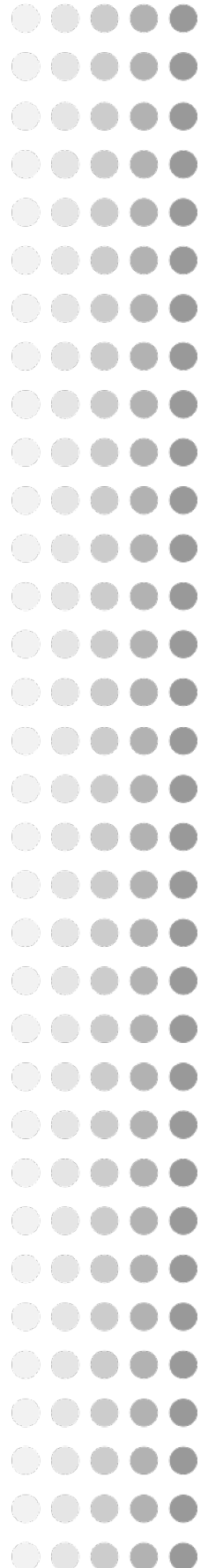


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CaymanToolboxERP - Examples



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1 Introduction and overview

1.1 Introduction

- To test the examples you need Cayman version 14 or higher.
- All examples use supplied Cayman files and can be executed immediately.
- Print this document on A4 paper so that you can follow the examples with a barcode scanner. Alternatively, it is also possible to enter them using the keyboard.
- The barcodes printed here use the Code128 B format, but in principle the programs can also be used with other barcodes.

1.2 Overview

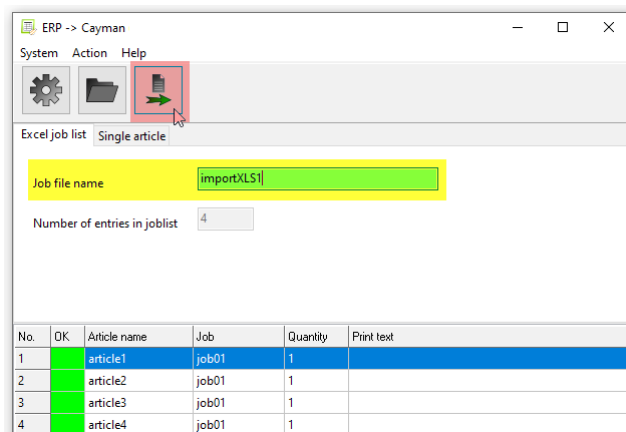
Symbol	Name	Brief description	Page
	CWL-ERP2Cayman	Easy connection of Cayman software to an ERP system <ul style="list-style-type: none"> • Import of Excel order lists • Cayman articles are combined to a production list • Options: <ul style="list-style-type: none"> • Print texts can be added on an order-specific basis. • Order distribution to several machines 	2
	CWL-Import	Automatic import of Excel CSV files <ul style="list-style-type: none"> • Automatic import of incoming orders from a freely selectable transfer directory • conversion from Excel CSV to Cayman format 	3
	CWL-JobTool	Job management and data import <ul style="list-style-type: none"> • Tabular job overview • Functions job start / stop / pause / delete • Conversion of WPCS or CSV files into Cayman format 	5
	CWL-ProductionReport	Production logging <ul style="list-style-type: none"> • Log produced articles and material consumption • Protocol can be evaluated with Excel • Optional: printing of labels at batch size / number of pieces 	5

2 CWL-ERP2Cayman



2.1 This is how the demo works

- Click with the mouse in the “**Job file name**” field and scan one of the following barcodes or enter the name of the order file via keyboard.
- The articles of the order will be displayed in table form
- Click the “**Convert**” button to start Cayman and the conversion to Cayman format. Article name, production quantity and if necessary new print texts are taken over from the Excel table.



