# Configuring Fleet Management in SAP R/3 Enterprise

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**SAP America**

THE BEST-RUN BUSINESSES RUN SAP

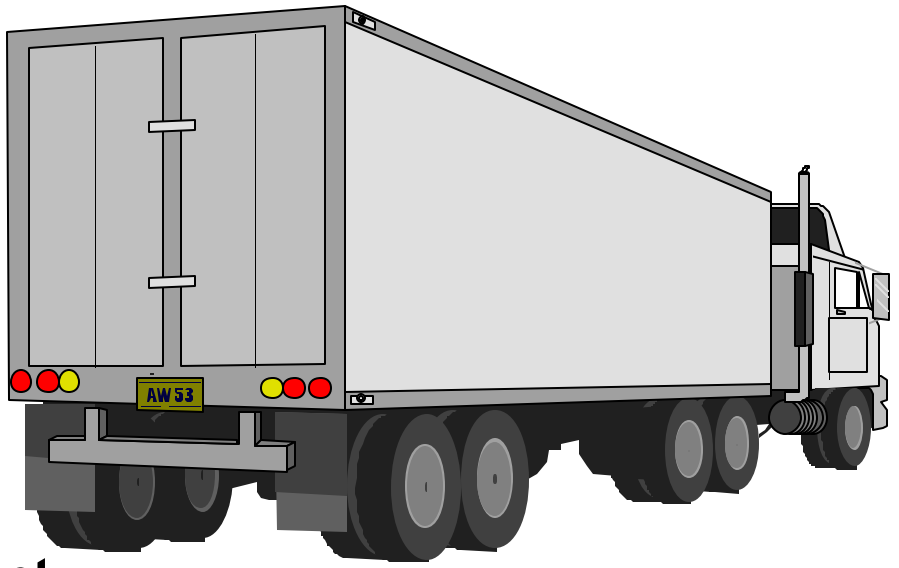
# Content

# What is fleet management

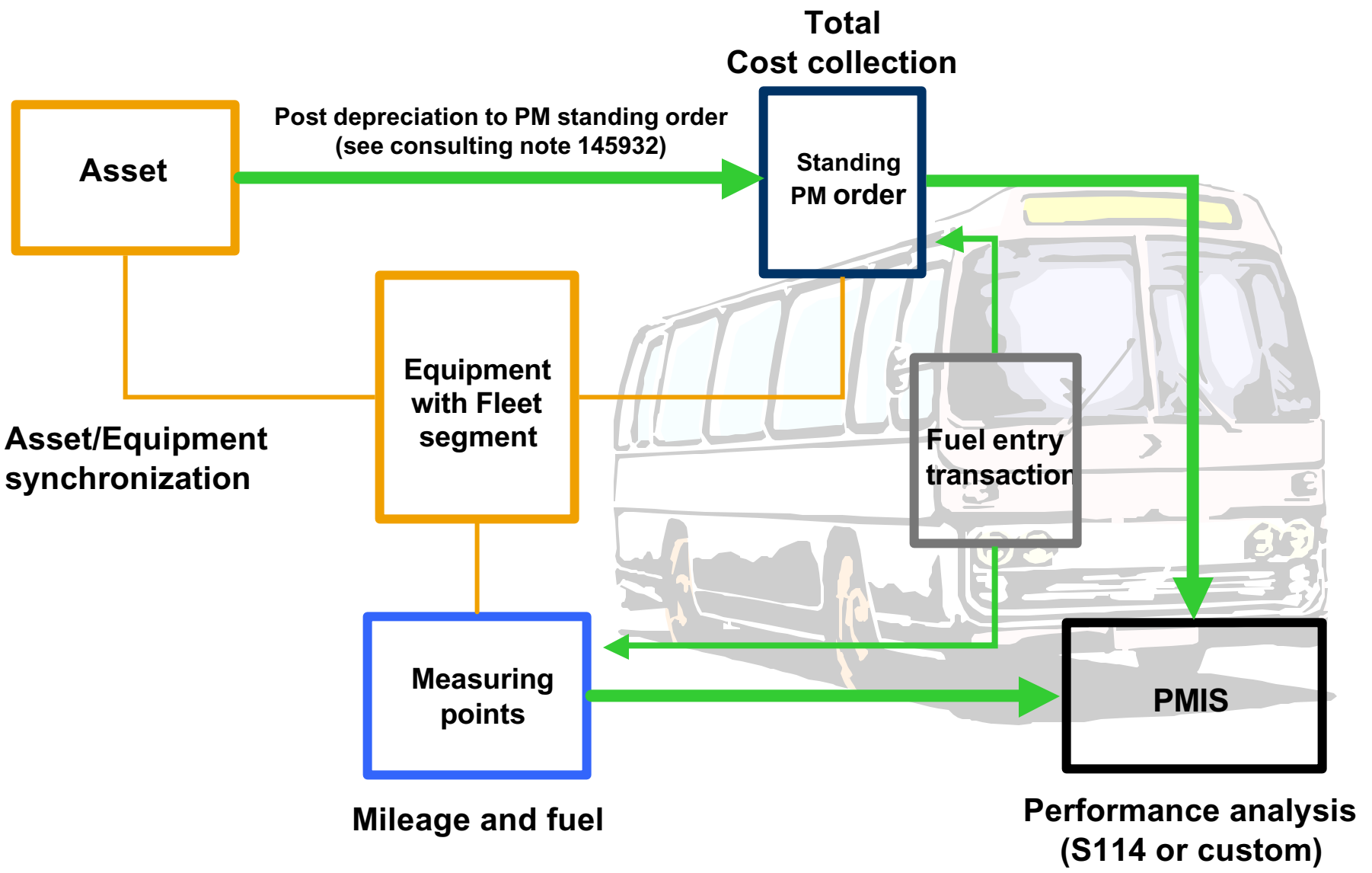
**Fleet management is a solution, not a module**

**Contributions from several SAP modules:**

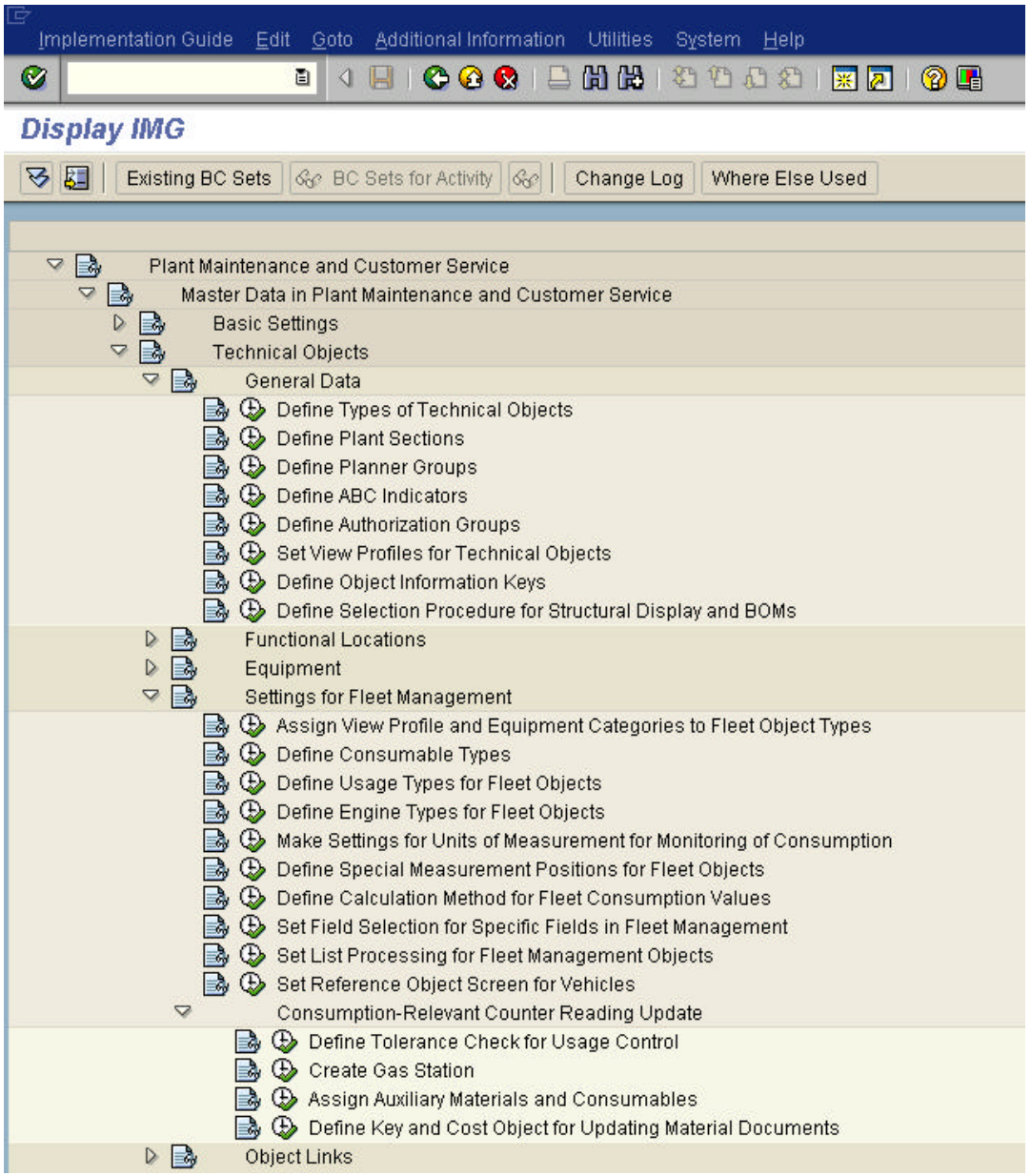
- Plant Maintenance
- Asset Accounting
- Financials
- Controlling
- Materials Management
- Human Capital Management
- .....



