

# SAP Business ByDesign Extension for Labor Collection

## Track Labor Efficiently and Consistently

Labor Collect is an extension to SAP Business ByDesign that collects and calculates time worked by employees of different time types (regular or overtime) for government and commercial production orders or projects. Labor Collect takes into consideration complexities around multiple production tasks and projects, including paid and unpaid breaks, paid holidays, and regular or overtime hours to accurately report labor hours.

This extension also includes the ability to track all changes or corrections made to the time entries to ensure auditability. It comes with built-in versioning for each shift so every change is available for audit and comparison at the screen level, log level, and reporting level. This solution is tailored to meet the demands of a manufacturing customer but can be used to further complement DCAA compliance requirements.

The Labor Collect solution provides the following functionality:



### Time Worked by Employee

Collect hourly employee time by Production Order and associated Direct Project Task and by Indirect Project Task



### Trusted Calculations

Quickly calculate any overtime, holidays, and unpaid breaks



### Sync to Results

Automatically posts the results to the Timesheet and/or Execution work center



### Manager Corrections

Allows managers and other Time Administrators to make corrections



### Accurate Audit Trail

Maintains an audit trail of the transactions with built-in versioning



### Detailed Reports

Easily report on all facets of the solution

## User Dashboard

The User Dashboard is used to store information about the logged-in users' working day Start and End times and provides the ability to start entering time against Production Tasks as well as Projects. This dashboard allows a user to quickly start and stop times where the time entries are logged in the employee's timesheet.

Employee ID	Employee Name	Working Day	Working Day Starting Time	Working Day Ending Time	Clocked In
288	Cook, Lana	06/18/2021	06/18/2021 03:30 AM CST_NA	06/19/2021 03:29 AM CST_NA	No

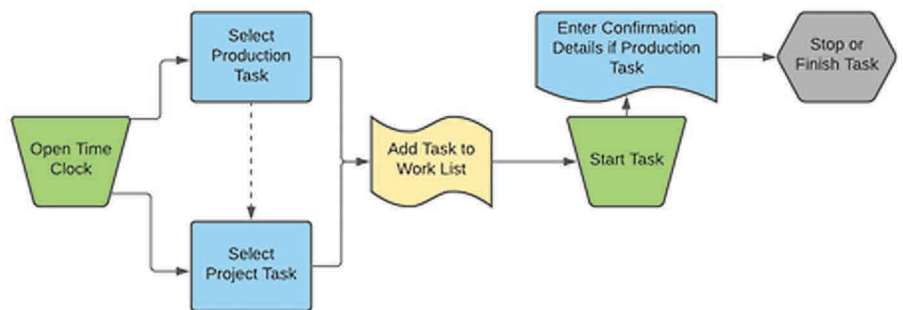
Project Task ID	Production Order ID	Operation ID	Production Task ID
No records found			

*Clear dashboard with all employee updates*

## Time Clock

The time clock provides a framework for employees to clock in and out of the tasks that they have been assigned. This framework is like a digital timecard showing which tasks they have logged into during their shift. The following workflow outlines this process:

1. Open the Time Clock
2. Select a Production Task OR Select a Project Task
3. Add Task to Work List
4. Start Task
5. Complete the work and, if working on a Production Task, enter the Confirmation Details
6. Stop Task
7. If required, Finish the task



**Summary of the current working day**

Current Shift  
Clocked In: Yes  
Shift Date: 06/18/2021  
Shift Hours: 00:00:00  
Service ID: 2297  
Administrative Category: 1 - Hourly  
Employee Site ID: 20

**Allows user to select a Production Task and the associated Project Task**

Production Task  
Production Task ID: [input]  
Production Order ID: [input]  
Operation ID: 110  
Operation Description: [input]  
Resource: VVU\_EXAMPLE - FINAL INSPECTION  
Production Site ID: 20  
Status: 2 - In Process  
Confirmation Method: 2 - Explicit  
Planned Duration: 01:00:00  
Open Duration: 00:00:00  
Latest Start: 11/01/2018 08:43 AM CST\_NA  
Add to Work List

