



Design of building Lookback Calculation for Vacation Rate in Workday Payroll

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Abstract

This article focusses on how we can build the statutory lookback calculation using the various option of calculations available in Workday Payroll. This research paper researches on building the determination rate for vacation earnings based on employee types using the delivered functionality of Workday Payroll. This research outcome will provide the Workday Payroll view based on US payroll rules. This article proves the success of this design with a successful live case study by implementing this design in Retail industry with over 30000 employees and concludes with the implementation strategy.

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Introduction

Organizations have their own business requirements based on various employee types and benefits offered to them. One of the main benefits which employees are very much needed is the Vacation PTO Plans wherein the employees will be using to take time off from their work without their pay impact. Organization can determine the rate to be used to pay their employees based on their employee type and vacation time off plans, but there are statutory rules which need to be met for the rate of time off plans. Based on this nature of ongoing changes, organizations expected their payroll team to configure different pay components either it could be earnings or deductions to accommodate the new business requirements or legal rule changes. As organizations are implementing SaaS model products, they are expecting their payroll team to build their custom specific business requirements apart from the delivered calculation which comes along with the products. Workday Payroll is one of the well-known Cloud-Based payroll management solutions which not only delivers in built payroll calculations but also provides a very robust technique to build easy to complex custom payroll calculations and map the same to the pay components to satisfy legal/custom business requirements.

1. What is Workday Payroll?

Workday Payroll is a Cloud-Based payroll management solution which is designed to automate and streamline the payroll business process for organizations irrespective of sizes and categories of employees. It helps payroll businesses to effectively manage their employees' compensation, earnings and deductions configuration rules, tax deductions, tax compliance, payroll reporting and payroll analytics in a single software solution platform. Workday Payroll offers real-time calculations, managing FLSA rules, delivered connectors with major vendors like ADP, Fidelity, seamless integrations between HR and Finance Systems. Workday Payroll also comes in with best user self-service experience interface, maintaining employee tax elections, direct deposit information and pre built audit controls which make payroll administrator to administer the payroll activities effectively.

2. What is Time Off?

Time Off refers to the periods when employees are not working, which can be planned or unplanned. In Workday, employees can request time off for several reasons, such as vacations, sick leave, or personal days.

Time off can be submitted by employee which will go to the approval steps based on organization rules or Manager themselves can submit on-behalf of the employee in certain circumstances wherein the employee cannot apply.

3. What is Time off Plans?

Time off plans are the ones that define the rules for entering, tracking, and managing several types of time off within an organization. They facilitate both employee and managerial interactions regarding time off requests and balances. Calculations can be customer-owned or Workday-owned. Workday-Owned calculations are delivered by Workday as part of the product suite.

Key Components

- **Time Off Types:** Different categories of time off (e.g., vacation, sick leave).
- **Accruals:** Rules governing how time off is earned over time.
- **Balance Period:** The timeframe in which time off can be used or accrued.
- **Validation Rules:** Optional or required checks to ensure compliance with time off policies.

Business Benefits

- **Flexibility:** Tailor time off plans to meet specific organizational needs.
- **Risk Minimization:** Implement validation rules to reduce errors in time off requests.
- **Cost Efficiency:** Streamline tracking of time off balances and accruals.
- **Integration:** Seamlessly connect with payroll and scheduling systems for efficient processing.

4. Basic Process Flow Time Off

The basic process flow of Time off consists of 4 steps

1. Employees accrue time off balances based on their employee type and actual work hours based on company policy
2. Employees request for specific time off based on reasons like Sick, Vacation etc.,
3. Managers approve their employee’s leave based on reasons
4. Upon the Time off Approval, payroll integrate with Time Off and apply the appropriate rate based on company rules and pay the Time Off pay.