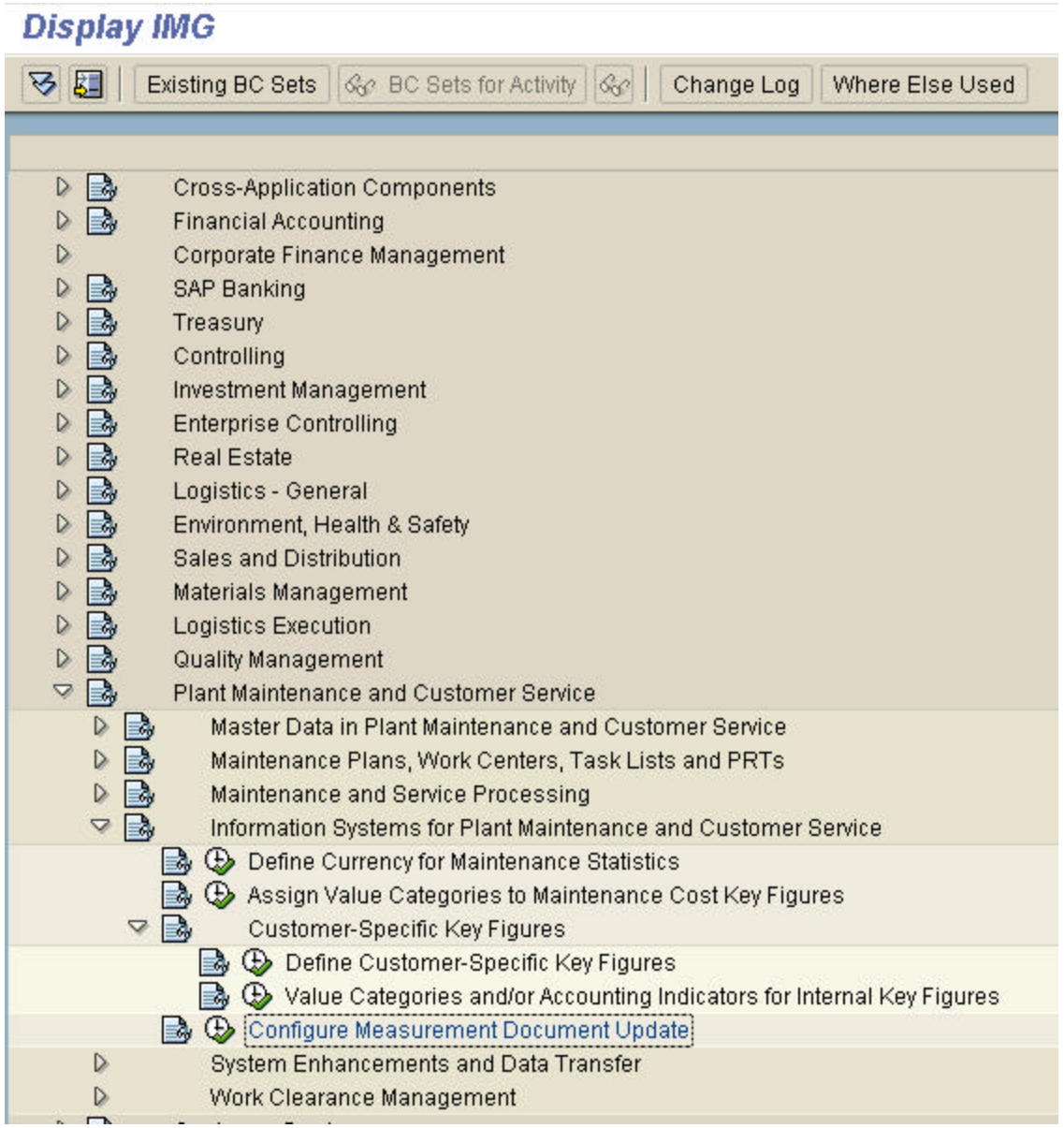
# Typical fleet model



# Transaction configuration



# Reporting configuration



# Content

- Overview
- Master data
- Units of measure
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- Fuel entry
- PMIS (S114)
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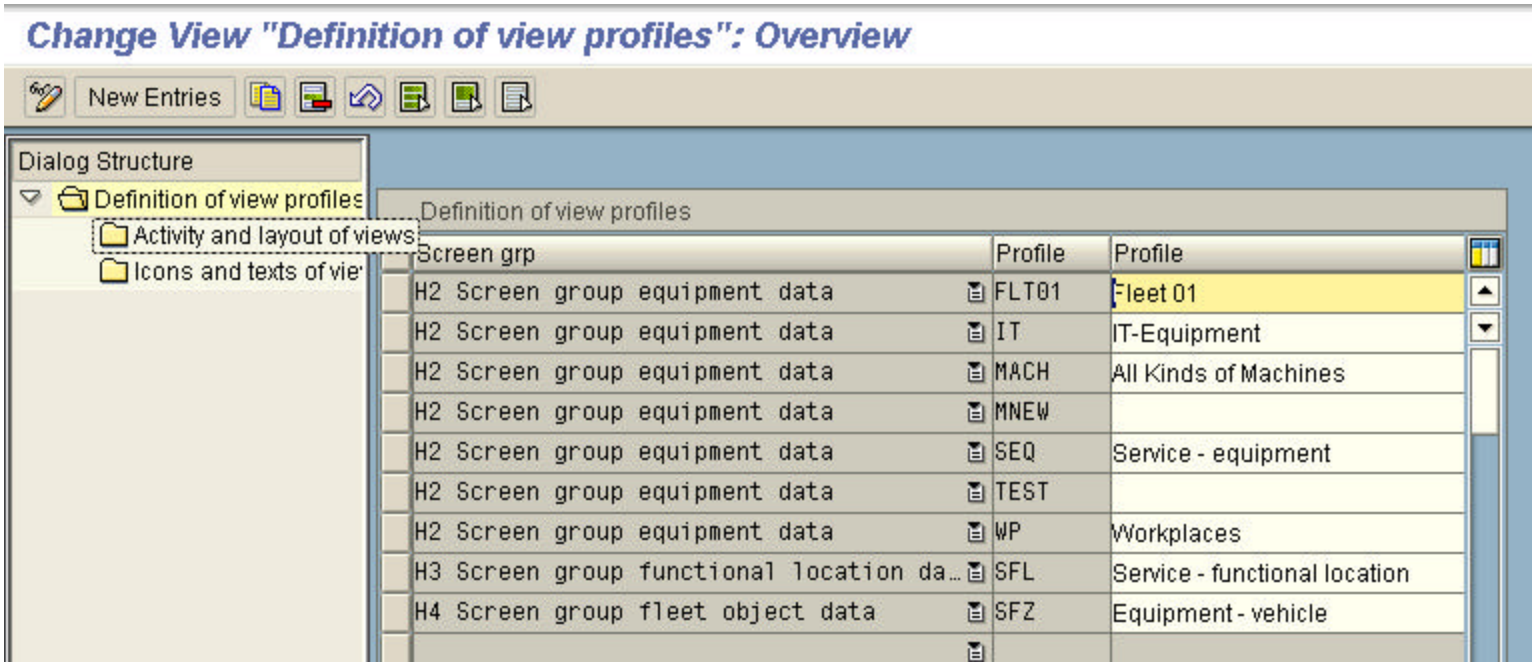
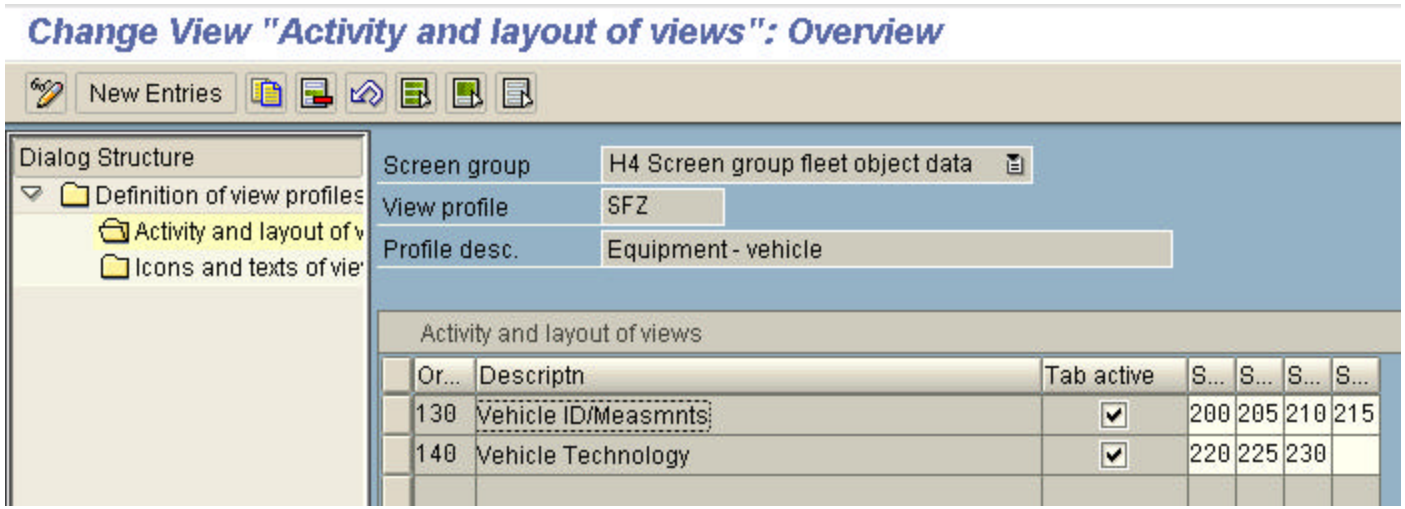
# View profiles



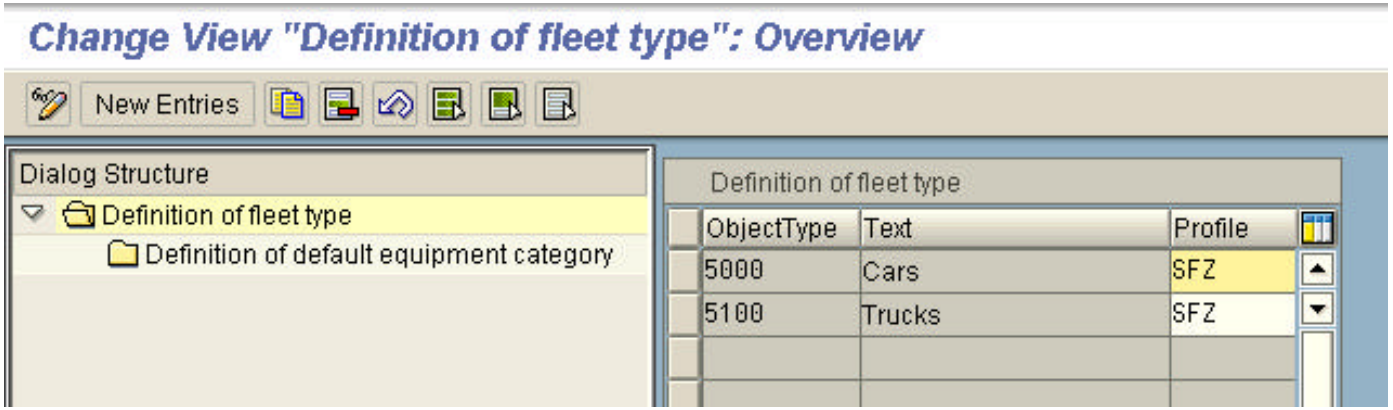

**Fleet are simply equipment with a fleet profile allocated to the equipment category.**

# Fleet view profile

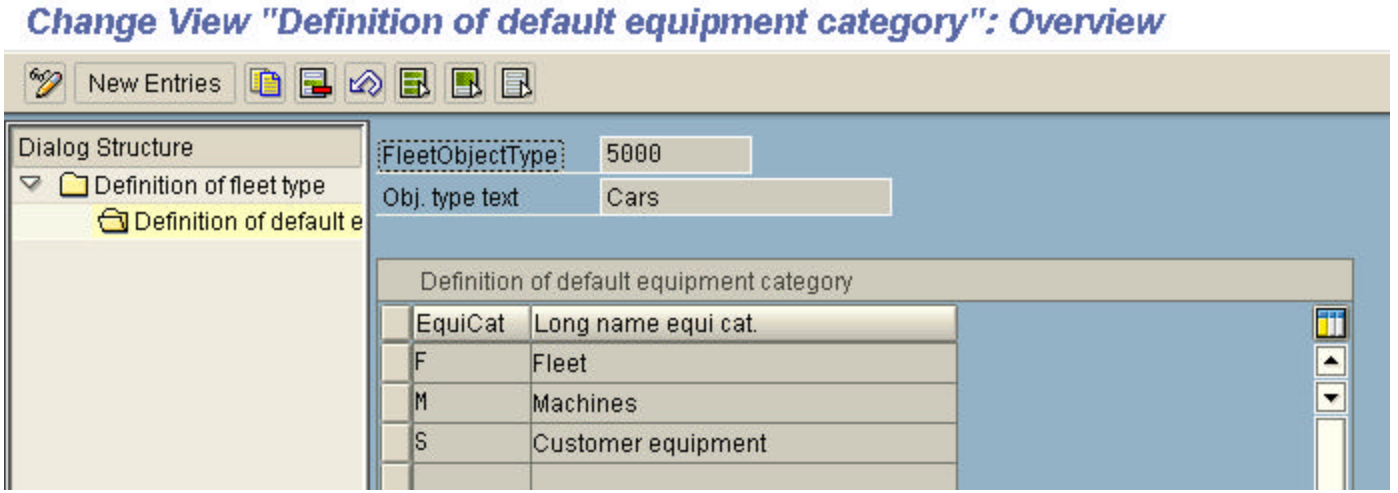



**The screen group for fleet makes the fleet sub-screens available for configuration.**

# Categories and Object types




**View profile allocation per fleet object type.**




**Default equipment categories can be defined for fleet Object types.**

# Fleet user defined attributes

**Change View "Fluid Types": Overview**

New Entries

Fluid Types

| Fluid type | Text |
|---|---|
| CPG | Compressed Natural Gas |
| DI | Diesel |
| GAS87 | Gasoline, Regular |
| GAS89 | Gasoline, Plus |
| GAS93 | Gasoline, Super |

