiting for receipt types of flags. Will only be taken into account if the status of the flag corresponds to a received element. Format: **datetime**
154 ▼ 163	Configurable area 1 Configurable area 10	✓	✓	✓	
Flag 8					
164	Status	✓	✓	✓	Values: 0 to 5 Format: **num**
165	Planned date of receipt	✓	✓	✓	Applies only to Waiting for element receipt flags Format: **datetime**
166	Actual date of receipt	✓	✓	✓	Only for Waiting for receipt types of flags. Will only be taken into account if the status of the flag corresponds to a received element. Format: **datetime**
167 ▼ 176	Configurable area 1 Configurable area 10	✓	✓	✓	

No.	Designation	Mode			Comments
		I	P	S	
Flag 9					
177	Status	✓	✓	✓	Values: 0 to 5 Format: **num**
178	Planned date of receipt	✓	✓	✓	Applies only to Waiting for element receipt flags Format: **datetime**
179	Actual date of receipt	✓	✓	✓	Only for Waiting for receipt types of flags. Will only be taken into account if the status of the flag corresponds to a received element. Format: **datetime**
180 ▼ 189	Configurable area 1 Configurable area 10	✓	✓	✓	
Flag 10					
190	Status	✓	✓	✓	Values: 0 to 5 Format: **num**
191	Planned date of receipt	✓	✓	✓	Applies only to Waiting for element receipt flags Format: **datetime**
192	Actual date of receipt	✓	✓	✓	Only for Waiting for receipt types of flags. Will only be taken into account if the status of the flag corresponds to a received element. Format: **datetime**
193 ▼ 202	Configurable area 1 Configurable area 10	✓	✓	✓	

Action codes

Action code	Description
C	Creation of a job
CM	**CM** (Creation when the job does not exist, Modification if it already exists).
M	Job modification
M-PLAN	Job modification with assigning of the "to schedule" status. This allows the external software to decide what will be the impact of a modification on the schedule status: this way, after an import, jobs scheduled in Direct Planning can take the to schedule status because of significant changes which took place in the external software.
S	Job deletion

OUR ADVICE 👍

Each action code can be completed by -NOWARNING and -NOERROR extensions to prevent, respectively, the display of a warning or error message. It is recommended to reserve these extensions to the deletion action (**S**), when deleting an element to replace it (like in the "cancel and replace" example of the next section).

👆 Job modifications (CM, M, M-PLAN)

1. The 4 first zones are required as they form the key used to formally identify a job and the action to perform. These zones are the following: 01-Data type 02-Version of the import format 03-Action 04-External unique identifier (ERP) for this job.

2. The zones which must not be modified must contain the @ sign.

3. Zones 08 and 09 (start and end date and time) can only be modified if you assign the job the to schedule status (action code M-PLAN above).

4. The zones requiring modification must contain the new value. If a zone is empty, this means that its content is deleted.

5. To modify a job based its Direct Planning internal ID, and not on its external ID, you must put a hash sign (#) at the beginning of zone 04 (external ID) in the import file on a line where the action code = M (Modification). For example, indicating #120 modifies the job with Direct Planning internal ID 120. This is useful to modify jobs created in Direct Planning.

6. You can also modify the external ID. Indeed, for a job created by Direct Planning and not yet attached to an external ID, the ERP ID is zero. An external ID can then be assigned to the job by preceding it with the | (pipe) character. Examples: #120|ABC to find the job with internal ID 120 and assign it the external ID ABC, or TUV|ABC to modify the job with external ID TUV and change it to ABC.

7. When modifying a job which has an external ID and which was split into multiple jobs, the modifications apply to all the subdivided jobs (the modification of the duration is the only one forbidden).

Example of instruction to import a job in creation/modification with the "@" character:

```
TASK;4;CM;180021;Laser cutting;@MAC1;
```

This instructions specifies that the job designation must always contain "Laser cutting", whether the job exists or not. Entering the character @ before MAC1 indicates that if the job is created, it is pre-positioned on the MAC1 machine. However, if the job already exists, @ indicates that this zone (the machine code) must not be modified. This way, if the planning manager had moved this job to another machine, its positioning is preserved.

👍 Job deletions (S)

1. Deleting a linked job also deletes the links, without deleting the other linked jobs.

2. You can put an asterisk as a wildcard in zone 04 (external ID). For example, indicating 05116001-1-* deletes all jobs whose external ID begins with 05116001-1-. This interesting feature allows the ERP (e.g. VoluPack) to perform a simple cancel and replace type of regeneration. This can be used to delete all operations attached to a WO, and then recreate the WO.

Importing Process Information

No.	Designation	Format	Comments
1	Data type	alpha	Possible values: from **TASK-IP1** to **TASK-IP999** **Required**
2	Version of import format	alpha	Value: **4** **Required**
3	Action	alpha	**CM** (Creation Modification): in Process Information creation, the @ character can be used to force a zone, following the @ZONE format. However, if Process Information already exists, this character indicates that the specified zone must not be modified. **M** (Modification) **S** (Deletion) **Required**
4	ERP ID	alpha	Job identifier for the ERP **Required**
5	Configurable area 1	alpha	Configurable areas are typed.
6	Configurable area 2	alpha	
7	Configurable area 3	alpha	If the value transmitted in the import file does not match the type of zone, it will be ignored (e.g. an "ABC" string exported to a zone set as numeric).
8	Configurable area 4	alpha	
9	Configurable area 5	alpha	
10	Configurable area 6	alpha	
11	Configurable area 7	alpha	
12	Configurable area 8	alpha	
13	Configurable area 9	alpha	
14	Configurable area 10	alpha	

Like the job import, the Process Information import is based on the ERP ID or the Direct Planning. Normally, this is where you indicate your unique identifier for this job. Instead of your identifier, you can specify the Direct Planning identifier preceded by the hash sign (#).

REMINDER	📌
The hash sign (#) must never be appear in your ERP identifier.	

A warning message will be logged in the journal if a Process Information is not active for this machine. Deleting a job also deletes the associated Process Information.

Example of instruction to import Process info (in creation/modification, ERP ID in green):

```
TASK-IP1;4;CM;17030187-1-1-1-0/020;EP07075;1300;948;XPC0010;300;2;230;;;
```

Importing technical elements

To harness the full potential of Direct Planning, you better use Reference data, introduced in version 3.1 instead of technical elements.

No.	Designation	Format	Comments
1	Data type	alpha	Possible values: from **TEC1** to **TEC20** **Required**
2	Version of import format	alpha	Value: **4** **Required**
3	Action	alpha	**C** (Creation) **CM** (Creation when the technical element does not exist, Modification if it already exists) **Required**
4	Identifier of technical element	alpha	**Required**
5	Designation of technical element	alpha	
6	Colour	alpha	3 methods are available to express the colour: RGB: (3 comma-separated values) Html name The RANDOM keyword can be used to set a random colour when creating technical elements

Observations:

- There can be no duplicate, neither in the identifier nor in the designation of technical elements.