2.2 Examples



ImportXLS1



ImportXLS2

2.3 Further information

- The job search (scan) is case insensitive.
- The sample files in Excel format can be found in the installation directory in the subfolder “\data\importXLS\”.

3 CWL-Import



3.1 This is how the demo works

- Please start the CWL import, the program is now running in the background.
- Simulate the input of a CSV job file:
 - Open the Explorer
 - Locate the folder c:\CaymanToolbox\data\import\.
 - Copy the sample file "importCSV1.csv".
 - Paste the file in the "c:\CaymanToolbox\data\importXLS\" folder
- CWL import will automatically detect the new job in the transfer folder,
 - Cayman is started
 - The file is converted to Cayman format and loaded
- In the transfer folder "\data\importXLS\" two subfolders "\processed\" and "\error\" are created. Depending on the success of the conversion, the job file is moved there.

3.2 Examples

The following picture shows the content of the file "importCSV1.csv" in tabular form.

"article 1" and "article 2" (column D) from raw material "zzz_Default" (column E) show the possibilities of a single-layer cable end processing ("Strip/Tear Left/Right _1": columns H-K) and different marking possibilities (PrintText Left/Middle/Right, columns L-T).

"article 3" from raw material "zzz_PowerCord" shows the possibilities of a 2-layer cable end processing (columns U-X: "CableStrip/Tear Left/Right_2").

Cable length, strip, tear and text positions are specified in millimeters [mm], optionally with decimal point, decimal comma or also mixed (see lines 2 and 3). Thousands separators (point, comma, etc.) are not permitted.

	A	B	C	D	E	F	G	H	I	J	K
1	JobName	JobCountTotal	LabelFilename	CableName	CableMaterialName	CableProcessMethod	CableLengthTotal	CableStripL_1	CableTearL_1	CableStripR_1	CableTearR_1
2	job1	25		article 1	zzz_Default	zzz_Default	1000,5	20,2	30,3	20,4	30,5
3	job1	10		article 2	zzz_Default	zzz_Default	500,5	20,2	10,3	20,4	10,5
4	job1	100		article 3	zzz_PowerCord	zz_PowerCord	750	20	30	20	30
5											

L	M	N	O	P	Q	R	S	T	U	V	W	X
PrintPositionL_1	PrintTextL_1	PrintOptionsL_1	PrintDistanceM_1	PrintTextM_1	PrintOptionsM_1	PrintPositionR_1	PrintTextR_1	PrintOptionsR_1	CableStripL_2	CableTearL_2	CableStripR_2	CableTearR_2
100,5	Simple_Text_Left		270,2	Text_middle		130,3	Text_Right		0	0	0	0
150,5	Simple_Text_Left		270,3	Text_middle		130,2	Text_Right		0	0	0	0
									40	50	40	50

3.3 Further information

- The name of the job file is case insensitive.
- You can adjust the location of the transfer folder to your needs (e.g. network drive).
- The sample file in CSV format can be found in the installation directory in the "\\data\\import\\" sub-folder.

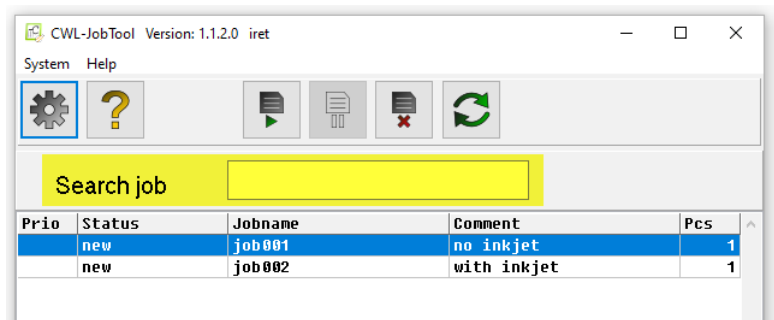
4 CWL-JobTool



4.1 This is how the demo works

After starting CWL-JobTool, two sample jobs are displayed in the job table:

- From the table, select the job to be produced in Cayman by double-clicking the corresponding row with the mouse. Alternatively, you can scan the job as a barcode in the "Search job" field.