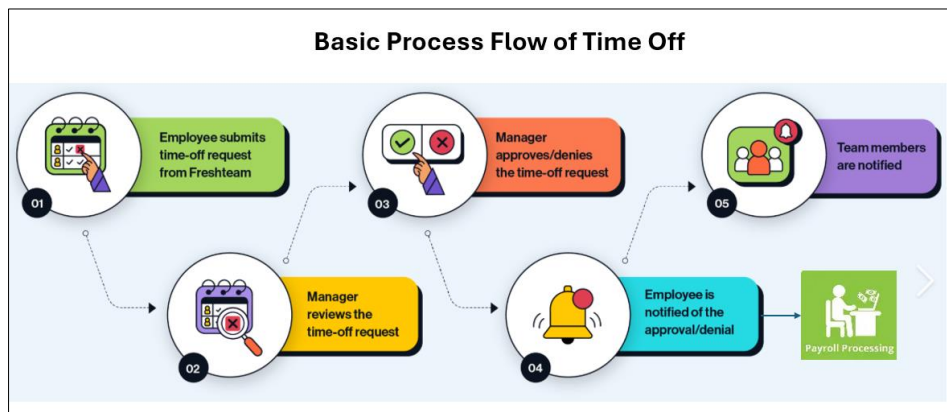


Fig 1: Basic Process Flow of Time Off

Live Case Study – Calculate the Vacation Rate based on 6-month Lookback

One of the Top fitness club companies which got more than 30000 employees across USA and Canada has been using the Workday payroll. This organization has various types of employees like salaried, hourly, commission, exempt 7i commission, unit rate and the combination of these employee types.

Requirement

This organization has is having clubs across all 50 states of USA and there is a specific rule for the state of Colorado wherein the sick leave is expected to pay based on specific lookback days for commission, unit, hourly and their combination. The table below explains the business logic:

Condition	Rate Determination Logic
Employees who are Commission - Non-Exempt	Maximum of Six-Month Lookback of Wages divided by Hours vs Minimum Wage of State multiple 1.5 times whichever is higher
Hourly Only Employees	Maximum of Six-Month Lookback of Wages divided by Hours vs Hourly Rate whichever is higher
Unit Rate Only Employees	Maximum of Six-Month Lookback of Wages divided by Hours vs Minimum Wage of State whichever is higher
Hourly & Unit Rate Employees	Maximum of Six-Month Lookback of Wages divided by Hours vs Hourly Rate whichever is higher
7i Commission Exempt Employees	Maximum of Six-Month Lookback of Wages divided by Hours vs Minimum Wage of State multiple 1.5 times whichever is higher
Hourly & Commission Employees	Maximum of Six-Month Lookback of Wages divided by Hours vs Hourly Rate whichever is higher
Unit & Commission Employees	Maximum of Six-Month Lookback of Wages divided by Hours vs Minimum Wage of State whichever is higher

Implementation Methodology

We architect this design by understanding that the list of

components for hours and wages may change and hence we design the solution to accommodate any new earnings or

deductions created in the system will be automatically included or excluded based on configuration. This enables business not to modify or update every time there is addition or exclusion of earnings or deductions.

We used the Workday calculation features like conditional calculation, pay balances, pay component groups, balance period etc.

Conditional Calculation

A conditional calculation is a type of calculation that determines values based on specific conditions or criteria. It evaluates different scenarios to allocate amounts or benefits according to predefined rules.

Key Features

- **Eligibility Criteria:** Conditional calculations often include eligibility criteria that dictate which employees or students qualify for certain benefits or awards.
- **Step Evaluation:** The system evaluates conditions in a specified order, meaning that if an employee meets multiple criteria, the first applicable condition in the sequence will determine the outcome.
- **Use Cases:** Commonly used in scenarios like leave entitlements, financial aid awards, and payroll calculations.

Pay Balances

Pay balances are calculations that aggregate the value of one or more pay components over a specified period. They can include:

- Deductions
- Earnings
- Pay accumulations
- Pay component related calculations (PCRCs)
- Pay component groups

Business Benefits

The pay balance feature offers several advantages:

- Flexibility in inputs and aggregation periods.
- Transparent calculations that are easy to troubleshoot.
- Automatic recalculation by Workday whenever a report or page is viewed, ensuring up-to-date information.

