

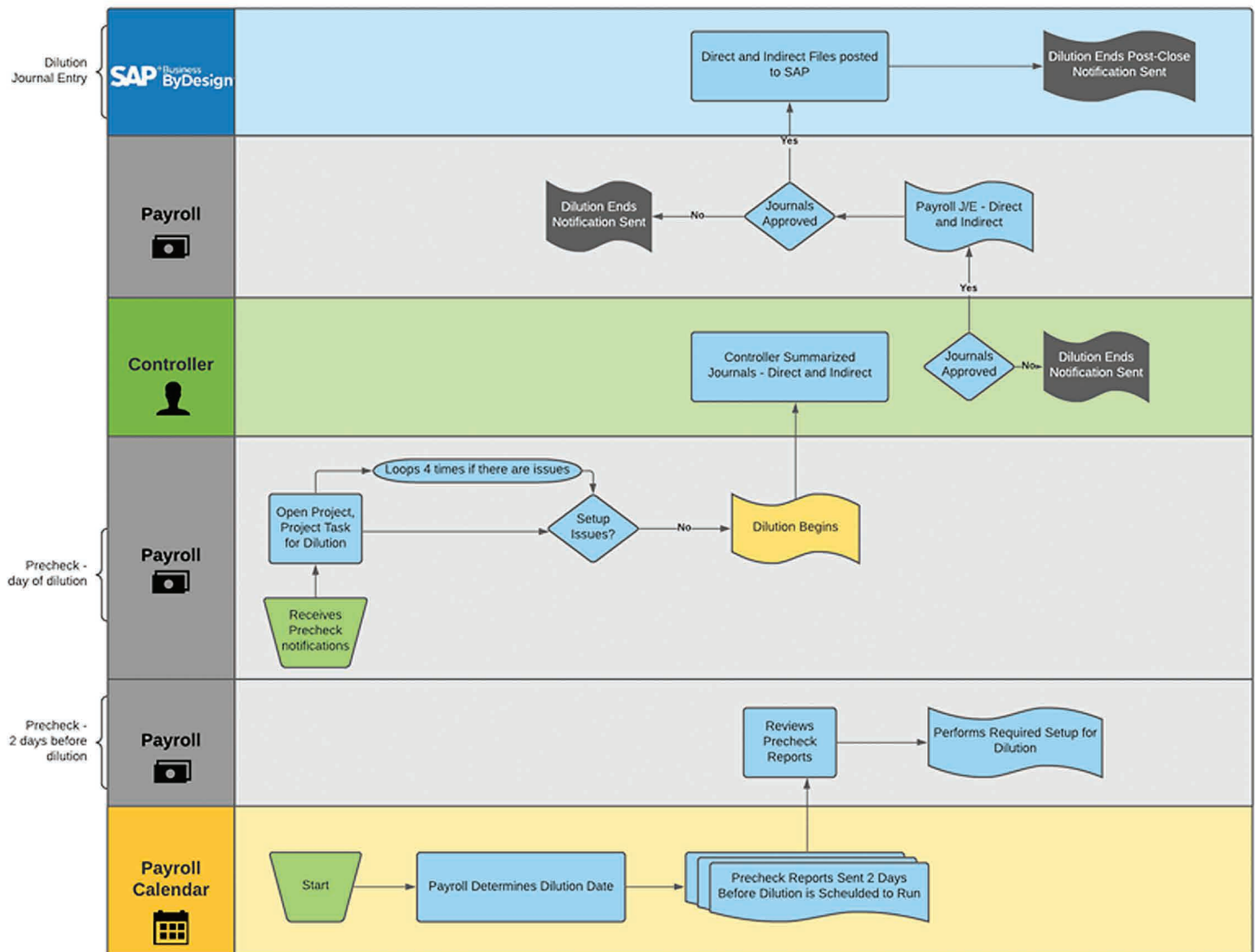
SAP Business ByDesign Extension for Labor Dilution

Accurately Calculate Labour Dilution

SAP Business ByDesign calculates labor dollars based on the employee's hourly rate, whether on salary or paid hourly. For exempt employees on salary who work more hours than a standard week, such as unpaid overtime, this tool calculates the diluted hourly rate for the week based on actual hours worked in accordance with cost accounting standards.

