MIKE URBAN Data Model

The following is the list and structure of the main tables making up the MIKE URBAN database. DHI reserves the right to change this structure without notice in connection with future releases or service packs.

The main data tables follow a systematic nomenclature with descriptive prefixes described in below:

m_: data table relevant for entire MIKE URBAN
ms_: data table relevant for Collection System
msm_: MOUSE data table
mss_ : SWMM5 data table
msa_ : Collection System Asset data table
mw_: Water Distribution Model data table
mwa_: Water Distribution Asset data table

Table

m_Address

Group General

Description Address list Database Table Attributes

Field Name	Data Type	Description
MUID	Text[100]	Generic address ID

Table

m_Measurement

Group CS MOUSE

Description Calibration measurement and configuration

Field Name	Data Type	Description
ReportHeader	Text[255]	Header for XML report
PlotEnd	Date	End time of time series in plot
PlotStart	Date	Start time of time series in plot
TSCfgFilePath	Text[1024]	Path to configuration file for time series plot configuration file
ReportFilePath	Text[1024]	Path to XML report

ResultFilePath	Text[1024]	Path of result file
SimulationStart	Date	Simulation start time for WD results
ReportDescription	Text[2147483647]	Description in XML report
FileItemID	Text[100]	Item ID in measurement dfs0 file
Component	Text[40]	Component name for TRAP results
DataType	Text[100]	Data type in mesurement dfs0 file
StationID	Text[40]	Reference to station
PlotOrder	Short Integer	
MUID	Text[40]	ID, used as primary key
FilePath	Text[1024]	Path of measurement dfs0 file
Include	Short Integer	

Table

m_Operator

Group General

Description Operator List Database Table Attributes

Field Name	Data Type	Description
MUID	Text[100]	Generic Operator ID

Table

m_Owner

Group General

Description Owner List Database Table Attributes

Field Name	Data Type	Description
MUID	Text[100]	Generic Owner ID

Table

m_Station

Group CS MOUSE

Description Calibration stations

Field Name	Data Type	Description
ImagePath	Text[1024]	
MUID	Text[40]	ID, used as primary key
SHAPE	Point feature	
LocationType	Text[40]	
LocationID	Text[40]	
Description	Text[2147483647]	
Chainage	Short Integer	Domain Downstream=1/Upstream=2/Middle=3 (Default=Downstream)

Table

m_StationCon

Group CS MOUSE

Description Calibration station connection line

Field Name	Data Type	Description
StationID	Text[40]	Identifyer of station connected to connection
SHAPE	Line feature	
MUID	Text[40]	ID, used as primary key

Table

ms_2DBedResistance

Group CS MOUSE

Description MU-2D Overland Bed Resistance Polygons

Field Name	Data Type	Description
MUID	Text[40]	ID, used as primary key
ManningNO	Double	Bed resistance for defined polygon.
Priority	Short Integer	If several polygons spatially overlap the polygon with the highest priority will be used for the resulting bed resistance.
Description	Text[255]	Desctiption field - optional.

Table

ms_2DBoundary

Group CS MOUSE

Description MU-2D Overland Bed Resistance Polygons

Field Name	Data Type	Description
BCEndY_C	Double	Calculated end coordinate
DataTypeName	Text[255]	Data type in boundary file
TimeSeriesName	Text[255]	Item name in boundary file
BCEndX	Double	User specified end coordinate
TSConnection	Text[255]	Boundary file name
BridgeTypeNo	Short Integer	Specifies if time varying boundary is from dfs0 or dfs2 file
VariationNo	Short Integer	Specifies if boundary is constant or time varying
BCEndX_C	Double	Calculated end coordinate
BCStartY_C	Double	Calculated start coordinate
BCStartX_C	Double	Calculated start coordinate
MUID	Text[40]	ID, used as primary key

ApplyBoundaryNo	Short Integer	Identifies if boundary is applied or not
TypeNo	Short Integer	Type of boundary - rain, water level or discharge
BCStartX	Double	User specified start coordinate
BCStartY	Double	User specified start coordinate
BCEndY	Double	User specified end coordinate
ConstantValue	Double	Constant value for constant boundaries

Table

ms_2DInitialCondition

Group CS MOUSE

Description MU-2D Overland Bed Resistance Polygons

Field Name	Data Type	Description
InitialWaterLevel	Double	Initial water level for defined polygon.
Priority	Short Integer	If several polygons spatially overlap the polygon with the highest priority will be used for the resulting water level.
MUID	Text[40]	ID, used as primary key

Table

ms_Catchment

Group CS General

Description Sewer Abstract Catchment Database Table Attributes

Field Name	Data Type	Description
X	Double	X Coordinate of centrepoint, specified by user
Area	Double	Drainage area<= Total Area , specified by user
MUID	Text[40]	Generic catchment ID
SystemID	Text[40]	Relation 1:N to msa_System/MUID
SubSystemID	Text[40]	Relation 1:N to msa_SubSystem/MUID
Description	Text[100]	This is placed in a group box "general Information", No label is required

Area_C	Double	Calculated by MU on the basis of Shape_Area and unit specifications
Persons	Long Integer	Number of persons attached to the catchment. Serves for "simple" MOUSE-style definition of Pes
Y_C	Double	Y Coordinate of centrepoint, calculated by GIS
NetTypeNo	Short Integer	Domain: user-specified msCNetType
AssetName	Text[40]	Non-unique identifyer associated with current element in the original data source
Element_S	Short Integer	Domain: user-specified msCStatus
MinLevel	Double	catchment min. level, can be calculated from DEM by a GIS function
X_C	Double	X Coordinate of centrepoint, calculated by GIS
Y	Double	Y Coordinate of centrepoint, specified by user
MaxLevel	Double	catchment max. level, can be calculated from DEM by a GIS function
PEsNo	Short Integer	Domain: 0=False, 1=True

Table

ms_CRS

Group CS General

Description MOUSE CRS definition Database Table Attributes

Field Name	Data Type	Description
Description	Text[255]	
MUID	Text[40]	Generic CRS ID
TypeNo	Short Integer	Domain: 1=H-W Closed 2=H-W Open, 3=X-Z Closed, 4=X-Z Open, 5= Processed Closed, 6=Processed Open , 7 = X-Z-R-M Open

Table

ms_CRSD

Group CS General

Description MOUSE CRS data Database Table Attributes

Field Name	Data Type	Description
CrsID	Text[40]	Relation 1:N to ms_CRS/MUID
A	Double	
MarksValue	Short Integer	This is unique integer value, representing the sum of all selected marks values. The field is filled automatically by the editor, and is not displayed. Marks values are computed as: Value = 2**(mark-1). So, the values are: Mark 1:value 1; Mark 2:value 2; Mark 3:value4; mark 8:value = 128; Mark 9:value =256. The program (MOUSE Storage) must export this integer, and not the marks text.
Marks	Text[40]	A string which represents a selection of marks, separated by blanks. This field is READ ONLY and is filled in by the action of the pop-up dialog for selection of marks.
R	Double	
WZ	Double	
HX	Double	
Sqn	Long Integer	Internal Sequence Number
RelRes	Double	Specifies a roughness resistance relative to the selected material (default=1)

Table

ms_DPPattern

Group CS General

Description MOUSE diurnal profile Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	Generic diurnal variation profile ID

DeltaT	Long Integer	Default value = 60
Description	Text[255]	

Table

ms_DPPatternD

Group CS General

Description MOUSE diurnal profile data Database Table Attributes

Field Name	Data Type	Description
DPValue	Double	Interval coeffient
PatternID	Text[40]	Relation 1:N to ms_DPPattern/MUID
Sqn	Long Integer	Internal Sequence Number
IntervalBegin	Date	Format hh:mm
IntervalEnd	Date	Format hh:mm

