

Header Data

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Component	FI-AA-AA-B Transaction Figures / Valuation			
Other Components	<table border="1"> <tr> <td>FI-AA-AA-E Periodic Posting</td> </tr> <tr> <td>FI-AA-IS Information System</td> </tr> <tr> <td>XX-PROJ-IMS-UPGR Application Specific Upgrade Tools</td> </tr> </table>	FI-AA-AA-E Periodic Posting	FI-AA-IS Information System	XX-PROJ-IMS-UPGR Application Specific Upgrade Tools
FI-AA-AA-E Periodic Posting				
FI-AA-IS Information System				
XX-PROJ-IMS-UPGR Application Specific Upgrade Tools				
Priority	Recommendations / Additional Info			
Category	Installation information			

Symptom

Differences between the "old" and the "new" depreciation calculation - what should I do in the case of differences?

This SAP Note describes the basic differences in function between the "old" and "new" depreciation calculation, it also describes the most important innovations.

This SAP Note also provides help for cases in which there are different calculation results in both depreciation calculations due to different calculation procedures or more consistent conversion of business conditions.

The SAP Note deals with the following topics:

1. Is the new depreciation calculation actually active?
2. Is there actually a problem with the new depreciation calculation?
3. Displaying the calculation parameters (depreciation trace)
4. Differences in the logic, differences that are normal
 - a) Calculation procedure
 - b) Rounding differences
 - c) Management of time-dependent depreciation terms/the option of making a change during a fiscal year
 - d) No depreciations on transactions
 - e) Enhanced period controls
 - f) No correction of unplanned depreciation using proportional ordinary depreciation for the rule for positive/negative net book value "All Values Allowed" if the unplanned depreciation returns a net book value below zero
 - g) Base value "net book value" (24) during interest calculation
 - h) Variable definition of interest
 - i) Digital depreciation
 - j) Treatment of subsequent acquisitions
 - k) Changeover procedure
 - l) Customer enhancements
 - m) Shutdown
 - n) EVL depreciation in Finland
 - o) Update of the fields ANEP-NAFAB, ANEP-SAFAB, ANEP-ZINSB
 - p) Different handling during clearing of down payments
 - q) Different handling of base value 12 (APC minus unplanned depreciation without write-up)
 - r) Different handling of intracompany transfers/transfers relating to a depreciation key with the base value "Net book value" (24) and the percentage rate from the remaining life

Other Terms

AFAR, new depreciation calculation, AFAMA, AFAMS, XSTIL

Reason and Prerequisites

1. Is the new depreciation calculation actually active?

The system switches to the new depreciation calculation only after you activate the SAP ECC Extension Financials (EA-FIN). If the add-on is not active, the system uses the old depreciation calculation.

You can use transaction **SFW5** to check if extension EA-FIN is active. For the simple check, call transaction **AW01** and choose 'Display dep. calculation' to navigate to the fixed asset trace. Depending on the depreciation calculation, a different screen appears. If the period interval procedure is listed in the header line, this is the new depreciation calculation.

2. Is there actually a problem with the new depreciation calculation?

The calculated depreciation amounts are firstly compared with one another. To obtain the depreciation values with the "old" depreciation calculation, you can use transaction **AW01_AFAR** (Asset Explorer - old depreciation calculation). This transaction always uses the old depreciation calculation, even if the new one is active.

Procedure:

- a. Call transaction **AW01** (Asset Explorer) for the affected fixed asset.

If the system generates a dialog box telling you that values of the fixed asset have changed, the depreciation for this fixed asset is not current. This may be caused by a change process that was not properly closed. In this case, the change process is to be analyzed. However, if the fixed asset was not changed and the fixed asset already existed before the changeover to the new depreciation calculation, it is likely a rounding difference caused by the changed mode of operation of the new depreciation calculation.

- b. Call transaction **AW01_AFAR** (Asset Explorer - old depreciation calculation) in a separate session for the affected fixed asset.

If the system displays a dialog box telling you that values of the fixed asset have changed, the old depreciation calculation arrives at a different result. You can calculate alternative values by choosing "Recalculate dep".

- c. Now you can compare the values of the two depreciation calculations with each other. If the difference is less than one integral currency unit, there is usually a rounding difference due to the changed calculation procedure. For larger differences, the cause can be determined using the fixed assets trace (Display dep.calculation).

