

Batching Example

ProAction PCEE - [BatchingExample]

File Communications Tools View Help

Step List

Step #	Name
1	Start
2	Pause
3	Restart
4	Abort
5	Gate Interlock
6	Fill
7	Print
8	Discharge
9	Setpoint Key
10	Enter Fill Value
11	Timer 1
12	Enter Preact

New Step
Rename Step
Remove Step
Move Step Up
Move Step Down

Step Details

☒ Enabled ☐ Pausable

Conditions "True" Actions "False" Actions Pause Actions

Conditions

- User Key Compare

Comment
KeyNumber
Name

Wait
1
User

Name

start 5 M m... E... 4 F 3 F U... Search Desktop

720 PCEE Program Example SPECIFICATION

Batching Example

Objective

This program was written for the 720i to run a simple batch with a stored target weight and preact weight. After filling it will print the stable net weight and store a transaction to the database before discharging. The target and preact weights can be changed between batches.

Sequence of Operation

1. Put the container on the scale and press Tare to tare the scale and confirm the scale is at net zero.
2. Press the "Start" softkey. This retrieves the stored target and preact weight from the Target database.
3. Check to make sure the discharge gate is closed (Bit 4). If it is, continue. If not, wait for it to be corrected and start pressed again.
4. The fill output will turn on (Bit 1) until the target weight minus preact weight is reached.
5. The scale will wait for standstill before storing the filled weight and time/date in the Trans database.
6. The net weight will print with the time/date to Port 2 using Auxillary Format #1.
7. The discharge output will turn on until the weight is below 10 lb.
8. It will prompt "Batch Complete" for 2 seconds before returning to the prompt "Press Start".

Setting the Target and Preact

1. Press the "Setpoint" softkey to key in a new target and preact.
2. They will be saved to the Target database.

720 PCEE Program Example SPECIFICATION

Batching Example

Databases

2) Prompts Database – 1 row

FIELD	TYPE	DESCRIPTION
1) Start	String	“Press Start” prompt
2) Gate	String	“Gate Open” prompt
3) Filling	String	“Filling” prompt
4) Disch	String	“Discharging” prompt
5) InMotio	String	“In Motion” prompt
6) Paused	String	“Paused” prompt
7) Restart	String	“Restarted prompt”
8) Abort	String	“Aborted” prompt
9) EnterTar	String	“Enter Target” prompt
10) TarSaved	String	“Target Saved” prompt
11) BatComp	String	“Batch Complete” prompt
12) EnterPre	String	“Enter Preact” prompt

3) Trans Database – 100 rows

FIELD	TYPE	DESCRIPTION
1) Weight	Real	Net weight taken after fill
2) TimeDate	Datetime	Time and date of transaction

4) Target Database

FIELD	TYPE	DESCRIPTION
1) Target	Real	Stored target weight
2) Preact	Real	Stored preact weight (number of pounds to stop the fill before the target)

Digital Inputs/Outputs

BIT	TYPE	DESCRIPTION
1	Output	Fill output
2	Output	Discharge output
3	Off	Not used
4	Input	Discharge gate is closed input

Batching Example

STEP 1: Start (Enabled. Not Pausable)

CONDITIONS

User Key Compare, Key Number: 1

Comment: Wait for Start key to be pressed

TRUE ACTIONS

Activate Step, Step Number: 5

Comment: Check to see if the gate is closed next

Deactivate Step, Step Number: 1

Comment:

Get Database Record, Slot: 0, Index: 4, MoveType: FIRST

Comment: Points to the Target DB

DB Read, Field: 1

Comment: Reads the target value

User Subtract Value, Data Type: REAL, Source: DATABASE, Value: 0, Field: 2 Comment: Subtracts the preact from the User Real

User Set Compare, Condition: 30, Compare Type: WEIGHT

Comment: Stores the answer to Condition 28 (step 6- fill)

FALSE ACTIONS

Get Database Record, Slot: 0, Index: 2, MoveType: FIRST

Comment: points to the Prompt DB

DB Prompt, Slot: 0, Index: 2, Field: 1

Comment: Prompts "Press Start"