Labor dilution uses complex algorithms to post journal entries into the General Ledger for each pay period, to appropriately record labor dollars by project.

A Repeatable, Automated Workflow



Automated Data Consistency Checks for Accuracy

Payroll Calendar

The Payroll Calendar provides the exact Payroll Start and End dates, along with the Scheduled Dilution Dates for ease of visibility to upcoming critical dates. Dilution is commonly scheduled on a bi-weekly basis, but frequency can be adjusted based on the specific requirements controlled via SAP payroll calendar.

Pay Period Weeks	Pay Period #A	Display Text	Pay Period Beginning	Pay Period Ending	Scheduled Dilution Date
1	1	1 First Week of the Pay Period	12/21/2020	12/27/2020	
1	2	2 Second Week of the Pay Period	12/28/2020	01/03/2021	
2	1	1 First Week of the Pay Period	01/04/2021	01/10/2021	01/06/2021
2	2	2 Second Week of the Pay Period	01/11/2021	01/17/2021	
3	1	1 Month End / First Week of the Pay P...	01/18/2021	01/24/2021	
3	2	2 Second Week of the Pay Period	01/25/2021	01/31/2021	
4	1	1 First Week of the Pay Period	02/01/2021	02/07/2021	02/05/2021
4	2	2 Second Week of the Pay Period	02/08/2021	02/14/2021	
5	1	1 Month End / First Week of the Pay P...	02/15/2021	02/21/2021	02/19/2021

Precheck Report

A Precheck Report is sent 2 days prior to the Scheduled Dilution date to allow Payroll Administrators to check the accuracy of all relevant data (including Projects, Project Tasks, Hours, etc.), update look-up tables, and any other appropriate setup needed prior to the labor being diluted.