Use Cases

Pay balances can be utilized for various purposes, including:

- Calculating payroll inputs, such as average weekly hours paid.
- Comparing individual payroll results to month-to-date or

year-to-date totals.

- Tracking open-ended loan repayments.
- Validating year-to-date pay.

Pay Component Group

A pay component group is a collection of earnings, deductions, and related calculations that provide an aggregate value for a specific period or subperiod. These groups are essential for calculations and reporting within payroll systems.

Key Features

- **Types of Components:** Includes earnings (like gross pay and employer-paid benefits) and deductions (such as taxes and withholding orders).
- **Custom Creation:** Users can create their own pay component groups in addition to those delivered by the system.

Limitations

- Do not represent values over multiple periods.
- Do not support subtraction; for that, pay balances or arithmetic calculations should be used.
- **Filtering:** Pay component groups filter by worktag, although pay accumulations can be configured to not filter by worktags.

Balance Periods

Balance periods are defined time frames used to track and manage time off plans, accruals, and other related balances. They typically specify the start and end dates for accumulating these balances.

Key Features

- **Duration:** Balance periods can vary in length, commonly set for a year, but can be customized to shorter or longer durations based on organizational needs.
- **Resetting Balances:** At the end of a balance period, the accumulated balances are reset to zero, and any carryover is managed according to predefined limits.
- **Configuration:** Organizations can create balance periods through specific tasks in their payroll or absence management systems, allowing for tailored setups that align with their operational requirements.

Step 1: Create a Date Increment/Decrement calculation to derive the pay period end date – 6 Months

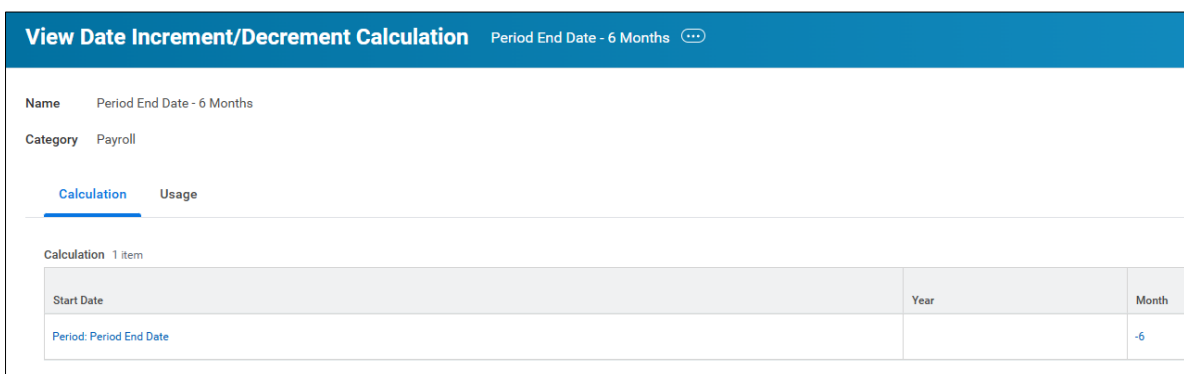


Fig 2: Pay Period End Date – 6 Months

Step 2: Create a Balance Period named “Six Month Lookback” with the start date, end date, and period indicator

