

Partial Period Remuneration (Factoring)



HELP.PYINT

Release 4.6C



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Partial Period Remuneration (Factoring)

Purpose

If an employee did not work for the whole payroll period, then a partial remuneration is calculated during the payroll run. In this way only results for the current period are considered. Factoring is used in the following cases:

- To [reduce payments \[Page 7\]](#) made to an employee because he or she joins, leaves, or is absent from the company during a period
- To [calculate remuneration for an exact period \[Page 8\]](#) because of substitutions, changes in basic pay, organizational reassignments, or changes in the personal work schedule
- To calculate cost accounting wage types for an exact period. This will enable you to decide how much remuneration an employee receives for work done and for paid absences. The different amounts can be assigned to different cost centers.

Scope of Function

To determine an employee's exact remuneration, the remuneration amount is multiplied by a partial period factor. The partial period factor can be calculated using different methods:

- Payment method
- Deduction method
- Hybrid of payment and deduction methods
- PWS method
- All or nothing method

You find guidelines on which method to select in the collective agreement, the company agreement and in the documentation on the individual methods. The question of which method to use is extremely important, particularly if payroll is run for monthly periods.

The standard system contains a few examples for factoring rules that are needed to determine the partial period factor. You can either use these rules as they are, or adapt them in *Customizing for Payroll under Factoring* to meet your company requirements. Using *Create Wage Types for Cost Accounting*, you assign the wage types to different wage types for cost accounting.

The following infotypes are evaluated for factoring in payroll:

- *Actions* infotype(0000)
- *Organizational Assignment* infotype(0001)
- *Planned Working Time* infotype (0007)
- *Basic Pay* infotype(0008)
- *Recurring Payments and Deductions* infotype (0014)
- *Additional Payments* infotype (0015)
- *Absences* infotype (2001)
- *Substitutions* infotype (2003)

Application Examples for Reductions

When the following situations arise within a payroll period, the payments made for an exact period are reduced:

- Reduction in basic pay
 - An employee joins the company on a day other than the first day of the period.
 - An employee leaves the company on a day other than the last day of the period.
 - An employee takes one week of unpaid leave.
- Reduction of recurring payments
 - An employee regularly receives a transportation allowance but takes leave for three weeks. The transportation allowance must only be paid for the period during which the employee travels to work.
- Reduction of additional payments
 - Your enterprise only pays a bonus on the condition that the employee will still be working for the enterprise the following month.

Application Examples for Period-Specific Remuneration Calculation

When the following situations arise within a payroll period, wage types are calculated for exact periods. This means that the remuneration elements are calculated separately for each partial period.

- Change in basic pay

An employee's payments are increased in the middle of a period. One half of the lower, period-specific remuneration amount is paid for the first partial period, and one half of the higher, period-specific remuneration amount is paid for the second partial period.
- Organizational assignment

An employee changes department and is, therefore, assigned to a different cost center. This does not mean that the employee receives more or less remuneration, but it does mean that the appropriate amounts must be debited to the cost centers in question for exact periods.

Partial Period Factor

Definition

You can find a definition of the term [Partial Period Factor \[Ext.\]](#) in the glossary.

Structure

The SAP System uses the following formula to calculate the partial period factor:

(Planned working time or flat rate period working time – absence) ÷ divisor

All of this formula's [parameters \[Page 10\]](#) are time entries that must be based on the same calculation unit. The following calculation units exist:

- Working hours (S)
- Work days (A)
- Calendar days (K)

The parameters for the factoring formula are available in table PSP (*Personal Work Schedule*) in all three calculation units. In the personnel calculation rule, the calculation unit of the individual parameters is indicated by the above letters.



SSOLL contains the value for planned working time in hours, and ASOLL contains the value in work days.

When calculating the partial period factor you must specify the period that should be used:

- Partial period

If a WPBP split indicator exists for a basic pay wage type, you should use a partial period as the calculation basis. In this case, the period of each partial period is used as planned working time. In this case a "T" is set before the calculation formula parameters in the personnel calculation rules.
- Whole period

If there is no WPBP split indicator or if it is not relevant to the proportional calculation of remuneration, use the whole period as the calculation basis. For example, this is the case for recurring payments/deductions or additional payments. In this case, the period of the whole period is used as planned working time. A "G" is set before the calculation formula parameters in the personnel calculation rules.