Table

ms_DPProfile

Group CS General

Description MOUSE Daily Profiles / DP_Group

Field Name	Data Type	Description
InterpolationNo	Short Integer	2 (Lin. Interpol.)
MUID	Text[40]	Null (empty)
DataRelationNo	Short Integer	3 (relative by mean)

Table

ms_DPProfileD

Group CS General

Description Daily Profiles / DP_Group hr24_Set

Field Name	Data Type	Description
PatternID	Text[40]	Relation 1:N to ms_DPPattern/MUID

MUID	Long Integer	Internal identificator
Sqn	Long Integer	Internal Sequence Number
ScheduleID	Text[40]	Relation 1:N to ms_DPSchedule/MUID
ProfileID	Text[40]	Relation 1:N to ms_DPProfile/MUID

Table

ms_DPSchedule

Group CS General

Description MOUSE Profiles calender Database Table Attributes

Field Name	Data Type	Description
MonthDay24	Short Integer	1 (True)
MonthDay5	Short Integer	1 (True)
MonthDay4	Short Integer	1 (True)
MonthDay3	Short Integer	1 (True)
MonthDay2	Short Integer	1 (True)
MonthDay1	Short Integer	1 (True)
DatesNo	Short Integer	0 (False)
WeekDay7	Short Integer	1 (True)
WeekDay5	Short Integer	1 (True)
MonthDay26	Short Integer	1 (True)
MonthDay25	Short Integer	1 (True)
WeekDay4	Short Integer	1 (True)
MonthDay22	Short Integer	1 (True)
MonthDay20	Short Integer	1 (True)
WeekDay2	Short Integer	1 (True)
MonthDay21	Short Integer	1 (True)
MonthDay18	Short Integer	1 (True)
MonthDay19	Short Integer	1 (True)
MonthDay6	Short Integer	1 (True)

DaysNo	Short Integer	0 (False)
WeekDay6	Short Integer	1 (True)
MonthDay23	Short Integer	1 (True)
WeekDay1	Short Integer	1 (True)
WeekDay3	Short Integer	1 (True)
Month8	Short Integer	1 (True)
MonthDay30	Short Integer	1 (True)
MonthDay31	Short Integer	1 (True)
MonthsNo	Short Integer	0 (False)
Month1	Short Integer	1 (True)
Month2	Short Integer	1 (True)
Month3	Short Integer	1 (True)
Month4	Short Integer	1 (True)
Month5	Short Integer	1 (True)
MonthDay29	Short Integer	1 (True)
Month7	Short Integer	1 (True)
Month6	Short Integer	1 (True)
Month9	Short Integer	1 (True)
Month10	Short Integer	1 (True)
Month11	Short Integer	1 (True)
Month12	Short Integer	1 (True)
MonthDay17	Short Integer	1 (True)
MonthDay16	Short Integer	1 (True)
MonthDay15	Short Integer	1 (True)
MUID	Text[40]	Null (empty)
MonthDay7	Short Integer	1 (True)
MonthDay11	Short Integer	1 (True)
MonthDay8	Short Integer	1 (True)
MonthDay10	Short Integer	1 (True)

MonthDay12	Short Integer	1 (True)
MonthDay13	Short Integer	1 (True)
MonthDay14	Short Integer	1 (True)
MonthDay27	Short Integer	1 (True)
MonthDay9	Short Integer	1 (True)
MonthDay28	Short Integer	1 (True)

Table

ms_DPSpecDay

Group CS General

Description MOUSE Specific REPETED days Database Table Attributes

Field Name	Data Type	Description
TypeNo	Short Integer	Domain: 1= Every Year, 2=Unique Date (radio buttons)
MUID	Text[40]	Generic ID for special day
DPWeekDayNo	Short Integer	Domain: 1=Monday, 2=Tuesday, 3= Wednesday, 4=Thursday, 5=Friday, 6=Saturday, 7=Sunday
DPDate	Date	taken fom the date box. If TypeNo=Every year, then the program uses only day and month value

Table

ms_LALoadAlloc

Group CS General

Description Load Allocation Database Table

Field Name	Data Type	Description
STFract3ID	Text[40]	Relation 1:N to msm_STFraction/MUID
Y	float	Load Y coordinate
Description	Text[255]	Description
MethodNo	Short Integer	Domain: 1= Loads (in future to be expanded to include 2=Load Units)

ADComp3Load	Double	AD Component3 Load Value
STFract2ID	Text[40]	Relation 1:N to msm_STFraction/MUID
LoadOwner	Text[40]	Owner
STFract2Load	Double	ST fraction1 Load value
LoadLocation	Text[40]	Address, Location
LoadDate	text(25)	Date of the load data
ADComp3ID	Text[40]	Relation 1:N to msm_ADComponent/MUID
STFract1ID	Text[40]	Relation 1:N to msm_STFraction/MUID
LoadCategoryNo	Short Integer	Domain: user-specified domain msCLoadType
ADComp2ID	Text[40]	Relation 1:N to msm_ADComponent/MUID
ADComp2Load	Double	AD Component2 Load Value
ADComp1Load	Double	AD Component1 Load Value
MOUSELinkID	Text[40]	Relation 1:N to msm_Link/MUID, gets filled-in by geocoding algorithm or by "Place" tool, not used in Release 1
WaterLoad	Double	Water Load Value
LoadUnits	LongInteger	contains e.g. number of people or PEs associated with each point
SWMM5NodeID	Text[40]	Relation 1:N to mss_Node/MUID, gets filled-in by geocoding algorithm or by "Place" tool, not used in Release 1
Distance	Double	Gets filled-in by geocoding algorithm or by "Place" tool, not used in Release 1
MUID	LongInteger	ID
STFract3Load	Double	ST fraction1 Load value
ReferenceName	Text[40]	Reference-Asset ID
STFract1Load	Double	ST fraction1 Load value
DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
MOUSENodeID	Text[40]	Relation 1:N to msm_Node/MUID, gets filled in by geocoding algorithm or by "Place" tool
ADComp1ID	Text[40]	Relation 1:N to msm_ADComponent/MUID
X	float	Load X coordinate

Table

ms_LULandUse

Group CS General

Description Land Use Database Table - internal table

Field Name	Data Type	Description
SWMMImpervious	Double	Impervious area for SWMM catchment runoff model
ModAImpArea	Double	Impervious area for MOUSE TA runoff model
ModBAISteep	Double	Impervious Steep Area Fraction for MOUSE runoff model B
ModBAIFlat	Double	Impervious Flat Area Fraction for MOUSE runoff model B
ModBAPSmall	Double	Pervious Small Area Fraction for MOUSE runoff model B
ModBAPMedium	Double	Pervious Medium Area Fraction for MOUSE runoff model B
ModBAPLarge	Double	Pervious Large Area Fraction for MOUSE runoff model B
ModC1Area	Double	Effective area for MOUSE C1 runoff model
MUID	Text[40]	ID is automatically fetched from the land use layer group. The table includes as many records as there are land use layers in the project
ModRDIArea	Double	Area for MOUSE RDI runoff model
Description	Text[255]	Description
ModC2Area	Double	Impervious area for MOUSE C2 runoff model

Table

ms_Material

Group CS General

Description MOUSE Material List Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	Generic Material ID

Manning	Double	Manning's friction number
EQRough	Double	Eq. Roughness of the pipe wall, used by Colebrook-White friction loss formulation
HWCoef	Double	Hazen Williams roughness coefficent of the pipe wall, used by Hazen Williams friction loss formulation