- If a duplicate is found in the identifier of a technical element, a warning message is generated. This situation can be normal when importing a job with an existing technical element: the technical element is reimported with the new job, triggering a normal warning message.

- If there is a duplicate in the designation of a technical element (different identifier but identical designation), then the import will add the identifier in parentheses after the description.

Importing links

No.	Designation	Format	Comments
1	Data type	alpha	Value: **LINK** **Required**
2	Version of import format	alpha	Value: **4** **Required**
3	Action	alpha	**C** (Creation) **M** (Modification) **S** (Deletion) **Required**
4	External unique ID for the source job	alpha	Job identifier for the ERP **Required**
5	External unique ID for the destination job	alpha	**Required**
6	Link duration	Num	**0** for a simple end - start link. **n** If n > 0: link with n minutes gap. If n < 0: link with n minutes overlap. **Required**

👍 Link modifications (M)

1. The 5 first zones are required as they form the key used to formally identify the link and action to perform.

2. Consequently, field 6 (Link duration) is the only one modifiable.

3. If field 6 contains the @ symbol, this means that nothing is modified.

👍 Link deletions (S)

1. Deleting a link does not delete the linked jobs.

2. Deleting a link does not delete the other links of the route.

Example of instruction to import a link (in creation, source and target jobs in green):

```
LINK;4;C-NOWARNING;17030187-1-1-1-0/020;17030187-1-1-1-0/030;0
```

Importing memos

Memos contain user comments.

No.	Designation	Format	Comments
1	Data type	alpha	Value: **MEMO** **Required**
2	Version of import format	alpha	Value: **4** **Required**
3	Action	alpha	**CM** (Creation when the memo does not exist, Modification if it already exists) **Required**
4	Job external identifier (ERP ID)	alpha	
5	Direct Planning internal identifier	Num	
6	Login of Direct Planning user	alpha	If internal identifier of DP user does not exist
7	Comment text	alpha	To create a line break: \\r Semicolons are replaced by commas. Double quotes are doubled.
8	State of the alert linked to the comment		
9	Date of comment modification	datetime	
10	Date of comment comment alert	datetime	

Importing calendar modifications

Direct Planning enables you to import directives for creating / modifying / deleting standard days and weeks based on their code or designation (a single file can contain several import directives).

N°	Désignation	Format	Observations
1	Directive	alpha	Possible balues : **CAL-JT-L: Modif. of std day using its designation** **CAL-JT-C: Modif. of std day using its code** **CAL-ST-L: Modif. of std week using its designation** **CAL-ST-C: Modif. of std week using its code** **Required**
2	Version of import format	alpha	Value : **4** **Required**
3	Action	alpha	**C** (Creation) **M** (Modification) **S** (Deletion) **Required**
4	Machine code	alpha	Machine code **Required**
5	Date of the standard day or week	DD/MM/YYYY	**Date of std day (CAL-JT-L and CAL-JT-C directives) start of std week (CAL-ST-L and CAL-ST-C directives)** **Required**

N°	Désignation	Format	Observations
6	Designation / Code of the std day or week	alpha	**Designation (or code) of the day (or week) to impose** **Notes:** • **An empty value can be used to delete the std day or week previously imposed** • **The @ value will not trigger any processing (no modification)** Required

Colour codes

Html name	RGB code	Html name	RGB code	Html name	RGB code
AliceBlue	240,248,255	GhostWhite	248,248,255	NavajoWhite	255,222,173
AntiqueWhite	250,235,215	Gold	255,215,0	Navy	0,0,128
Aqua	0,255,255	GoldenRod	218,165,32	OldLace	253,245,230
Aquamarine	127,255,212	Gray	190,190,190	Olive	128,128,0
Azure	240,255,255	Green	0,128,0	OliveDrab	107,142,35
Beige	245,245,220	GreenYellow	173,255,47	Orange	255,165,0
Bisque	255,228,196	HoneyDew	240,255,240	OrangeRed	255,69,0
Black	0,0,0	HotPink	255,105,180	Orchid	218,112,214
BlanchedAlmond	255,235,205	IndianRed	205,92,92	PaleGoldenRod	238,232,170
Blue	0,0,255	Indigo	75,0,130	PaleGreen	152,251,152
BlueViolet	138,43,226	Ivory	255,255,240	PaleTurquoise	175,238,238
Brown	165,42,42	Khaki	240,230,140	PaleVioletRed	219,112,147
BurlyWood	222,184,135	Lavender	230,230,250	PapayaWhip	255,239,213
CadetBlue	95,158,160	LavenderBlush	255,240,245	PeachPuff	255,218,185
Chartreuse	127,255,0	LawnGreen	124,252,0	Peru	205,133,63
Chocolate	210,105,30	LemonChiffon	255,250,205	Pink	255,192,203
Coral	255,127,80	LightBlue	173,216,230	Plum	221,160,221
CornflowerBlue	100,149,237	LightCoral	240,128,128	PowderBlue	176,224,230
Cornsilk	255,248,220	LightCyan	224,255,255	Purple	128,0,128
Crimson	237,164,61	LightGoldenRodYellow	250,250,210	Red	255,0,0
Cyan	0,255,255	LightGreen	144,238,144	RosyBrown	188,143,143
DarkBlue	0,0,139	LightGrey	211,211,211	RoyalBlue	65,105,225
DarkCyan	0,139,139	LightPink	255,182,193	SaddleBrown	139,69,19
DarkGoldenRod	184,134,11	LightSalmon	255,160,122	Salmon	250,128,114
DarkGray	167,167,167	LightSeaGreen	32,178,170	SandyBrown	244,164,96
DarkGreen	0,100,0	LightSkyBlue	135,206,250	SeaGreen	46,139,87
DarkKhaki	189,183,107	LightSlateBlue	132,112,255	SeaShell	255,245,238
DarkMagenta	139,0,139	LightSlateGray	119,136,153	Sienna	160,82,45
DarkOliveGreen	85,107,47	LightSteelBlue	176,196,222	Silver	192,192,192
Darkorange	255,140,0	LightYellow	255,255,224	SkyBlue	135,206,235
DarkOrchid	153,50,204	Lime	0,255,0	SlateBlue	106,90,205
DarkRed	139,0,0	LimeGreen	50,205,50	SlateGray	112,128,144
DarkSalmon	233,150,122	Linen	250,240,230	Snow	255,250,250
DarkSeaGreen	143,188,143	Magenta	255,0,255	SpringGreen	0,255,127
DarkSlateBlue	72,61,139	Maroon	128,0,0	SteelBlue	70,130,180
DarkSlateGray	47,79,79	MediumAquaMarine	102,205,170	Tan	210,180,140
DarkTurquoise	0,206,209	MediumBlue	0,0,205	Teal	0,128,128
DarkViolet	148,0,211	MediumOrchid	186,85,211	Thistle	216,191,216
DeepPink	255,20,147	MediumPurple	147,112,219	Tomato	255,99,71
DeepSkyBlue	0,191,255	MediumSeaGreen	60,179,113	Turquoise	64,224,208
DimGray	105,105,105	MediumSlateBlue	123,104,238	Violet	238,130,238
DodgerBlue	30,144,255	MediumSpringGreen	0,250,154	VioletRed	208,32,144
Feldspar	209,146,117	MediumTurquoise	72,209,204	Wheat	245,222,179
FireBrick	178,34,34	MediumVioletRed	199,21,133	White	255,255,255
FloralWhite	255,250,240	MidnightBlue	25,25,112	WhiteSmoke	245,245,245
ForestGreen	34,139,34	MintCream	245,255,250	Yellow	255,255,0
Fuchsia	255,0,255	MistyRose	255,228,225	YellowGreen	154,205,50
Gainsboro	220,220,220	Moccasin	255,228,181		

