

Assets and Maintenance

SerendiSys includes a system for keeping records of the company's Assets, and keeping track of, and planning Maintenance of these assets.

Accounts staff can add Assets which they need to keep track of in the Assets data-table. Engineering and Maintenance staff can use the MaintenanceNeeds and MaintenanceDone data-tables to keep track of work done, including the costs of parts and the labour hours used. A simple system exists to add future / planned maintenance records to the SerendiSystem Dairy / Scheduler, so that all staff can see the dates when Assets will be being maintained. This can help with planning. If an asset is being maintained, it may not be available for use. By adding the Maintenance to the system all staff in Production are kept up to date with the plans, and are not taken by surprise finding a machine or vehicle unavailable due to maintenance.

Assets, MaintenanceNeeds, MaintenanceDone BusinessObjects



Assets, MaintenanceNeeds, MaintenanceDone Business Objects as they appear in the System Entities Screen

A screenshot of the 'Assets data' table in SerendiSys. The table has columns for 'Assets data ID', 'DatePurchased', and 'Assets'. A record is highlighted for 'Tractor (Reg GH2020 EXF)' with a date of '28/08/2012'. A red box highlights the 'RECENT RECORDS' section, and a red arrow points to the 'Tractor (Reg GH2020 EXF)' record. Another red arrow points to the 'Assets data ID' column header. A third red arrow points to the 'Assets' column header. The table also shows a 'View' button and a 'Vehicle' type.

Features of the Assets BusinessObject

1. All BusinessObjects can be accessed directly from the main screen.
2. The Company's assets can be logged and recorded on the system.
3. Assets can be categorized for easy review, and "child" data of maintenance requirements and maintenance done are directly accessible.

Assets and Maintenance Business Object

Within the Assets Edit Form, Maintenance Needs for a particular Asset can be viewed.

1. Data-record for "Tractor" asset
2. Child-item MaintenanceNeeds can be accessed.
3. Frequency of required check is visible.
4. Details of the check.

ID	Name	Memo	Frequency	DateCreated
22186352	Chassis Check	Damage, Cracks, Loose Bolts	Weekly Check	26/02/2015
22186356	Tyres Check	Leakages, Damage	Weekly Check	26/02/2015
22186359	Handbrake	Fully functional, Loose Bowden Cable	Weekly Check	26/02/2015
22186363	Hinges	Grease Hinges	Weekly Check	26/02/2015
22186366	Trailer Coupling	Damage and Wear	Weekly Check	26/02/2015
22529107	Brakes and Roadworthiness	Brakes and Roadworthiness	Monthly Check	26/08/2016

Maintenance Needs

ID	DateRequired	DateDone	Maintenance	Category	Status
11797	21/08/2012	22/08/2012	Regular Testing	Routine	01. Planned
22186407	26/02/2015	26/02/2015	Weekly maintenance done	Routine	02. Done
22529107	26/08/2016	26/08/2016	Brakes and Roadworthiness	Basic Check	03. Done
23775640	01/01/2022		Tractor (Reg GH2020 EXF) planned maintenance	Routine	01. Planned
23775641	01/02/2022		Tractor (Reg GH2020 EXF) planned maintenance	Routine	01. Planned
23775642	01/03/2022		Tractor (Reg GH2020 EXF) planned maintenance	Routine	01. Planned

Maintenance Done

1. MaintenanceDone Listing
2. Listing confirms that work is being done to action maintenance needs.

Data Structure of the BusinessObjects

Assets	MaintenanceNeeds	MaintenanceDone
ID : Integer [NN] DEFAULT UID()	ID : Integer [NN] DEFAULT UID()	ID : Integer [NN] DEFAULT UID()
DatePurchased : Date [NN] DEFAULT Current_Date	+AssetsID : Integer	DateRequired : Date [NN]
DateCommissioned : Date DEFAULT Current_Date	+FrequencyID : Integer [ReuseLast]	DateDone : Date
Name : VarChar<60> [NN]	Name : VarChar<100>	+AssetsID : Integer
Description : CLOB	Memo : CLOB	Name : VarChar<60> [NN]
+AssetsTypeID : Integer	AuthorID : Integer	+CategoryID : Integer
PurchaseCost : Decimal <19, 4> [NN] DEFAULT 0	DateCreated : Timestamp DEFAULT Current_Timestamp	+StatusID : Integer
AuthorID : Integer [NN] DEFAULT 0	Complete : Boolean [NN] DEFAULT false	Memo : CLOB
DateCreated : Timestamp [NN] DEFAULT Current_Timestamp		+StaffNotifyingID : Integer
Current : Boolean [NN] DEFAULT true		+StaffResponsibleID : Integer
		PartCost : Decimal <19, 4> [NN] DEFAULT 0
		LabourHours : Float <16> [NN] DEFAULT 0
		AuthorID : Integer [NN]
		DateCreated : Timestamp [NN] DEFAULT Current_Timestamp
		Complete : Boolean [NN] DEFAULT false

Data Structure of Assets, MaintenanceNeeds and MaintenanceDone

The Assets BusinessObject includes fields for Date of Purchase, Date that the Asset was Commissioned (came into use), Name, Description and "Type" fields, as well as a "PurchaseCost", and "Current".