Factoring Parameter

Factoring Parameter

The formula, with which the partial period factor is determined, is filled as follows:

- **Planned working time**
Planned working time is determined using table PSP (*Personal Work Schedule*). The values of the planned working time parameter can be different for employees in the same period if they have different personal work schedules.
- **Flat rate period working time**
The flat rate period working time is determined using table WPBP (*Work Center/Basic Pay*).
- **Absence**
In reductions, absence means the working time during which an employee was not at work and did not get paid. The absence is paid out in counting classes.
- **Partial period**
If remuneration elements are calculated for exact periods, employee remuneration is calculated separately for specific partial periods. These partial periods are determined using table WPBP (*Work Center/Basic Pay*).
- **Divisors**
The flat rate or individual period working time is used as a divisor in accordance with table PSP (*Personal Work Schedule*).

The parameters have the following meaning:

Value of whole period	Value of a partial period	Meaning
GSSOLL	TSSOLL	Planned working time in hours
GASOLL	TASOLL	Planned working time in work days
GKSOLL	TKSOLL	Planned working time in calendar days
GSAU**	TSAU**	Unpaid absence in hours for all counting classes
GAAU**	TAAU**	Unpaid absence in work days for all counting classes
GKAU**	TKAU**	Unpaid absence in calendar days for all counting classes
GSAP**	TSAP**	Paid absence in hours for all counting classes
GAAP**	TAAP**	Paid absence in work days for all counting classes
GKAP**	TKAP**	Paid absence in calendar days for all counting classes

Factoring Parameter

GSAX**	TSAX**	Work on public holidays in hours for all counting classes
GAAX**	TAAX**	Work on public holidays on a work day for all counting classes
GKAX**	TKAX**	Work on public holidays on a calendar day for all counting classes
GSDIVI	TSDIVI	Individual period working time in hours
GADIVI	TADIVI	Individual period working time in work days
GSDIVP	TSDIVP	Flat rate period working time in hours
GADIVP	TADIVP	Flat rate period working time in work days
GKDIVP	TKDIVP	Flat rate period working time in calendar days

Technical Sequence for Partial Period Remuneration

Purpose

For information on the use of partial period remuneration see [partial period remuneration \(factoring\) \[Ext.\]](#).

Prerequisites

The following conditions must be met before factoring schema xAL0 can run correctly:

- In Customizing for *Payroll* under *Factoring* → *Create Reduction Factors* you have determined the way in which the system should calculate the employees remuneration in different situations.
- Processing classes 10 (*Mark wage types for factoring*) and 31 (*Split monthly lump sums for cost accounting*) must be maintained for the primary wage types that require factoring.

Process Flow



The X sign appears in the following text in a number of schemas, functions, and personnel calculation rules. This abbreviation represents the country indicator and the international versions of the schemas, functions, and personnel calculation rules. You should only use this if schemas, functions, and personnel calculation rules have not been set up specifically for your country or if you do not want to use the country-specific functions that are available.

In personnel calculation schema X000 (*Determine gross wage and transfer*) subschema xAL9 (factoring and storage) is called up. The country-specific factoring schemas included in the standard system take account of common, country-specific requirements. If a country-specific schema does not exist for your country, make a copy of international subschema XAL9 or a suitable country-specific schema, and adapt the copy to your particular requirements.

1. Using function GEN/8 the system generates the secondary wage types /801 to /8<nn> for every partial period and enters them in the Input Table (IT).

These wage types contain the partial period factor. The value is set at 1 in each wage type and is then multiplied by the constant GENAU 100,000.00 to increase the accuracy of the calculations. The result is written to the *Rate* (RTE) field. The partial period factor can be changed in further procedures.

The employee subgroup grouping for personnel calculation rules and the WPBP split indicator are entered in each generated secondary wage type /8<nn>.



The standard system generates 16 secondary wage types for the partial period factors. You can use the secondary wage types /801 to /809 for your own partial period factors. The secondary wage types /810 to /816 are used in the R/3 System to calculate monthly lump sums.

- 2.

Technical Sequence for Partial Period Remuneration

If no split indicator is available the value of the partial period remains 1. The corresponding wage type is paid out with the whole amount. If the checked wage type contains a split indicator the factoring process continues.