1.2.4. Examples of use

👉 The WO data changed in the ERP

"Cancel and replace" import

(Instructions are truncated for readability purposes)

```
ENT1;4;CM;C54144;INDUSTRIA;;;;;;;;;;;RANDOM;;;;;;;;;
ENT2;4;CM;PS54144-0000814;ETUI MAGIC 6% 10ML;39.5 x 34 x 68;8U780A00;A2220;;;;;;;;RANDOM
ENT3;4;CM;17030187-1-1;910855/1;VDR;;;;;;;;;;;RANDOM;C54144;;;;;;;;
ENT4;4;CM;17030187-1-1-1;17030187-1-1-1;20000;SAINT-PIERRE DES CORPS;25/04/2017;26/04/2(
DREF12;4;CM;A2220;A2220 (A112) PATTES ALTERNEES;RANDOM
DREF13;4;CM;EP07075;7075 - 30 poses;RANDOM
DREF14;4;CM;ZPA0017;ZPA0017 - PALETTE H 100X120 NIMP15 5 SEM CEINTUREE;RANDOM
DREF15;4;CM;ZCA1015;ZCA1015 - CA15-6543- CARN 598 X 324 X 200;RANDOM
```

The first four lines (dark green) create entities 1, 2, 3 and 4 (customer, product...) via **CM** action.
The next four lines (light green) create Reference data 12, 13, 14 and 15 (product, type...) via **CM** action.

```
TASK;4;S-NOERROR;17030187-1-1-1-1/*;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;;
TASK;4;C-NOWARNING;17030187-1-1-1-0/030;OFFSET RECTO - 4 couleurs - Acrylique brillant;
TASK-IP2;4;CM;17030187-1-1-1-0/030;EP07075;4;4;1;;;;;;
TASK-IP3;4;CM;17030187-1-1-1-0/030;BLACK -;YELLOW -;P00485RED -;P01505ORA -;-;-;AC;;PV0
TASK;4;C-NOWARNING;17030187-1-1-1-0/100;DECOUPE 1er PASSAGE - EP07075 30 poses;3400;DEC
TASK-IP5;4;CM;17030187-1-1-1-0/100;EP07075;30;;;;;;;;1
TASK;4;C-NOWARNING;17030187-1-1-1-1/132;COLLAGE 1er PASSAGE -;5500;COLTOT;NOW;;20000;1.
TASK-IP6;4;CM;17030187-1-1-1-1/132;EP07075;;;147;136;;;;;
TASK-IP7;4;CM;17030187-1-1-1-1/132;O;ZCA1015;1300;ZPA0017;30;;;;;
LINK;4;C-NOWARNING;17030187-1-1-1-0/030;17030187-1-1-1-0/100;0
LINK;4;C-NOWARNING;17030187-1-1-1-0/100;17030187-1-1-1-1/132;0
```

The first line (red) deletes all the WO phases via the **S** action (with NOERROR extension).
Phases (Printing > Cutting > Gluing) are then recreated (green) via the **C** action.
Corresponding Process Information (blue) is created or, as appropriate, modified via the **CM** action.
Finally, the links between WO phases (orange) are created via the **C** action.

Import in "creation/modification"

(Instructions are truncated for readability purposes)

```
TASK;4;CM;17030187-1-1-1-0/020;COUPEUSE - Avec refente;1200;COUP;NOW;;1228;1.0;2.000;0.
TASK-IP1;4;CM;17030187-1-1-1-0/020;EP07075;1300;948;XPC0010;300;2;230;;;
TASK;4;CM;17030187-1-1-1-0/030;OFFSET RECTO - 4 couleurs - Acrylique brillant;2100;IMP6
TASK-IP2;4;CM;17030187-1-1-1-0/030;EP07075;4;4;1;;;;;;
TASK-IP3;4;CM;17030187-1-1-1-0/030;BLACK -;YELLOW -;P00485RED -;P01505ORA -;-;-;AC;;PV0
TASK;4;CM;17030187-1-1-1-0/100;DECOUPE 1er PASSAGE - EP07075 30 poses;3400;DECTOT;NOW;;
TASK-IP5;4;CM;17030187-1-1-1-0/100;EP07075;30;;;;;;;;1
TASK;4;CM;17030187-1-1-1-1/132;COLLAGE 1er PASSAGE -;5500;COLTOT;NOW;;20000;1.0;1.000;0
```

In the example above, the WO is not deleted. Phases are imported via the CM action, meaning they are created if they do not exist or modified if they do.

1.2.5. Course of import and logging

> **R**EMINDER   📌
>
> To set the import folder, click on **Configuration** > **General configuration** > **Automatic import**.

Warning

The files are processed in chronological order, according to their creation date. If two files share the same creation date, then they are processed by alphabetical order.

If sending files typed by instruction, filenames must be generated so as to take them into account in the right order.

Assuming that the import file is `D:\DirectPlanning\import_001.csv`

The import makes the following transactions:

- Creation of a time-stamped history folder, for example: `D:\DirectPlanning\histo\2018.02.01-12:00`.
- Saving of the schedule before import, as a dpl2 file in this folder.
- Actual achievement of the import.
- Creation of import detailed logs: `D:\DirectPlanning\histo\journal.log` and `D:\DirectPlanning\journal.log`.
- Each import file is moved to the time-stamped folder and the .ok extension is added if all records were processed successfully. Example: `D:\DirectPlanning\ histo\import_001.csv.ok`
- Each import file is moved to the time-stamped folder and the .err extension is added if there is at least one record in error in this file. Example: `D:\DirectPlanning\histo\import_001.csv.err`
- The scheduled is backed up after import, provided that no error was encountered during import and the automatic backup was not disabled.