**Change View "Fleet Usage": Overview**

New Entries

Fleet Usage

| Usage indicator | Text |
|---|---|
| L | Leased |
| P | Private usage allowed |
| R | Rental vehicle |

**Change View "Engine Type": Overview**

New Entries

Engine Type

| Engine type | TypeTxt |
|---|---|
| D6 | Diesel, 6 cylinders |
| D8 | Diesel, 8 cylinders |
| G4 | Gasoline, 4 cylinder |
| G6 | Gasoline, 6 cylinder |
| G8 | Gasoline, 8 cylinder |

**Fluid types are used to default materials in the fuel entry transaction.**

**Engine Type and Fleet Usage are used to group fleet objects.**

# User exits

**There are user exits specifically for the FLEET segment of the equipment record.**

- **ITOB0003 - PM: Customer Include subscreen for fleet object data**
- **ITOB0004 - PM: Customer Exit fleet identification data: Checks**

**The FLEET table has an include CI_FLEET for extending the FLEET master data.**

**These fields are available in the fleet list displays**

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- Overview
- Master data
- Units of measure
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# Units of measure

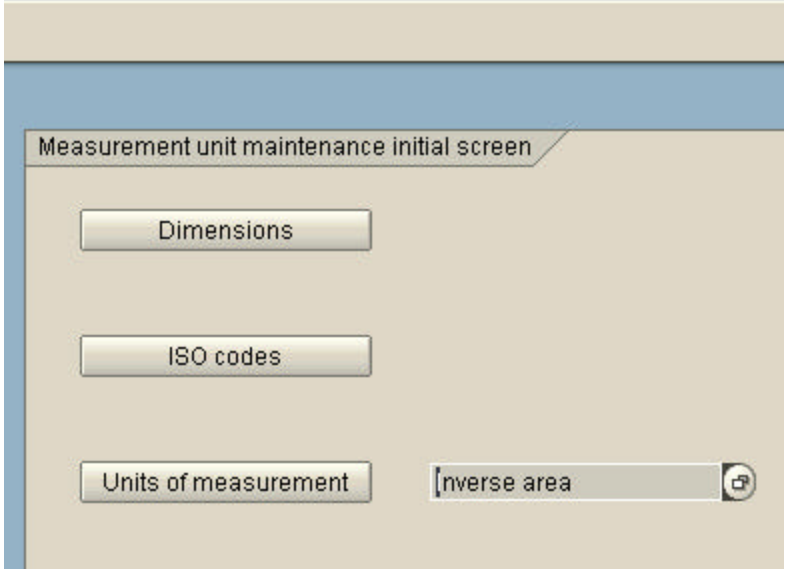
**The units of measure are key to the correct calculation of consumption.**

**All uom's are defined as a derivation of the SI unit for the dimension concerned e.g. length is meter but can have kilometer or mile unit.**

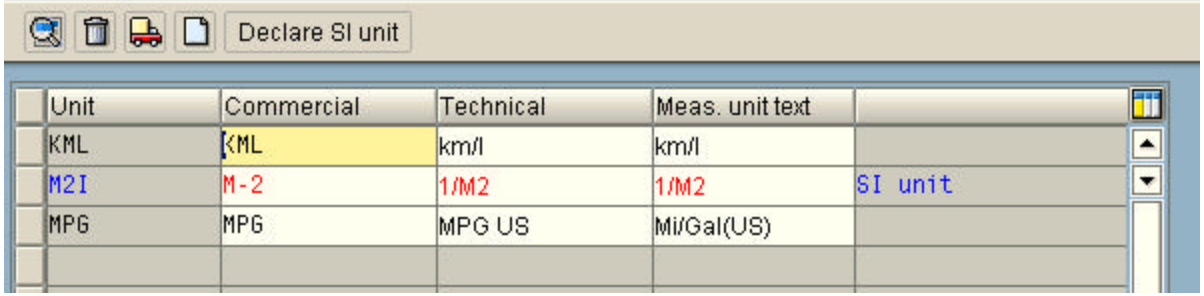
**Measurement documents are stored in the unit of the dimension SI unit. This makes it exceptionally easy to work with units of measure.**