Employee ID	Employee Name	Manager Name	Total Hours of Pay Period	Start	End	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Planned Hours SA 1	Actual Hours SA 1	Planned Hours SA 2	Actual Hours SA 2	Total Planned Hours	Total Actual Hours including overtime
1	employee	manager	SC0	SA1	5/1/2021	5/1/2021	8	NO					40	40.0	40	40.0	40	40.0
2	employee	manager	SC0	SA1	5/2/2021	5/2/2021	8	NO					40	40.0	40	40.0	40	40.0
3	employee	manager	SC0	SA1	5/3/2021	5/3/2021	8	NO					40	40.0	40	40.0	40	40.0
4	employee	manager	SC0	SA1	5/4/2021	5/4/2021	8	NO					40	40.0	40	40.0	40	40.0
5	employee	manager	SC0	SA1	5/5/2021	5/5/2021	8	NO					40	40.0	40	40.0	40	40.0
6	employee	manager	SC0	SA1	5/6/2021	5/6/2021	8	NO					40	40.0	40	40.0	40	40.0
7	employee	manager	SC0	SA1	5/7/2021	5/7/2021	8	NO					40	40.0	40	40.0	40	40.0
8	employee	manager	SC0	SA1	5/8/2021	5/8/2021	8	NO					40	40.0	40	40.0	40	40.0
9	employee	manager	SC0	SA1	5/9/2021	5/9/2021	8	NO					40	40.0	40	40.0	40	40.0
10	employee	manager	SC0	SA1	5/10/2021	5/10/2021	8	NO					40	40.0	40	40.0	40	40.0
11	employee	manager	SC0	SA1	5/11/2021	5/11/2021	8	NO					40	40.0	40	40.0	40	40.0
12	employee	manager	SC0	SA1	5/12/2021	5/12/2021	8	NO					40	40.0	40	40.0	40	40.0
13	employee	manager	SC0	SA1	5/13/2021	5/13/2021	8	NO					40	40.0	40	40.0	40	40.0
14	employee	manager	SC0	SA1	5/14/2021	5/14/2021	8	NO					40	40.0	40	40.0	40	40.0
15	employee	manager	SC0	SA1	5/15/2021	5/15/2021	8	NO					40	40.0	40	40.0	40	40.0
16	employee	manager	SC0	SA1	5/16/2021	5/16/2021	8	NO					40	40.0	40	40.0	40	40.0
17	employee	manager	SC0	SA1	5/17/2021	5/17/2021	8	NO					40	40.0	40	40.0	40	40.0
18	employee	manager	SC0	SA1	5/18/2021	5/18/2021	8	NO					40	40.0	40	40.0	40	40.0
19	employee	manager	SC0	SA1	5/19/2021	5/19/2021	8	NO					40	40.0	40	40.0	40	40.0
20	employee	manager	SC0	SA1	5/20/2021	5/20/2021	8	NO					40	40.0	40	40.0	40	40.0
21	employee	manager	SC0	SA1	5/21/2021	5/21/2021	8	NO					40	40.0	40	40.0	40	40.0
22	employee	manager	SC0	SA1	5/22/2021	5/22/2021	8	NO					40	40.0	40	40.0	40	40.0
23	employee	manager	SC0	SA1	5/23/2021	5/23/2021	8	NO					40	40.0	40	40.0	40	40.0
24	employee	manager	SC0	SA1	5/24/2021	5/24/2021	8	NO					40	40.0	40	40.0	40	40.0
25	employee	manager	SC0	SA1	5/25/2021	5/25/2021	8	NO					40	40.0	40	40.0	40	40.0
26	employee	manager	SC0	SA1	5/26/2021	5/26/2021	8	NO					40	40.0	40	40.0	40	40.0
27	employee	manager	SC0	SA1	5/27/2021	5/27/2021	8	NO					40	40.0	40	40.0	40	40.0
28	employee	manager	SC0	SA1	5/28/2021	5/28/2021	8	NO					40	40.0	40	40.0	40	40.0
29	employee	manager	SC0	SA1	5/29/2021	5/29/2021	8	NO					40	40.0	40	40.0	40	40.0
30	employee	manager	SC0	SA1	5/30/2021	5/30/2021	8	NO					40	40.0	40	40.0	40	40.0
31	employee	manager	SC0	SA1	5/31/2021	5/31/2021	8	NO					40	40.0	40	40.0	40	40.0
32	employee	manager	SC0	SA1	6/1/2021	6/1/2021	8	NO					40	40.0	40	40.0	40	40.0

Day of Dilution

On the Scheduled Dilution date, a precheck notification is sent to the Payroll Administrator with any potential inconsistencies to investigate and resolve for the Dilution Run (see examples to the right).

This process can be set to run multiple times during the Scheduled Dilution Date to ensure any potential data inconsistencies can be resolved prior to the dilution run.

If all inconsistencies are resolved, Dilution will run at end of day. If issues persist, Dilution will run on the next scheduled run.

Sample Pre-check Notification

The completed required actions are listed below:

- If there are any projects listed, PMs will need to open these projects immediately for dilution purposes.

Project ID	Project Name	Project Status	Project Manager
PID1	PID1 name	Completed	manager name
PID2	PID2 name	Stopped	manager name
PID1-406	PID1-406 name	Completed	manager name
PID1-201	PID1-201 name	Closed	manager name
PID1-112	PID1-112 name	Closed	manager name
PID1-127	PID1-127 Name	Closed	manager name

- If there are project types listed, please add them to the lookup table in SAP with the correct GL accounts for dilution.
- If employees are listed, please add them to the OT project table or change them for normal dilution.
- If projects are listed, then check the OT project flag as employees will require OT dilution.