These transactions are performed for reasons of security (to avoid a file being imported more than once) and traceability (to maintain a history of the different imports and their outcome).
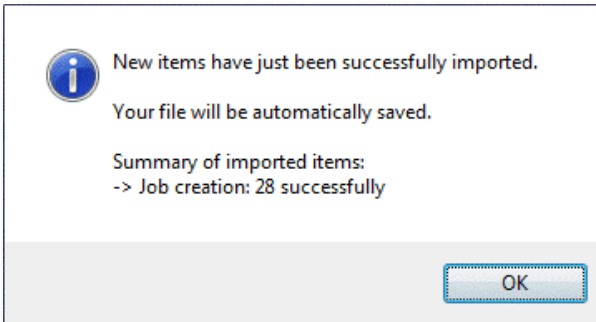

Note

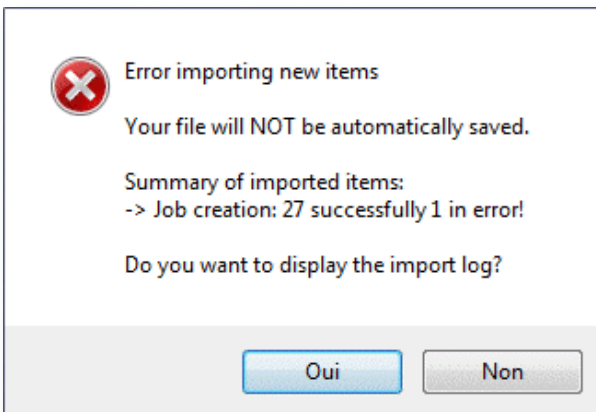Logging of the schedule can quickly saturate disk space.

Remember the check how the automatic purge of imports is configured (**Configuration** > **General configuration** > **Automatic import**)
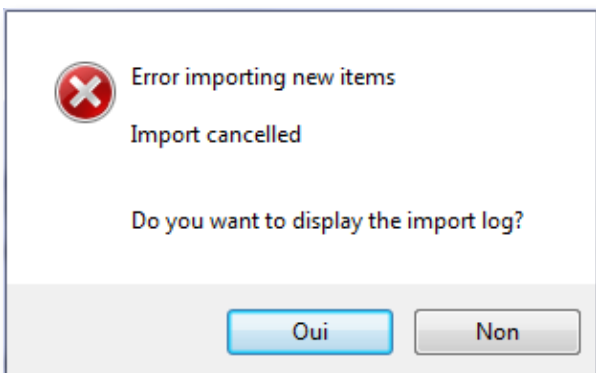

1.2.6. Import result

3 scenarios may arise:

◄ No error encountered.

◄ The encountered errors do not necessarily require to resume the import.

◄ The encountered errors require to resume the import.

Resuming procedure

Following import, when closing the schedule without saving, 2 scenarios are possible:

1. Make the corrections in the program generating the files to import, regenerate the files to import and relaunch the import.

2. Put the affected files back in the import folder, delete the .err extension, directly edit the corresponding .csv files you relaunch the import.

Import log

As just seen, in case of error or warning, Direct Planning enables you to open the import log:
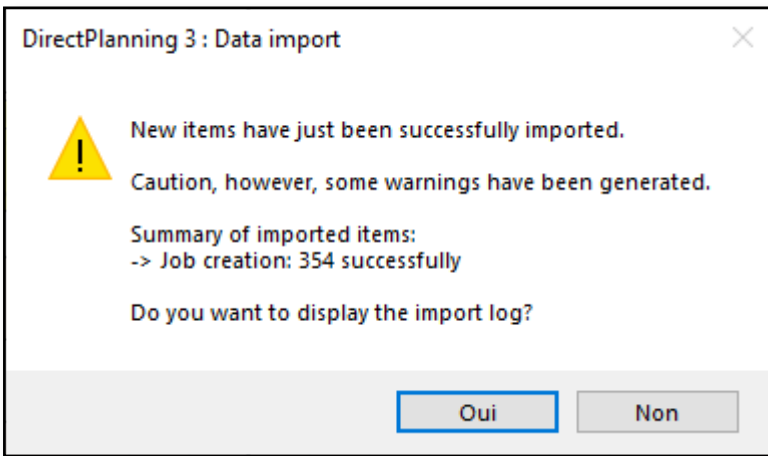
It is displayed in a window which is embedded in Direct Planning. In the log, the warnings are displayed in yellow and the errors in red:
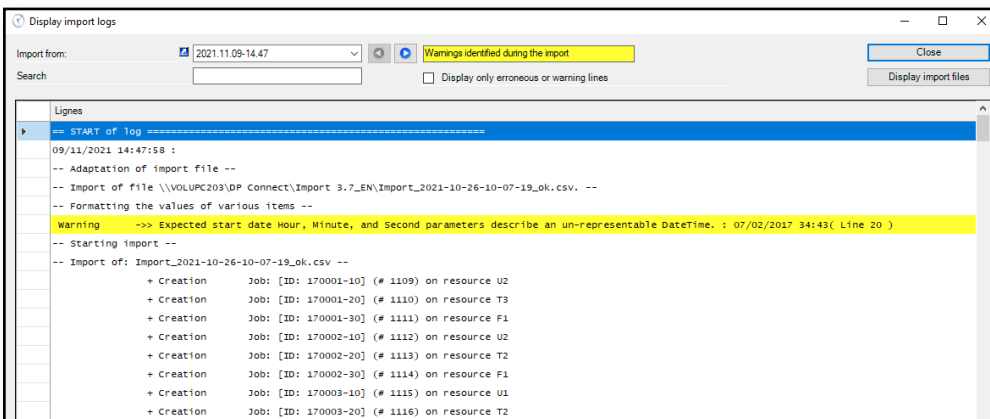
A quick filter is available to view only warnings and errors:
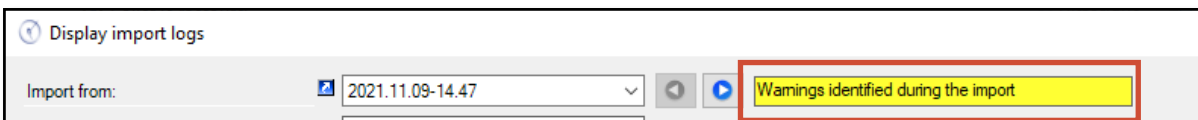
The search field enables you to find quickly a character string in the log.

