Total Asset Management Services Unit

TAMS Procedures
Water & Sewerage Module

These procedures are aimed at showing users how water & sewerage data can be entered into TAMS.

The data entry procedure is based upon a 'minimum effort' approach aimed at satisfying immediate requirements for asset register and valuation while still providing a growth path for further extension of the register.

Please note that the procedures do not attempt to explain how a water or sewerage system should be structured in TAMS, how line numbering should be setup or how data should be collected. These aspects are covered in implementation training. It simply shows how the software can be used to setup an asset register for a sewerage scheme.

For convenience, you should ensure that the Audit Prompt has been turned off for the data entry (under Special on the menu bar). It should of course be turned back on following completion of data entry.

Sample data for the procedures is shown in Appendices A and B. The attached screen printouts show how the data should appear.

A. Initial Setup

Sample values for each of the following lookup tables are contained in Appendix B. Your lookup tables may already be loaded with these sample values. You will however need to check.

1. Setup facility lookup table.

2. Setup component lookup table.

3. Setup designation lookup table. Ensure that the following details have been entered for the pipeline designations (eg P-SRT):
- Dimension Type of 'L' (length)
- Meter Unit of 'm'
- Valuation Type of 'E' (estimated replacement cost)
- Pipe Asset checkbox is ticked

4. Setup description lookup table. Descriptions should be entered for each designation.

5. Setup the rates lookup table for each designation/description combination, and in the case of pipes, also for each diameter. Ensure that all assets are covered by a unit rate.

B. Entry of Pipeline Data

1. Use the Reference Navigator for entry of system codes, subsystem codes and facility codes. For sewer lines, use the Facility code/ ID to show each sewer line.

2. Use the component table entry system for entry of component codes and asset data. Select fields in the order as follows: Length, Designation, Description, Diameter, Construction date, Valuation date, Depreciation method, Est Replacement Cost, Est Residual Life.

3. Next step is to start entering data for nodes. Click on the Enter Default Values button and enter default values for the following fields: Component Code (eg MHOLE), Designation (eg MHOLE), Construction date (eg 1/1/80), Valuation date (eg 30/6/97), Depreciation method (S). Press the OK button. Select the first system, subsystem and facility and move the cursor to the Component ID field of the first blank line. Press the Insert key. The first node record should be automatically created including the default values. Enter a Component ID (node number). Use the down arrow key to move the cursor to the next blank line and continue inserting records for the current line. *(Note: When you are entering nodes for each line, do not include the junction node otherwise you will be duplicating this node)*

4. Next step is to apply unit costing to the records that have just been created. Press the Perform Costing button. *(Note: If you get an error message at this stage it probably means that the cursor is on the next blank line ready for insertion of another record. Use Alt-Backspace to rectify and press the perform costing button again).* After the function has been run you will see that replacement costs and residual lives will be calculated for the node assets.

5. Next step is to automatically create pipe assets for those nodes that have just been entered. Enter default values for Component Code (eg P-SRT), Diameter, Construction date (eg 1/1/80), Valuation date (eg 30/6/97), Depreciation method (S). Execute the Create Pipe Assets function, unticking the option of copying the component location field and unticking the option of calculating lengths from coordinates. Conduit records will be created *(note that they may be hidden from view - simply scroll up to see them).* You will need to manually enter the first downstream pipe on the line (ie where it connects to the junction pit). Enter lengths, descriptions and diameters for each pipe asset.

6. Next step is to apply unit costing to the pipeline records that have just been created. Press the Perform Costing button. After the function has been run you will see that replacement costs and residual lives will be calculated for the conduit assets.

7. Repeat steps 3-6 for each facility. (Hint: Use the F3 key to select the next facility instead of using the mouse).

C. Entry of Other Asset Data

Pumping stations, reservoirs etc can be entered as facilities (using the !!! component code), allowing for their breakdown into components at a later stage. The procedure for entering data is different depending upon whether you are dissecting facilities into components.

If you do not wish to go down to component level ....

1. On the reference navigator, select the appropriate system and subsystem, and enter the facility code in the facility column (eg SPS, P-SRM). Enter !!! in the component code column and press the down-arrow key to create the asset.

2. Put the cursor on the !!! code, press the Asset Details button, and enter the required information for the pumping station (note that replacement cost and residual life can be manually entered instead of using unit rates).

If you wish to go down to component level ....

1. On the reference navigator, enter facility codes (eg SPS, P-SRM) for each subsystem as required.

2. Select the component table entry system button from the main menu, and use a similar procedure as steps B2-B4 to enter component codes and asset data.

Note - it is highly recommended to use the Unit Costing utility for all assets to at least record how the residual life was determined. In order to do this, a standard life will be required in the Rates table for all assets. (Note that the calculated residual life figure on the Costing screen can be overided using the Residual Performance/Design/Economic Life fields. The residual performance life is the remaining life based upon the asset's condition, residual design life is based upon demand capacity, and the residual economic life is based upon the cost of maintenance).