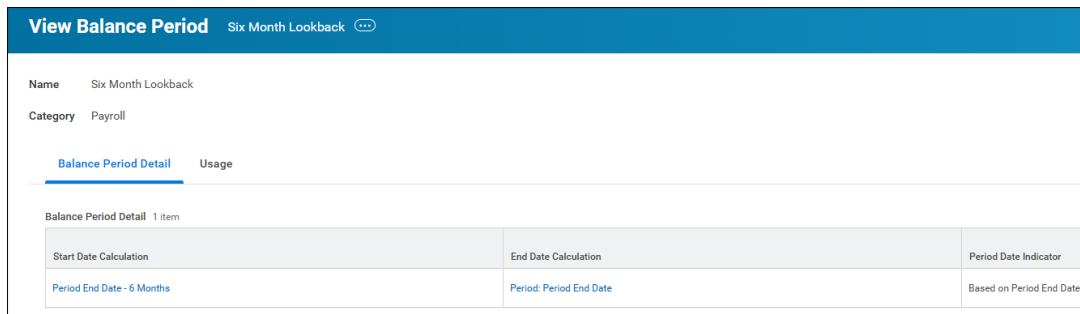


Fig 3: 6-Month Day Balance Period

Step 3: Create 2 Pay Component groups one for the earnings & deductions to be considered for Wages calculation and another for the hours. This will suffice the requirement of any addition or exclusion of earnings and deductions in future without any changes.