STEP 2: Pause (Enabled. Not Pausable)

CONDITIONS

User Key Compare, Key Number: 2

Comment:

TRUE ACTIONS

Pause Process

Comment:

Get Database Record, Slot: 0, Index: 2, MoveType: FIRST

Comment:

DB Prompt, Slot: 0, Index: 2, Field: 6

Comment:

Batching Example

STEP 3: Restart (Enabled. Not Pausable)

CONDITIONS

User Key Compare, Key Number: 3

Comment:

TRUE ACTIONS

Restore Process

Comment:

Get Database Record, Slot: 0, Index: 2, MoveType: FIRST

Comment:

DB Prompt, Slot: 0, Index: 2, Field: 7

Comment:

STEP 4: Abort (Enabled, Not Pausable)

CONDITIONS

User Key Compare, Key Number: 4

Comment:

TRUE ACTIONS

Reset Process

Comment:

Get Database Record, Slot: 0, Index: 2, MoveType: FIRST

Comment:

DB Prompt, Slot: 0, Index: 2, Field: 8

Comment:

Activate Step, Step Number: 1

Comment:

Clear Tare, Scale Number: SCALE 1

Comment:

Batching Example

STEP 5: Gate Interlock (Not Enabled, Not Pausable)

CONDITIONS

Digital Input Compare, Slot: 0, Relay Number: 4, Target State: ON
Comment: Check input 4 to see if it's on (true)

TRUE ACTIONS

Tare Scale, Scale Number: SCALE 1
Comment: Tare scale and start filling
Activate Step, Step Number: 6
Comment:
Deactivate Step, Step Number: 5
Comment:

FALSE ACTIONS

Get Database Record, Slot: 0, Index: 2, MoveType: FIRST
Comment:
DB Prompt, Slot: 0, Index: 2, Field: 2
Comment: Prompt "Gate Is Open"

Batching Example

STEP 6: Fill (Not Enabled, Pausable)

CONDITIONS

Weight Compare, Source: SCALE1, Value: 0, Mode: NET, Trip: HIGHER, Band Value: 0, Preact Mode: OFF, Preact Value: 0
Comment: Compare the net weight to the target (stored from step 1 or 10)

TRUE ACTIONS

Deactivate Step, Step Number: 6

Comment:

Activate Step, Step Number: 7

Comment:

Digital Output, Slot: 0, Relay Number: 1, State: OFF

Comment: Turns Bit 1 off when target-preact reached

FALSE ACTIONS

Digital Output, Slot: 0, Relay Number: 1, State: ON

Comment: Turns Bit 1 on until target-preact reached

Get Database Record, Slot: 0, Index: 2, MoveType: FIRST

Comment: Points to Prompt DB

DB Prompt, Slot: 0, Index: 2, Field: 3

Comment: Prompts "Filling"

PAUSE ACTIONS

Digital Output, Slot: 0, Relay Number: 1, State: OFF

Comment:

Batching Example

STEP 7: Print (Not Enabled, Not Pausable)

CONDITIONS

Motion Compare, Source: SCALE1, Trip: MOTION

Comment: Waits for standstill. True while in motion

TRUE ACTIONS

Get Database Record, Slot: 0, Index: 2, MoveType: FIRST

Comment: Points to the Prompt DB

DB Prompt, Slot: 0, Index: 2, Field: 5

Comment: Prompts "In Motion" while in motion

FALSE ACTIONS

Print, Format: 1

Comment: Prints Aux Fmt 1

Activate Step, Step Number: 8

Comment:

Deactivate Step, Step Number: 7

Comment:

Clear Tare, Scale Number: SCALE 1

Comment:

Get Database Record, Slot: 0, Index: 3, MoveType: FIRST

Comment: Points to Trans DB

DB Add, Slot: 0, Database Index: 3

Comment: Adds a record to the Trans DB

DB Capture, Field: 1, Capture Type: LIVEWEIGHT, Scale: SCALE1, Index: 3, Slot: 1, Bit: 1 Comment: Captures the live weight and puts it in field 1 (weight)