# Consumption (Inverse Area)

**Units of Measurement: Initial Screen**

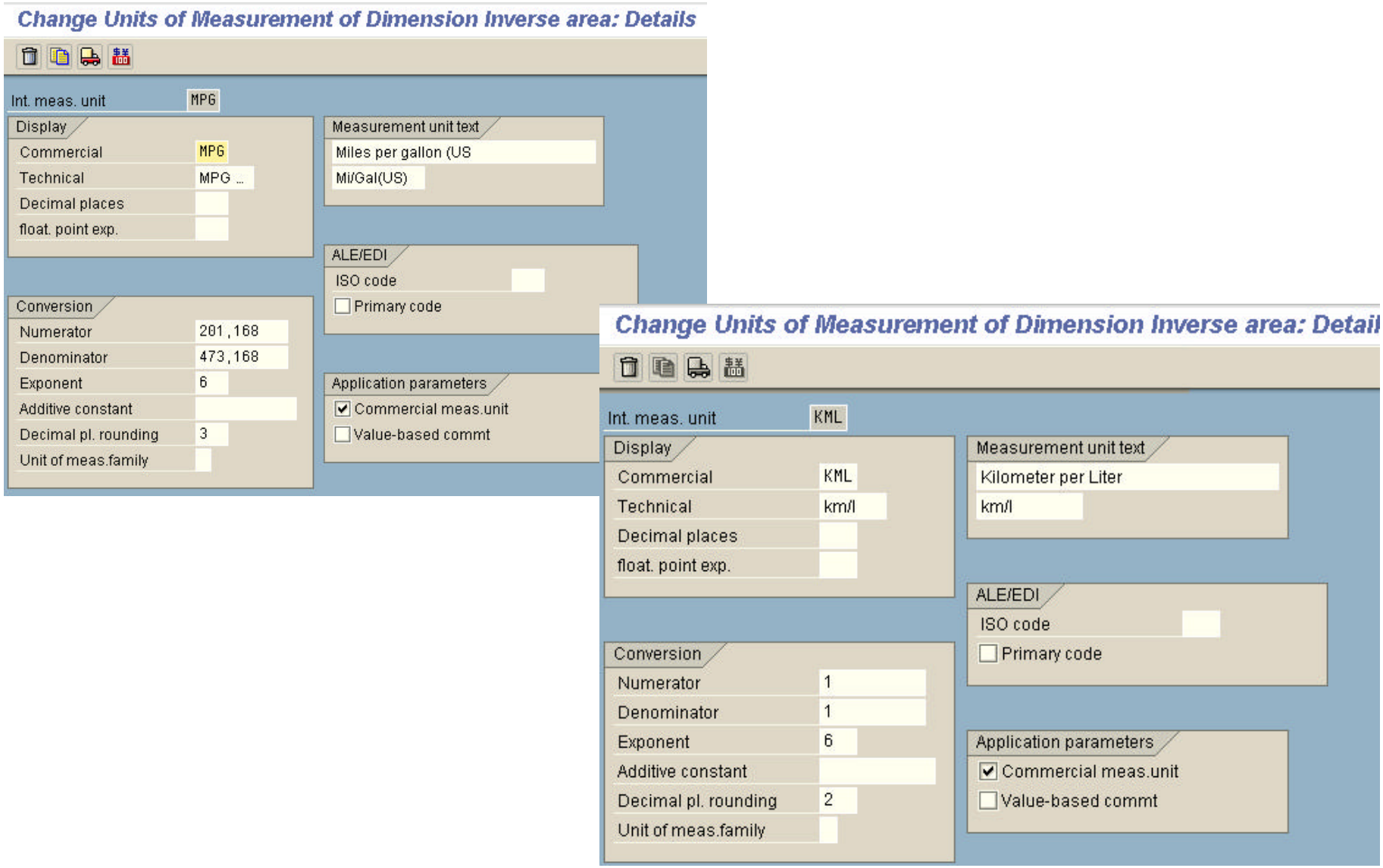



**Change Units of Measurement of Dimension Inverse area: Overview**

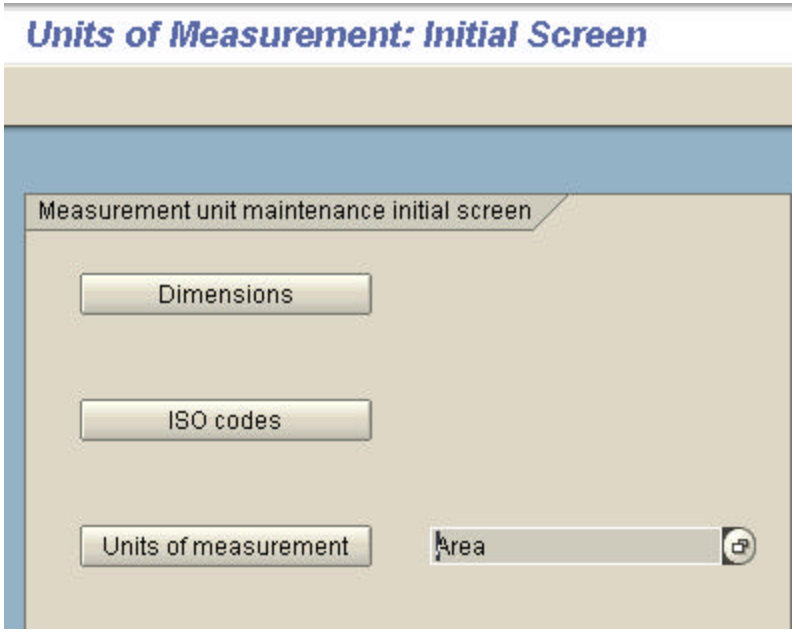


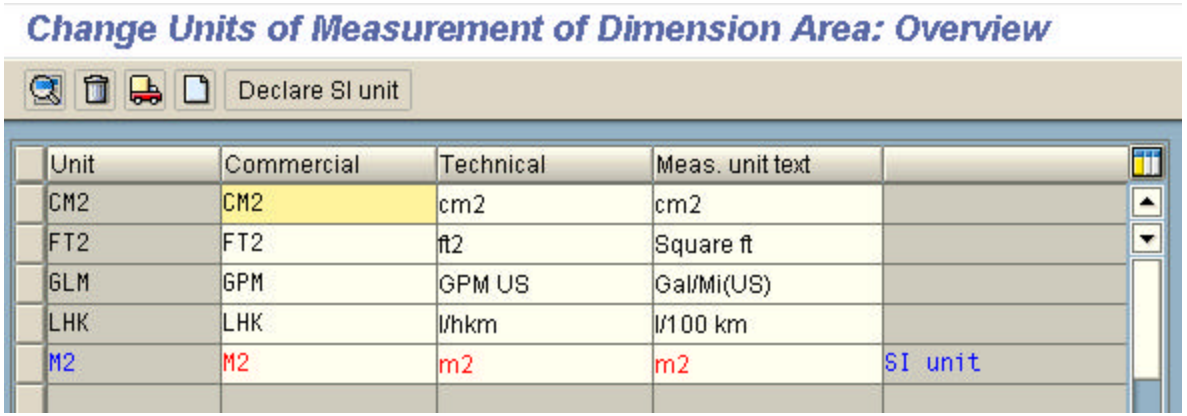

| Unit | Commercial | Technical | Meas. unit text | |
|---|---|---|---|---|
| KML | KML | km/l | km/l | |
| M2I | M-2 | 1/M2 | 1/M2 | SI unit |
| MPG | MPG | MPG US | Mi/Gal(US) | |

# Key units (Inverse Area)

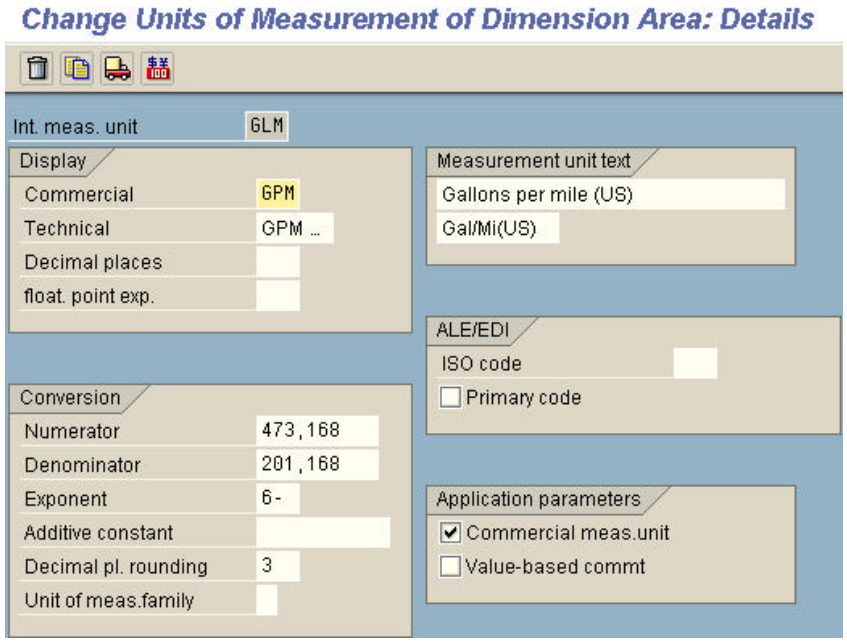


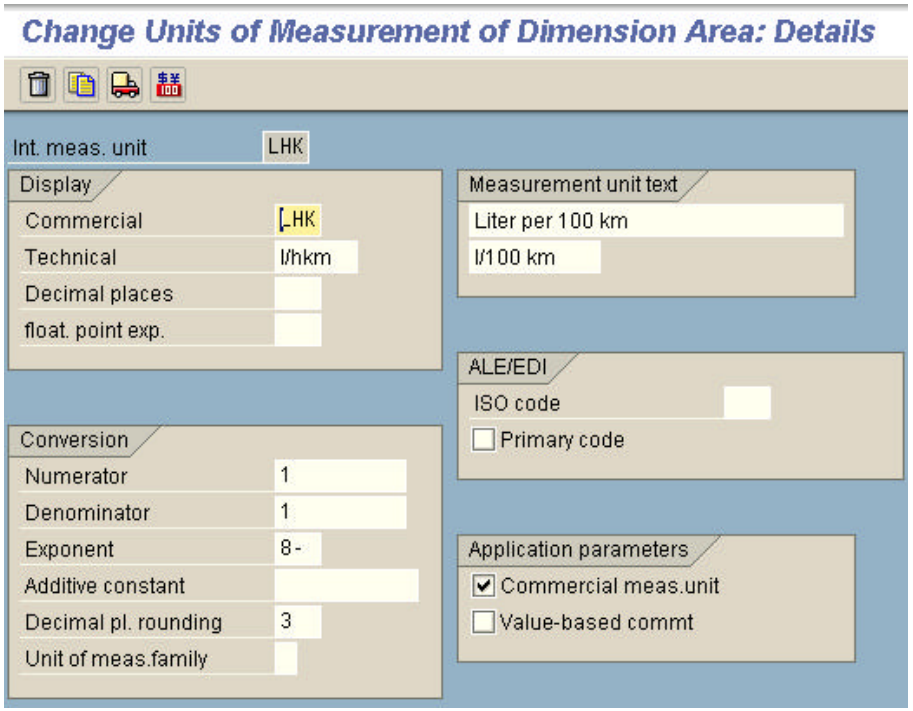
# Consumption (Area)



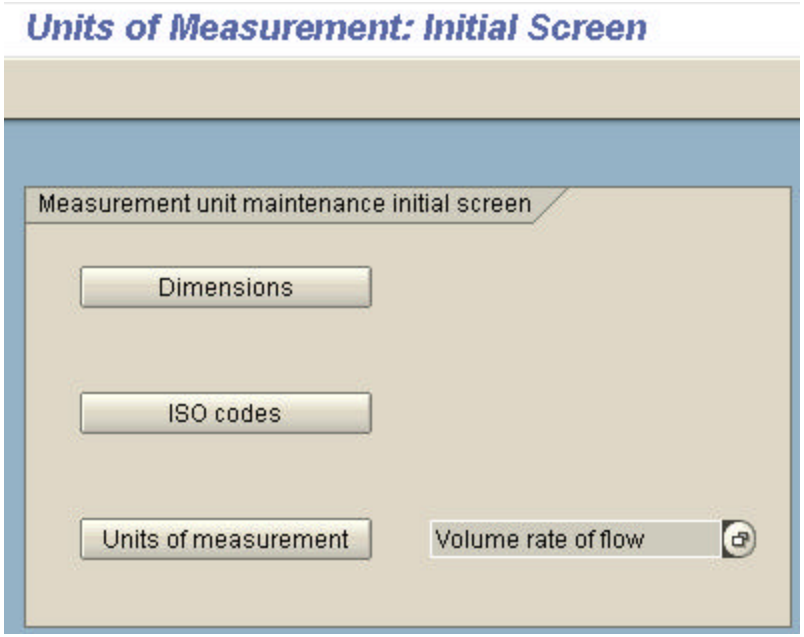



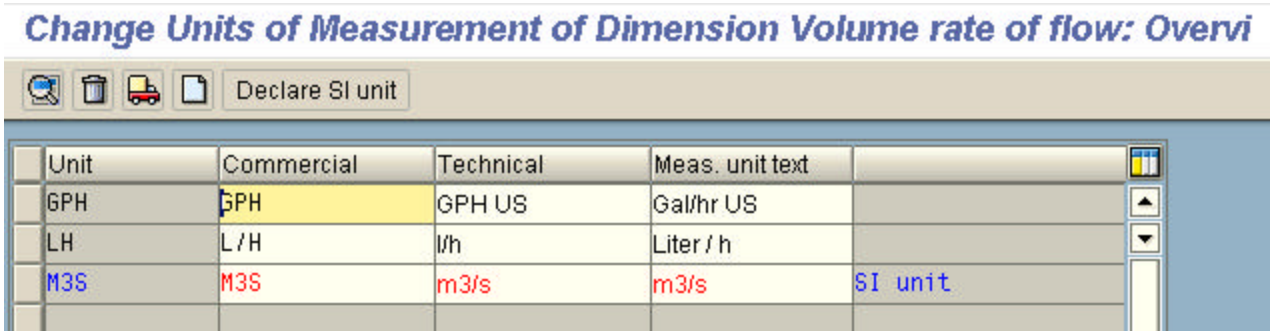
# Key units (Area)



