



## Servo press kit YJKP - Parse logging data

Parse logging data of the servo press kit YJKP

YJKP

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# 1 Components/Software used

Type/Name	Version Software/Firmware	Date of manufacture
Servo press kit YJKP	general	--
Application software YJKP (GSAY-A4-F0-Z4-1.1.1)	V1.1.1	--
Firmware controller (CECC-X)	V3.2.10	--
Firmware motor controller (CMMP-AS)	V4.0.1501.2.3	--

Table 1.1: 1 Components/Software used

## 2 Application description

This application note describes how you can parse the logging data of the servo press kit.

## 3 Parse logging data

### 3.1 Data storage and format

The data storage of the logging file depends on the storage device.  
The logging file is stored in CSV-Format.

Data storage device	Save destination
USB	File PressResults.log in the directory (/servo_press/logging)
SD card	File PressResults.log in the directory (/servo_press/logging)

Table 3-1: Data storage devices for logging

### 3.2 Statistics

Section	Description
Part no.	Sequential number of the press process
Program name	Name of the program
Program ID	ID number of the program
Timestamp	Date and time of the press process
Result	Result of the press process (TRUE --> OK   FALSE --> Not OK)
Max. position	Maximum electric cylinder position achieved during the whole press process
Max. force	Maximum force sensor value achieved during the whole press process
NOK source	Information about why the press process was terminated (only with result = not OK) <ul style="list-style-type: none"> <li>• Digits 1...3 contain the step number of the press process being carried out (example: 010 = step 10)</li> <li>• The last digit contains the actual reason why the press process was terminated (Table: Digit 4 coding)</li> </ul>

Table 3-2: (Statistics)

Digit 4 coding	Description
1	Termination by the "Position mode" step
2	Termination by the "Force mode" step
3	Termination by the "Digital signal mode" step
4	Termination due to the waiting time for "Read input" being exceeded (time out)
5	Termination as a result of the "Windowing" evaluation
6	Termination as a result of the "Threshold" evaluation
7	Termination as a result of the "Envelope" evaluation
8	Press process was terminated manually <ul style="list-style-type: none"> <li>• When the servo press software has control priority: FALSE at the CECC-X-M1-YJKP - input X3.5</li> <li>• When the host has control priority: FALSE at the host interface - control word bit 4</li> </ul>

Table 3-3: Digit 4 coding

### 3.3 Curves

Section	Description
No.	Number of recorded curves

Table 3-4: (Curves)



### 3.4 Intersection (Curve 1-5)

Section	Description
Max. position	Maximum position of curve X
Max. force	Maximum force of curve X
NOK source	Information about why the press process was evaluated with not OK <ul style="list-style-type: none"> <li>Digit 1 contain the evaluation method of the press process being evaluated with not OK (1 = Window, 2 = Threshold, 3 = Envelope)</li> <li>Digit 1 contain the number of the evaluation method of the press process being evaluated with not OK</li> <li>Example: Hex code: 203 → Threshold 3</li> </ul>
Window X: Intersection	Intersection code see Table 3-6: Window intersection code (1 = Intersection   0 = No intersection)
Window X: Up side position	Position of up side intersection point
Window X: Up side force	Force of up side intersection point
Window X: Down side position	Position of down side intersection point
Window X: Down side force	Force of down side intersection point
Window X: Left side position	Position of left side intersection point
Window X: Left side force	Force of left side intersection point
Window X: Right side position	Position of right side intersection point
Window X: Right side force	Force of right side intersection point
Window X: Min. position	Maximum position inside window X
Window X: Max. position	Maximum position inside window X
Window X: Min. force	Maximum force inside window X
Window X: Max. force	Maximum force inside window X
Threshold X: Intersection	1 = Intersection   0 = No intersection
Threshold X: Position	Position of intersection point
Threshold X: Force	Force of intersection point
Envelope X: Intersection	Intersection code see Table 3-7: Envelope intersection code (1 = Intersection   0 = No intersection)
Envelope X: Up side position	Position of up side intersection point
Envelope X: Up side force	Force of up side intersection point
Envelope X: Down side position	Position of down side intersection point
Envelope X: Down side force	Force of down side intersection point

Table 3-5: Intersection (Curve 1-5)