For example, this will allow us to find all the import lines associated with a WO number:
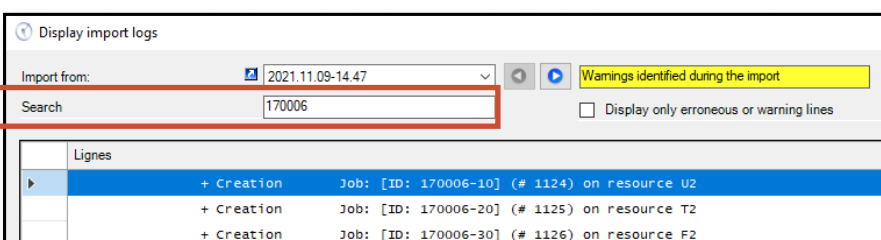
This log file also gives you access to the list of import files, in order to quickly review their content:
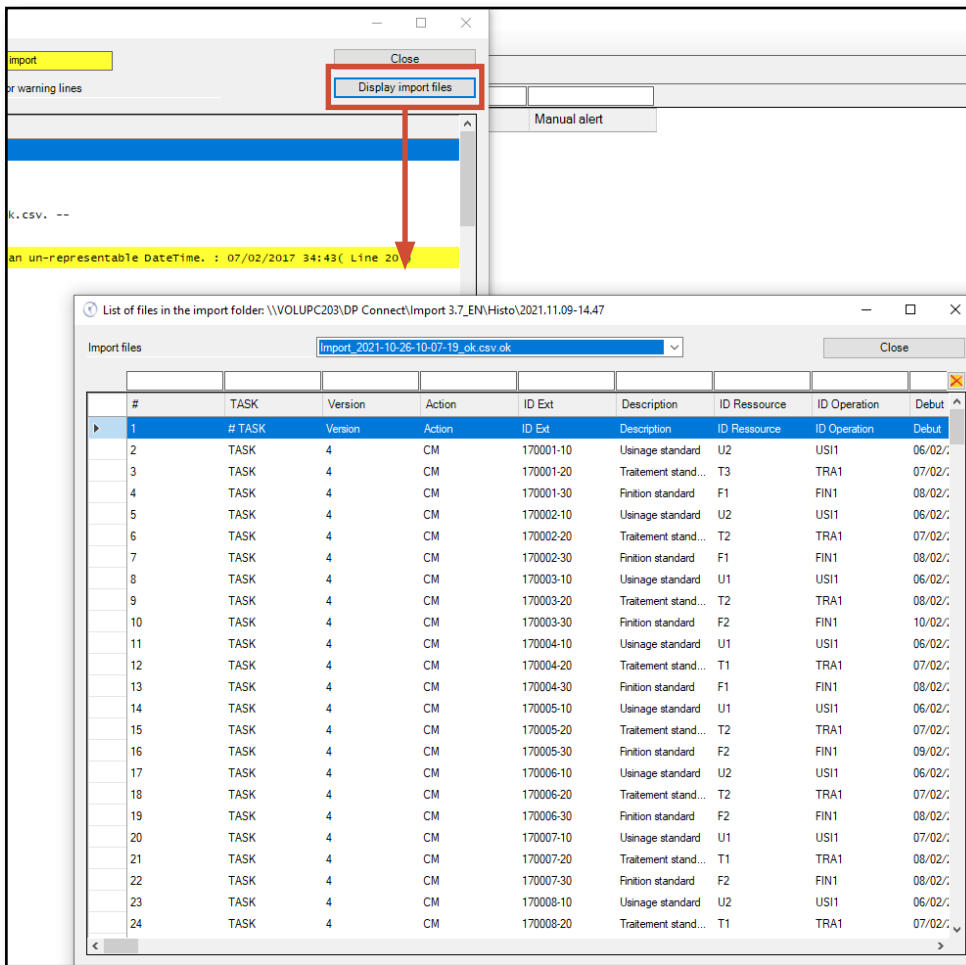
You can also browse quickly the import logs from previous imports:
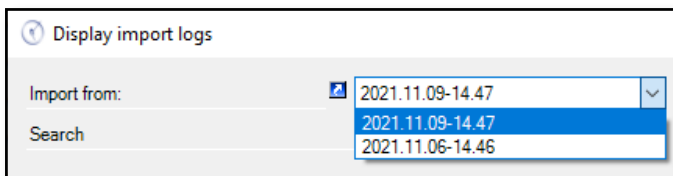
1.3.1. Data export formats

Exporting Process Information

No.	Designation	Format	Comments
1	Data type	alpha	Possible values: from **TASK-IP**
2	Version of export format	alpha	Value: **4**
3	Direct Planning identifier for this job	alpha	
4	Process Information number	Num	
5	Configurable area 1	alpha	
6	Configurable area 2	alpha	
7	Configurable area 3	alpha	
8	Configurable area 4	alpha	
9	Configurable area 5	alpha	
10	Configurable area 6	alpha	
11	Configurable area 7	alpha	
12	Configurable area 8	alpha	
13	Configurable area 9	alpha	
14	Configurable area 10	alpha	

1.3. Exporting data

As discussed earlier, Direct Planning can generate files for third party applications (such as an ERP, CAPE, specific program or Excel macro).

Direct Planning exports jobs (with attached flags), links and optionally the daily and weekly workload.

The export is automatically generated each time the schedule is saved.

To configure the export, click on **Configuration** > **General configuration** > **Automatic export**:
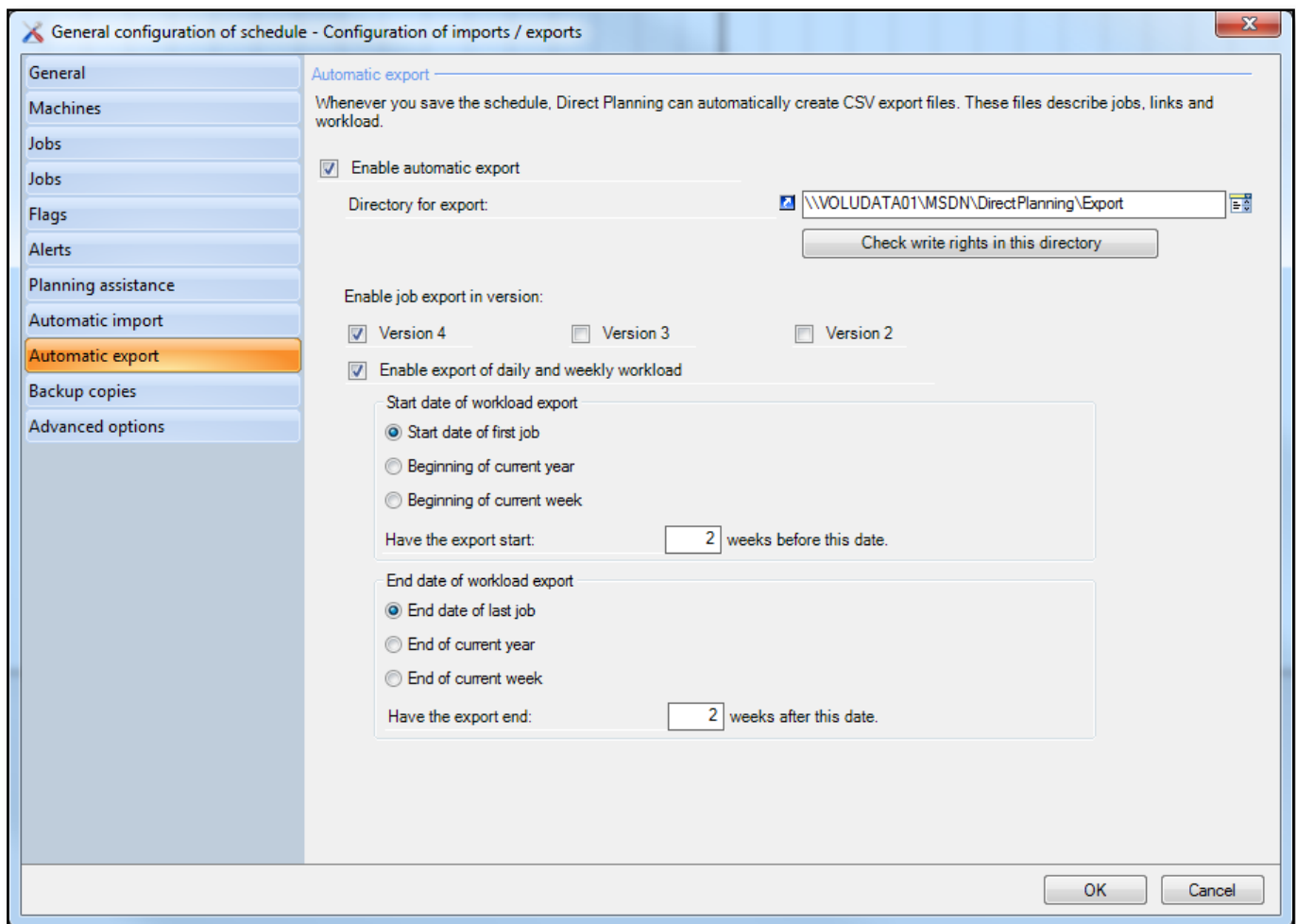
Characteristics of exported files