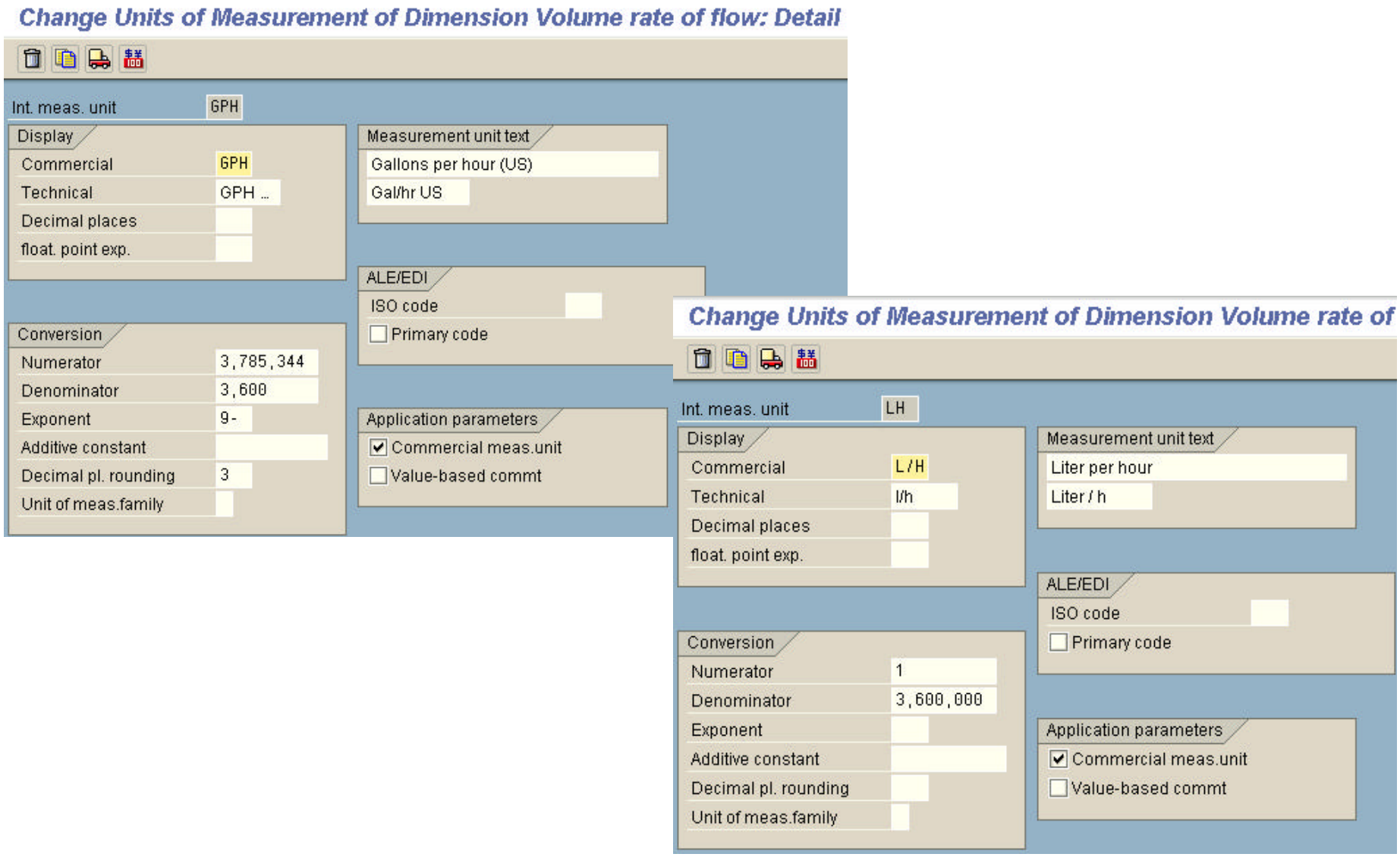



# Volume rate of flow



# Key units (Volume flow)



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# How it works

**The simplest way to describe the consumption calculation is:**

**Fuel unit / Work unit**

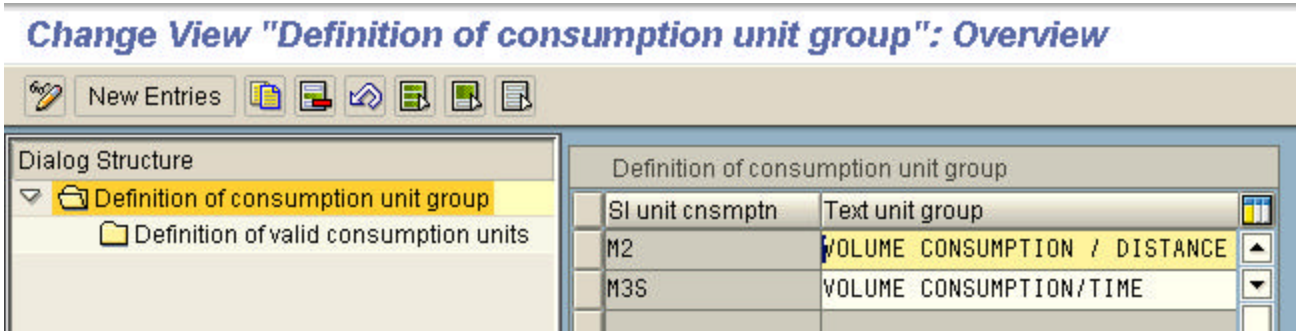
**The fuel unit may be volume or mass**

**The work unit may be distance or time.**

**Note: All units are based on SI and converted as required. If the unit of measure has the inverse dimension the system will take that into account in standard calculations. PMIS calculated key figures will need to be correctly defined.**

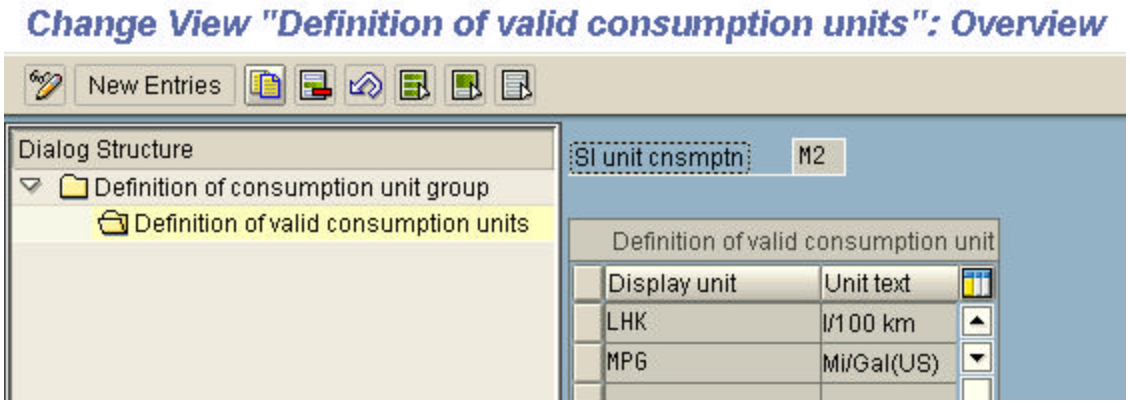
**See SAP support note 563832 for detailed explanation as to how the consumption calculation works.**