4.2 Examples

Job without marking texts



Job with marking texts



4.3 Further information:

- Job search (scan) is case insensitive.
- CSV or WPCS files are automatically converted to Cayman format.
- The sample files in WPCS format can be found in the installation directory in the "data\importXLS\" subfolder.
- If necessary, the program can be adapted to the scanner so that the <Enter> key does not have to be pressed after each scan. For details, refer to the User's Guide.

5 CWL-ProductionReport

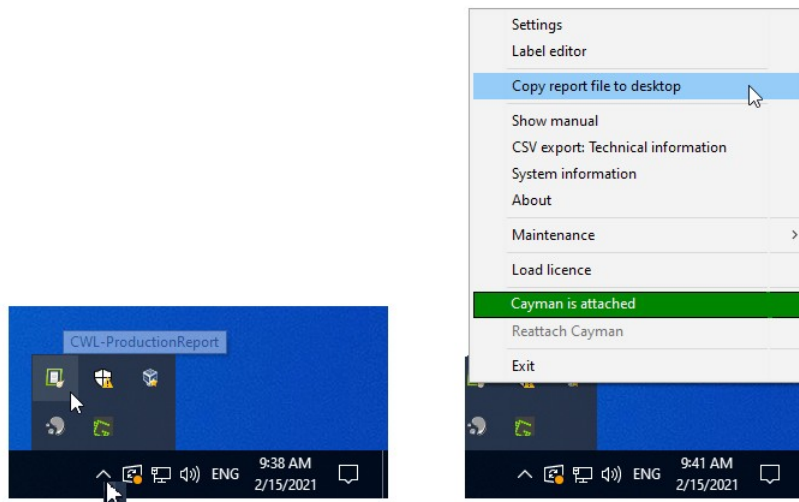


5.1 This is how the demo works

- Start the CWL-ProductionReport

CWL-ProductionReport runs invisibly in the background, its main menu can be accessed via an icon in the Windows tray bar: (point to icon "CWL-ProductionReport and press *right* mouse button).

CWL-ProductionReport automatically connects to Cayman ("Cayman is attached"). Only if there is a connection to Cayman, production data can be recorded.



- Load any cwl job file into Cayman and produce some items.
- Alternatively you can find a sample file "production.cwl" in the installation directory in the folder "\data\importCWL\". Load this into Cayman and produce all 7 items. If necessary you have to confirm reaching batch / total sizes and a material change.

CWL-ProductionReport										
No.	Name	Workpiece length	Running cycle	Quantity	Produced	Batch size	Batch remaining	Raw material	Processing	
<input checked="" type="checkbox"/>	1	article_a	300.0	0 \ 1	3	0	-	zzz_Default	zzz_Default	
<input checked="" type="checkbox"/>	2	article_b	200.0	0 \ 1	4	0	2	zzz_PowerCord	zz_PowerCord	

- You can then copy the "production.csv" report file to the desktop (menu item "**Copy report file to desktop**"). It can be viewed with any text editor or loaded into Excel for further analysis.