3. Using the personnel calculation rule xPPF the system determines the partial period factor for each partial period.

If the employee worked in the payroll period, the system determines whether he was also absent and using this information calculates the partial period factor. The RTE field (rate) is updated in the input table (IT) for each secondary wage type /8<nn>.

4. Using the personnel calculation rule xCMO the System determines the flat-rate period for cost accounting.

The processing class 31 (Cost distribution) for all wage types in the Input Table (IT) is valuated and the amount of the following cost accounting wage types is calculated:

- /840 (Difference between Working Hours for the Current Month and the Average Value)
- /844 (Paid public holidays)
- /845 (Total paid non-work)
- /846 (Total unpaid absences)

5. Using the personnel calculation rule xVAL the System determines the salary components of the wage types in the Input Table (IT) by multiplying the amount of the primary wage type with the rate of the wage type /80<n>, which corresponds to the specification of processing class 10 (*Mark wage types for factoring*).

The new calculated value is then entered in the AMT field (*Amount*) of the corresponding primary wage type.

6. The system determines the hourly rates for cost accounting.
7. The reduced values are written in the Input Table (IT).

PWS Method

PWS Method

Definition

The method used to calculate partial period factors.

Use

If the PWS method is used to calculate the partial period factor, the individual, actual planned working time according to the employee's personal work schedule (PWS) is used as the divisor.

The PWS method is **suitable for use** in the following situations:

- for reductions if planned working time is specified exactly and you enter all deviations from planned working time in the following infotypes:
 - *Absences* infotype (2001)
 - *Substitutions* infotype (2003)
 - *Planned Working Time* infotype (0007)
- Rules for calculating partial payments for exact periods

The PWS method is not suitable if the payroll is run for monthly periods. The employee then has a lower reduction amount in periods with less planned working time (short months) than in periods with more planned working time (long months).

Structure

The partial period factor is calculated as follows:

Factor = (planned working time - absence) / individual period working time

Payment Method

Definition

The method used to calculate partial period factors.

Use

If the payment method is employed, the employee is remunerated for the period actually worked or for paid absences. The constant for the flat-rate period working time is used as the divisor.

If the payroll is run for monthly periods, the general divisor determines that each [calculation unit \[Page 9\]](#) (hour or day) has the same value, irrespective of whether the period is a short or long month.

The payment method is **suitable for use** in the following situations:

- The employee has many unpaid absences.
- The actual length of the period is not different from the general length of the period (for example, weekly payment).

The payment method is **not suitable to use** in the following situations:

- Payroll is run for an employee on a monthly basis (monthly or half-monthly) and the employee has only few unpaid absences.
- In long months (for example, July) remuneration could be calculated and the amount could exceed the basic remuneration amount for the period, despite the absences.
- In short months (e.g. February) an employees remuneration is reduced too much even if there are few absences.
- Partial payments must be calculated for exact periods.

The employee would receive an amount that is different from the remuneration amount for the period because the number of hours or days does not correspond to the average.

Structure

The partial period factor is calculated as follows:

Factor = (planned working time - absence) / general period working time



You can use the average values typical for your particular country, industry, or company as general period working time.

Deduction Method

Deduction Method

Definition

The method used to calculate partial period factors.

Use

If the deduction method is employed, a prorata amount is deducted from employee remuneration for the period of his or her unpaid absence. The constant for the flat-rate period work time is used as the divisor.

If the payroll is run for monthly periods, the general divisor determines that each [calculation unit \[Page 9\]](#) has the same value, irrespective of whether the period is a short or long month.

The deduction method is **suitable to use** in the following situations:

- The employee has few unpaid absences.
- The actual length of the period is not different from the general length of the period (for example, weekly payment).

The deduction method is **not suitable to use** in the following situations:

- Payroll is run for an employee on a monthly basis (monthly or half-monthly) and the employee has only a few unpaid absences.
- In long months (e.g. July) a large number of absences could result in negative remuneration, i.e. money would be claimed from the employee.
- In short months (e.g. February) the employee also receives remuneration if he was absent for the whole month.
- Partial payments must be calculated for exact periods.

The employee would receive an amount that is different from the remuneration amount for the period because the number of hours or days does not correspond to the average.