The MaintenanceNeeds BusinessObject is intended to hold descriptive details of work that needs to be done (with a Frequency) for each asset. Remember that external documents such as digital copies of maintenance manuals, or written maintenance procedures can be linked to the Asset or MaintenanceNeeds record, so staff can always have the documents they need directly at hand.

The MaintenanceDone BusinessObject includes "DateRequired" and "DateDone" fields, and additional fields for who has done the Maintenance work, the cost of the parts and the labour time the work has taken.

Automated Functionality: "Add Future Maintenance"

ID	DateRequired	DateDone	Maintenance	Category	Status
11797	21/08/2012	22/08/2012	Regular Testing	Routine	01. Planned
22186407	26/02/2015	26/02/2015	Weekly maintenance done	Routine	02. Done
22529107	26/08/2016	26/08/2016	Brakes and Roadworthiness	Basic Check	03. Done
23775640	01/01/2022		Tractor (Reg GH2020 EXF) planned maintenance	Routine	01. Planned
23775641	01/02/2022		Tractor (Reg GH2020 EXF) planned maintenance	Routine	01. Planned
23775642	01/03/2022		Tractor (Reg GH2020 EXF) planned maintenance	Routine	01. Planned

Add Future Maintenance

1. Assets BusinessObject includes automated Action "Add Planned Future Maintenance." Clicking here opens "Add Future Maintenance Edit Form."
2. Details for **start date, frequency** and **count** of planned maintenance can be added.
3. Click "OK" to trigger the action.

Pick Settings for Future Maintenance

Plan Maintenance for: Tractor (Reg GH2020 EXF)

Frequency: Monthly Check

StartDate: 01/08/2021

Count: 1

OK

Cancel

Add Future Maintenance Form

1. Select Frequency. Note that the options you can pick from are set by the records in the **Types** data-table "FrequencyID", so additional items can be added if needed.
2. Add a start date.
3. Add a "Count" of the number of future records you wish to add.
4. Click "OK" or "Cancel".

When OK is clicked, a number of records equal to the "Count" entered will be added to the "MaintenanceDone" data-table, for **future dates** computed by the start-date and frequency entered. As these are planned future Maintenance, they will be set with status =

FRIDAY 1 Oct

SATURDAY/SUNDAY 2

3

Maintenance to be done shown in the Scheduler

Adding future planned Maintenance to the MaintenanceDone data-table means that these records will automatically show in the Scheduler. This allows all staff to view the fact that maintenance needs to be done on that day.

This allows maintenance staff to see the plans of their future work, and production staff to see which assets will be busy with maintenance in a particular day.

Managed Maintenance Process

Maintenance Check Sheet 05/07/2021

Tractor (Reg GH2020 EXF) due for Maintenance on: 12/09/2021

23,775,634

23775634

Tractor (Reg GH2020 EXF) planned maintenance

Routine

CHASSIS CHECK

Damage, Cracks, Loose Bolts

TYRES CHECK

Leakages, Damage

HANDBRAKE

Fully functional, Loose Bowden Cable.

HINGES

Grease Hinges

Check Damage and Wear.

TRAILER COUPLING

Damage and Wear

StaffNotifying: Adam Brett

DateDone: []

StaffResponsible: []

PartsCost: 0

LabourHours: 0

Complete: []

Additional Notes: []

Data for:

MaintenanceDone data

MaintenanceDone data ID: 23,775,634

DateRequired: 12/09/2021

DateDone: []

AssetID: View Tractor (Reg GH2020 EXF)

Name: View Tractor (Reg GH2020 EXF) planned maintenance

CategoryID: View Routine

StatusID: View Planned

Memo:

CHASSIS CHECK

Damage, Cracks, Loose Bolts

TYRES CHECK

Leakages, Damage

HANDBRAKE

Fully functional, Loose Bowden Cable.

HINGES

Grease Hinges

Check Damage and Wear.

TRAILER COUPLING

Damage and Wear

StaffNotifyingID: View Adam Brett (ICS)

StaffResponsibleID: View []

PartsCost: 0

LabourHours: 0

AuthorID: Adam Brett

DateCreated: 01/07/2021 16:00:29

Complete: []

Completing MaintenanceDone

Paper-reporting has been added so that a paper record can be kept for MaintenanceDone. This allows engineers and maintenance staff to note done and verify the work they have done.