Table

ms_Tab

Group CS General

Description MOUSETabular Data Database Table Attributes

Field Name	Data Type	Description
TypeNo	short Integer	Domain: 1= Capacity Curve QH, 2=Capacity Curve QdH, 3=Pump Acceleation Curve, 4=Regulation Qmax(H), 5=Regulation Qmax(dH), 6=QH Relation, 10=Valve Rating Curve,11=Time-Area Curve, 12 = Removal Efficiency, 13 = DQ Relation, 14 = QQ Relation, 15=Capacity Curve QdH & Power 31=Basin Geometry, 99=Undefined
MUID	Text[40]	Generic Table ID
Description	Text[100]	User's descriptive information related to the data curve

Table

ms_TabD

Group CS General

Description MOUSE Tabular data values Database Table Attributes

Field Name	Data Type	Description
value3	Double	
Value2	Double	
Value1	Double	
Sqn	Long Integer	Internal Sequence Number

TabID	Text[40]	Relation 1:N to ms_Tab/MUID

Table

ms_Topo

Group CS General

Description MOUSE Channel Topography list Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	Generic Topography ID

Table

ms_TopoD

Group CS General

Description MOUSE Channel Topography data Database Table Attributes

Field Name	Data Type	Description
TopoID	Text[40]	Relation 1:N to ms_Topo/MUID
ManningExp	Double	Accessible only if VarmanNO=1,Per default, should be 1.00
ManningBottom	Double	accessible only if VarmanNO=1
ManningTop	Double	accessible only if VarmanNO=1
VarManNo	Short Integer	Domain: 0=False, 1=True (checkbox) indicates if a depth-variable manning number for this chainage is specified. Label is in the group box title
BottomLevel	Double	
Chainage	Double	
Sqn	Long Integer	Internal Sequence Number
CrsID	Text[40]	Relation 1:N to ms_CRS/MUID

Table

msa_Link

Group CS Asset

Description Asset Links Database Table Attributes

Field Name	Data Type	Description
PolylineStructureID	Text[40]	Relation 1:N to the table msa_PolylineStructure/MUID
Slope_C	Double	calculated on the fly, not applicable for irregular links
MaterialID	Text[40]	Relation 1:N to ms_Material/MUID
NetTypeNo	Short Integer	Domain: user-specified domain msCNetType
MaterialID_S	Short Integer	Domain: user-specified domain msCStatus
SystemID	Text[40]	Relation 1:N to the table msa_System/MUID
SubSystemID	Text[40]	Relation 1:N to the table msa_SubSystem/MUID
AddressName	Text[100]	Can be picked up from the table m_Address, or typed
OwnerName	Text[100]	Can be picked up from the table m_Operator, or typed
OperatorName	Text[100]	Can be picked up from the table m_Owner, or typed
Length_C	Double	Non-editable field on the dialog. If no other information present in the system, filled in by the length value from the GIS geometry. During import or mapping from asset data, set to the specified level, if available. For natural channels, filled by the c
PolygonStructureID	Text[40]	Relation 1:N to the table msa_PolygonStructure/MUID
Description	Text[255]	User's descriptive information related to the link
Element_S	Short Integer	Domain: user-specified domain msCStatus
Diameter_S	Short Integer	Domain: user-specified domain msCStatus
Width_S	Short Integer	Domain: user-specified domain msCStatus

Height_S	Short Integer	Domain: user-specified domain msCStatus
UpLevel_S	Short Integer	Domain: user-specified domain msCStatus
DwLevel_S	Short Integer	Domain: user-specified domain msCStatus
Length_S	Short Integer	Domain: user-specified domain msCStatus
TopographyID_S	Short Integer	Domain: user-specified domain msCStatus
CrsID_S	Short Integer	Domain: user-specified domain msCStatus
StructureNo	Short Integer	Domain: 1=Building, 2=Conduit (radio buttons)
CRSTypeNo	Short Integer	Domain: 1=Circular Pipe, 2=Rectangular Pipe, 3=CRS Closed, 4= CRS Open, 5=Topography
MUID	Text[40]	
AssetName	Text[40]	Initially identical to MUID, but can be independently modified
DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
LinkTypeID	Text[40]	Relation 1:N to msa_LinkType/MUID
UpLevel	Double	Editable. Per default empty. When filled, used by the engine in computations. Also, used for the slope calculation. It is considered as "hard" value - can be affected only by field editing
DwLevel	Double	Editable. Per default empty. When filled, used by the engine in computations. Also, used for the slope calculation. It is considered as "hard" value - can be affected only by field editing
UpLevel_C	Double	Non-editable field on the dialog. If no other information present in the system, per default set to "From" node bottom level. During import or mapping from asset data, set to the specified level, if available. For CRSTypNo="Topography", filled by the bottom level for the first upstream CRS (station 0)
DwLevel_C	Double	Non-editable field on the dialog. If no other information present in the system, per default set to "To" node bottom level. During import or mapping from asset data set to the specified level, if available. For CRSTypNo="Topography", filled by the bottom level for the last downstream CRS
Width	Double	

Height	Double	
Diameter	Double	
CrsID	Text[40]	Relation 1:N to ms_CRS/MUID
TopographyID	Text[40]	Relation 1:N to ms_Topo/MUID
Length	Double	Editable. Per default empty. When filled, used by the engine in computations. Also, used for the slope calculation. It is considered as "hard" value - can be affected only by field editing

Table

msa_LinkType

Group CS Asset

Description MOUSE Link Type List Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	Generic Link Type ID
TypeNo	Short Integer	Domain: 1=Open, 2=Closed (radio buttons)
AliasNo	Short Integer	Domain: 1=Free Flowing Pipe; 2=Pressure Pipe, 3=Open Channel

Table

msa_Node

Group CS Asset

Description Asset Nodes Database Table Attributes

Field Name	Data Type	Description
Description	Text[255]	User's descriptive information related to the node
PolylineStructureID	Text[40]	Relation 1:N to the table msa_PolylineStructure/MUID
PolygonStructureID	Text[40]	Relation 1:N to the table msa_PolygonStructure/MUID
StructureNo	Short Integer	Domain: 1=Building, 2=Conduit (radio buttons)
OperatorName	Text[100]	Can be picked up from the table m_Owner, or typed

OwnerName	Text[100]	Can be picked up from the table m_Operator, or typed
AddressName	Text[100]	Can be picked up from the table m_Address, or typed
SubSystemID	Text[40]	Relation 1:N to the table msa_SubSystem/MUID
CriticalLevel_S	Short Integer	Domain: user-specified domain msCStatus
NetTypeNo	Short Integer	Domain: user-specified domain msCNetType
CoverTypeNo	Short Integer	Domain: 1=Normal, 2=Sealed, 3=Spilling. Should be as in MOUSE. The field is placed in a group box with title "Cover". Therefore label is just "Type "
GeometryID	Text[40]	Relation 1:N to ms_Tab/MUID Represents ID of the geometry table. Geometry to be specified relative to bottom
Diameter	Double	
CriticalLevel	Double	Critical level. Used in result presentation
GroundLevel	Double	Ground level
InvertLevel	Double	Bottom level
NodeTypeID	Text[40]	Relation 1:N to msa_NodeType/MUID
DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
AssetName	Text[40]	Initially identical to NodeID, but can be independently modified
MUID	Text[40]	
SystemID	Text[40]	Relation 1:N to the table msa_System/MUID
GroundLevel_S	Short Integer	Domain: user-specified domain msCStatus
CoverTypeNo_S	Short Integer	Domain: user-specified domain msCStatus
GeometryID_S	Short Integer	Domain: user-specified domain msCStatus
InvertLevel_S	Short Integer	Domain: user-specified domain msCStatus
Diameter_S	Short Integer	Domain: user-specified domain msCStatus
Element_S	Short Integer	Domain: user-specified domain msCStatus