Simple Workflows Expedite Approvals and Dilution Process

Controller Workflow

The Controller Workflow provides summarized payroll journals for both direct and indirect projects at the employee level to show actual hours per project task. This includes the compensation rate, dilution rate, GL account, dilution amount, etc.

Once the task is approved, the file automatically routes to payroll for processing.

If the file is rejected due to incorrect cost, incorrect GL account, or if the project is overdiluted, a notification is sent to the Controller and Payroll Administrator and the dilution automatically stops.

Employee ID	Employee Name	Project Task	Cost Center	Actual Hours	Project Type	Compensation Rate	Dilution Rate	Diluted Rate	GL Account	Short Text	Dilution Amount	Planned Hours	Total Actual Hours
1	1	NBP	200-AERO	12.5	Direct	94.54	7.61	86.93	500010 20*	Labor Dilu- 1:NBP	95.08	80	87
1	1	NB	200-AERO	66.5	Direct	94.54	7.61	86.93	500010 20*	Labor Dilu- 1:NB	505.84	80	87
1	1	NS	200-AERO	2	Direct	94.54	7.61	86.93	500010 20*	Labor Dilu- 1:NS	15.21	80	87
1	1	NS	200-AERO	6	Direct	94.54	7.61	86.93	500010 20*	Labor Dilu- 1:NS	45.64	80	87
2	2	NB	200-GM	11.5	Direct	59.99	4.19	55.8	500010 20*	Labor Dilu- 2:NB	48.13	80	86
2	2	NB	200-GM	4	Direct	59.99	4.19	55.8	500010 20*	Labor Dilu- 2:NB	16.74	80	86
2	2	NB	200-GM	11	Direct	59.99	4.19	55.8	500010 20*	Labor Dilu- 2:NB	46.04	80	86
2	2	SK	200-GM	17	Direct	59.99	4.19	55.8	500010 20*	Labor Dilu- 2:SK	71.15	80	86
2	2	SK	200-GM	18.5	Direct	59.99	4.19	55.8	500010 20*	Labor Dilu- 2:SK	77.43	80	86

Summarized view of employees that require dilution for direct projects

Employee ID	Employee Name	Project Task	Cost Center	Actual Hours	Project Type	Compensation Rate	Dilution Rate	Diluted Rate	GL Account	Short Text	Dilution Amount	Planned Hours	Total Actual Hours
1	1	OH	200-GM	19.5	Indirect	59.99	3.53	56.46	600010 20*	Labor Dilu- 1:OH	68.83	72	76.5
2	2	BO	200-QA	25.5	Indirect	54.04	18.53	35.51	500010 20*	Labor Dilu- 2:BO	472.61	72	109.58
2	2	OH1	200-QA	10.5	Indirect	54.04	18.53	35.51	600010 20*	Labor Dilu- 2:OH1	194.61	72	109.58
2	2	OH2	200-QA	8	Indirect	54.04	18.53	35.51	600010 20*	Labor Dilu- 2:OH2	148.27	72	109.58
2	2	OH3	200-QA	62.08	Indirect	54.04	18.53	35.51	600010 20*	Labor Dilu- 2:OH3	1150.64	72	109.58
3	3	OH4	200-GM	24.5	Indirect	45.89	3.53	42.36	600010 20*	Labor Dilu- 3:OH4	86.49	72	78

Summarized view of employees that require dilution for indirect projects

Payroll Workflow

The Payroll Workflow provides detailed payroll journals for both direct and indirect projects at the employee level to show debit and credit lines. This workflow includes the GL account, short text, debit amount, credit amount, cost center, project task, and indirect/direct projects -- such as the sales document type, sales document ID, and sales document item ID.

Once the task is approved, payroll posts the file and sends a post-close notification. The payroll journal is added as an attachment within SAP Business ByDesign, a post close notification is included with the SAP J/E number, and a message is automatically sent to the Payroll Administrator to close any project or project tasks that were open for dilution.