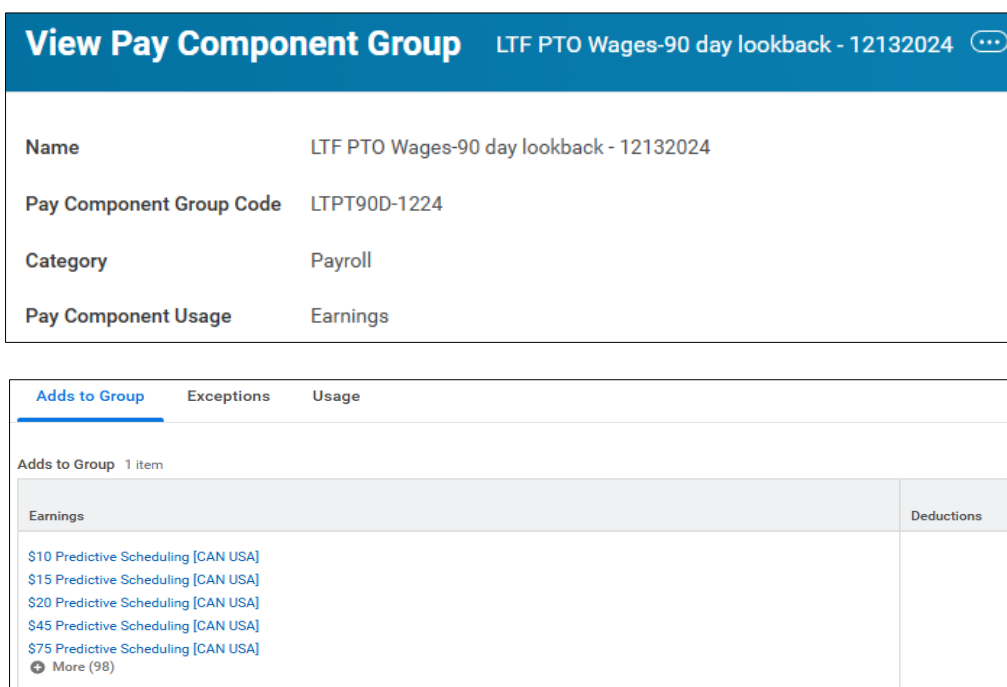


Fig 4: Pay Component Group – Wages

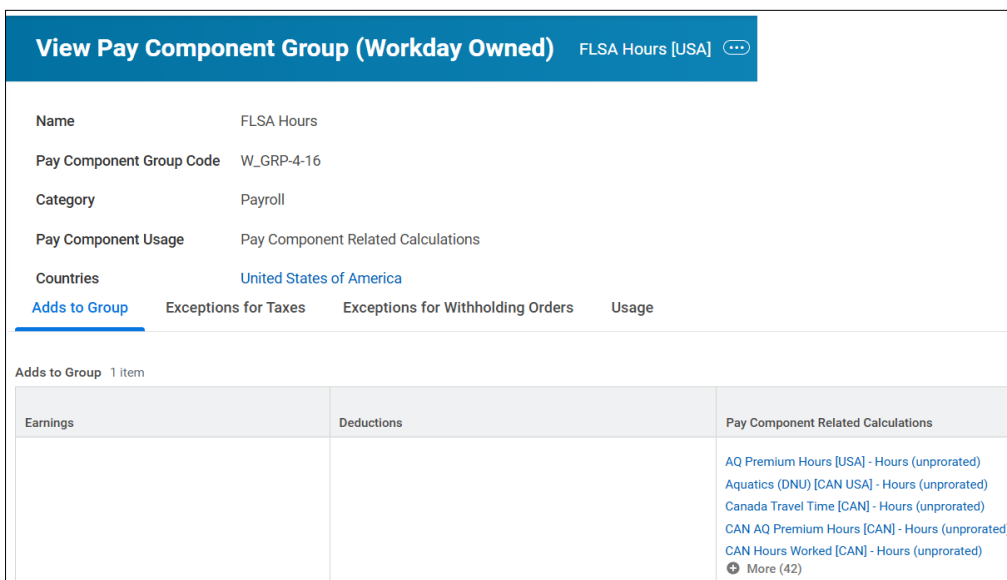


Fig 5: Pay Component Group - Hours

Step 4: Create a Pay Balance named “Six Month Lookback Wages-12132024” using the Wages Pay Component Group and Balance Period to pull the wages for the 6-Month period

View Pay Balance Six Month Lookback Wages-12132024

Name Six Month Lookback Wages-12132024
Code 6MLBW-122024
Category Payroll

Pay Calculation/Balance Period	Usage
Pay Calculation/Balance Period 1 item	
Pay Component	Balance Period
LTF PTO Wages-90 day lookback - 12132024	Six Month Lookback

Fig 6: Balance Period for 6-Month Wages

Step 5: Create a Pay Balance named “Six Month Lookback Hours 06012025” using the Hours Pay Component Group and Balance Period to pull the Hours for the 6-Month period

View Pay Balance Six Month Lookback Hours 06012025

Name Six Month Lookback Hours 06012025
Code 6monthLBHours2025
Category Payroll

Pay Calculation/Balance Period	Usage
Pay Calculation/Balance Period 1 item	
Pay Component	Balance Period
FLSA Hours [USA]	Six Month Lookback

Fig 7: Balance Period for 6-Month Day Hours

Step 6: Create an Arithmetic Calculation named “Wages/Hours - Six Month Lookback-06012025” to divide the 6month-wages by 6-month hours using the pay balances created.

View Arithmetic Calculation Wages/Hours - Six Month Lookback-06012025

Name Wages/Hours - Six Month Lookback-06012025
Category Payroll

Calculation Usage		
1 item		
1st Operand	Operator	2nd Operand
Six Month Lookback Wages-12132024	Divide	Six Month Lookback Hours 06012025
Rounding Round to nearest 0.01		

Fig 8: Derive the rate by dividing the wages/hours

Step 7: Create an Arithmetic Calculation named “MinWage*1.5” to compute the Minimum Wage * 1.5 Times

View Arithmetic Calculation MinWage*1.5		
Name	MinWage*1.5	
Category	Payroll	
Comment	This (Minimum wage * 1.5) calculation is used in conjunction with FLSA Hours to determine the Minimum Wage Adjustment Calculation for "Commission" Based Employees. Updated 12/30/15 to allow override of min wage by region lookup table.	
Calculation Usage		
1 item		
1st Operand	Operator	2nd Operand
Maximum of Federal/State/Local Min Wage	Multiply	1.5
Rounding Round to nearest 0.01		

Fig 9: Minimum Wage * 1.5

Step 8: Create a Value Comparison named “VCC Accrual Six month lookback vs min wage * 1.5-06012025” to determine to determine whether the 6-month lookback wages is greater than the minimum wage *1.5

View Value Comparison Calculation VCC Accrual Six month lookback vs min wage * 1.5-06012025		
Name	VCC Accrual Six month lookback vs min wage * 1.5-06012025	
Category	Payroll	
Calculation Usage		
Calculation 1 item		
1st Operand	Operator	2nd Operand
CC_Accrual_SixMonthLookBack-06012025	greater than	MinWage*1.5