5.2 Explanation of the report entries in the file "production.csv"

When the "production.cwl" job is completely processed, Cwl-ProductionReport creates the following report file (the line numbers are not part of the file and are only used here for overview purposes):

```

Line
1 "JobName";"Timestamp";"EventID";"CableName";"DataValue";"Description";"EventName"
2 "production.cwl";"2021-02-15T09:42:11";5;"article_a";"";"psStart"
3 "production.cwl";"2021-02-15T09:43:00";2;"article_a";"zzz_Default";"";"psMaterial"
4 "production.cwl";"2021-02-15T09:43:00";1;"article_a";"1";"";"psCount"
5 "production.cwl";"2021-02-15T09:43:12";1;"article_a";"2";"";"psCount"
6 "production.cwl";"2021-02-15T09:43:26";1;"article_a";"3";"";"psCount"
7 "production.cwl";"2021-02-15T09:43:26";15;"article_a";"3";"";"psTotal"
8 "production.cwl";"2021-02-15T09:43:26";9;"article_a";"897";"zzz_Default";"psMaterialCount"
9 "production.cwl";"2021-02-15T09:43:54";6;"article_b";"";"psPause"
10 "production.cwl";"2021-02-15T09:43:57";5;"article_b";"";"psStart"
11 "production.cwl";"2021-02-15T09:44:12";2;"article_b";"zzz_PowerCord";"";"psMaterial"
12 "production.cwl";"2021-02-15T09:44:12";1;"article_b";"1";"";"psCount"
13 "production.cwl";"2021-02-15T09:44:25";1;"article_b";"2";"";"psCount"
14 "production.cwl";"2021-02-15T09:44:25";20;"article_b";"";"psBatch"
15 "production.cwl";"2021-02-15T09:44:39";1;"article_b";"3";"";"psCount"
16 "production.cwl";"2021-02-15T09:44:50";1;"article_b";"4";"";"psCount"
17 "production.cwl";"2021-02-15T09:44:50";20;"article_b";"";"psBatch"
18 "production.cwl";"2021-02-15T09:44:50";15;"article_b";"4";"";"psTotal"
19 "production.cwl";"2021-02-15T09:44:50";9;"article_b";"799";"zzz_PowerCord";"psMaterialCount"
20 "production.cwl";"2021-02-15T09:44:50";8;"article_b";"";"psJobTerminated"
21 "production.cwl";"2021-02-15T09:44:52";6;"article_b";"";"psPause"

```

Line 1 ("JobName"; "Timestamp" ...) names 7 columns for the following entries.

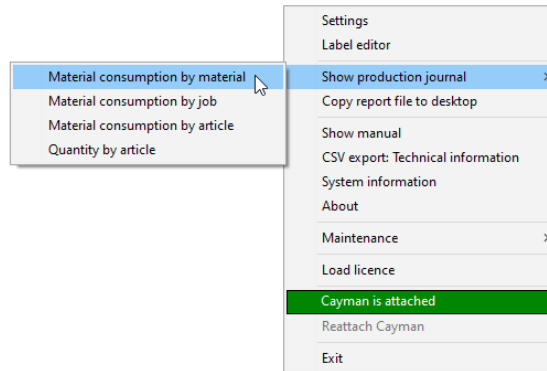
For each production event a line is appended to the file "production.csv". Each line starts with the name of the **cayman file** and the **timestamp (date/time)** of the production event. The report data are separated by a semicolon
 ",,"

Line	EventName (column 7)	Description
1	(-)	Headline with 7 column names
2	psStart	Production started (JobName, Timestamp) with "article_a".
3	psMaterial	Change to raw material "zzz_Default".
4-6	psCount	One item each was made ("1", "2" etc.).
7	psTotal	A total was produced with "3" items "article_a".
8	psMaterialCount	Material consumption this total: 897 millimeters of raw material "zzz_Default".
9	psPause	Cayman waits for production resume or a zero cut.
10	psStart	Production started with "article_b".
11	psMaterial	Change to raw material "zzz_PowerCord".
12.13	psCount	One item each was made.
14	psBatch	A batch was produced.
15.16	psCount	One item each was made.
17	psBatch	A batch was produced.
18	psTotal	A total was produced with "4" items "article_b".
19	psMaterialCount	Material consumption this total: 799 millimeters of raw material "zzz_PowerCord".
20	psTerminated	The job was finished.
21	psPause	Cayman pauses and waits for the next job.

Notes: In your report file the production events will of course have different timestamps and the material consumptions (under "psMaterialCount") may differ slightly from those shown here due to small measurement or rounding errors. This also applies if zero cuts were made, these are counted in the material consumption.