# Valid consumption units (Distance)

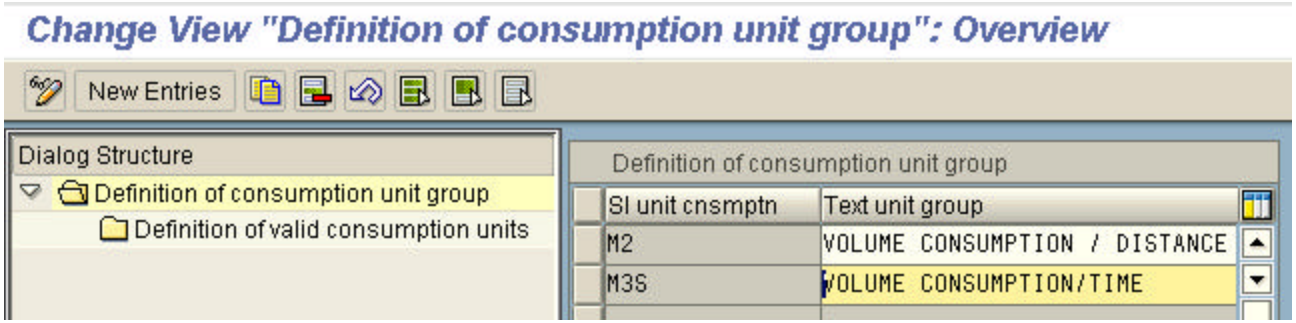


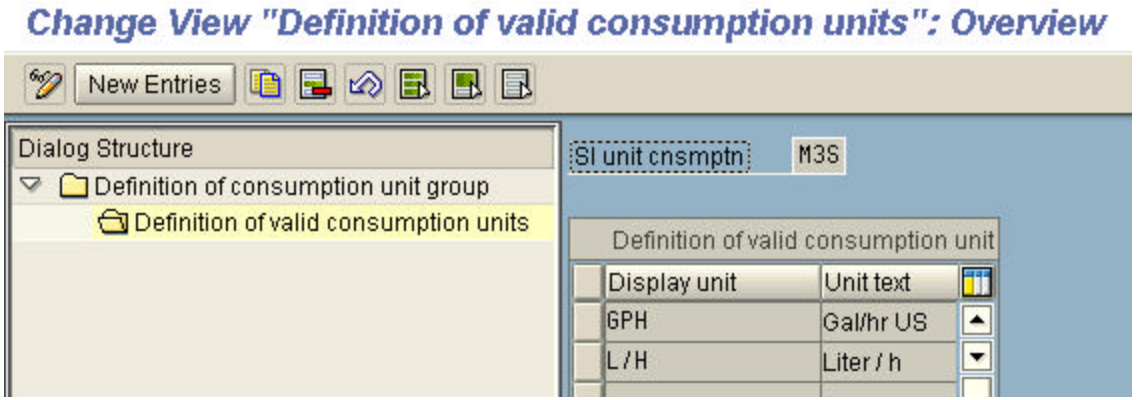

**Define SI unit for dimension of calculation.**

**Define units for calculation. Must have the same dimension as the SI unit.**

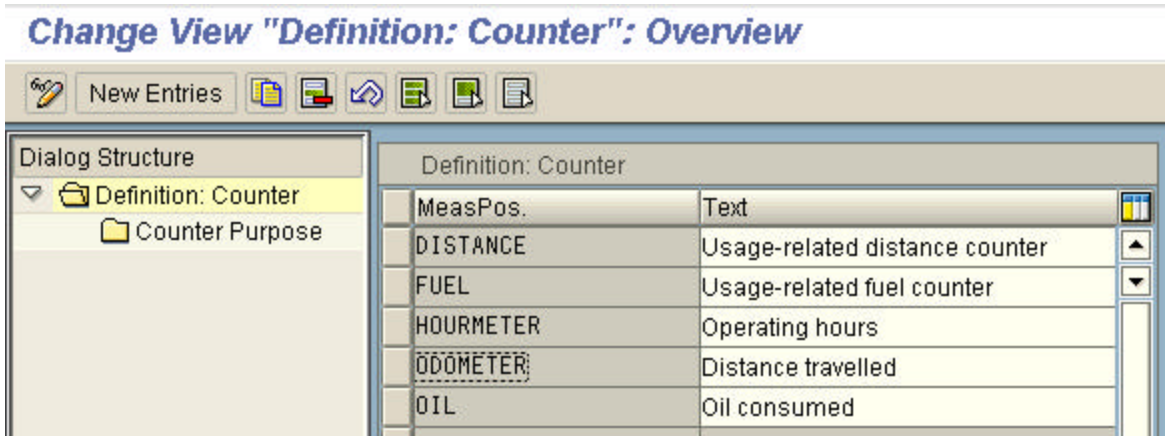


# Valid consumption units (Time)



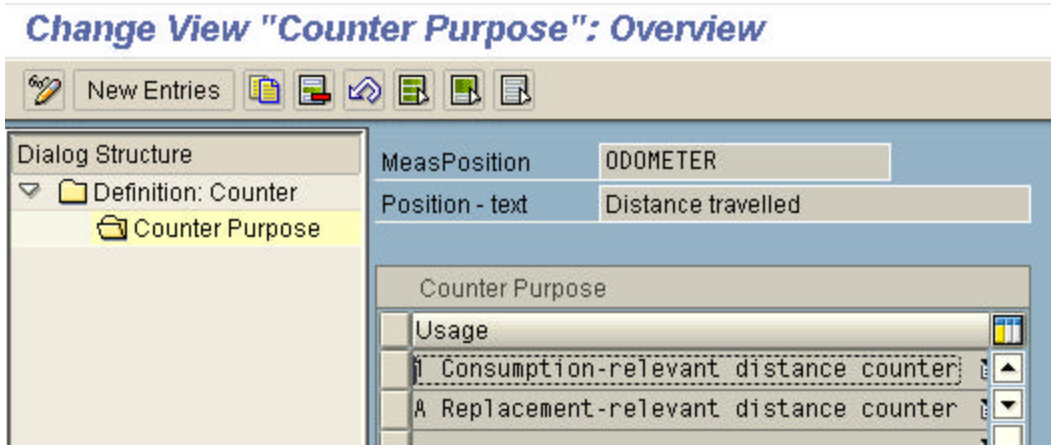



# Counter definition

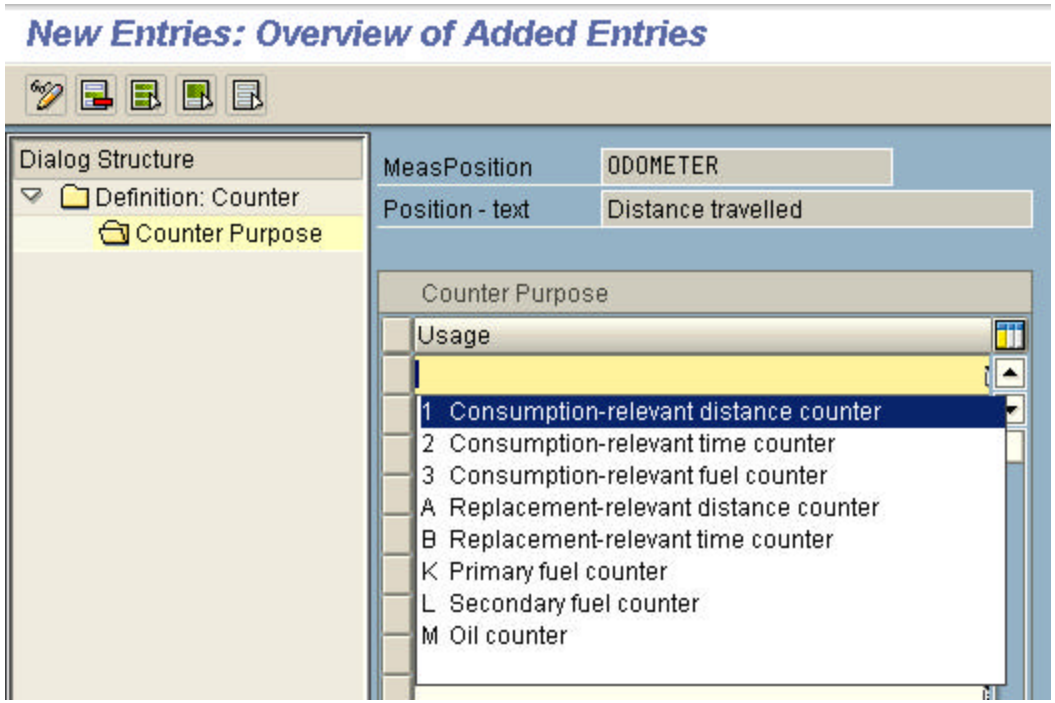



**Measuring point positions are used to determine measuring point usage. (field PSORT)**

**Each measuring point position is assigned one or more purposes that control how the position is utilized.**



# Valid counter purposes.



# Consumption calculation key

**Change View "Fleet Consumption Calculation Keys": Overview**

New Entries

Fleet Consumption Calculation Keys

| CalcMethod | Text | DisplUnit | Unit text | Fuel counter | Primary counter | DaysShort | Tage lang |
|---|---|---|---|---|---|---|---|
| A | Liters/100 KM | LHK | l/100 km | FUEL | DISTANCE | 10 | 30 |
| B | MPG | MPG | Mi/Gal(US) | FUEL | DISTANCE | 10 | 30 |
| G | Gallons per Hour | GPH | | FUEL | HOURMETER | 90 | 9999 |
| L | Liters per 100 Km | LHK | | FUEL | ODOMETER | 90 | 9999 |
| M | Miles per Gallon | MPG | | FUEL | ODOMETER | 90 | 9999 |

**Specify the following:**
**Unit for consumption**
**The Fuel counter**
**The Primary counter**
**Short term average calculation**
**Long term average calculation**

**The primary counter is the counter used to measure the "effort" performed e.g. miles traveled, hours operated.**

# Replacement relevant counters


**When replacement relevant counters are defined the current readings are displayed in the master data screen.**

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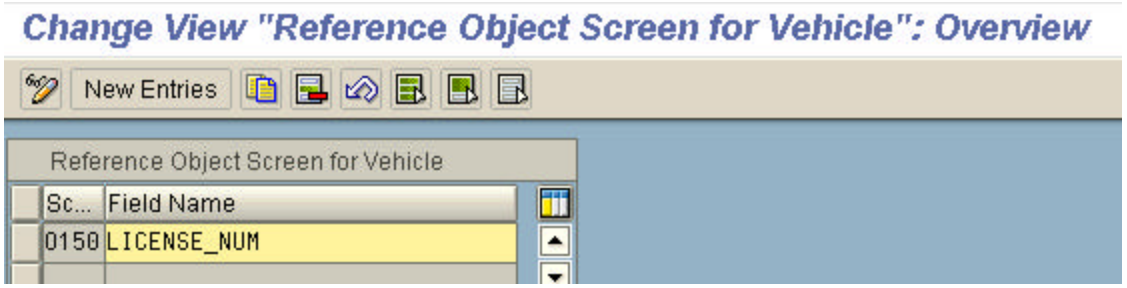
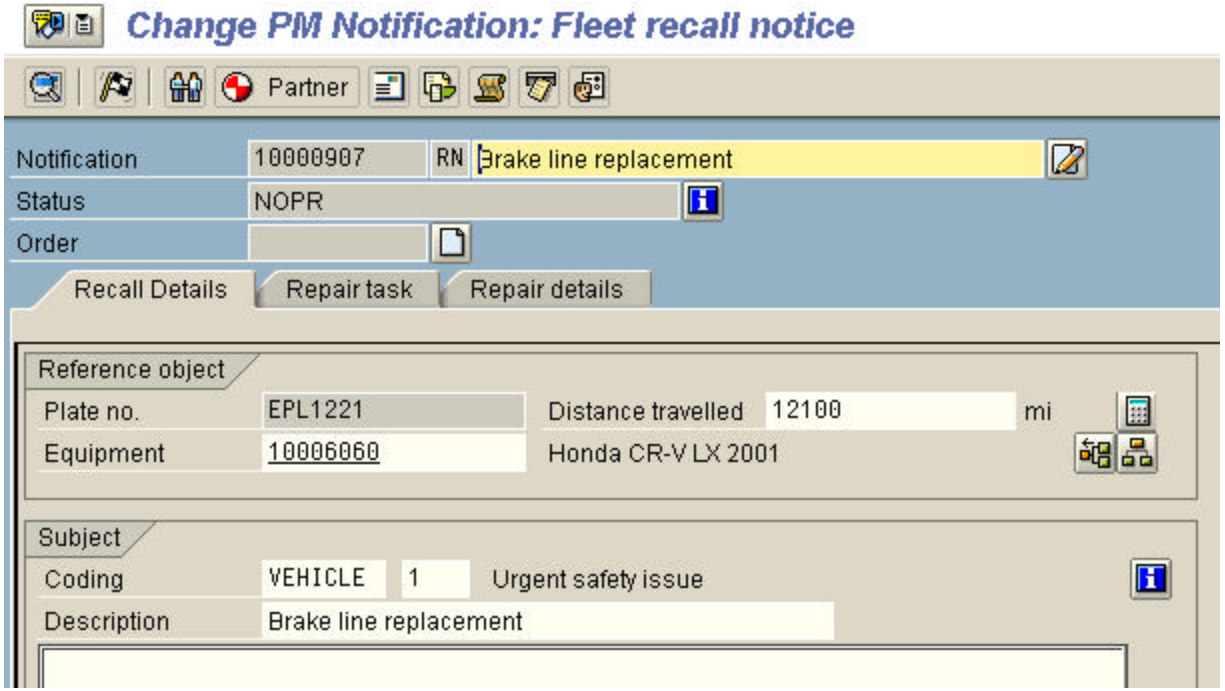
# Set reference object screen for vehicle




**Fleet identification field to be used as reference.**

**The field is only valid for display on reference object screen 0150.**



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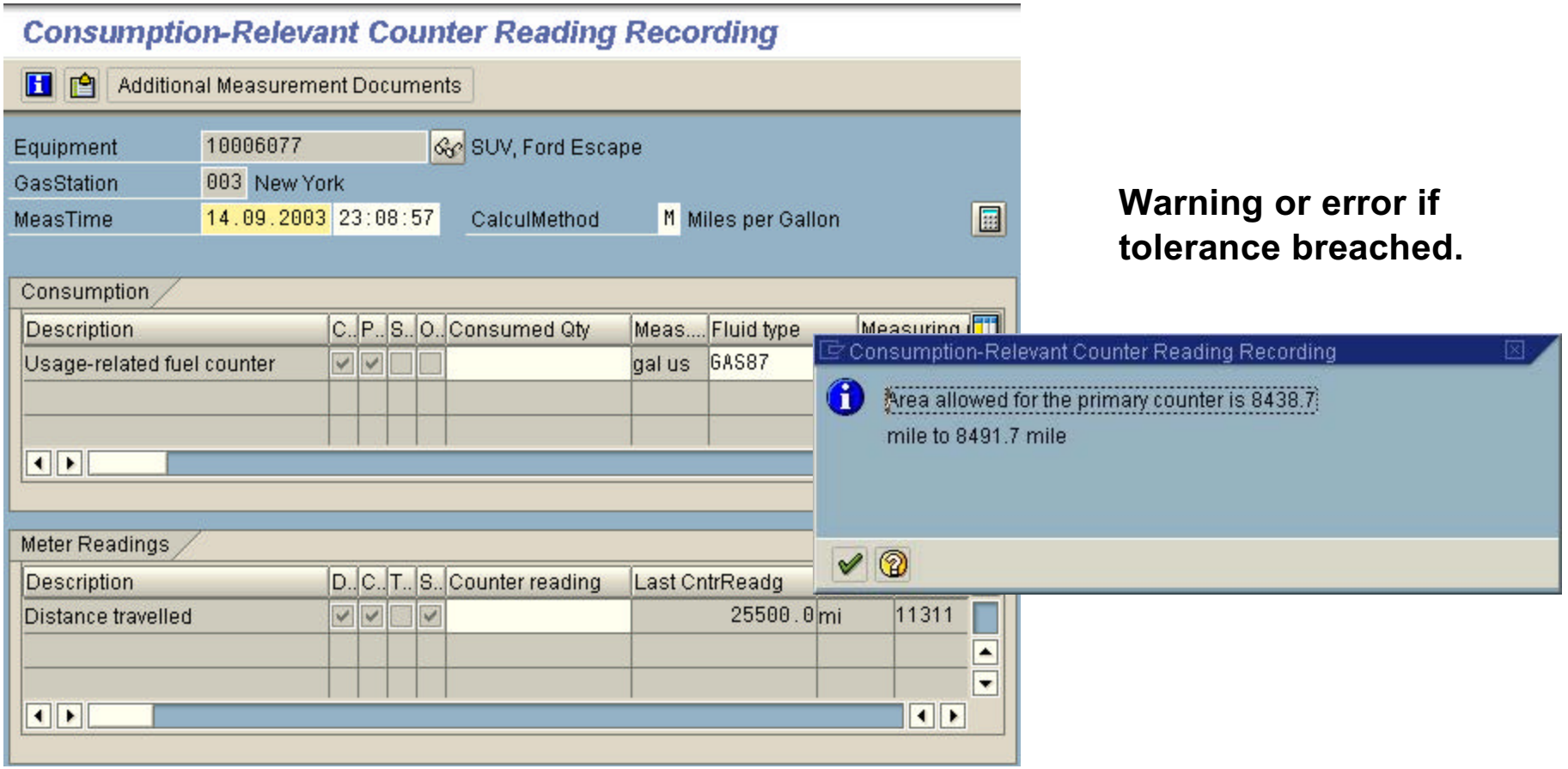
# Fuel entry

The fuel entry transaction performs the following functions:

- Enters measurement documents for counters.
- Performs goods movements if required.
- Posts costs to assigned object (Standing order, Settlement order WBS Element, Cost center, Asset).