Table

msa_NodeType

Group CS Asset

Description MOUSE Node Types Database Table Attributes

Field Name	Data Type	Description
AliasNo	Short Integer	Domain: 1=Junction; 2=Manhole, 3=Basin, 4=Outlet
MUID	Text[40]	Generic Node Type ID

Table

msa_PolygonStructure

Group CS Asset

Description Asset Polygon Structure Database Table Attributes

Field Name	Data Type	Description
TypeNo	Short Integer	Domain: user-specified domain msaCStructureType
Description	Text[255]	User's descriptive information related to the polygon structure
SubSystemID	Text[40]	Relation 1:N to the table msa_SubSystem/MUID
AddressName	Text[100]	Can be picked up from the table m_Address, or typed
OwnerName	Text[100]	Can be picked up from the table m_Operator, or typed
OperatorName	Text[100]	Can be picked up from the table m_Owner, or typed
MUID	Text[40]	Generic structure ID
SystemID	Text[40]	Relation 1:N to the table msa_System/MUID

Table

msa_PolylineStructure

Group CS Asset

Description Asset Polyline Structure Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	Generic conduit ID
Description	Text[255]	User's descriptive information related to the polyline structure
OwnerName	Text[100]	Can be picked up from the table m_Operator, or typed
AddressName	Text[100]	Can be picked up from the table m_Address, or typed
SubSystemID	Text[40]	Relation 1:N to the table msa_SubSystem/MUID
SystemID	Text[40]	Relation 1:N to the table msa_System/MUID
TypeNo	Short Integer	Domain: user-specified domain msaCConduitType
OperatorName	Text[100]	Can be picked up from the table m_Owner, or typed

Table

msa_Pump

Group CS Asset

Description Asset Pumps Database Table Attributes

Field Name	Data Type	Description
OwnerName	Text[100]	Can be picked up from the table m_Operator, or typed
Capacity_S	Short Integer	Domain: user-specified domain msCStatus
NPSHr_S	Short Integer	Domain: user-specified domain msCStatus
RPMmax_S	Short Integer	Domain: user-specified domain msCStatus
DesignHead_S	Short Integer	Domain: user-specified domain msCStatus

NetTypeNo	Short Integer	Domain: user-specified domain msCNetType
SystemID	Text[40]	Relation 1:N to the table msa_System/MUID
Power	Double	
AddressName	Text[100]	Can be picked up from the table m_Address, or typed
RPMmin	Double	min speed for variable speed pumps
OperatorName	Text[100]	Can be picked up from the table m_Owner, or typed
StructureNo	Short Integer	Domain: 1=Building, 2=Conduit (radio buttons)
PolygonStructureID	Text[40]	Relation 1:N to the table msa_PolygonStructure/MUID
PolylineStructureID	Text[40]	Relation 1:N to the table msa_PolylineStructure/MUID
Element_S	Short Integer	Domain: user-specified domain msCStatus
TypeNo_S	Short Integer	Domain: user-specified domain msCStatus
SubSystemID	Text[40]	Relation 1:N to the table msa_SubSystem/MUID
TypeNo	Short Integer	Domain: 1=Centrifugal (rotodynamic radial);2=Propeller (rotodynamic axial); 3=Mixed Flow; 4=Archimedes' Screw
RPMmin_S	Short Integer	Domain: user-specified domain msCStatus
MUID	Text[40]	
NPSHr	Double	
RotorDia	Double	
DesignHead	Double	
Capacity	Double	
SpeedNo	Short Integer	Domain: 0=False; 1=True (radio buttons)
SpeedNo_S	Short Integer	Domain: user-specified domain msCStatus
Description	Text[255]	User's descriptive information related to the pump unit
ProductCode	Text[40]	factory code for the pump type
Manufacture	Text[40]	Pump manufacturer name
NodeID	Text[40]	Relation 1:N to the table msa_Node/MUID

DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
AssetName	Text[40]	Initially identical to LinkID, but can be independently modified
RPMmax	Double	rotation speed (min-1) for constant speed pumps; max speed for variable speed pumps
Power_S	Short Integer	Domain: user-specified domain msCStatus

Table

msa_SubSystem

Group CS Asset

Description MOUSE Subsystem List Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	Generic Sub-System ID
SystemID	Text[40]	Relation 1:N to msa_System/MUID

Table

msa_System

Group CS Asset

Description MOUSE system list Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	Generic System ID

Table

msa_WeirOrifice

Group CS Asset

Description Asset Weirs and Orifices Database Table Attributes

Field Name	Data Type	Description
Elevation_S	Short Integer	Domain: user-specified domain msCStatus
Height	Double	

AddressName	Text[100]	Can be picked up from the table m_Address, or typed
SubSystemID	Text[40]	Relation 1:N to the table msa_SubSystem/MUID
SystemID	Text[40]	Relation 1:N to the table msa_System/MUID
NetTypeNo	Short Integer	Domain: user-specified domain msCNetType
Description	Text[255]	User's descriptive information related to the weir or orifice
CrsID	Text[40]	Relation 1:N to ms_CRS/MUID
RightSlope	Double	
LeftSlope	Double	
Height_S	Short Integer	Domain: user-specified domain msCStatus
TopWidth	Double	
StructureNo	Short Integer	Domain: 1=Building, 2=Conduit (radio buttons)
Width	Double	
Elevation	Double	Crest level for weirs, lowest point for orifices
OrientationNo	Short Integer	Domain: 1=Side (weir or orifice); 2= Transverse Weir; 3=Bottom orifice
FlapNo	Short Integer	Domain: 0=False; 1=True
TypeNo	Short Integer	Domain: 1=Rectangular weir;2=V-Notch weir; 3=Trapezoidal weir; 4=Irregular Weir;5=Rectangular Orifice;6=Circular orifice;7=Irregular Orifice
NodeID	Text[40]	Relation 1:N to the table msa_Node/MUID
DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
AssetName	Text[40]	Initially identical to LinkID, but can be independently modified
MUID	Text[40]	
Diameter	Double	
RightSlope_S	Short Integer	Domain: user-specified domain msCStatus
OwnerName	Text[100]	Can be picked up from the table m_Operator, or typed
CrsID_S	Short Integer	Domain: user-specified domain msCStatus

OperatorName	Text[100]	Can be picked up from the table m_Owner, or typed
LeftSlope_S	Short Integer	Domain: user-specified domain msCStatus
Diameter_S	Short Integer	Domain: user-specified domain msCStatus
TopWidth_S	Short Integer	Domain: user-specified domain msCStatus
Element_S	Short Integer	Domain: user-specified domain msCStatus
PolylineStructureID	Text[40]	Relation 1:N to the table msa_PolylineStructure/MUID
PolygonStructureID	Text[40]	Relation 1:N to the table msa_PolygonStructure/MUID
Width_S	Short Integer	Domain: user-specified domain msCStatus

Table

msm_2DOverland

Group CS MOUSE

Description MU-2D Overland Coupling model parameters

Field Name	Data Type	Description
LLY	Double	Lower left y coordinate of 2D model area
BedResistance	Short Integer	Bed resistence definition method (constant or spatially varying)
FloodingDepth	Double	Flooding depth
DryingDepth	Double	Drying depth
HDEMSpecifiedValue	Double	Land value that is added to highest DEM value
LandValue	Short Integer	radio button for Land value definition method (Highest DEM+constant value or constant value)
ModelAreaLayerName	Text[255]	Polygon layer name for 2D model area definiton
URX	Double	Upper right x coordinate of 2D model area
LLX	Double	Lower left x coordinate of 2D model area
ConstantManningNO	Double	Manning number for constant bed resistence
TimeSeriesFile	Text[255]	Time series file for rain on DEM
URY	Double	Upper right y coordinate of 2D model area