Fig 10: Value Comparison Check of 6-month lookback wages > Minimum Wage * 1.5

Step 9: Create a Conditional Calculation named “CC Earnings Payout Six month lookback vs min wage * 1.5-06012025” to determine the Maximum of Six-Month Lookback of Wages divided by Hours vs Minimum Wage of State multiple 1.5 times whichever is higher

View Conditional Calculation CC Earnings Payout Six month lookback vs min wage * 1.5-06012025	
Name	CC Earnings Payout Six month lookback vs min wage * 1.5-06012025
Category	Payroll

Calculation		Usage	
Conditional Calculations 1 item			
Calculation Condition	Order	Condition	Result
...	a	VCC Accrual Six month lookback vs min wage * 1.5-06012025	Wages/Hours - Six Month Lookback-06012025
Default Response MinWage*1.5			

Fig 11: Conditional Calculation of 6-month lookback wages > Minimum Wage * 1.5

Step 10: Create a Value Comparison named “VCC Six month lookback vs hourly rate-06012025” to determine to determine whether the 6-month lookback wages is greater than the hourly wage

View Value Comparison Calculation

VCC Six month lookback vs hourly rate-06012025
...

Name VCC Six month lookback vs hourly rate-06012025

Category Payroll

Calculation		Usage	
Calculation 1 item			
1st Operand	Operator	2nd Operand	
CC_AccrualSixMonthLookBack-06012025	greater than	Compensation: Compensation Element Value (using PC Freq Override)	

Fig 12: Value Comparison Check of 6-month lookback wages > Hourly Rate

Step 11: Create a Conditional Calculation named “CC Earnings Payout Six month lookback vs hourly rate-06012025” to determine the Maximum of Six-Month Lookback of Wages divided by Hours vs Hourly Rate whichever is higher

View Conditional Calculation

CC Earnings Payout Six month lookback vs hourly rate-06012025
...

Name CC Earnings Payout Six month lookback vs hourly rate-06012025

Category Payroll

Calculation		Usage	
Conditional Calculations 1 item			
Calculation Condition	Order	Condition	Result
...	a	VCC Six month lookback vs hourly rate-06012025	Wages/Hours - Six Month Lookback-06012025
Default Response Compensation: Compensation Element Value (using PC Freq Override)			

Fig 13: Conditional Calculation of 6-month lookback wages > Hourly Rate

Step 12: Create a Value Comparison named “VCC Accrual Six month lookback vs min wage-06012025” to determine to determine whether the 6-month lookback wages is greater than the Minimum Wage

View Value Comparison Calculation

VCC Accrual Six month lookback vs min wage-06012025
...

Name VCC Accrual Six month lookback vs min wage-06012025

Category Payroll

Calculation Usage		
Calculation 1 item		
1st Operand	Operator	2nd Operand
CC_Accrual_SixMonthLookBack-06012025	greater than	Maximum of Federal/State/Local Min Wage

Fig 14: Value Comparison Check of 6-month lookback wages > Minimum Wage

Step 13: Create a Conditional Calculation named “CC Earnings Payout Six month lookback vs min wage-06012025” to determine the Maximum of Six-Month Lookback of Wages divided by Hours vs Minimum Wage whichever is higher

View Conditional Calculation
CC Earnings Payout Six month lookback vs min wage-06012025 ⋮

Name CC Earnings Payout Six month lookback vs min wage-06012025

Category Payroll

Calculation Usage			
Conditional Calculations 1 item			
Calculation Condition	Order	Condition	Result
⋮	a	VCC Accrual Six month lookback vs min wage-06012025	Wages/Hours - Six Month Lookback-06012025
Default Response Maximum of Federal/State/Local Min Wage			

Fig 15: Conditional Calculation of 6-month lookback wages > Minimum Wage

Step 14: Create logic calculation to identify the commission exempt, hourly and other employee types

