# Transactions

1. Additions
2. Adjustments
3. Transfers
4. Retirements
5. Depreciation

# Asset

1. Assets are created at the legal entity level
2. Asset location specifies the exact location of an address
   1. Assignment of Inv and Bu is reporting purpose only
3. Each asset is assigned to an asset category that determines various accounts for the asset
4. Each asset can be assigned to multiple books
   1. Each asset and book combination is assigned to a depreciation rule

# 5.1

Category of each asset

Must be assigned to legal org with all accounts

# 5.3 Deprecation Rules

Specifies how the deprecation is carried out

# 5.2 Book

1. Asset values are maintained in the book

# 2.1 Addition

When an asset is added

1. Asset book value is increased
2. System creates a journal entry

# 2.2 Adjustment

Adjustments are created as open lines

System changes the book value and depreciation amount and changes the adjustment status to closed

# Depreciation

1. When an asset is depreciated all the books in that asset are depreciated
2. System creates journal entries only for the primary book

Depreciation Amount =( Recoverable Amount – Acc. Depreciation Amount)/Remaining Depreciation Period

Remaining Depreciation Period = Life Of Assets – Completed Depreciation Periods

Recoverable Amount = Current Cost – Salvage Amount

Current Cost = Original Cost + Adjustments

# Retirement

The system reduces the asset value to zero

The system creates retirement journal entries in the primary book

# Depreciation Methods

Straight Line Depreciation Formula

The straight line calculation, as the name suggests, is a straight line drop in asset value. The depreciation of an asset is spread evenly across the life.

Depreciation in Any Period = ((Cost - Salvage) / Life)

Partial year depreciation, when the first year has M months is taken as:

First year depreciation = (M / 12) \* ((Cost - Salvage) / Life)

Last year depreciation = ((12 - M) / 12) \* ((Cost - Salvage) / Life)

And, a life, for example, of 7 years will be depreciated across 8 years.

Straight-Line Depreciation Example

Suppose an asset for a business cost $11,000, will have a life of 5 years and a salvage value of $1,000.

Depreciation in Any 12 month Period = (($11,000 - $1,000) / 5 years) = $10,000 / 5 years = $2,000/ year.

## DOUBLE DECLINE METHOD

This method allows depreciation of an asset at an accelerated pace. The following formula is used while calculating depreciation per period.

Current Period Depreciation = Net Book Value of Previous Period x Factor x (1/n)

Net Book Value = Starting Book Value – Current Period Depreciation

Starting Book Value = Net Book Value of Previous Period

• Starting Book Value of First Period = Acquisition Cost

• Factor = Value entered while defining the depreciation definition (enter a percentage value, usually 200% or 150%

• n = Number of depreciation periods

Salvage value is not considered while calculating depreciation for each period. But the acquisition cost – accumulated depreciation value should not go below the salvage value. For any depreciation period, if the acquisition cost – accumulated depreciation value goes below the salvage value, the depreciation for that period should be reduced so that the total value of the asset does not go below the salvage value.

Example

An asset value is $140,000. It will be depreciated over five years, and the factor entered is 200%. The depreciation rate for this method is 200% x (1/5) = 40%.

The first period calculation is 140,000 x 40% = 56,000.

Double Declining Balance Depreciation Example

An asset for a business cost $1,750,000, will have a life of 10 years and the salvage value at the end of 10 years will be $10,000. You calculate 200% of the straight-line depreciation, or a factor of 2, and multiply that value by the book value at the beginning of the period to find the depreciation expense for that period.

Straight-Line Depreciation Percent = 100% / 10 years = 10% / year

Depreciation Rate = 2 x 10% = 20% / year

Depreciation for a Period = 20% x Book Value at Beginning of the Period

Depreciation for Period 1 = 20% x $1,750,000 = $350,000

For Periods 2 and greater, depreciation is 20% x ($1,750,000 - Accumulated Depreciation )

Depreciation for Period 2 = 20% x ($1,750,000 - $350,000 ) = $280,000

Depreciation for Period 3 = 20% x ($1,750,000 - $630,000 ) = $224,000

Etc ....

## SUM OF YEAR DIGITS

The following formula is used for this method:

Current Period Depreciation = (Cost – Salvage Value) \* [Factor]

The calculation factor depends upon the depreciation period and will change for each period based on the following formula, where n is the number of depreciation periods:

Fraction for first year = n / (1+2+3+4+5…n)

Fraction for second year = (n-1) / (1+2+3….n)

Fraction for third year = (n-2) / (1+2+3+…n)

The sum of years digits method is accelerated depreciation. Depreciation is taken as a fractional part of a sum of all the years. For example, if an asset has a life of 5 years the sum of years is 1+2+3+4+5 = 15. Fractional parts are built with the year as the numerator and the sum of years as the denominator but, in reverse order. Year 1 is 5/15 \* depreciable cost, Year 2 is 4/15 \* depreciable cost, Year 3 is 3/15 \* depreciable cost, etc. Since the sum of all fractions will equal 15/15, the total depreciation over the life of an asset will be 1 \* depreciable cost = depreciable cost.

Calculating the sum of years can be simplified with the formula (Life \* (Life + 1)) / 2 so you do not need to actually add up all the years.

Depreciable Cost = Original Cost - Salvage Value = (Cost - Salvage)

Fraction for a Given Period = (Life - Period + 1) / ((Life \* (Life + 1)) / 2)

Depreciation in Any Period:

= Fraction for Given Period \* Depreciable Cost

= [(Life - Period + 1) / ((Life \* (Life + 1)) / 2) ] \* (Cost - Salvage)

= ((Cost - Salvage) \* (Life - Period + 1) \* 2 / (Life) / (Life +1))

Partial year depreciation, when the first year has M months requires a bit of manipulation since the period fraction used and the years in which the depreciation are taken will overlap. If we have an asset with a life of 5 years and the service for the first year is only 4 months:

First year depreciation fraction = (4/12) x (5/15)

Second year depreciation fraction = [(8/12) x (5/15)] + [(4/12) x (4/15)]

Etc .....

And, a life, for example, of 5 years will be depreciated across 6 years.

BOM Type:

Product Group

Planning

Sales

Production

Costing