## Transaction is “IFCU”.

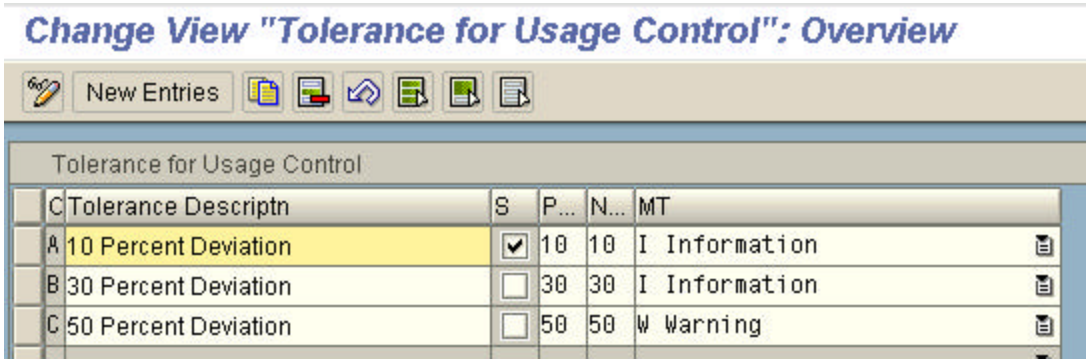
# Fuel entry (Transaction IFCU)




**Warning or error if tolerance breached.**

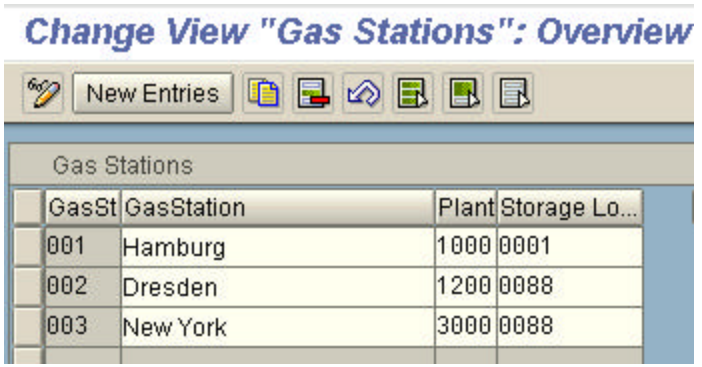
**Transaction “IFCU” is used for individual vehicle fuel entry.**
**This transaction utilizes BAPI’s and can be used as an example for a user developed entry screen for mass entry.**

# Tolerance and Gas station

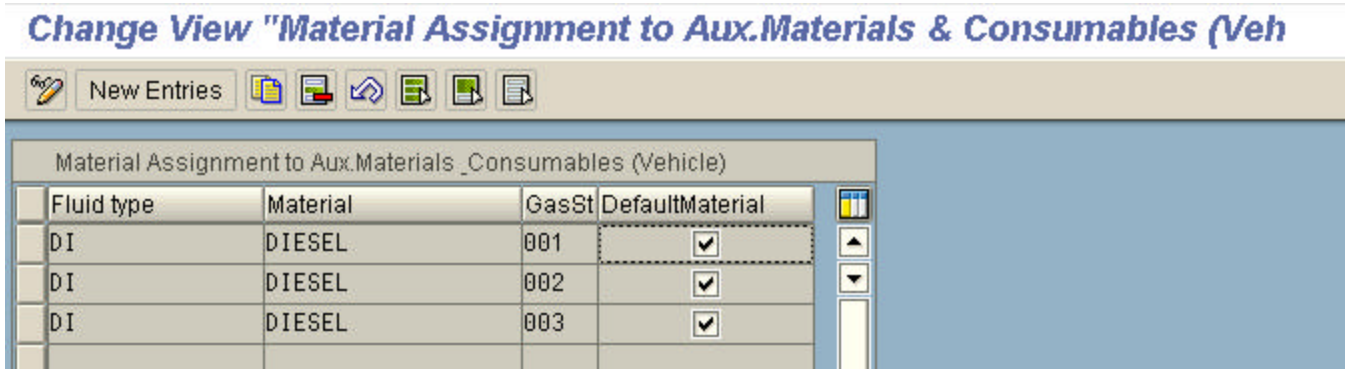



**Tolerance checks are used to determine if entered counter readings are consistent with the average reading +/- the tolerance defined.**

**Gas stations are defined storage locations within a plant. Materials can be defined for each consumable per gas station with a default value designated.**

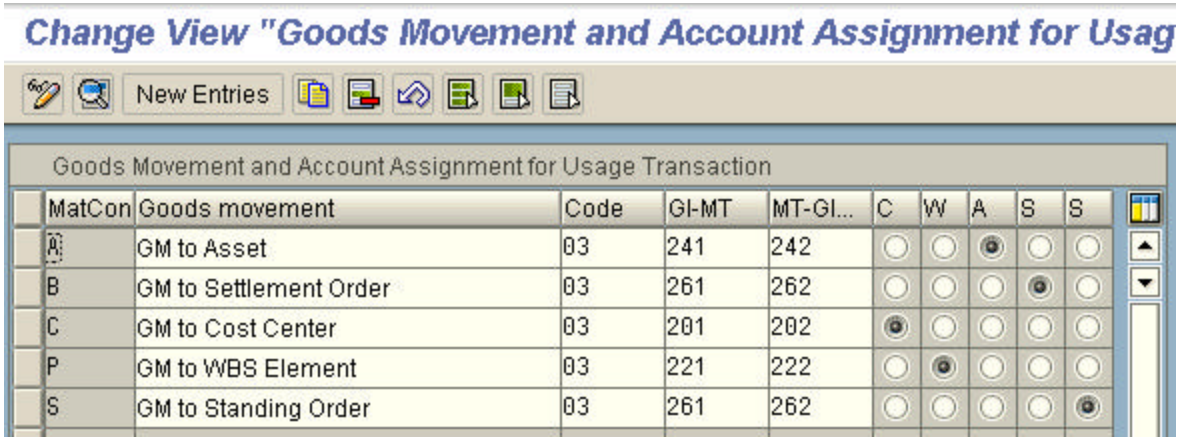


# Fuel entry parameters

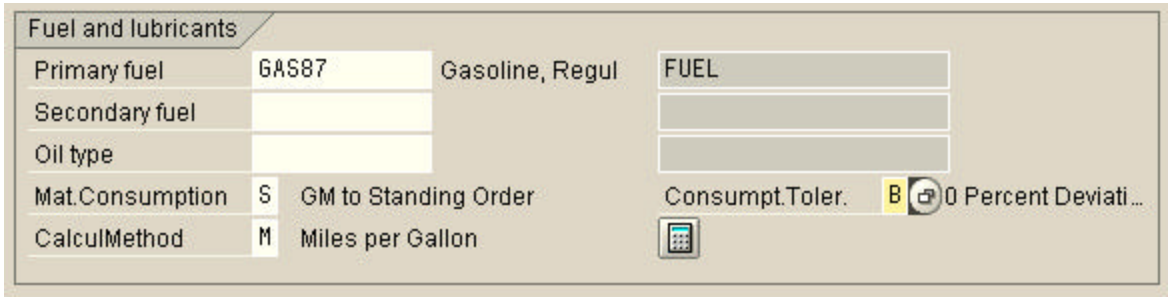



**Default materials for fluid types.**

**Default cost posting for fuel issue.**



# Where to set the defaults




**The fuel and lubricants sub-screen (230) is used to set the default values for entry.**

**If it is missing check your fleet view profile.**

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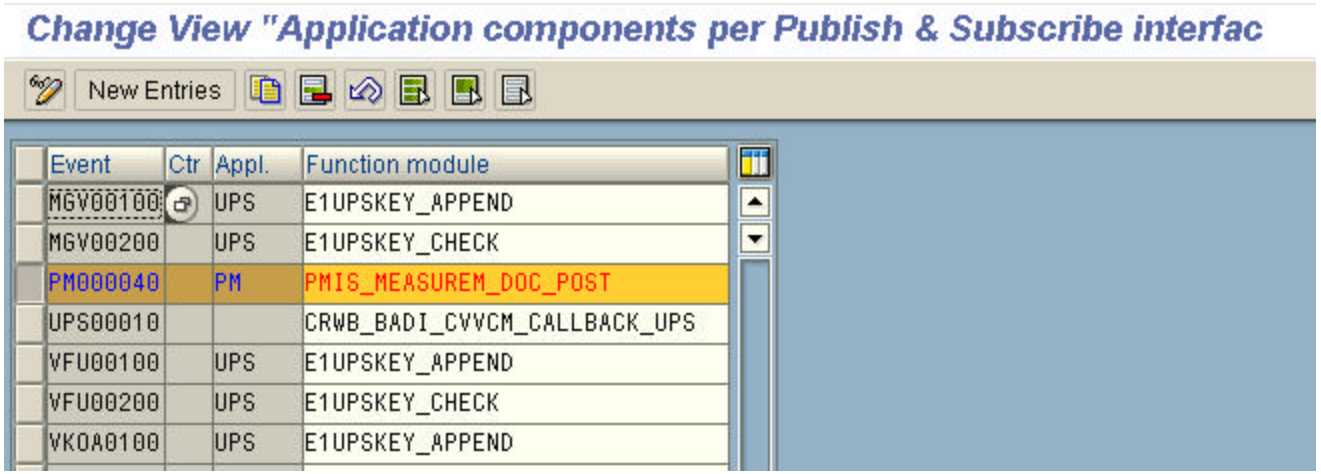
# PMIS counter update