- CSV format
- Placed in the export folder configured in the screen above (**Configuration** > **General configuration** > **Automatic export**)
- Contain all the modifications made since the last backup.

Named:
- **export_task.csv** for jobs in the v1 format.

- **export_task_v2.csv** for jobs in the v2 format.
- **export_link.csv** for links in the v1 format (there is no v2 format for links).
- **export_calendar_day.csv** for calendars and the daily workload.
- **export_calendar_week.csv** for the weekly workload.

Note

The colon replaces the semicolon in all text zones of the exported file.

The formatted notes are exported as plain text, without formatting and carriage returns. These are replaced by the character string %/% (percent slash percent).

Exporting jobs

No.	Designation	Comments
01	Data type	Value: **TASK or TITLE** Format: **alpha**
02	Version of import format	Values: **4** Format: **alpha**
03	ERP unique identifier for this job	The purpose of this zone is to allow the third party application to recognise a job it previously transferred to Direct Planning via the import function. For imported jobs, it contains the number assigned by the external software. For jobs created in Direct Planning, it is set to 0 (zero) unless you give it a value during import. When a job is subdivided, the 2 resulting jobs are identified by #1 and #2 suffixes. Format: **alpha**
04	Direct Planning unique identifier for this job	This zone contains the unique internal number assigned by Direct Planning. Format: **alpha**
05	Date of update	Format: **datetime**
06	Job name	Format: **alpha**
07	Identifier of resource	Format: **alpha**
08	Designation of resource	Format: **alpha**
09	Operation identifier	Format: **alpha**
10	Operation designation	Format: **alpha**
11	Working unit identifier	Format: **alpha**
12	Working unit designation	Format: **alpha**
13	Start date and time	Format: **datetime***
14	End date and time	Format: **datetime***
15	Entered earliest start date and time	Format: **datetime***
16	Earliest start date and time derived from flags (with element receipt constraint)	Format: **datetime***
17	Earliest start date and time forced by upstream jobs of route	Format: **datetime***
18	Actual earliest start date and time	Format: **datetime***
19	Earliest start date and time of route	Format: **datetime***
20	Latest end date and time entered	Format: **datetime***
21	Latest end date and time forced by downstream jobs of route	Format: **datetime***
22	Actual latest end date and time	Format: **datetime***
23	Latest end date and time of route	Format: **datetime***
*** Datetime columns use the **DD.MM.YYYY hh:mm** format (with a space between the year and time).		
24	Declared start date and time of job	
25	Declared end date and time of job	
26	Former start date and time of job	

No.	Designation	Comments
27	Former end date and time of job	
28	Method of time entry	
29	Planned quantity	Format: **quantity**
30	Percentage of variable waste	Format: **decimal**
31	Nbr of WU to produce per operative WU	Format: **decimal**
32	Nbr of work rate WU per operative WU	Format: **decimal**
33	Performed quantity	
34	Non-compliant quantity	
35	Started job	
36	Completed job	
37	Progress percentage	Value: from **0** to **100** Format: **num**
38	Transition duration (deprecated)	Format: **duration**
39	Planned setting duration	Format: **duration**
40	Performed setting duration	Format: **duration**
41	Performed duration of setting stops	
42	Setting completed?	Format: **O/N**
43	Scheduled setting duration	Format: **duration**
44	Planned running duration	Format: **duration**
45	Performed running duration	Format: **duration**
46	Duration of downtime	Format: **duration**
47	Scheduled running duration	Format: **duration**
48	Total planned duration	Format: **duration**
49	Total performed duration	Format: **duration**
50	Total scheduled duration (ex-transition times)	Format: **duration**
51	Total scheduled duration including transition times	Format: **duration**
52	Locked job	Value: **O/N** Format: **alpha**
53	Job to schedule	Value: **O/N** Format: **alpha**
54	Job alert code	**0**: No positioning alert **1**: The job starts too early. **2**: Job may end too late. **3**: Job ends too late. Format: **num**

No.	Designation	Comments
55	Cycle alert code	**0**: No cycle **1**: The job is part of a cycle which is applies on the route of this job **2**: The job is caught in a cycle. A job in cycle on the resource blocks the job and prevents its movement. The job does not actually belong to the cycle. **3**: Impossible movement Format: **num**
56	Alert code of multi-status flag pending element receipt	**0**: No flag in alert **1**: At least one **Element not received** flag in alert Format: **num**
57	Manual alert code	**0**: No manual alert **1**: Manual alert positioned Format: **num**
58	Manual alert message	Format: **alpha**
59	Identifier of entity 1	Format: **alpha**
60	Designation of entity 1	Format: **alpha**
61	Identifier of entity 2	Format: **alpha**
62	Designation of entity 2	Format: **alpha**
63	Identifier of entity 3	Format: **alpha**
64	Designation of entity 3	Format: **alpha**
65	Identifier of entity 4	Format: **alpha**
66	Designation of entity 4	Format: **alpha**
67	Identifier of entity 5	Format: **alpha**
68	Designation of entity 5	Format: **alpha**
69	Identifier of entity 6	Format: **alpha**
70	Designation of entity 6	Format: **alpha**
71	Identifier of entity 7	Format: **alpha**
72	Designation of entity 7	Format: **alpha**
73	Identifier of entity 8	Format: **alpha**
74	Designation of entity 8	Format: **alpha**
75	Identifier of entity 9	Format: **alpha**
76	Designation of entity 9	Format: **alpha**
77	Identifier of entity 10	Format: **alpha**
78	Designation of entity 10	Format: **alpha**
79	Free zone 1	Format: **alpha**
80	Free zone 2	Format: **alpha**
81	Free zone 3	Format: **alpha**
82	Free zone 4	Format: **alpha**
83	Free zone 5	Format: **alpha**
84	Free zone 6	Format: **alpha**
85	Free zone 7	Format: **alpha**
86	Free zone 8	Format: **alpha**
87	Free zone 9	Format: **alpha**