Structure

The partial period factor is calculated as follows:

Factor = (general period work time - absence) / general period work time



You can use the average values typical for your particular country, industry, or company as general period working time.

Hybrid of Payment and Deduction Methods

Definition

The method used to calculate partial period factors.

Use

Since the deduction method is used for a lot of absences and the payment method is used for few absences it is recommended that each individual should decide which method should be used. For few absences the payment method should be used because then the remuneration is high. For a lot of absences the deduction method should be used because then the employee would earn less accordingly.



Mary Brown receives a basic monthly pay of 5,456.00 and has a general period working time of 22 workdays. In a month that contains 23 workdays, she has an unpaid absence of 10 workdays.

Reduction using different methods

Days of absence	Factoring method	Partial period factor	Standard salary
10	Deduction	$(22-10)/22 = 12/22$	2 976,00
10	Payment	$(23-10)/22 = 13/22$	3 224,00
11	Deduction	$(22-11)/22 = 11/22$	2 728,00
11	Payment	$(23-11)/22 = 12/22$	2 976,00

The calculation shows: If Mary Brown were to be absent and unpaid for 11 days she would earn just as much if the calculation was made using the payment method as she would if the absence were calculated for 10 days using the deduction method.

All or Nothing Method

All or Nothing Method

Definition

The method used to calculate partial period factors.

Use

If the all or nothing method is employed, the employee receives either the entire wage type amount or nothing at all. A criterion for entitlement to the entire amount could, for example, be a minimum period that the employee must have worked. If the condition is met, the factor is 1. If the condition is not met, the factor is 0.

The all or nothing method is suitable to use in the following situations:

- Cost transfer of travel allowance
- If the employer pays a savings plan allowance

Reduction of Payments: Example

Gertrude Jones has unpaid leave from February 3 to March 29. This means that she works just 2 days in both February (20 workdays) and March (23 workdays). Her monthly basic remuneration is 3252,00. Her weekly working time is based on 37 hours.

Parameter values in hours

Parameter	February	March
Planned working time (SSOLL)	148	172
Absence (SAU)	132	156
Individual period working time (SDIVI)	148	172
General period working time (SDIVP)	167,7	167,7

Reduction using different methods

Method	Calculation formula	Remuneration for February	Remuneration for March
PWS	$a = (SSOLL - SAU^{**}) / SDIVI$	0,108	0,093
	Reduced remuneration: $b \times a$	351,22	302,44
Payment	$a = (SSOLL - SAU^{**}) / SDIVP$	0,095	0,095
	Reduced remuneration: $b \times a$	308,94	308,94
Deduction	$a = (SDIVP - SAU^{**}) / SDIVP$	0,213	0,070
	Reduced remuneration: $b \times a$	692,68	227,64

[Legend \[Page 10\]](#)

a = Partial period factor b = basic remuneration

If the **payment method** is employed, Gertrude Jones receives the same amount of remuneration for both months. If the **deduction method** is employed, she is significantly overpaid in February and significantly underpaid in March. If the **PWS method** is used, she would still receive a higher salary in February than in March, however the difference would be significantly lower than when using the deduction method.

Calculating Period-Specific Remuneration: Example

Calculating Period-Specific Remuneration: Example

Mary Brown receives a basic monthly pay of 5,456.00 and has a general period working time of 22 workdays. She changes cost center on the 16th of a month containing 23 workdays.

Calculating using different methods

Partial period in workdays	Factoring method	Partial Period Factor	Remuneration
1.-15. = 11	Payment	$(23-11)/22 = 12/22$	2 976,00
	Deduction	$(22-11)/22 = 11/22$	2 728,00
	PWS	$(23-11)/23 = 12/23$	2 846,60
16.-30. = 12	Payment	$(23-12)/22 = 11/22$	2 728,00
	Deduction	$(22-12)/22 = 10/22$	2 480,00
	PWS	$(23-12)/23 = 11/23$	2 609,40
		Total using payment method	5 704,00
		Total using deduction method	5 208,00
		Total using PWS method	5 456,00

Since Mary Brown only changed cost center and was not absent, her basic payments should be calculated using the PWS method. With this calculation method she receives the basic payments that she is entitled to for this month.