Hex Code	Up side	Down side	Left side	Right side
0001	--	--	--	x
0010	--	--	x	--
0100	--	x	--	--
1000	x	--	--	--

Table 3-6: Window intersection code

Hex Code	Up side	Down side
01	--	x
10	x	--

Table 3-7: Envelope intersection code

### 3.5 Variables

Section	Description
No.	Number of variable
Value	Value of variable

Table 3-8: (Variables)

### 3.6 Sequencer

Section	Description
Steps	Number of steps
No.	Number of step

Table 3-9: Sequencer

#### Function:

Function	Description
1	Position mode
2	Force mode
3	Digital signal mode
4	Delay time
5	Tare
6	Read input
7	Set output
8	Variable

Table 3-10: Function

**Function position mode:**

Input	Description
1	Record (TRUE → Active   FALSE → Inactive)
2	Position method (TRUE → Relative   FALSE → Absolute)
3	Configuration target position (TRUE → Variable   FALSE → Value)
4	Value target position mm
5	Variable target position
6	Configuration target distance (TRUE → Variable   FALSE → Value)
7	Value target distance mm
8	Variable target distance
9	Configuration max. force (TRUE → Variable   FALSE → Value)
10	Value max. Force N
11	Variable max. force
12	Configuration velocity (TRUE → Variable   FALSE → Value)
13	Value velocity mm/s
14	Variable velocity mm/s

Table 3-11: Function position mode

**Function force mode:**

Input	Description
1	Record (TRUE → Active   FALSE → Inactive)
2	Position method (TRUE → Relative   FALSE → Absolute)
3	Configuration target position (TRUE → Variable   FALSE → Value)
4	Value target force N
5	Variable target force N
6	Configuration max. position (TRUE → Variable   FALSE → Value)
7	Value max. position mm
8	Variable max. Position
9	Configuration max. distance (TRUE → Variable   FALSE → Value)
10	Value max. Distance
11	Variable max. Distance
12	Configuration velocity (TRUE → Variable   FALSE → Value)
13	Value velocity mm/s
14	Variable velocity mm/s

Table 3-12: Function force mode

Function digital signal mode:

Input	Description
1	Record (TRUE → Active   FALSE → Inactive)
2	Position method (TRUE → Relative   FALSE → Absolute)
3	Digital signal
4	Configuration max. position (TRUE → Variable   FALSE → Value)
5	Value max. position mm
6	Variable max. position
7	Configuration max. distance (TRUE → Variable   FALSE → Value)
8	Value max. distance
9	Variable max. distance
10	Configuration velocity (TRUE → Variable   FALSE → Value)
11	Value velocity mm/s
12	Variable velocity mm/s
13	--
14	--

Table 3-13: Function digital signal mode

Function delay time:

Input	Description
1	Configuration delay time (TRUE → Variable   FALSE → Value)
2	Value delay time ms
3	Variable velocity mm/s
4	--
5	--
6	--
7	--
8	--
9	--
10	--
11	--
12	--
13	--
14	--

Table 3-14: Function delay time

**Function tare:**

Input	Description
1	Tare (TRUE → Active   FALSE → Inactive)
2	Configuration offset (TRUE → Variable   FALSE → Value)
3	Value offset N
4	Variable offset
5	--
6	--
7	--
8	--
9	--
10	--
11	--
12	--
13	--
14	--

Table 3-15: Function tare

**Function read input:**

Input	Description
1	Number of input
2	Read input (TRUE → TRUE   FALSE → FALSE)
3	--
4	--
5	--
6	--
7	--
8	--
9	--
10	--
11	--
12	--
13	--
14	--

Table 3-16: Function read input

Function set output:

Input	Description
1	Number of output
2	Set output (TRUE → TRUE   FALSE → FALSE)
3	--
4	--
5	--
6	--
7	--
8	--
9	--
10	--
11	--
12	--
13	--
14	--

Table 3-17: Function set output

Function variable:

Input	Description
1	Number of variable
2	Value of variable
3	--
4	--
5	--
6	--
7	--
8	--
9	--
10	--
11	--
12	--
13	--
14	--