**Allows user to select a Project Task instead of Production Task. Shows Project Task details associated with a Production Task when applicable**

Project Task  
Project Task ID: [input]  
Project Task Name: [input]  
Status: [input]  
Constraint Start Date: 01/04/2019  
Constraint Finish Date: [input]  
Time Confirmation Profile: 3 - Approval Required  
Work Description Profile: 2 - Work Description Required  
Project ID: SK21.3  
Project Name: VV53K - VistaVu Live Example  
Add to Work List

**A staging area for tasks that users plan to work during this shift**

Work List

Start Task	Task Type	Production Order ID	Operation ID	Resource ID	Production Task ID	Status	Project Task ID	Project Task Name
[Start]							VVU01.2-200	22099-02430-140-1

**Tasks where users are currently clocked**

Active Tasks

Stop Task	Work Description Profile	Task Type	Production Order ID	Operation ID	Resource ID	Production Task ID	Project Task ID	Start Timestamp
[Stop]	2 - Work Description Requi...	1 - Production Task	54321	100	MARKING.	123456	SK21.3-600	06/18/2021 12:20 PM CST_NA
[Stop]	2 - Work Description Requi...	1 - Production Task	54321	110	PACKAGE.	123456	SK21.3-600	06/18/2021 12:20 PM CST_NA

**Additional information provided about the task that has been completed**

Confirmation Details (Production Tasks Only)  
Confirm Quantity: [input]  
Confirm Activity Finished:

For Project Manager  
Work Description: [input]  
Task Completed: [input]

For Supervisor  
Internal Comment: [input]

## Manager Dashboard

The Manger Dashboard provides a primary interface for the manager to see the current status of their direct reports and to make any necessary corrections. Changes are made as a batch and can then be easily committed to the database all at once.

Employee ID	Employee Name	Working Day	Working Day Starting Time	Working Day Ending Time	Clocked In
Clocked In: Yes (3)					
278	White, Alex	06/18/2021	06/18/2021 03:30 AM EST	06/19/2021 03:29 AM EST	Yes
327	Rodgers, Bill	06/18/2021	06/18/2021 03:30 AM EST	06/19/2021 03:29 AM EST	Yes
513	Hammer, Doug	06/18/2021	06/18/2021 03:30 AM EST	06/19/2021 03:29 AM EST	Yes
Clocked In: No (12)					
302	Doe, Jane	06/18/2021	06/18/2021 03:30 AM EST	06/19/2021 03:29 AM EST	No
234	Smith, John	06/18/2021	06/18/2021 12:00 AM EST	06/18/2021 11:59 PM EST	No
179	Brooks, Chris	06/18/2021	06/18/2021 03:30 AM EST	06/19/2021 03:29 AM EST	No
471	Cook, Lana	06/18/2021	06/18/2021 03:30 AM EST	06/19/2021 03:29 AM EST	No
288	Cho, Tammy	06/18/2021	06/18/2021 04:30 AM EST	06/19/2021 04:29 AM EST	No

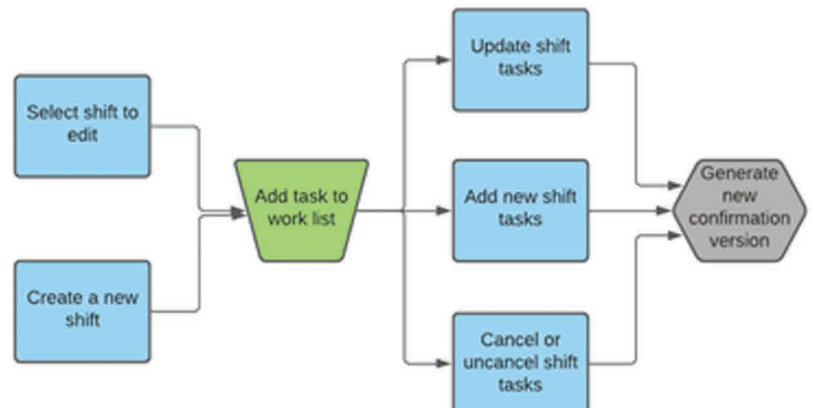
Project Task ID	Order ID	Operation ID	Task ID
No records found			