If this task is rejected due to incorrect cost, incorrect GL account, or if the project is overdiluted, a notification will be sent to the Payroll Administrator and dilution will stop. The Payroll Administrator can then update the Scheduled Dilution Date in the payroll calendar and the whole process will repeat itself.

	A	B	C	D	E	F	G	H	I	J
	GLAccount	Short Text	Debit Amount	Credit Amount	Currency	Cost Center	Project Task	Sales Document Type	Sales Document ID	Sales Document Item ID
1	97012Y	20*Labor Dilu- 1:NB	95.08		USD	200-AERO				
2	500010	20*Labor Dilu- 118:NB		95.08	USD		NB	114	4613	220
3	97012Y	20*Labor Dilu- 2:NBP	505.84		USD	200-AERO				
4	500010	20*Labor Dilu- 2:NBP		505.84	USD		NBP	114	5665	10
5	97012Y	20*Labor Dilu- 2:NS	15.21		USD	200-AERO				
6	500010	20*Labor Dilu- 2:NS		15.21	USD		NS	114	5802	10
7	97012Y	20*Labor Dilu- 3:NS	45.64		USD	200-AERO				
8	500010	20*Labor Dilu- 3:NS		45.64	USD		NS	114	5585	10
9	97012Y	20*Labor Dilu- 4:N	48.13		USD	200-GM				
10	500010	20*Labor Dilu- 4:N		48.13	USD		N	114	4613	220

*Direct payroll journal provides a detailed view of each employee
(Credit and debit lines, GL account name, cost center, project task, sales order information)*

	A	B	C	D	E	F	G
	GLAccount	Short Text	Debit Amount	Credit Amount	Currency	Cost Center	Project Task
1	9704ZY	20*Labor Dilu- 1:GA	44.9		USD	200-ERP	
2	700010	20*Labor Dilu- 1:GA		44.9	USD		GA
3	97012Y	20*Labor Dilu- 2:BO	1220.24		USD	200-AERO	
4	500010	20*Labor Dilu- 2:BO		1220.24	USD		BO
5	97022Y	20*Labor Dilu- 3:OH	164.07		USD	200-SCP	
6	600010	20*Labor Dilu- 3:OH		164.07	USD		OH
7	97022Y	20*Labor Dilu- 4:OH1	627.59		USD	200-FAC	
8	600010	20*Labor Dilu- 4:OH1		627.59	USD		OH1
9	97022Y	20*Labor Dilu- 5:OH2	100.45		USD	200-GM	
10	600010	20*Labor Dilu- 5:OH2		100.45	USD		OH2
11	97022Y	20*Labor Dilu- 5:OH2	73.8		USD	200-GM	
12	600010	20*Labor Dilu- 5:OH2		73.8	USD		OH2

*Indirect payroll journal provides a detailed view of each employee
(Credit and debit lines, GL account name, cost center, project task)*

Post Close Notification

The post close notification provides an email that is automatically sent through the system to show that the posting to SAP was successful. Each posting includes an ID number (1xxx). It also reminds the user about any projects that are opened during the pre-check workflow, and flags those that would need to be closed again.

Normal Dilution - Process Complete From: 05/10/2021 To 05/23/2021 - Direct



[Redacted]

To [Redacted] ● Hitesh Malik; ● Paul Sung

Normal Labor dilution has completed. Please review the summary below.

The document number in SAP is 1xxx

Please close the projects listed below once OT dilution has completed.

Project ID	Project Name	Project Status	Project Manager
BP	Pname	Released	ManagerName

The following project tasks were closed after dilution:

Please close the project tasks listed below once OT dilution has completed:

The following dummy sales order were closed after dilution: Sales Order ID, Project ID (parent task)

Sales Order ID	Project ID
1234	PID23
1223	PID25
1236	PID26
1271	PID30