3. Displaying the calculation parameters (depreciation trace)

SAP Note 964860 describes the new fixed asset trace.

4. Differences in the logic; differences that are normal

a. Calculation procedure,

The calculation procedure was converted from transaction-oriented to period-interval-oriented. The period-based depreciation calculation replaces the previous depreciation calculation that was based on individual transactions. The "old" depreciation calculation sequentially calculates each transaction separately and in the sequence in which a line item was posted to a fixed asset. However, the "new" calculation groups together and cumulates all transactions and value changes that are included in a time period (calculation period) and calculates them as a time segment. The system groups together the transactions of a fixed asset according to the calculation periods.

The system uses the asset value date as well as the period control group of the transaction type group to determine the calculation period. The system assigns each transaction to a calculation period. Then the system creates period intervals from the determined calculation periods and calculates the depreciation on the basis of these intervals.

b. Rounding differences

Rounding differences between the two calculation methods may occur naturally due to the conversion of the calculation procedure (see point 4a). If the size of the difference of the calculation results between new and old depreciation calculation is integral currency unit or lower, this generally occurs due to a rounding difference.

If you round to entire currency units and have posted many transactions to the fixed asset, for which the amounts are summarized in the new depreciation calculation in a calculation period, the differences may extend beyond one currency unit. The old depreciation calculation rounded after every transaction in this case. The new depreciation calculation, on the other hand, calculates an amount that is rounded once.

c. Managing time-dependent depreciation terms /the option of making a change during a fiscal year

With the old depreciation calculation, changes to the depreciation terms were always related to all open fiscal years. With the new depreciation calculation, you now have the option to change depreciation terms during the fiscal year. This means that the changed parameters are included in the calculation always from the period for which the period is also valid. The "old" depreciation calculation does not support this. The **AW01_AFAR** functions for time-dependent depreciation terms work only with the parameters of the last valid (newest) interval.

The following depreciation terms can be maintained time-dependently on the fixed asset:

- Depreciation key
- Useful life
- Scrap value/scrap value percentage rate
- Variable depreciation portion

d. No depreciations on transactions,

The period-based calculation procedure cumulates all transactions that are included in a time period and determines the depreciation on these cumulative values. Therefore, it is no longer possible to retrospectively determine a redistribution of the calculation results on individual transactions. Therefore, if you use the new depreciation calculation, the system no longer saves depreciations on transactions in the line items. Exceptions to this rule are - proportional value adjustments in the case of retirements or retirement transfers, since these must continue to be calculated at single transaction level.

e. Extended period controls

With the new depreciation calculation, you can define the following additional period control in the depreciation key for the previous period controls that can be assigned to a phase of a depreciation key:

- Period control that is used for revaluations
- Period control that is used for investment support
- Period control that is used for unplanned depreciations
- Period control that is used for write-ups

The old depreciation calculation will not interpret any of these new period controls for such transactions, but it will use other period controls (as in the past) on the basis of specified criteria.

f. No correction of unplanned depreciation using proportional depreciation for the rule for positive/negative net book value "All Values Allowed" if the unplanned depreciation returns a net book value below zero

If you do not set any "Depreciation below net book value zero" in a phase or a depreciation key to be calculated in the base method, this is valid only for the value type to which this phase refers (normally ordinary depreciation). If a net book value below zero is achieved by an unplanned in a year, since this for example, is allowed in the depreciation area rules, the old depreciation calculation tries to reach the net book value zero by correcting or adjusting the ordinary depreciation. In certain cases, this results in a positive ordinary depreciation in a fiscal year.

In the new depreciation calculation, the feature in the base method of the depreciation key relates only to the value type (normally ordinary depreciation) to which this phase refers. In this respect, the new depreciation calculation may retain a negative net book value that the "old" calculation - as far as possible - would have corrected to net book value zero.

This is a function that is required to separate the effect on individual value types and adjustment factors from one another more strictly and more uniquely. If you do not want a net book value under zero in a depreciation area, you can ensure this using only the specific feature of the net book value rule (VZREST) for the depreciation area. If you maintain normal depreciation and unplanned depreciation, you must post an appropriate amount of the unplanned interest to ensure that no negative result is achieved if it is not wanted.

g. **Base value "net book value" (24) during the interest calculation,**

The base value "Net book value" for interest in the old depreciation calculation is the net book value for the fiscal year start AFTER the deduction of the planned ordinary depreciation and special depreciation. In other words, the base value 24 for interest in the old depreciation calculation represents the net book value for the end of the fiscal year. The previous recommendation for the interest calculation was to use "Average net book value without special depreciation" (22) to eliminate certain effects. The base value 24 for interest according to this logic is problematic, for example, if the fixed asset reaches net book value zero in the year. In these cases, the base value of the interest is also zero, which would not result in any interest calculation. The sample depreciation keys (delivered by SAP) that manage interest, also use base value 22 if the net book value is to be depreciated.