**Uses Business Transaction Event (BTE) interface to update communication structure.**

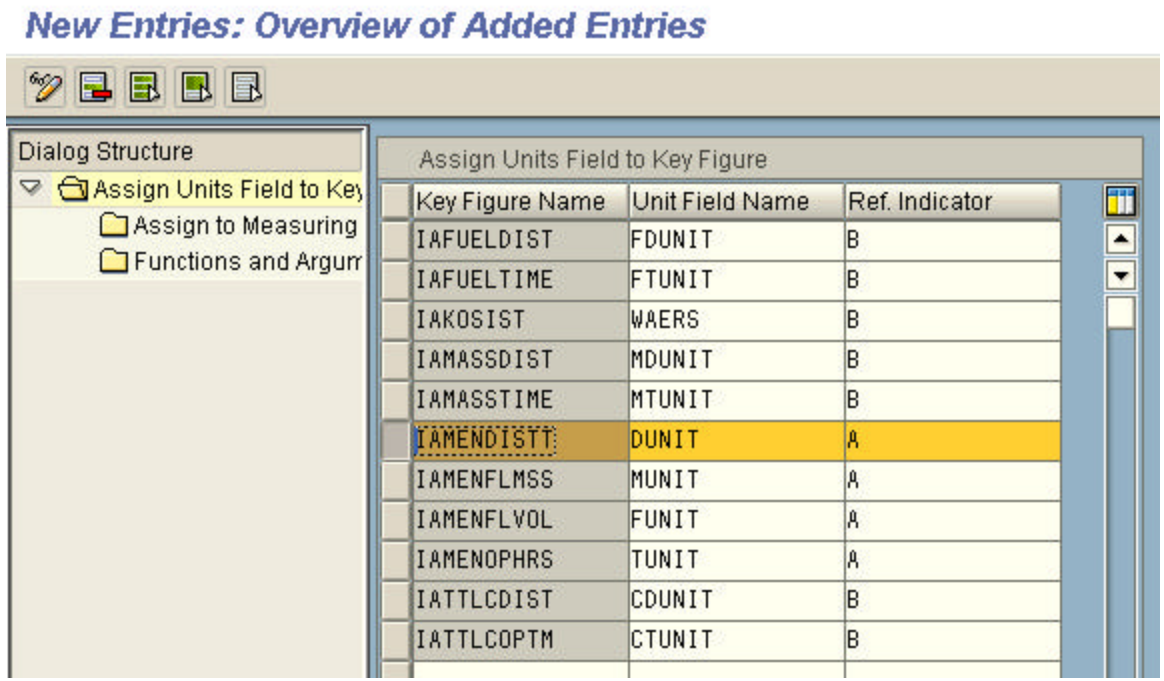
**Transaction FIBF**

**Need to create initialization reading to ensure accuracy.**



# Key figure definition

**A: Key Figure is updated**
**B: Key figure is calculated**



# Calculated key figures

## Define key figures to be calculated

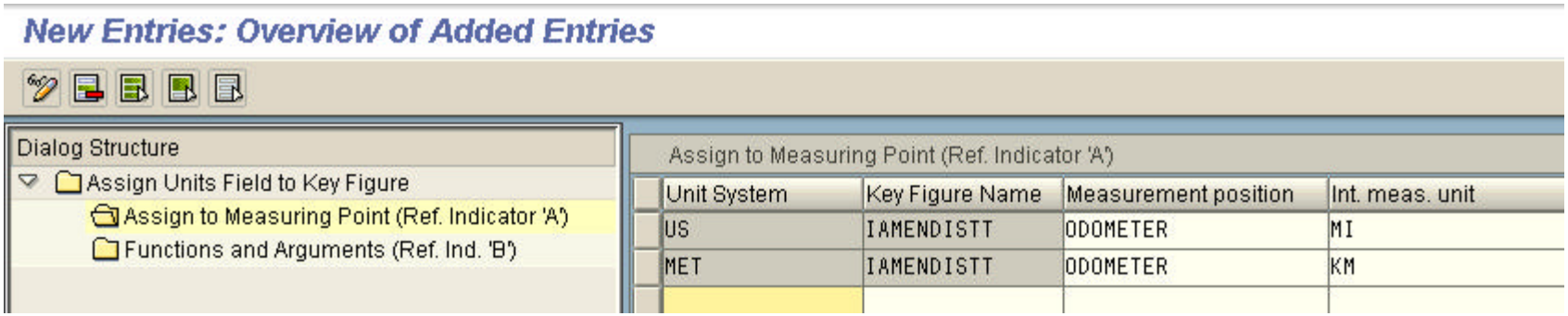
## Define fields and function module

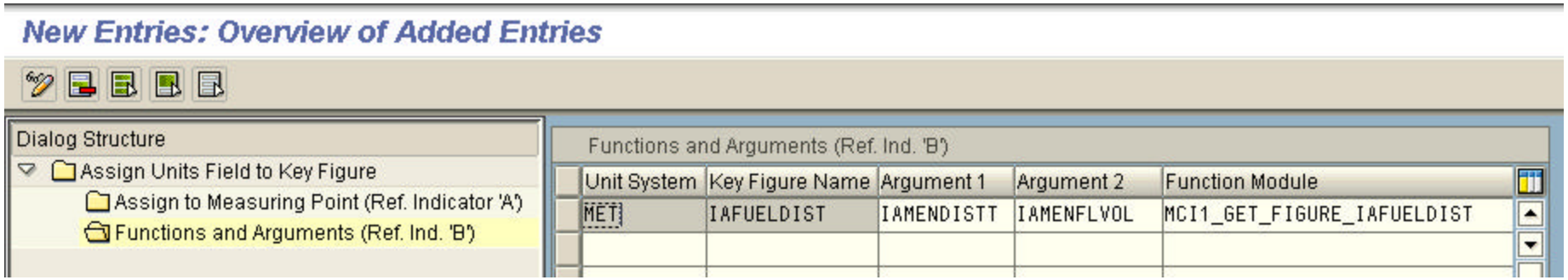
- Standard calculations supplied are metric

## User defined calculations possible

- See note 662197

# Key figure value determination



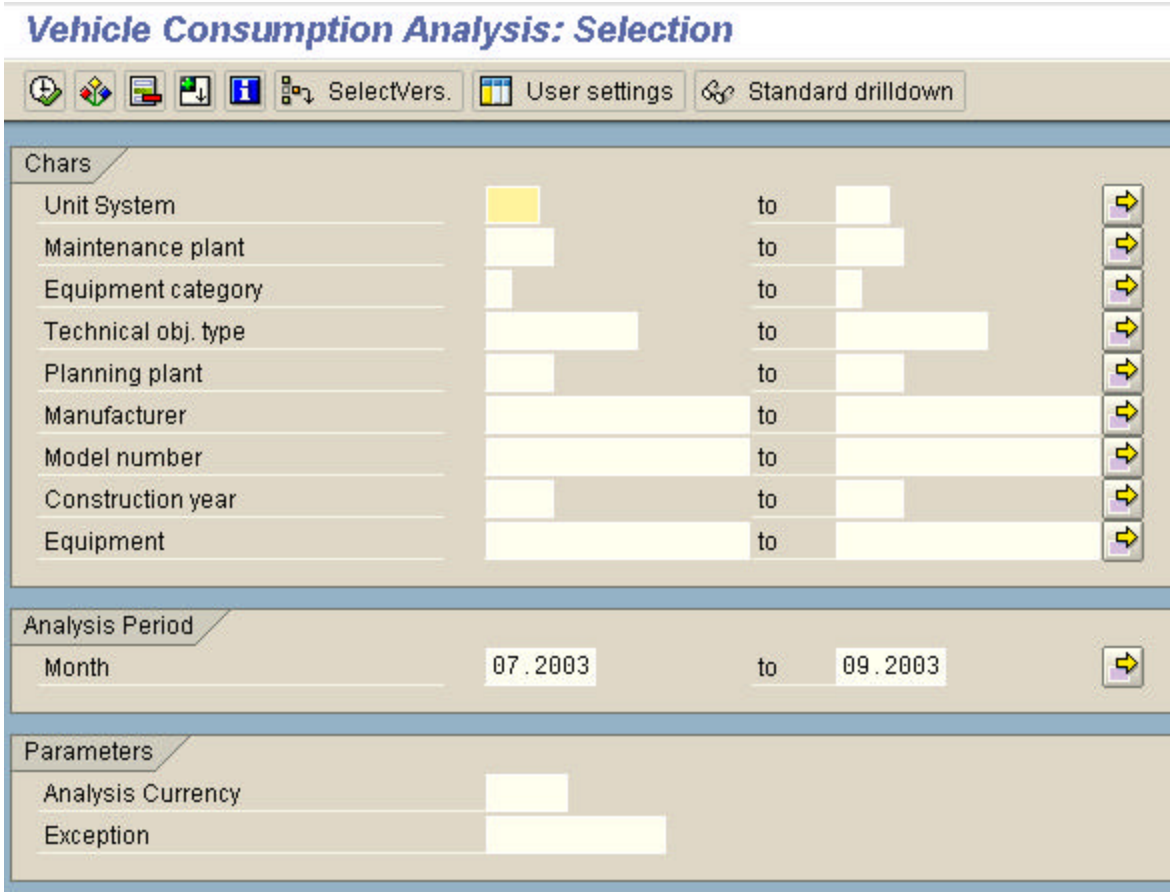




**Provision for multiple units for calculation.**
**Useful for companies operating in different countries.**

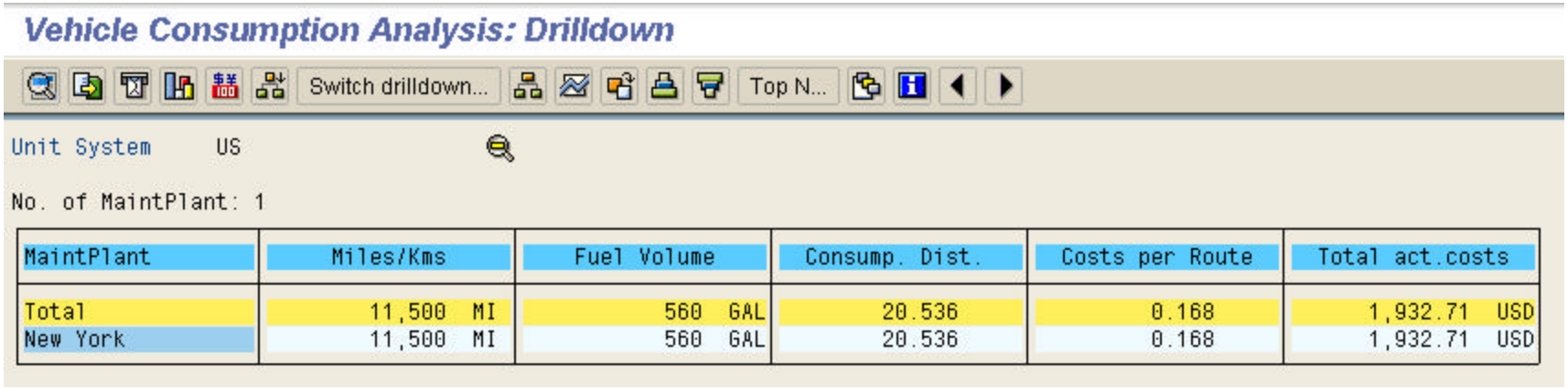
**US calculations are missing and need to be added as per note 662197.**

# S114 (Transaction MCIZ)

**Multiple unit systems can be setup and selected at time of reporting.**



# S114 output



*Vehicle Consumption Analysis: Drilldown*

Switch drilldown... Top N...

Unit System US

No. of MaintPlant: 1

| MaintPlant | Miles/Kms | Fuel Volume | Consump. Dist. | Costs per Route | Total act.costs |
|---|---|---|---|---|---|
| Total | 11,500 MI | 560 GAL | 20.536 | 0.168 | 1,932.71 USD |
| New York | 11,500 MI | 560 GAL | 20.536 | 0.168 | 1,932.71 USD |

**Calculations are performed at line level.**

**Calculated value totals are also calculated rather than summed as in standard columns.**

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# Summary

- Ensure your units of measure are correct
- Follow the sequence of the IMG
- Reference objects only work on screen 0150
- Create your own key figure calculations
- Don’t be afraid to explore
- Utilize BAPI’s if needed for mass entry programs

# Contacts

**For more further information please contact…**


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