View Logic Calculation
Commission NonExempt TMs ⋮

Name Commission NonExempt TMs

Category Absence
Compensation
Payroll

Calculation Usage	
Calculation 2 items	
Operator	Calculation
OR	Commission NonExempt TMs as of PSD
	Commission NonExempt TMs as of PED

Fig 16: Sample Logic Calculation to identify Employee Types

Step 15: The Final Conditional Calculation creation is to map the Employee Types to appropriate Rate determination logic as per the business rules

View Conditional Calculation

Time Off Pay Rates VAC 06012025 ⋮

Name Time Off Pay Rates VAC 06012025

Category Payroll

Calculation
Usage

Conditional Calculations 8 items

Calculation Condition	Order	Condition	Result
⋮	a	Commission NonExempt TMs	CC Six month lookback vs min wage * 1.5-06012025
⋮	b	LC In Chicago as of PSD or PED	Chicago Time Off Pay Rates 12132024
⋮	c	ISCC Comp plan is hourly	CC Six month lookback vs hourly rate-06012025
⋮	d	ISCC Non Exempt Class Rate	CC Six month lookback vs min wage-06012025
⋮	e	ISCC Hourly and Unit	CC Six month lookback vs hourly rate-06012025
⋮	f	Exempt 7i	CC Six month lookback vs min wage * 1.5-06012025
⋮	g	ISCC Hourly + Commission	CC Six month lookback vs hourly rate-06012025
⋮	h	ISCC Unit + Commission	CC Six month lookback vs min wage-06012025

Fig 17: Final Conditional Calculation to map the business logic

As we completed building all the functional blocks of calculation as per the business rules the last step of configuration is to map the final Conditional Calculation to the rate calculation of the Vacation earnings. Once we map this rule to the earnings, Workday payroll engine will execute the custom calculation for the rate and compute the rate as per the custom calculation.

View Earning

US Vacation [USA] ⋮

Name US Vacation

Code USVACA

Default Payslip Name Vacation

Category Payroll

Country United States of America

Related Calculations 5 items

Related Calculation	Groups	Default Calculation	Override Calculation	Input Allowed?	Aggregate	Results	
						Do Not Store / Do Not Store if Zero	Display Curre
PTO Wages (Rolling Year)			12 Mth YTD Wages (Rolling Year)	Yes	No	<input type="radio"/> Do Not Store <input type="radio"/> Do Not Store if Zero	<input checked="" type="radio"/> Displ. <input type="radio"/> Curre
Rate			Time Off Pay Rates VAC 06012025	Yes	No	<input type="radio"/> Do Not Store <input type="radio"/> Do Not Store if Zero	<input checked="" type="radio"/> Displ. <input type="radio"/> Curre

Fig 18: Mapping of the Custom Calculation to actual rate calculation of Earnings

Case Study Outcome

This model has been successfully implemented to process Vacation Pay for the time off recorded. This design was implemented successfully, and it processed the employees' time off payouts with 100% accuracy and saved organization from any legal issues with payroll as legal compliance. As this model is designed and implemented with configurable options, already this design proved any addition or exclusion of earnings and deductions was automatically considered as per the state rules and the output was 100% accurate without any additional development or cost. This model is considered as one of the successful models in implementation.

Conclusion

Workday Payroll is revolutionizing payroll management by its unique process model with robust configuration capabilities. It provides the payroll business function to configure their own earnings, deduction, and calculation rules. As Workday provides various calculation types for the users to build and use, Users can combine these calculation types effectively to build easy to overly complex payroll custom calculation rules for state specific time off rate calculations and assign the same to earnings and deductions as their calculations. Workday Payroll calculation engine will automatically process the custom calculation rule once it is attached to the pay components and there is no need to contact Workday vendor to configure these custom calculations. Another important advantage is the output of custom calculations will be available in all payroll reports without out any additional configuration or changes. This flexibility of building custom business requirement payroll calculations provides the best user experience to payroll team and satisfy the organization's business goals effectively.

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