WLOutside	Double	This value will be applied for areas where no other water level is specified.
CellRatio	Short Integer	Coarse cell / fine cell size ratio
EddyViscosity	Short Integer	Eddy viscosity definition method (not included, constant flux based, eddy value and eddy formulation)
WLConstant	Double	This value will be applied for areas where no other water level is specified.
WLApplyNo	Short Integer	Specifies if a constant water level should be applied where no other water level is specified.
WLConstantSpatiallyNo	Short Integer	Specifies if the water level is a constant water level or spatially varying
RainInclude	Short Integer	Include rain on DEM flag
EddyFormulation	Short Integer	Eddy formulation for eddy viscosity (flux based, velocity based)
BoundaryIndentation	Double	The automatic indentation applied at open boundaries.
WLLayerName	Text[255]	Layername if water levels are given by an external layer
WLItemName	Text[255]	Item name in speficied layer if water levels are given by an external layer
WLItemUnit	Short Integer	Unit used in external layer
Model2DArea	Short Integer	Obsolete - 2D area selection method
MaxSearchRadius	Double	Max search radius for filling missing DEM values
BoundaryWidth	Double	The number of cells an open boundary should be wide.
WLSpatiallyTypeNo	Short Integer	Specifies if water level is defined by MIKE URBAN polygon layer or external layers.
GroundItemName	Text[255]	Item name in DEM layer for ground elevation definition
BROutside	Double	This value will be applied for areas where no other bed resistance is specified.
BRSpatiallyTypeNo	Short Integer	Specifies if bed resistance is defined by MIKE URBAN polygon layer or external layers.
BRApplyNo	Short Integer	Specifies if a constant bed resistance should be applied where no other bed resistance is specified.

SelectRaster	Text[255]	Raster name for 2D model area definiton
ModelCellSize	Double	Cell size in model area
EddyValue	Double	Eddy value for eddy viscosity
BedResistanceRasterName	Text[255]	Layer name that defines Manning number for spatially varying bed resistence
Model2DSelection	Short Integer	Selection of 2D model (singe grid using rectangular solver, single grid using multi cell solver, flexible mesh)
DemRasterName	Text[255]	Layer name of DEM for ground elevation definition
AutoAlignCells	Short Integer	Automatically align generated coupling area cells to 2D model cells flag
All2DRadius	Double	Search radius in 'search radius' coupling area generation
SquareAreaCell	Short Integer	Number of 2D cells in 'squared area' coupling area generation
DefaultCouplingArea	Short Integer	Default coupling area definition generation (squared area or search radius)
SpecifiedValue	Double	Value used for constant land value
ManningNOItemName	Text[255]	Item name in layer that defines spatially varyingManning number for bed resistence
FillMissingValue	Short Integer	Fill missing DEM values checkbox

Table

msm_ADComponent

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
CoarseSediPctPipe	Double	
FineSediPctPipe	Double	
DissolvedPctPipe	Double	
PolSediRatioPipe	Double	
AttachPol2PipeSediNo	Short Integer	Domain: 0 = False, 1 = True (checkbox)

InitialCondition	Double	If the unit can change based on the choice in ComponentTypeNo then it is the best
TypeNo	Short Integer	Domain: 1=Dissolved, 2=Suspended, 3=Total, 4=Temperature, 5=Bacteria, 6=Other, 7=Water Age, 8=Water Blend
DecayConst	Double	
MUID	Text[40]	

Table

msm_ADComponentIni

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
MUID	Text[40]	
InitCondLocalValue	Double	If the unit can change based on the choice in ComponentTypeNo for the component then it is the best
ComponentID	Text[40]	Relation 1:N to msm_ADComponent/MUID
NodeID	Text[40]	Relation 1:N to msm_Node/MUID

Table

msm_ADDispersion

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
MaxDispCoef	Double	
MUID	LongInteger	ID, used as primary key, default value is 1
DispFactor	Double	
Exponent	Double	
MinDispCoef	Double	

Table

msm_ADDispersionLocal

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
LinkID	Text[40]	Relation 1:N to msm_Link/MUID
DispFactor	Double	
Exponent	Double	
MinDispCoef	Double	
MaxDispCoef	Double	
MUID	Text[40]	

Table

msm_BBoundary

Group CS MOUSE

Description MOUSE Boundary Database Table

Field Name	Data Type	Description
TypeNo	Short Integer	Domain: GroupNo = 1 (associated with catchment boundary dialog) -> 1=Rainfall, 2=Catchment Discharge 3=Air Temperature, 4=Evapo-Transpiration; GroupNo =2 (associated with network loads dialog) -> 5= Discharge; GroupNo =3 (associated with outlet level dialog) -> 12=Outlet Water Level
Kmix	Double	Mixing constant
OpenBoundaryNo	Short Integer	Domain: 0=False, 1=True (checkbox)
CatchID	Text[40]	Relation 1:N to ms_Catchment/MUID
MUID	Text[40]	Generic Boundary ID
LinkID	Text[40]	Relation 1:N to ms_Link/MUID
LoadCategoryNo	Short Integer	Domain: user-specified domain msCLoadType

CatchLoad	Text[40]	In the dialog picked among MUIDs for boundaries with BoundTypeNo=1 or 2, I.e. rainfalls and catchment loads
GridTypeNo	Short Integer	Domain: 1=All Grid Points, 2=User Specified (Comment:if GridTypeNo=1, the specified load is uniformly distributed across all H grid points in the link. If GridTypeNo=2, the entire load is concentrated in a single H grid point, according to the user specif
Distance	Double	Distance is measured from the upstream end of the conduit. The load is connected to the closest H grid point.
SourceYCoor	Double	
ApplyBoundaryNo	Short Integer	Domain: 0=False; 1=True (default is True). This attribute controls if the specified boundary is to be used in the MOUSE simulation (i.e. exported to MEX file)
ListName	Text[255]	Path and catchment/node/link selection file name. Alternatively, relation to a MU-table with selections. In case of links, the load is per default connected to all grid points along the link
GroupNo		Domain: 1=Hydrological and Meteorological; 2= Network Loads; 3 = Outlet Levels
IndividualConnectionNo	Short Integer	Domain: GroupNo=1 (catchments)-> not relevant, i.e. radio buttons not displayed on the dialog; GroupNo=2 (network loads) -> 1=Node, 2=Link (radio buttons); GroupNo=3 (outlets) -> not relevant, i.e. not displayed on the dialog
NodeLoadTypeNo	Short Integer	Domain: 1=Inflow Hydrograph; 2= Infiltration Loss (radio buttons)
NodeID	Text[40]	Relation 1:N to msm_Node/MUID (Comment: for Boundary Group 4, the nodes are selected only from the outlets)
SourceXCoor	Double	
SourceLocationNo	Short Integer	Domain: 0=False, 1=True

ConnectionTypeNo	Short Integer	Domain: GroupNo=1-> 1= All, 2=List, 3=Individual; GroupNo= 2 (i.e. network discharge)-> 2=List, 3=Individual, 4=Defined by catchment connection, 5=Geo-coded GroupNo=3 (i.e. outlet level)-> 3=Individual (actually, this is not visible for the user. The system must set the attribute to "Individual" automatically).
DistributeNo	Short Integer	Domain: 0= False, 1=True (checkbox)
CatchLoadNo	Short Integer	Domain:0=False;1=True (Comment: "True" Indicates that the current network load boundary is actually an alias of already existing catchment boundary