5.3 Production journal

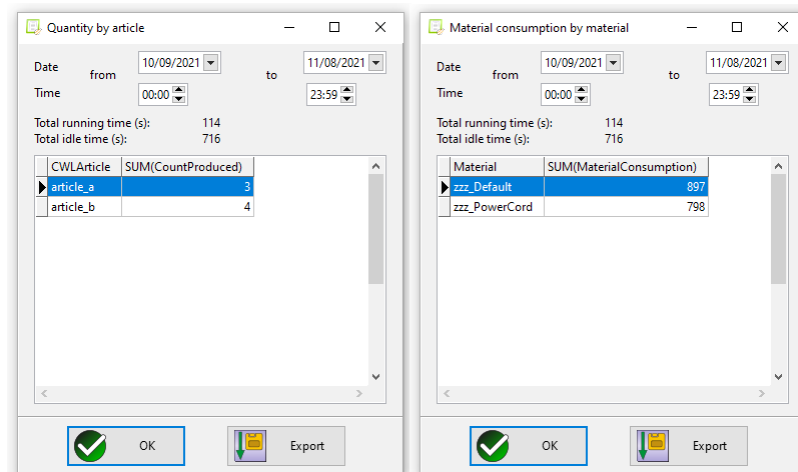
The production journal allows display and export of production data, broken down by specific criteria and in a freely selectable time period.



Currently, the following journal kinds are supported:

- Material consumption, broken down by material
- Material consumption, broken down by job
- Material consumption, broken down by article
- Quantity, broken down by article

Date and time of the journal period (each from...to) are freely selectable, preset is the period of the last 30 days including today, each from start of day (0.00) to end of day. When changing the journal period, the display is updated automatically.



The figure shows two journals after completed production of the supplied demo file "production.cwl". Once 'Quantity by article' and 'Material consumption by material':

In the journal period 3 pieces of 'article_a' and 4 pieces of 'article_b' have been produced, in addition the machine has cut 897 mm from raw material 'zzz_Default', 798 mm from material 'zzz_PowerCord'.

5.3.1 Exporting the journal data

Pressing the "Export" button exports the displayed journal in Excel format, preset is the directory for reports (see manual 'CWL-ProductionReport', 'Program settings'). A file name is suggested that contains the selected journal kind and the journal period.

5.4 Regular expressions (Regex)

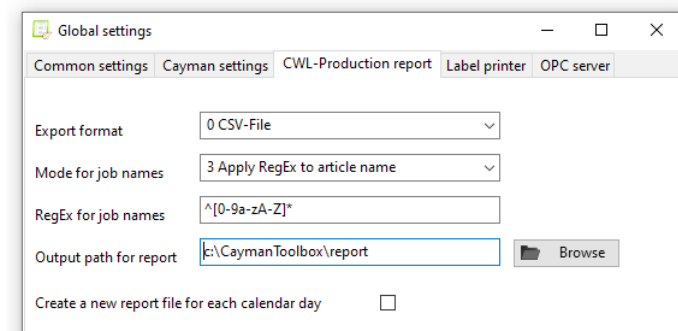
Regular expressions' can be applied to the job name (this can be the Cayman file name or the respective article name) in order to use only parts of the name or to remove unwanted parts of the name.

This is how the example works:

Start the CWL ProductionReport and load the file 'production_regex.cwl' in Cayman.

The Cayman file contains 2 articles with the names 'article1-partlist001' and 'article2-partlist-002'

In the ProductionReport settings, select '3 Apply RegEx to article name' and enter as 'Regular expression' in the field (without quotation marks) : '^ [0-9a-zA-Z]*'.



The regular expression searches the article name from the beginning for digits (0-9) and lower and upper case letters (a-zA-Z). If the hyphen is recognized, the search is aborted. The job name 'article1' is generated for the first article and 'article2' for the second article. The name part '-partlist...' is removed by the regular expression