Table 3-18: Function variable

### 3.7 Recipes

Section	Description
No.	Number of recipes

Table 3-19: Recipes

### 3.8 Windowing, threshold, envelope (Curve 1-5)

Section	Description
Windowing: Active	Windowing configuration (TRUE → Active   FALSE → Inactive)
Windowing Window X: Active	Window X configuration (TRUE → Active   FALSE → Inactive)
Windowing Window X: Config.	Position method (TRUE → Relative   FALSE → Absolute)
Windowing Window X: Config. min. position	Configuration min. position (TRUE → Variable   FALSE → Value)
Windowing Window X: Min. position value	Value min. position
Windowing Window X: Min. position variable	Variable min. position
Windowing Window X: Config. max. position	Configuration max. position (TRUE → Variable   FALSE → Value)
Windowing Window X: Max. position value	Value max. position
Windowing Window X: Max. position variable	Variable max. position
Windowing Window X: Config. min. force	Configuration min force (TRUE → Variable   FALSE → Value)
Windowing Window X: Min. force value	Value min. force
Windowing Window X: Min. force variable	Variable min. force
Windowing Window X: Config. max. force	Configuration max. force (TRUE → Variable   FALSE → Value)
Windowing Window X: Max. force value	Value max. force
Windowing Window X: Max. force variable	Variable max. force
Windowing Window X: Config. down side	0 = Don't care 1 = Forbidden 2 = In 3 = Out
Threshold: Active	Threshold configuration (TRUE → Active   FALSE → Inactive)
Threshold Threshold X: Active	Threshold X configuration (TRUE → Active   FALSE → Inactive)
Threshold Threshold X: Config.	Position method (TRUE → Relative   FALSE → Absolute)
Threshold Threshold X: Mode	Threshold mode (TRUE → Force   FALSE → Position)
Threshold Threshold X: Config. position	Configuration position (TRUE → Variable   FALSE → Value)
Threshold Threshold X: Position value	Value position
Threshold Threshold X: Position variable	Variable position
Threshold Threshold X: Config. min. position	Configuration min. position (TRUE → Variable   FALSE → Value)
Threshold Threshold X: Min. position value	Value min. position
Threshold Threshold X: Min. position variable	Variable min. position
Threshold Threshold X: Config. max. position	Configuration max. position (TRUE → Variable   FALSE → Value)
Threshold Threshold X: Max. position value	Value max. position

## Parse logging data

Section	Description
Threshold Threshold X: Max. position variable	Variable max. position
Threshold Threshold X: Config. force	Configuration force (TRUE → Variable   FALSE → Value)
Threshold Threshold X: Force value	Value force
Threshold Threshold X: Force variable	Variable force
Threshold Threshold X: Config. min. force	Configuration min. force (TRUE → Variable   FALSE → Value)
Threshold Threshold X: Min. force value	Value min. force
Threshold Threshold X: Min. force variable	Variable min. force
Threshold Threshold X: Config. max. force	Configuration max. force (TRUE → Variable   FALSE → Value)
Threshold Threshold X: Max. force value	Value max. force
Threshold Threshold X: Max. force variable	Variable max. force
Threshold Threshold X: Config	0 = Up 1 = Down 2 = Left 3 = Right
Envelope: Active	Envelope configuration (TRUE → Active   FALSE → In-active)
Envelope Envelope X: Active	Envelope X configuration (TRUE → Active   FALSE → Inactive)
Envelope Envelope X: Conig.	Position method (TRUE → Relative   FALSE → Absolute)
Envelope Envelope X: Points up side	Number of points up side
Envelope Envelope X: No.	Number of envelope points
Envelope Envelope X: Config. force	Configuration force (TRUE → Variable   FALSE → Value)
Envelope Envelope X: Force value	Value force
Envelope Envelope X: Force variable	Variable force
Envelope Envelope X: Config. position	Configuration position (TRUE → Variable   FALSE → Value)
Envelope Envelope X: Position value	Value position
Envelope Envelope X: Position variable	Variable position
Envelope Envelope X: Points down side	Number of points up side
Envelope Envelope X: No.	Number of envelope points
Envelope Envelope X: Config. force	Configuration force (TRUE → Variable   FALSE → Value)
Envelope Envelope X: Force value	Value force
Envelope Envelope X: Force variable	Variable force
Envelope Envelope X: Config. position	Configuration position (TRUE → Variable   FALSE → Value)
Envelope Envelope X: Position value	Value position
Envelope Envelope X: Position variable	Variable position

Table 3-20: Windowing, threshold, envelope (Curve 1-5)



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