Table

msm_BCCatchment

Group CS MOUSE

Description MOUSE BCV Catchments Database Table Attributes - internal table

Field Name	Data Type	Description
TypeNo	Short Integer	msmBCCatchment_TypeNo domain: 1 - Rainfall ; 2 - Catchment discharge ; 3 - Air temperature ; 4 - Evapo transpiration
BoundaryID	Text[40]	Relation 1:N to msm_BBoundary.MUID
MUID	Text[40]	
CatchmentID	Text[40]	Relation 1:N to ms_Catchment.MUID

Table

msm_BCLink

Group CS MOUSE

Description MOUSE BCV Links Database Table Attributes - internal table

Field Name	Data Type	Description
BoundaryID	Text[40]	Relation 1:N to msm_BBoundary.MUID
MUID	Text[40]	
LinkID	Text[40]	Relation 1:N to msm_Link.MUID

Table

msm_BCNode

Group CS MOUSE

Description MOUSE BCV Nodes Database Table Attributes - internal table

Field Name	Data Type	Description
BoundaryID	Text[40]	Relation 1:N to msm_BBoundary.MUID
NodeID	Text[40]	Relation 1:N to msm_Node.MUID
TypeNo	Short Integer	msmBCNode_TypeNo domain: 1 - Network discharge ; 2 - Catchment discharge ; 3 - Load point discharge ; 4 - External water level
MUID	Text[40]	

Table

msm_BCRaingauge

Group CS MOUSE

Description MOUSE Raingauges Database Table Attributes - internal table

Field Name	Data Type	Description
MUID	Text[40]	
BoundaryID	Text[40]	Relation 1:N to msm_BBoundary.MUID

Table

msm_BCRaingaugeToCatchment

Group CS MOUSE

Description MOUSE Raingauge to catchments connections Database Table Attributes - internal t

Field Name	Data Type	Description
MUID	Text[40]	
BoundaryID	Text[40]	Relation 1:N to msm_BBoundary.MUID
CatchmentID	Text[40]	Relation 1:N to ms_Catchment.MUID

Table

msm_BItem

Group CS MOUSE

Description MOUSE Boundary items Database Table Attributes

Field Name	Data Type	Description
TrapComponentID	Text[40]	Relation 1:N to msm_ADComponent/MUID
DPProfileID	Text[40]	Relation 1:N to ms_DPProfile/MUID
Sqn	Long Integer	Internal sequence number
Description	Text[255]	User-specified item description, for display
BoundaryID	Text[40]	Relation 1:N to msm_BBoundary/MUID (read only field, automatically copied from msm_BBoundary)
TypeNo	Short Integer	Domain: 1=Default, 2=Pollutant, 3=Sediment Fraction, 4=Water Age, 5=Water Blend (Comment: Radio buttons. Selection is possible only for BoundaryTypeNo 1 or 2 or 5, otherwise disabled
TrapFractionID	Text[40]	Relation 1:N to msm_STFraction/MUID
Fraction	Double	Default value = 1.00. Scales up or down the specified load globally, e.g. to account for the difference between the water consumption data and the actual wastewater load
LoadTypeNo	Short Integer	Domain: 1=Storm Runoff, 2=DWF, 3=Other
VariationNo	Short Integer	Domain: BoundaryType=2 OR 5-> 1=Constant, 2=Cyclic, 3=Time Series/Result File; BoundaryType=1 OR 3 OR 4 OR 12 -> 1=Constant, 3=Time Series/Result File
LoadModelNo	Short Integer	Domain: 3=Concentration, 4=Load
ConstantValue	Double	Constant rainfall intensity value
MUID	Text[40]	Generic Item ID, automaticaly created by the system, not displayed on the dialog, nor in the grid
StartUpValue	Double	Initial value at gradual start. Default=0.00
StartUpTime	Double	

BoundaryType	Short Integer	This field must be filled in by copying the value of msm_BBoundary/TypeNo for the current BoundaryID
CyclicValue	Double	Average Cyclic value
BridgeTypeNo	Short Integer	Domain: BoundaryType=1 OR 2 OR 3 OR 4 OR 12 -> 2=DFS0; BoundaryType=5 ->1=MOUSE,2=DFS0
TSConnection	Text[255]	File path & name
DataTypeName	Text[100]	Browse in the appropriate source. In case of DFS0, the system takes the type of the first TS in the source, can be retyped
TimeSeriesName	Text[100]	Browse in the appropriate source. In case of DFS0, the system takes the first TS in the source, can be retyped
WholeFileNo	Short Integer	Domain: 0=False, 1=True
ValidityIntervalNo	Short Integer	Domain: 0=False, 1=True
ValidityBegin	Date	Denotes time/date for the start of application of current item
ValidityEnd	Date	Denotes time/date for the end of application of current item
StartUpNo	Short Integer	Domain: 0 =False 1=True
LoadMethodNo	Short Integer	Domain:BoundaryType=1 OR 3 OR 4 -> 1=Average; BoundaryType=2 -> 1=Average,2=Catchment Area Based,3=PE Based; BoundaryType=5 -> 1=Average,4=Geo-Coded Loads; BoundaryType=12 -> None (Nil)

Table

msm_CatchCon

Group CS MOUSE

Description MOUSE catchment connection Database Table Attributes

Field Name	Data Type	Description
MUID	LongInteger	ID, used as primary key
Fraction	Short Integer	Indicates the fraction of the catchment runoff connceted to the specified location, default is 100%. In first release should remain hidden on the dialog

Distance	Double	Defines the position of the connection relative to the upstream node or chainage. Will be connected to the closest grid point / chainage
LinkID	Text[40]	Relation 1:N to msm_Link/MUID (not supported in first release)
NodeID	Text[40]	Relation 1:N to msm_Node/MUID
CatchID	Text[40]	1:N relation to ms_Catchment/MUID
TypeNo	Short Integer	Domain: 0 = None, 1=Single Node

Table

msm_CatchConLink

Group CS MOUSE

Description catchments connections links feature class (for MOUSE) - internal table

Field Name	Data Type	Description
MUID	Text(40)	ID
CatchConID	LongInteger	relation 1:1 to msm_CatchCon/MUID
Connects a catchment cent		

Table

msm_Coupled2DArea

Group CS MOUSE

Description MU-2D Overland Coupling Area

Field Name	Data Type	Description
MUID	Text[40]	ID, used as primary key

Table

msm_Coupled2DLine

Group CS MOUSE

Description MU-2D Overland connection line

Field Name	Data Type	Description
MUID	Text[40]	ID, used as primary key
NodeID	Text[40]	Identifyer of Node connected to Coupling Area Polygon
PolygonID	Text[40]	Identifyer of Coupling Area Polygon connected to Node

Table

msm_CurbInlet

Group CS MOUSE

Description MOUSE Curb Inlets Table Attributes

Field Name	Data Type	Description
Blockage_S	Short Integer	Domain: user-specified domain msCStatus
TypeNo_S	Short Integer	Domain: user-specified domain msCStatus
NetTypeNo	Short Integer	Domain: user-specified domain msCNetType
CaptureID_S	Short Integer	Domain: user-specified domain msCStatus
Element_S	Short Integer	Domain: user-specified domain msCStatus
Slope_S	Short Integer	Domain: user-specified domain msCStatus
Invertlevel_S	Short Integer	Domain: user-specified domain msCStatus
OriWidth_S	Short Integer	Domain: user-specified domain msCStatus
OriHeight_S	Short Integer	Domain: user-specified domain msCStatus
MUID	Text[40]	
NoOfCurbInlets_S	Short Integer	Domain: user-specified domain msCStatus
OriHeight	Double	