No.	Designation	Comments
88	Free zone 10	Format: **alpha**

No.	Designation	Comments
89	Identifier of technical element 1	Format: **alpha**
90	Designation of technical element 1	Format: **alpha**
91	Identifier of technical element 2	Format: **alpha**
92	Designation of technical element 2	Format: **alpha**
93	Identifier of technical element 3	Format: **alpha**
94	Designation of technical element 3	Format: **alpha**
95	Identifier of technical element 4	Format: **alpha**
96	Designation of technical element 4	Format: **alpha**
97	Identifier of technical element 5	Format: **alpha**
98	Designation of technical element 5	Format: **alpha**
99	Identifier of technical element 6	Format: **alpha**
100	Designation of technical element 6	Format: **alpha**
101	Identifier of technical element 7	Format: **alpha**
102	Designation of technical element 7	Format: **alpha**
103	Identifier of technical element 8	Format: **alpha**
104	Designation of technical element 8	Format: **alpha**
105	Identifier of technical element 9	Format: **alpha**
106	Designation of technical element 9	Format: **alpha**
107	Identifier of technical element 10	Format: **alpha**
108	Designation of technical element 10	Format: **alpha**
109	Identifier of technical element 11	Format: **alpha**
110	Designation of technical element 11	Format: **alpha**
111	Identifier of technical element 12	Format: **alpha**
112	Designation of technical element 12	Format: **alpha**
113	Identifier of technical element 13	Format: **alpha**
114	Designation of technical element 13	Format: **alpha**
115	Identifier of technical element 14	Format: **alpha**
116	Designation of technical element 14	Format: **alpha**
117	Identifier of technical element 15	Format: **alpha**
118	Designation of technical element 15	Format: **alpha**
119	Identifier of technical element 16	Format: **alpha**
120	Designation of technical element 16	Format: **alpha**
121	Identifier of technical element 17	Format: **alpha**
122	Designation of technical element 17	Format: **alpha**
123	Identifier of technical element 18	Format: **alpha**
124	Designation of technical element 18	Format: **alpha**

No.	Designation	Comments
125	Identifier of technical element 19	Format: **alpha**
126	Designation of technical element 19	Format: **alpha**
127	Identifier of technical element 20	Format: **alpha**
128	Designation of technical element 20	Format: **alpha**

Exporting flags

No.	Designation	Comments
		Flag 1
129	Status	Values: **-1**: Unconfigured flag **0**: Inactive flag **1**: Active indicative flag or multi-status flag with status 1 **2**: Multi-status flag with status 2 **3**: Multi-status flag with status 3 **4**: Multi-status flag with status 4 **5**: Multi-status flag with status 5 Format: **num**
130	Status of receipt (For Waiting for element receipt flags)	**0**: The flag is not a **Waiting for element receipt** flag **1**: Waiting for element receipt **2**: Received element Format: **num**
131	Alert code on this flag	**0**: No alert on this flag **1**: Expired planned receipt date for a waiting for element receipt flag.
132	Planned date of receipt	Format: **datetime***
133	Actual date of receipt	Format: **datetime***
*** Datetime columns use the **DD.MM.YYYY hh:mm** format (with a space between the year and time).		
134	Configurable area 1	Format: **alpha**
135	Configurable area 2	Format: **alpha**
136	Configurable area 3	Format: **alpha**
137	Configurable area 4	Format: **alpha**
138	Configurable area 5	Format: **alpha**
139	Configurable area 6	Format: **alpha**
140	Configurable area 7	Format: **alpha**
141	Configurable area 8	Format: **alpha**
142	Configurable area 9	Format: **alpha**
143	Configurable area 10	Format: **alpha**
		Flag 2

No.	Designation	Comments
144	Status	Values: **-1**: Unconfigured flag **0**: Inactive flag **1**: Active indicative flag or multi-status flag with status 1 **2**: Multi-status flag with status 2 **3**: Multi-status flag with status 3 **4**: Multi-status flag with status 4 **5**: Multi-status flag with status 5 Format: **num**
145	Status of receipt (For Waiting for element receipt flags)	**0**: The flag is not a **Waiting for element receipt** flag **1**: Waiting for element receipt **2**: Received element Format: **num**
146	Alert code on this flag	**0**: No alert on this flag **1**: Expired planned receipt date for a waiting for element receipt flag.
147	Planned date of receipt	Format: **datetime**
148	Actual date of receipt	Format: **datetime**
149 ▼ 158	Configurable area 1 Configurable area 10	Format: **alpha**
	Flag 3	
159	Status	Values: **-1**: Unconfigured flag **0**: Inactive flag **1**: Active indicative flag or multi-status flag with status 1 **2**: Multi-status flag with status 2 **3**: Multi-status flag with status 3 **4**: Multi-status flag with status 4 **5**: Multi-status flag with status 5 Format: **num**
160	Status of receipt (For Waiting for element receipt flags)	**0**: The flag is not a **Waiting for element receipt** flag **1**: Waiting for element receipt **2**: Received element Format: **num**
161	Alert code on this flag	**0**: No alert on this flag **1**: Expired planned receipt date for a waiting for element receipt flag.
162	Planned date of receipt	Format: **datetime**
163	Actual date of receipt	Format: **datetime**
164 ▼ 173	Configurable area 1 Configurable area 10	Format: **alpha**
	Flag 4	
174	Status	Values: **-1**: Unconfigured flag **0**: Inactive flag **1**: Active indicative flag or multi-status flag with status 1 **2**: Multi-status flag with status 2 **3**: Multi-status flag with status 3 **4**: Multi-status flag with status 4 **5**: Multi-status flag with status 5 Format: **num**

No.	Designation	Comments
175	Status of receipt (For Waiting for element receipt flags)	**0**: The flag is not a **Waiting for element receipt** flag **1**: Waiting for element receipt **2**: Received element Format: **num**
176	Alert code on this flag	**0**: No alert on this flag **1**: Expired planned receipt date for a waiting for element receipt flag.
177	Planned date of receipt	Format: **datetime**
178	Actual date of receipt	Format: **datetime**
179 ▼ 188	Configurable area 1 Configurable area 10	Format: **alpha**
	Flag 5	
189	Status	Values: **-1**: Unconfigured flag **0**: Inactive flag **1**: Active indicative flag or multi-status flag with status 1 **2**: Multi-status flag with status 2 **3**: Multi-status flag with status 3 **4**: Multi-status flag with status 4 **5**: Multi-status flag with status 5 Format: **num**
190	Status of receipt (For Waiting for element receipt flags)	**0**: The flag is not a **Waiting for element receipt** flag **1**: Waiting for element receipt **2**: Received element Format: **num**
191	Alert code on this flag	**0**: No alert on this flag **1**: Expired planned receipt date for a waiting for element receipt flag.
192	Planned date of receipt	Format: **datetime**
193	Actual date of receipt	Format: **datetime**
194 ▼ 203	Configurable area 1 Configurable area 10	Format: **alpha**
	Flag 6	
204	Status	Values: **-1**: Unconfigured flag **0**: Inactive flag **1**: Active indicative flag or multi-status flag with status 1 **2**: Multi-status flag with status 2 **3**: Multi-status flag with status 3 **4**: Multi-status flag with status 4 **5**: Multi-status flag with status 5 Format: **num**
205	Status of receipt (For Waiting for element receipt flags)	**0**: The flag is not a **Waiting for element receipt** flag **1**: Waiting for element receipt **2**: Received element Format: **num**
206	Alert code on this flag	**0**: No alert on this flag **1**: Expired planned receipt date for a waiting for element receipt flag.
207	Planned date of receipt	Format: **datetime**
208	Actual date of receipt	Format: **datetime**