DB Capture, Field: 2, Capture Type: TIMEDATE, Scale: SCALE1, Index: 1, Slot: 1, Bit: 1 Comment: Stores the current time-date with the filled amt

Batching Example

STEP 8: Discharge (Not Enabled. Pausable)

CONDITIONS

Weight Compare, Source: SCALE1, Value: 10, Mode: GROSS, Trip: LOWER, Band Value: 0, Preact Mode: OFF,
Preact Value: 0

Comment: Discharges until below 10 lb

TRUE ACTIONS

Digital Output, Slot: 0, Relay Number: 2, State: OFF

Comment: Turns Bit 2 off when below 10

Activate Step, Step Number: 11

Comment: Activates timer 1 (to erase Batch Complete prompt)

Deactivate Step, Step Number: 8

Comment:

Clear Tare, Scale Number: SCALE 1

Comment:

Get Database Record, Slot: 0, Index: 2, MoveType: FIRST

Comment: Points to Prompt DB

DB Prompt, Slot: 0, Index: 2, Field: 11

Comment: Prompts "Batch Complete"

Start Timer, Timer Number: 1, Duration: 2000

Comment: Runs timer for 2 seconds

FALSE ACTIONS

Digital Output, Slot: 0, Relay Number: 2, State: ON

Comment: Turns Bit 2 on while discharging

Get Database Record, Slot: 0, Index: 2, MoveType: FIRST

Comment: Points to Prompt DB

DB Prompt, Slot: 0, Index: 2, Field: 4

Comment: Prompts "Discharging"

PAUSE ACTIONS

Digital Output, Slot: 0, Relay Number: 2, State: OFF

Comment: Turns off output when paused

Batching Example

STEP 9: Setpoint Key (Enabled. Not Pausable)

CONDITIONS

User Key Compare, Key Number: 5

Comment: Allows them to temp change fill value

TRUE ACTIONS

Deactivate Step, Step Number: 9

Comment:

Deactivate Step, Step Number: 1

Comment: Can't start a batch while editing target

Activate Step, Step Number: 10

Comment:

Get Database Record, Slot: 0, Index: 2, MoveType: FIRST

Comment: Points to the Prompt DB

DB Prompt, Slot: 0, Index: 2, Field: 9

Comment: Prompts "Enter Target"

User Get, Capture Type: REAL

Comment: Opens the prompt

STEP 10: Enter Fill Value (Not Enabled, Not Pausable)

CONDITIONS

User Entry, Comment:

TRUE ACTIONS

Deactivate Step, Step Number: 10

Comment:

Get Database Record, Slot: 0, Index: 4, MoveType: FIRST

Comment: Points to Target DB

DB Write, Field: 1

Comment: Writes the User Real into the Target field

Get Database Record, Slot: 0, Index: 2, MoveType: FIRST

Comment: Points to the Prompt DB

DB Prompt, Slot: 0, Index: 2, Field: 12

Comment: Prompts "Enter Preact"

Activate Step, Step Number: 12

Comment:

User Get, Capture Type: REAL

Comment: Prompts for a real

Comment: Prompts for a real

Batching Example

STEP 11: Timer 1 (Not Enabled, Not Pausable)

CONDITIONS

Timer Compare, Timer Number: 1, Target State: STOPPED

Comment:

TRUE ACTIONS

Deactivate Step, Step Number: 11

Comment:

Activate Step, Step Number: 1

Comment: Activate step 1 to start again

STEP 12: Enter Preact (Not Enabled, Not Pausable)

CONDITIONS

User Entry, Comment:

TRUE ACTIONS

Deactivate Step, Step Number: 12

Comment:

Activate Step, Step Number: 9

Comment:

Get Database Record, Slot: 0, Index: 4, MoveType: FIRST

Comment: Points to the Target DB

DB Write, Field: 2

Comment: Writes the User Real value to the preact field

Activate Step, Step Number: 1

Comment: Can press Start again (and reprompts "Press Start in step 1")