Description	Text[100]	User's descriptive information related to the orifice
DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
AssetName	Text[40]	
Slope_c	Double	
DQrelationID_S	Short Integer	Domain: user-specified domain msCStatus
InvertLevel_c	Double	
Freeboard_S	Short Integer	Domain: user-specified domain msCStatus
OriWidth	Double	
Blockage	Double	
CaptureID	Text[40]	Relation 1:N to msm_OnGrade/MUID
Slope	Double	
SlopeNo	Short Integer	Domain: 0=False, 1=True
NoOfCurbInlets	Short Integer	
Freeboard	Double	
DQrelationID	Text[40]	Relation 1:N to ms_Tab/MUID
TypeNo	Short Integer	Domain: 1=Sag, 2=On-Grade
Invertlevel	Double	
BlockageNo	Short Integer	Domain: 0=False, 1=True

Table

msm_Empt

Group CS MOUSE

Description MOUSE Emptying Storage Nodes Database Table

Field Name	Data Type	Description
MUID	LongInteger	ID, used as primary key
RecNodeID	Text[40]	Relation 1:N to msm_Node/MUID
EmptFunctID	Text[40]	Relation 1:N to ms_Tab/MUID
NodeID	Text[40]	Relation 1:N to msm_Node/MUID

ContrNodeID	Text[40]	Relation 1:N to msm_Node/MUID

Table

msm_HACDelay

Group CS MOUSE

Description MOUSE AC delay Database Table Attributes - internal table

Field Name	Data Type	Description
CatchID	Text[40]	Relation 1:1 to ms_Catchment/MUID
Delay	Double	Constant delay in Minutes

Table

msm_HACMeasure

Group CS MOUSE

Description MOUSE AC measurements Database Table Attributes - internal table

Field Name	Data Type	Description
MaxDwfLevel	Double	
MUID	LongInteger	ID, used as primary key
BoundaryItemID	Text[40]	Relation 1:N to msm_BItem/MUID (Reference to a fictive "boundary")
MinRainDist	Double	
DelayVelocity	Double	
DelayMethodNo	Short Integer	Domain: 1=None, 2= Constant Velocity Based, 3=List of Catchments Based
InLocationTypeNo	Short Integer	Domain: 1=General, 2=List, 3=Individual
SaveMethodNo	Short Integer	Domain: 0=False, 1=True
MaxDwfPeriod	Double	
Process_MethodNo	Short Integer	Domain: 1=None,2=Volume Based,3=Time of Concentration Based, 4=Volume Based Adaptive,5=Time of Concentration Based Adaptive, 6=RainEvents Equal to Runoff Events
ExCatchmentListName	Text[255]	File name+path for a *.CSE file

ExCatchmentID	Text[40]	Relation 1:N to ms_Catchment/MUID
ExLocationTypeNo	Short Integer	Domain: 1=None, 2=List, 3=Individual
FlowY	Double	Loaction of flow meter
FlowX	Double	Loaction of flow meter
InCatchmentListName	Text[255]	File name+path for a *.CSE file
InCatchmentID	Text[40]	Relation 1:N to ms_Catchment/MUID
DwfElimMethodNo	Short Integer	Domain: 1=None, 2=Constant DWF Level

Table

msm_HACModel

Group CS MOUSE

Description MOUSE RDII AC Model parameters Database Table Attributes - internal table

Field Name	Data Type	Description
BInfExpDryLowBound	Double	
BWettingUpBound	Double	
BInfExpWetUpBound	Double	
BInfExpDryFitNo	Short Integer	Domain: 0=False, 1=True
BInfExpDryInit	Double	
BInfExpDryUpBound	Double	
BManImpSteepFitNo	Short Integer	Domain: 0=False, 1=True
BManImpSteepInit	Double	
BManImpSteepUpBound	Double	
BInfExpWetFitNo	Short Integer	Domain: 0=False, 1=True
BManImpSteepLowBound	Double	
BStorPervLargeFitNo	Short Integer	Domain: 0=False, 1=True
BStorImpFlatFitNo	Short Integer	Domain: 0=False, 1=True
BStorImpFlatInit	Double	
BStorImpFlatLowBound	Double	
BStorImpFlatUpBound	Double	

BStorPervSmallFitNo	Short Integer	Domain: 0=False, 1=True
BStorPervSmallInit	Double	
BStorPervSmallLowBoun	Double	
BStorPervSmallUpBound	Double	
BStorPervMediumFitNo	Short Integer	Domain: 0=False, 1=True
BStorPervMediumInit	Double	
BInfExpWetLowBound	Double	
BStorPervMediumUpBou	Double	
BInfExpWetInit	Double	
BStorPervLargeInit	Double	
BStorPervLargeLowBoun	Double	
BStorPervLargeUpBound	Double	
BInfMaxFitNo	Short Integer	Domain: 0=False, 1=True
BInfMaxInit	Double	
BInfMaxLowBound	Double	
BInfMaxUpBound	Double	
BInfMinFitNo	Short Integer	Domain: 0=False, 1=True
BInfMinInit	Double	
BInfMinLowBound	Double	
BInfMinUpBound	Double	
BStorPervMediumLowBo	Double	
CRedFactorInit	Double	
CMaxInfInit	Double	
CMaxInfLowBound	Double	
CMaxInfUpBound	Double	
CMinInfFitNo	Short Integer	Domain: 0=False, 1=True
CMinInfInit	Double	
CMinInfLowBound	Double	
CLagTimeUpBound	Double	

CLagTimeLowBound	Double	
CLagTimeInit	Double	
CLagTimeFitNo	Short Integer	Domain: 0=False, 1=True
BManImpFlatFitNo	Short Integer	Domain: 0=False, 1=True
CRedFactorLowBound	Double	
CTimeConstLowBound	Double	
CRedFactorFitNo	Short Integer	Domain: 0=False, 1=True
CInfTimeDryUpBound	Double	
CInfTimeDryLowBound	Double	
CInfTimeDryInit	Double	
CInfTimeDryFitNo	Short Integer	Domain: 0=False, 1=True
CInfTimeWetUpBound	Double	
CInfTimeWetLowBound	Double	
CInfTimeWetInit	Double	
CInfTimeWetFitNo	Short Integer	Domain: 0=False, 1=True
CMinInfUpBound	Double	
CRedFactorUpBound	Double	
BManPervLargeUpBound	Double	
BManPervMediumInit	Double	
BManImpFlatLowBound	Double	
BManImpFlatUpBound	Double	
BManPervSmallFitNo	Short Integer	Domain: 0=False, 1=True
BManPervSmallInit	Double	
BManPervSmallLowBoun	Double	
BManPervSmallUpBound	Double	
BManPervMediumFitNo	Short Integer	Domain: 0=False, 1=True
BManPervMediumLowBo	Double	
BManPervLargeFitNo	Short Integer	Domain: 0=False, 1=True
CMaxInfFitNo	Short Integer	Domain: 0=False, 1=True