APPENDIX A

Line	Nodes	Pipe Dia	Length (m)
A	SPS-A01	600	8
	A01-A02	600	22
	A02-A03	600	64
	A03-A04	600	76
	A04-A05	600	72
	A05-A06	300	87
	A06-A07	300	76
B	A03-B01	150	83
	B01-B02	150	61
	B02-B03	150	42
C	B01-C01	150	55
D	A04-D01	150	36
	D01-D02	150	37
	D02-D03	150	22
E	D01-E01	150	43
F	A05-F01	150	62
	F01-F02	150	55
	F02-F03	150	48

APPENDIX B

System Codes

MACWS (Macksville Water Supply)
MACSG (Macksville Sewerage)

SubSystem Codes

MACSG   C-07 (Catchment for pumping station No 7)
                     C-08 (Catchment for pumping station No 8)
                     C-09 (Catchment for pumping station No 9)
                     T-07 (Transfer system from pumping station No 7)
                     T-08 (Transfer system from pumping station No 8)
                     T-09 (Transfer system from pumping station No 9)
                     STW (Sewer treatment works)

Facility Codes

P-SRT (pipeline - sewer reticulation)
SPS (sewer pumping station)
P-SRM (pipe - sewer rising main)

Component Codes

MHOLE (manhole)
P-SRT (pipe - sewer reticulation)
PSET (pumpset)
SWBD (switchboard)
VPIT (valve pit)

Designations

MHOLE
P-SRT
P-SRM
PSET
SWBD
VPIT

Descriptions & Rates

Designation	Description	Details	Rate	Std Life
MHOLE		Mhole minimum depth	$500	60
MHOLE	1.5	Mhole 1.5 - 3.0 depth	$500	60
P-SRT	AC	Pipe AC min. depth	$100	100
P-SRT	AC1.5	Pipe AC 1.5 - 3.0 depth	$100	100
P-SRT	AC3.0	Pipe AC 3.0 - 4.5 depth	$100	100

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File   Edit   Setup   Window   Help

Reference Navigator

Sys	SubSys	Facility	FacilityId	Compnt	CompId	SubComp	AssetId	Qty
ABBWS	C-07	P-SRT	A	MHOLE	A01		W000004460	
ASHSG	C-08	P-SRT	B	MHOLE	A02		W000004461	
BURWS	C-09	P-SRT	C	MHOLE	A03		W000004462	
CROSS	STW	P-SRT	D	MHOLE	A04		W000004463	
MACSG	T-07	P-SRT	E	MHOLE	A05		W000004464	
MACWS	T-08	P-SRT	F	MHOLE	A06		W000004465	
TEST	T-09			MHOLE	A07		W000004466	
VALWS				P-SRT	A01-A02		W000004468	
				P-SRT	A02-A03		W000004469	
				P-SRT	A03-A04		W000004470	
				P-SRT	A04-A05		W000004471	
				P-SRT	A05-A06		W000004472	

Sys Details | SubSys Details | Facility Details | Asset Details

Edit   Close   MapInfo

Changes accepted.

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File   Edit   Setup   Window   Help

Reference Navigator

Sys	SubSys	Facility	FacilityId	Compnt	CompId	SubComp	AssetId	Qty
ABBWS	C-07	P-SRT	A	MHOLE	A03		W000004462	
ASHSG	C-08	P-SRT	B	MHOLE	A04		W000004463	
BURWS	C-09	P-SRT	C	MHOLE	A05		W000004464	
CROSS	STW	P-SRT	D	MHOLE	A06		W000004465	
MACSG	T-07	P-SRT	E	MHOLE	A07		W000004466	
MACWS	T-08	P-SRT	F	P-SRT	A01-A02		W000004468	
TEST	T-09			P-SRT	A02-A03		W000004469	
VALWS				P-SRT	A03-A04		W000004470	
				P-SRT	A04-A05		W000004471	
				P-SRT	A05-A06		W000004472	
				P-SRT	A06-A07		W000004473	
				P-SRT	SPS-A01		W000004467	

Sys Details | SubSys Details | Facility Details | Asset Details

Edit   Close   MapInfo

Reference Navigator (Window 1)

Sys	SubSys	Facility	FacilityId	Compnt	CompId	SubComp	AssetId	Qty
ABBWS	C-07	P-SRT	A	MHOLE	B01		W000004474	
ASHSG	C-08	P-SRT	B	MHOLE	B02		W000004475	
BURWS	C-09	P-SRT	C	MHOLE	B03		W000004476	
CROSS	STW	P-SRT	D	P-SRT	A03-B01		W000004477	
MACSG	T-07	P-SRT	E	P-SRT	B01-B02		W000004478	
MACWS	T-08	P-SRT	F	P-SRT	B02-B03		W000004479	
TEST	T-09							
VALWS								

Sys Details   SubSys Details   Facility Details   Asset Details

Edit   Close   MapInfo

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File   Edit   Setup   Window   Help

Reference Navigator (Window 2)

Sys	SubSys	Facility	FacilityId	Compnt	CompId	SubComp	AssetId	Qty
ABBWS	C-07	P-SRM		!!!			W000004483	
ASHSG	C-08	SPS						
BURWS	C-09							
CROSS	STW							
MACSG	T-07							
MACWS	T-08							
TEST	T-09							
VALWS								

Sys Details   SubSys Details   Facility Details   Asset Details

Edit   Close   MapInfo

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