Shift Date	Shift Hours	Clocked In
06/18/2021	00:06:00	<input type="checkbox"/>
06/15/2021	00:06:00	<input type="checkbox"/>
06/14/2021	00:02:00	<input type="checkbox"/>
06/10/2021	00:28:00	<input type="checkbox"/>
06/09/2021	00:32:00	<input type="checkbox"/>

The following workflow outlines this process:

1. Select a shift to edit OR create a new shift
2. Add task to Work List
3. Update shift tasks
4. Add a new shift tasks
5. Cancel (or un-cancel) a shift task
6. Generate a new confirmation version





## Shifts

This shifts worklist is the initial manager correction screen and shows the complete history of all shifts created by employees in a clear format. For each selected shift, the shift summary appears below the list including the Time Blocks and Task Blocks that were calculated by the system. In Edit mode, the manager can make corrections to an existing shift by changing the start/stop times, adding additional tasks, canceling tasks, and reversing canceled tasks.

All Shifts
Search

Edit New Export Delete

Employee ID	Employee Name	Service ID	Shift Date	Shift Starting Time	Shift Ending Time	Shift Hours	Confirmation Status
288	Cho, Tammy	2297	06/18/2021	06/18/2021 04:30 AM EST	06/19/2021 04:29 AM EST	00:06:00	3 - Consistent
288	Cho, Tammy	2297	06/15/2021	06/15/2021 04:30 AM EST	06/16/2021 04:29 AM EST	00:06:00	3 - Consistent
288	Cho, Tammy	2297	06/14/2021	06/14/2021 04:30 AM EST	06/15/2021 04:29 AM EST	00:02:00	3 - Consistent
288	Cho, Tammy	2297	06/10/2021	06/10/2021 04:30 AM EST	06/11/2021 04:29 AM EST	00:28:00	3 - Consistent
288	Cho, Tammy	2297	06/09/2021	06/09/2021 04:30 AM EST	06/10/2021 04:29 AM EST	00:32:00	3 - Consistent
288	Cho, Tammy	2297	06/03/2021	06/03/2021 04:30 AM EST	06/04/2021 04:29 AM EST	03:30:00	3 - Consistent
288	Cho, Tammy	2297	06/02/2021	06/02/2021 04:30 AM EST	06/03/2021 04:29 AM EST	03:00:00	3 - Consistent
288	Cho, Tammy	2297	06/01/2021	06/01/2021 04:30 AM EST	06/02/2021 04:29 AM EST	03:00:00	3 - Consistent
288	Cho, Tammy	2297	05/24/2021	05/24/2021 04:30 AM EST	05/25/2021 04:29 AM EST	04:00:00	3 - Consistent
288	Cho, Tammy	2297	05/21/2021	05/21/2021 04:30 AM EST	05/22/2021 04:29 AM EST	03:00:00	3 - Consistent

Shift : 288 - Cho, Tammy - 06/18/2021

**General Information**

Weekly Time Model: VVU15THRLY  
Daily Time Model: VVU15TSHTF  
Week Starts: 06/14/2021  
Week Ends: 06/20/2021  
Week Hours: 00:14:00  
Pay Period Starts: 06/14/2021  
Pay Period Ends: 06/27/2021  
Pay Period Hours: 00:14:00  
Holiday Hours: 00:00:00

**Time Blocks = Master Clock On/Off**

Task Type	Clock In	Clock Out	Duration
3 - Unpaid Break	06/18/2021 12:30 PM EST	06/18/2021 01:00 PM EST	00:30:00
1 - Production Task	06/18/2021 01:20 PM EST	06/18/2021 01:23 PM EST	00:03:00
2 - Project Task	06/18/2021 01:23 PM EST	06/18/2021 01:26 PM EST	00:03:00