For base value 24, the new depreciation calculation uses the net book value for the fiscal year start, in the same way as for the ordinary depreciation. For reasons of consistency, this was standardized within the value types.

h. **Defining variable interest rates**

For information about how to define interest rates as variable, see SAP Note 1136788.

i. **Digital depreciation**

The restrictions from SAP Note 68518 on digital depreciation for a depreciation starting date during the fiscal year (point 3) is no longer given with the new depreciation calculation.

Restriction for the old depreciation calculation: The distribution of the digital depreciation for a depreciation starting date during the fiscal year occurs in linear fashion. Consequence: 1/12 of the annual percentage rate is used to calculate in all periods.

Due to the conversion of the calculation method from transaction-oriented to period-interval-oriented, this restriction is no longer given in the new depreciation calculation. The system determines the precise depreciation percentage rates for the individual time segments pro rata in the fiscal years.

Consequence in practice: Both depreciation methods determine the same, correct annual depreciation value. Viewed from a period basis however, there is a difference between the old and the new depreciation calculation for an asset report executed during the fiscal year or the depreciation values periodically posted.

j. **Treatment of subsequent acquisitions**

SAP Note 92260 is valid for subsequent acquisitions for the old depreciation calculation. The new depreciation calculation performs reductions for the relevant calculation period. Reductions that had to be executed in a previous calculation period are no longer influenced by transactions in subsequent calculation periods.

The differences between "old" and "new" depreciation calculation can be very large if you do not post the subsequent acquisitions as described in SAP Note 92260 with "year start date" period control or alternatively to subnumbers.

k. **Changeover procedure**

If you use the changeover methods, the system carries out a check in the "new" depreciation calculation for each calculation period to see if the changeover condition is fulfilled. If it is fulfilled, it changes over from the first period in the year in which the changeover condition is fulfilled. If you want a real mid-year changeover, you have to program a BAdI with a maximum segment length as described in SAP Note 1131960, point 7. The system then forms calculation segments for each period, checks the changeover condition for each segment, and the changeover occurs with the period of this changeover.

Changeover methods 5 and 8 (changeover after the end of the useful life) always occur mid-year, that is, after the first period outside of the useful life, the system performs the calculation with the next phase.

The "old" depreciation calculation does not change over mid-year under any circumstances.

l. **Customer enhancements**

For customer-specific enhancements, you can comment out four specified user exits in the old depreciation calculation. However, the new depreciation calculation does not interpret these. For customer enhancements in the new depreciation calculation, two Business Add-Ins (BAdIs) are available:

Add-in for calculation bases

This BAdI enables you to influence the calculation of revaluations, depreciations and interest. Using the methods provided, you can:

- Change the calculation sequence.
- Change the calculation parameters.
- Specify the length of the period intervals.
- Define the changeover year and (if required) the changeover period. Furthermore, change the rounding settings.

Add-in for depreciation calculation

This BAdI enables you to influence the calculation of revaluations, depreciations, and interest. Using the methods provided, you can:

- Define individual base values.
- Define individual calculation methods.
- Define individual cutoff values for derived depreciation areas.

For a detailed description of both Business Add-Ins in the context of general functions, existing methods, and import and export interfaces, see SAP Note 1131960.

In addition, there are Business Add-Ins available for specific country-specific developments in the new depreciation calculation. For more information, contact your local SAP consultant.

m. **Shutdown**

The calculation periods in which a fixed asset is shut down or terminates in shutdown are always considered in the new depreciation calculation as "shut down", with the result that no depreciation is calculated for these calculation periods. The old depreciation calculation, on the other hand, always considers these periods as "not shut down".