No.	Designation	Comments
209 ▼ 218	Configurable area 1 Configurable area 10	Format: **alpha**
Flag 7		
219	Status	Values: **-1**: Unconfigured flag **0**: Inactive flag **1**: Active indicative flag or multi-status flag with status 1 **2**: Multi-status flag with status 2 **3**: Multi-status flag with status 3 **4**: Multi-status flag with status 4 **5**: Multi-status flag with status 5 Format: **num**
220	Status of receipt (For Waiting for element receipt flags)	**0**: The flag is not a **Waiting for element receipt** flag **1**: Waiting for element receipt **2**: Received element Format: **num**
221	Alert code on this flag	**0**: No alert on this flag **1**: Expired planned receipt date for a waiting for element receipt flag.
222	Planned date of receipt	Format: **datetime**
223	Actual date of receipt	Format: **datetime**
224 ▼ 233	Configurable area 1 Configurable area 10	Format: **alpha**
Flag 8		
234	Status	Values: **-1**: Unconfigured flag **0**: Inactive flag **1**: Active indicative flag or multi-status flag with status 1 **2**: Multi-status flag with status 2 **3**: Multi-status flag with status 3 **4**: Multi-status flag with status 4 **5**: Multi-status flag with status 5 Format: **num**
235	Status of receipt (For Waiting for element receipt flags)	**0**: The flag is not a **Waiting for element receipt** flag **1**: Waiting for element receipt **2**: Received element Format: **num**
236	Alert code on this flag	**0**: No alert on this flag **1**: Expired planned receipt date for a waiting for element receipt flag.
237	Planned date of receipt	Format: **datetime**
238	Actual date of receipt	Format: **datetime**
239 ▼ 248	Configurable area 1 Configurable area 10	Format: **alpha**
Flag 9		

No.	Designation	Comments
249	Status	Values: **-1**: Unconfigured flag **0**: Inactive flag **1**: Active indicative flag or multi-status flag with status 1 **2**: Multi-status flag with status 2 **3**: Multi-status flag with status 3 **4**: Multi-status flag with status 4 **5**: Multi-status flag with status 5 Format: **num**
250	Status of receipt (For Waiting for element receipt flags)	**0**: The flag is not a **Waiting for element receipt** flag **1**: Waiting for element receipt **2**: Received element Format: **num**
251	Alert code on this flag	**0**: No alert on this flag **1**: Expired planned receipt date for a waiting for element receipt flag.
252	Planned date of receipt	Format: **datetime**
253	Actual date of receipt	Format: **datetime**
254 ▼ 263	Configurable area 1 Configurable area 10	Format: **alpha**
	Flag 10	
264	Status	Values: **-1**: Unconfigured flag **0**: Inactive flag **1**: Active indicative flag or multi-status flag with status 1 **2**: Multi-status flag with status 2 **3**: Multi-status flag with status 3 **4**: Multi-status flag with status 4 **5**: Multi-status flag with status 5 Format: **num**
265	Status of receipt (For Waiting for element receipt flags)	**0**: The flag is not a **Waiting for element receipt** flag **1**: Waiting for element receipt **2**: Received element Format: **num**
266	Alert code on this flag	**0**: No alert on this flag **1**: Expired planned receipt date for a waiting for element receipt flag.
267	Planned date of receipt	Format: **datetime**
268	Actual date of receipt	Format: **datetime**
269 ▼ 278	Configurable area 1 Configurable area 10	Format: **alpha**

Exporting links

No.	Designation	Comments
1	Data type	Value: **LINK** (or **TITLE**) Format: **alpha**
2	Version of export format	Value: **4** Format: **alpha**
3	Direct Planning identifier of source job	Format: **alpha**
4	Direct Planning identifier of destination job	Format: **alpha**
5	External identifier of source job	Format: **alpha**
6	External identifier of destination job	Format: **alpha**
7	Link duration	Format: **num**

Exporting memos

No.	Designation	Comments
1	Data type	Value: **LINK** (or **TITLE**) Format: **alpha**
2	Version of export format	Value: **4** Format: **alpha**
3	External identifier of job (ERP ID)	Format: **alpha**
4	Direct Planning internal identifier	Format: **alpha**
5	Login of Direct Planning user	Format: **alpha**
6	Comment text	To create a line break: \\r Semicolons are replaced by commas. Double quotes are doubled.
7	State of alert linked to comment	
8	Comment modification date	
9	Comment alert date	

Calendars and daily workload

The exported file contains only one type of record: the hours worked by day and by resource (**DAILY**). 17 fields exported, translating into 16 semicolons.

The first line of the exported file is a header line to ease the identification of columns (data type = **TITLE**).

No.	Designation	Comments
1	Data type	Value: **DAILY** (or **TITLE**) Format: **alpha**
2	Version of export format	Value: **1** Format: **alpha**
3	Date	Format: **dd/mm/yyyy**
4	Direct Planning identifier of the resource	Format: **alpha**
5	Work capacity for this resource at this date	In minutes Format: **num**
6	Actual workload for this resource at this date	In minutes Format: **num**
7	Workload percentage for this resource at this date	= zone 6/zone 5 X 100 Format: **num**
8	Range start 1	00:00 as start time means midnight of the day.
9	Range end 1	00:00 as end time means midnight of the next day.
10	Range start 2	
11	Range end 2	Start and date time not entered: unused time range
12	Range start 3	
13	Range end 3	Format: hh:mm
14	Range start 4	
15	Range end 4	
16	Range start 5	
17	Range end 5	

> **Warning**
>
> If you open the **export_calendar_day.csv** file in Microsoft Excel and the software is configured to not display zero values, confusion may arise as 00:00 values no longer appear, mixing up 24 hour and zero hour work capacity cases!

Weekly workload

This file indicates the workload and work capacity by week and by resource.
The exported file contains only one type of record: the hours worked by week and by resource (**WEEKLY**).
8 fields exported, translating into 7 semicolons.

No.	Designation	Comments
1	Data type	Value: **WEEKLY** (or **TITLE**) Format: **alpha**
2	Version of export format	Value: **1** Format: **alpha**
3	Week number	Format: **num**
4	Week start date	Format: **dd/mm/yyyy**
5	Direct Planning identifier of the resource	Format: **alpha**
6	Work capacity of this resource for this week	In minutes Format: **num**
7	Actual workload of this resource for this week	In minutes Format: **num**
8	Workload percentage of this resource for this week	= zone 7/zone 6 X 100 Format: **num**

Note
The week spreads from Monday to Sunday.