**Work List = Task Staging Area**

Active	Task Type	Production Order ID	Operation ID	Production Task ID	Resource ID	Project Task ID	Project Task Name
2 - Inactive	2 - Project Task					VVU01.2-200	22099-02430-140-1
2 - Inactive	1 - Production Task	54321	100	123456	MARKING.	SK21.3-600	Lot Release
2 - Inactive	1 - Production Task	54321	110	123456	PACKAGE.	SK21.3-600	Lot Release

Shifts worklist display

Save Close Commit Changes
View All

Correction Type:

Shift Details  
Confirmation Status: 3 - Consistent  
Employee ID: 288  
Employee Name: Steve Rogers  
Shift Date: 06/18/2021  
Shift Starting Time: 06/18/2021 04:30 AM EST  
Shift Ending Time: 06/19/2021 04:29 AM EST  
Shift Hours: 00:06:00  
Service ID: 2297  
Administrative Category: 1 - Hourly  
Employee Site ID: 20  
Hourly Rate:  
Overtime Rate:

Description:

Production Task  
Production Task ID:

Production Order ID:  
Operation ID:  
Resource:  
Production Site ID:  
Status:  
Confirmation Method:  
Planned Duration:  
Open Duration:  
Latest Start:  
[Add to Work List](#)

Project Task  
Project Task ID:

Project Task Name:  
Status:  
Start Constraint Date:  
Finish Constraint Date:  
Time Confirmation Profile:  
Work Description Profile:  
Project ID:  
Project Name:  
[Add to Work List](#)

**Work List**

[Add to Shift Tasks](#) | Group By: Active

Task Type	Production Order ID	Operation ID	Resource ID	Production Task ID	Project Task ID	Project Task Name
Active: 2 - Inactive (3)						
1 - Production Task	123456	110	PACKAGE.	5678765	723.45-AB234	ProjectName123
2 - Project Task					CD1234-06	236452635487234
1 - Production Task	123456	100	MARKING.	56787623	723.45-AB234	ProjectName123

**Shift Tasks**

[Toggle Cancellation](#) | Group By: Active

Status	Task Type	Work Description Profile	Cancellation Status	Order ID	Operation ID	Resource ID	Task ID	Project Task ID	Project Task Name	Start Timestamp	End Timestamp
Active: 2 - Inactive (4)											
New	3 - Unpaid Break		1 - Not Canceled							06/18/2021 12:30 PM EST	06/18/2021 01:00 PM EST
Released	1 - Production Task	Work Descrip...	1 - Not Canceled	1233456	100	MARKING.	5678765	723.45-AB234	ProjectName123	06/18/2021 01:20 PM EST	06/18/2021 01:22 PM EST

Shift edit mode

## Shift Confirmations

A Shift Confirmation represents an individual time posting. It combines information about the Employee, Production Task (where applicable) and Project Task, along with the resulting Production Confirmation (where applicable) and Timesheet Entry.

It is the primary reporting element for Labor Collect and is read only.

ID	Cancellation Status	Employee ID	Employee Name	Item Date	Project Task ID	Production Task ID	Operation ID	Product ID	Confirmation Ver...	Status	Approval Status
2430	1 - Not Canceled	288	Tony Stark	06/18/2021	1237128379	XRAY.098-123		2297		1 2 - Active	3 - In Approval
2428	1 - Not Canceled	288	Tony Stark	06/18/2021	1237128379	XRAY.098-123	100	2297		1 2 - Active	3 - In Approval
2429	1 - Not Canceled	288	Tony Stark	06/18/2021	1237128379	XRAY.098-123	110	2297		1 2 - Active	3 - In Approval
2427	1 - Not Canceled	288	Tony Stark	06/15/2021	1237128379	XRAY.098-123	40	2297		1	
2426	1 - Not Canceled	288	Tony Stark	06/15/2021	1237128379	XRAY.098-123	40	2297		1	
2425	1 - Not Canceled	288	Tony Stark	06/15/2021	1237128379	XRAY.098-123	40	2297		1	
2424	1 - Not Canceled	288	Tony Stark	06/15/2021	1237128379	XRAY.098-123	20	2297		1	
2423	1 - Not Canceled	288	Tony Stark	06/15/2021	1237128379	XRAY.098-123	20	2297		1	
2422	1 - Not Canceled	288	Tony Stark	06/15/2021	1237128379	XRAY.098-123	20	2297		1	
2421	1 - Not Canceled	288	Tony Stark	06/14/2021			110	2297		1	