Example: A fixed asset is shut down on January 17 of a fiscal year (= calculation period 1). The new depreciation calculation will not calculate any depreciation for the period 1, as you have already valued this period as "shut down". The old depreciation calculation values this period as "not shut down", and would calculate depreciation amounts for period 1.

n. **EVL depreciation Finland**

Note that the derived area 04 must not have any effect on segmentation in tax area 02 (EVL area). For this, proceed according to SAP Note 1161265 and set the purpose of the area to 1 for the derived area 04.

o. **Update of the fields ANEP-NAFAB, ANEP-SAFAB, ANEP-ZINSB**

As described in point 4d), the fields for the depreciations on transactions are obsolete. Therefore, the fields ANEP-NAFAB, ANEP-SAFAB and ANEP-ZINSB are not updated by the new depreciation calculation.

- p. **Different handling during clearing of down payments**
In cases where a down payment in the previous year (transaction type 180) was cleared with a down payment in the current year (transaction type 181) and additional current-year acquisitions were entered in the current year, the system behaves as follows for intracompany transfers: An intercompany transfer of the current-year acquisition transactions takes place and the cleared down payments (transaction type 180/181) are balanced to zero. For this reason, no transfer posting of prior-year acquisition transactions takes place.
- q. SAP Note 720311 has introduced the new **base value 12**, which prevents write-ups in the current year from being included in the base value determination. In the new depreciation calculation, the base values 10 and 12 are identical. The enhanced period control (section e) for write-ups can be used to include write-ups in the new depreciation calculation. If you set up the depreciation key in such a way that the following year is the period control for write-ups and if you use the new transaction types, which use the transaction type group 78, the write-ups are included only in the following year for the base value 12 as before.
- r. During an intracompany transfer (or transfer), the net book value at the start of the fiscal year and the remaining life at the start of year are always included in the old depreciation calculation. In the new depreciation calculation, segmentation can be performed to provide a more accurate calculation. Therefore, the remaining life on the asset value date and the net book value on the asset value date are used here. This may lead to differences, for example, if the parameters (for example, useful life on sender or target asset) are different.

Solution

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Validity

Software Component	From Rel.	To Rel.	And Subsequent
SAP_FIN	617	617	<input type="checkbox"/>
EA-APPL	600	600	<input type="checkbox"/>
	602	602	<input type="checkbox"/>
	603	603	<input type="checkbox"/>
	604	604	<input type="checkbox"/>
	605	605	<input type="checkbox"/>
	606	606	<input type="checkbox"/>
	616	616	<input type="checkbox"/>

References

This document refers to:

SAP Notes

- 1498047 [Changeover from old to new depreciation calculation](#)
- 1242262 [Incorrect LVA retirement simulation for closed fiscal years](#)
- 1170563 [FAA_DC_CUSTOMER: Fields are not transferred](#)
- 1155771 [No time-dependent depr. parameters if new depr. is inactive](#)
- 1138166 [Enhanced period controls for new depreciation calculation](#)
- 1136788 [Defining variable interest rates](#)
- 1131960 [Documentation: Business Add-Ins for new deprec. calculation](#)
- 1111097 [Enterprise Extension switch EA-FS \(and EA-FIN\)](#)
- 988238 [FAQ New depreciation calculation](#)
- 981222 [FAQ: Time-dependent valuation parameters](#)
- 964860 [Fixed assets trace: General description](#)
- 949701 [Depreciation values not displayed in transaction data report](#)
- 524701 [linear depreciation - only for Poland](#)
- 368650 [The problem concerns linear depreciation.\(Poland\)](#)
- 68518 [Digital depreciation method](#)

This document is referenced by:

SAP Notes (17)

- 1113840 [Check of time-dependent depreciation terms](#)
- 1111097 [Enterprise Extension switch EA-FS \(and EA-FIN\)](#)
- 981222 [FAQ: Time-dependent valuation parameters](#)
- 1498047 [Changeover from old to new depreciation calculation](#)
- 964860 [Fixed assets trace: General description](#)
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- 1242262 [Incorrect LVA retirement simulation for closed fiscal years](#)
- 988238 [FAQ New depreciation calculation](#)
- 949701 [Depreciation values not displayed in transaction data report](#)
- 1138166 [Enhanced period controls for new depreciation calculation](#)

- 1136788 [Defining variable interest rates](#)
- 1319604 [Missing asset values when posting transfer to new fixed asset](#)
- 1131960 [Documentation: Business Add-Ins for new deprec. calculation](#)
- 368650 [The problem concerns linear depreciation.\(Poland\)](#)
- 68518 [Digital depreciation method](#)