**SectionGroup**

Created On: 06/18/2021 01:26 PM EST  
 Name: Tony Stark  
 Changed On: 06/18/2021 01:33 PM EST  
 Name:

**Employee**

Employee ID: 288  
 Employee Name: Tony Stark  
 Business Partner ID: 800000689  
 Employee Site ID: 20  
 Administrative Category: 1 - Hourly  
 Employee Time Status: 2 - Active  
 Employee Time Approval Status: 3 - In Approval  
 Compensation Component Type: OT1.5

**Production Task**

Production Confirmation ID:  
 Production Confirmation Processing Status: 4 - Not Relevant  
 Production Confirmation Cancellation Status:  
 Resource ID:  
 Resource Description:  
 Material ID:  
 Material Description:  
 Confirmed Duration: 00:02:00  
 Confirmed Hours: 0.033333  
 Confirmed Quantity:

**Project Task**

Item Date: 06/18/2021  
 Start Timestamp: 06/18/2021 01:24 PM EST  
 End Timestamp: 06/18/2021 01:26 PM EST  
 Project ID: 1234  
 Project Name: Stark Industries  
 Project Task ID: 1237128379  
 Project Task Name: XRAY.098-123  
 Document ID:  
 Reference Item:

### Shifts confirmation worklist

Save Close Post Production Confirmation Finish Production Task View All

**Root Node Elements**

UUID:

Business Partner UUID:

Shift UUID:

Worklist Task UUID:

Shift Task UUID:

Confirmation Task Block UUID:

Confirmation Version Number:

Project UUID:

Project Task UUID:

Employee Time Helper UUID:

**Production**

Production Task UUID:

Task ID:

Production Order UUID:

Order ID:

Production Lot UUID:

Production Lot ID:

Operation ID:

Operation UUID:

Operation Activity UUID:

**SectionGroup**

Employee Time Approval Status:

Cancellation Status:

Finish Production Task Status:

Overtime Item Status:

Overtime Approval Status:

Overtime Cancellation Status:

Overtime Processing Status:

Regular Time Item Status:

Regular Time Approval Status:

Regular Time Cancellation Status:

Regular Time Processing Status:

Production Confirmation Processing Status:

Production Confirmation Cancellation Status:

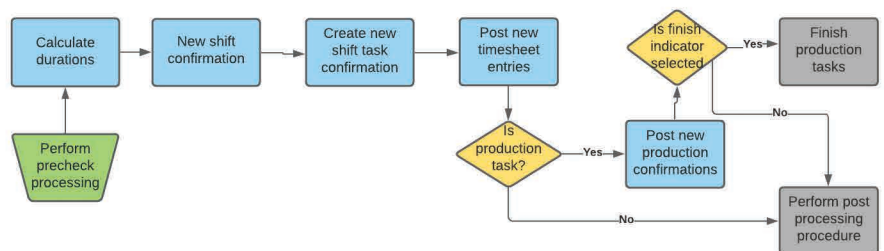
### Shift confirmation edit mode

## Processing

**Stop Button:** When an employee clicks the Stop button for a given task, a new confirmation version is created with all the updated information. If all validations pass successfully, the calculated duration for that task is added to the employees' timesheet and a new production task confirmation is created. This application recalculates durations, allocates times across multiple tasks, and reposts entries when required.

This a high-level workflow example of the stop process:

1. Perform pre check processing
2. Calculate durations
3. Generates a new shift confirmation version
4. Create new shift task confirmation
5. Post new timesheet entries
6. Post new production confirmations
7. Finish production tasks
8. Perform post processing procedure



Employee: Ryan Saks Reporting Line Unit: GM-Quality Assurance II Manager: Anderson Cooper

Release Save and Close Save Close View Activity Report Hide Calendar

May, 2021 June, 2021 July, 2021

Time Entries: Friday, June 18, 2021 - Target Hour(s) : 08:00 Hour(s)

Task	Activity*	Hours	Start Time	End Time	Work Description	Time Type	Status
AB_123-001-Lot Release	WV-Q2-Inspector	00:01			Task Completed	US0001 - Actual hours worked	In Approval
AB_123-001-Lot Release	WV-Q2-Inspector	00:03			Completed Task #2	US0001 - Actual hours worked	In Approval
ABC1234.789.C0001	WV-Q2-Inspector	00:02				US0001 - Actual hours worked	In Approval

SAP Business ByDesign timesheet

Manual Selection of Production Tasks

All Production Tasks By Selection Group By: None 161423

Preview Print Task Assign Responsible New Labels Confirm Confirm as Planned Bundle Tasks Split Task Change Status View Instructions

Start...	Status	Priority	Task ID	Task Description	Latest Start	Responsible (Name)	Resource ID	Production Order ID	Kit/Component Locator
◇	In Process	Normal	161423		11/01/2018 07:40 AM	Angela Lansbury	MARKING.	781523	

Details: Task 168728

General Input Products Resources Confirmations Sequence

Confirmation ID	Confirmation Type	Reversed Confirmation ID	Created On	Created By
123456	Standard		06/18/2021 12:21 PM	Tony Stark
123467	Standard		06/09/2021 08:19 PM	Tony Stark
123478	Standard		06/09/2021 05:56 PM	Tony Stark
123489	Standard		06/09/2021 05:26 PM	Tony Stark
123500	Standard		06/03/2021 09:20 AM	Doug Hammer

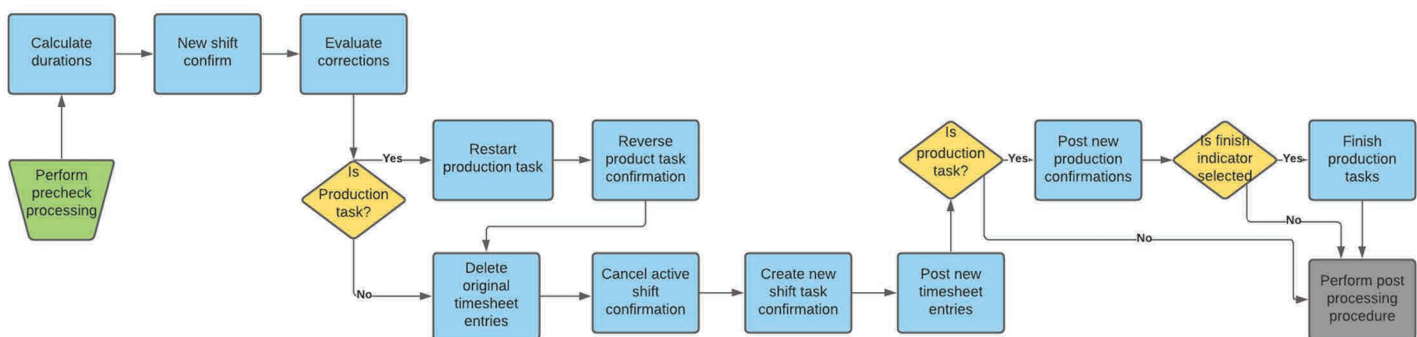
Production task confirmation



**Exit Button:** When an employee clicks the Exit button, all time for the shift is released on the employees' time sheet completing their shift for the day.

**Commit Button:** The corrections process is by far the most complicated part of this solution. This corrections process starts at the Shifts Worklist portion of the solution and automatically performs the following procedures after all changes are made and the Commit button is pressed.

This a high-level workflow example of the stop process:



1. Perform pre check processing
2. Generates a new shift confirmation version
3. Evaluate all corrections
4. Restart production tasks
5. Reverse production task confirmations
6. Delete original timesheet entries
7. Cancel active shift confirmation
8. Create new shift task confirmation
9. Post new timesheet entries
10. Post new production confirmations
11. Finish production tasks
12. Perform post processing procedure