BManPervLargeLowBoun	Double	
CTimeConstUpBound	Double	
CEffAreaFitNo	Short Integer	Domain: 0=False, 1=True
CEffAreaInit	Double	
CEffAreaLowBound	Double	
CEffAreaUpBound	Double	
CInitLossFitNo	Short Integer	Domain: 0=False, 1=True
CInitLossInit	Double	
CInitLossLowBound	Double	
CInitLossUpBound	Double	
CTimeConstFitNo	Short Integer	Domain: 0=False, 1=True
CTimeConstInit	Double	
BManImpFlatInit	Double	
BManPervLargeInit	Double	
AInitLossLowBound	Double	
ATACNoLowBound	Double	
ATACNoInit	Double	
ATACNoFitNo	Short Integer	Domain: 0=False, 1=True
AConcTimeUpBound	Double	
AConcTimeLowBound	Double	
AConcTimeInit	Double	
ATACNoUpBound	Double	
AInitLossUpBound	Double	
AInitLossFitNo	Short Integer	Domain: 0=False, 1=True
AInitLossInit	Double	
ARedFactorUpBound	Double	
ARedFactorInit	Double	
ARedFactorFitNo	Short Integer	Domain: 0=False, 1=True
MUID	LongInteger	ID, used as primary key

BWettingLowBound	Double	
BManPervMediumUpBou	Double	
AConcTimeFitNo	Short Integer	Domain: 0=False, 1=True
BLengthInit	Double	
ARedFactorLowBound	Double	
ATACoeffFitNo	Short Integer	Domain: 0=False, 1=True
BWettingFitNo	Short Integer	Domain: 0=False, 1=True
BLengthUpBound	Double	
BWettingInit	Double	
BLengthLowBound	Double	
BLengthFitNo	Short Integer	Domain: 0=False, 1=True
BSlopeUpBound	Double	
BSlopeLowBound	Double	
ATACoeffUpBound	Double	
ATACoeffInit	Double	
ATACoeffLowBound	Double	
BSlopeInit	Double	
BArReductFitNo	Short Integer	Domain: 0=False, 1=True
BArReductInit	Double	
BArReductLowBound	Double	
BArReductUpBound	Double	
BSlopeFitNo	Short Integer	Domain: 0=False, 1=True

Table

msm_HACParam

Group CS MOUSE

Description MOUSE AC parameters Database Table Attributes - internal table

Field Name	Data Type	Description
WriteConvergenceFileNo	Short Integer	Domain: 0=False, 1=True (checkbox)

EvalLowValue	Double	
EvalPeak_WbValue	Double	
EvalPeak_WbNo	Short Integer	Domain: 0=False, 1=True
EvalPeakValue	Double	
EvalPeakNO	Short Integer	Domain: 0=False, 1=True
EvalRmseNo	Short Integer	Domain: 0=False, 1=True
EvalWaterBalanceNo	Short Integer	Domain: 0=False, 1=True
NormalizeObjNo	Short Integer	
PEps	Double	
EvalLowNo	Short Integer	Domain: 0=False, 1=True
Delta	Double	
MinChange	Double	
Stopnoloops	Long Integer	
NoEvolutionSteps	Long Integer	
NoPointsSubcomplex	Long Integer	
NoPointsComplex	Long Integer	
MaxNoModelEvaluations	Long Integer	
MUID	LongInteger	ID, used as primary key
CalibMethodNo	Short Integer	Domain: 0=False, 1=True (checkbox)
NoComplexes	Long Integer	

Table

msm_HModA

Group CS MOUSE

Description MOUSE Runoff Model A Database Table Attributes

Field Name	Data Type	Description
ConcTime	Short integer	Local value for concentration time
LocalNo	Short Integer	Domain: 0=TA-Curve, 1=TA Coefficient
RFactor	Double	Local value for hydr. Reduction factor

Iloss	Double	Local value for Initial loss
ParAID	Text[40]	Relation 1:N to msm_HParA/MUID
ImpArea	Double	
CatchID	Text[40]	Relation 1:1 to ms_Catchment/MUID
CoeffNo	Short Integer	Domain: 0=False, 1=True (Radio Buttons)
TACurveID	Text[40]	Relation 1:N to ms_Tab/MUID
TACoeff	Double	Value of the TA coefficient

Table

msm_HModB

Group CS MOUSE

Description MOUSE Runoff Model B Database Table Attributes

Field Name	Data Type	Description
APMedium	Double	
MPMedium	Double	Local manning value
MIFlat	Double	Local manning value
MISteep	Double	Local manning value
LocalNo	Short Integer	Domain: 0=False, 1=True (checkbox)
APLarge	Double	
MPSmall	Double	Local manning value
Slope	Double	catch. Slope
MPLarge	Double	Local manning value
APSmall	Double	
Length	Double	Catch. Length
ParBID	Text[40]	Relation 1:N to msm_HParB/MUID
AISteep	Double	
AIFlat	Double	
CatchID	Text[40]	Relation 1:1 to ms_Catchment/MUID

Table

msm_HModC

Group CS MOUSE

Description MOUSE Runoff Model C Database Table Attributes

Field Name	Data Type	Description
TimeConst	Double	
CatchID	Text[40]	Relation 1:1 to ms_Catchment/MUID
C1Area	Double	
C2Area	Double	
Length	Double	Catchment length
Slope	Double	
ParCID	Text[40]	Relation 1:N to msm_HParC/MUID
LocalNo	Short Integer	Domain: 0=False, 1=True (checkbox)
ILoss	Double	
RedFactor	Double	
LagTime	Double	catchment min. level, can be calculated from DEM by a GIS function

Table

msm_HModCRC

Group CS MOUSE

Description MOUSE Runoff Model Continous Runoff Components (CRC) Database Table Attri

Field Name	Data Type	Description
RdiiArea	Double	RDII area percent
RdiiNo	Short integer	Domain:0=False,1=True
CatchID	Text[40]	Relation 1:1 to ms_Catchment/MUID
ParRDIIID	Text[40]	Relation 1:N to msm_HParRDII/MUID
AddFlow	Double	

Table

msm_HModUHM

Group CS MOUSE

Description MOUSE Runoff Model UHM Database Table Attributes

Field Name	Data Type	Description
LagTime	Double	
LagCurveNum	Short Integer	
RunoffCoeff	Double	
AreaFactor	Double	
StreamSlope	Double	
BasFactor	Double	
SuhLc	Double	
SuhL	Double	
SuhCt	Double	
Slope	Double	
CatchID	Text[40]	Relation 1:1 to ms_Catchment/MUID
HydraulicLength	Double	
SuhSlope	Double	
AMC	Short Integer	
LossModelNo	Short Integer	Domain: 1=Constant Loss, 2=Proportional Loss, 3=SCS Method, 4=SCS Generalised
LagTimeMethodNo	Short Integer	Domain: 1=User Specified, 2=SCS Formula, 3= SUH Standard, 4=SUH Alameda
Cp	Double	Peaking factor
MethodNo	Short Integer	Domain:1=SCS Triangular Hydrograph, 2=CSC Dimensionless Hydrograph, 3=SUH Standard, 4=SUH Alameda
ConstLoss	Double	
InitLoss	Double	
CurveNum	Double	

InitAbstractDepth	Double

Table

msm_HParA

Group CS MOUSE

Description MOUSE Runoff Model A Parameter Set Database Table Attributes

Field Name	Data Type	Description
RedFactor	Double	
InitLoss	Double	
ConcTime	Long Integer	
TAMethodNo	Short Integer	Domain: 1=Time-Area Curve No., 2=Time-Area Coeff. (radio buttons)
TACurveID	Text[40]	Relation 1:N to ms_Tab/MUID
TACoeff	Double	
MUID	Text[40]	Generic Parameter set ID

Table

msm_HParB

Group CS MOUSE

Description MOUSE Runoff Model B Parameter Set Database Table Attributes

Field Name	Data Type	Description
WetFlat	Double	
InfExpWetSmall	Double	
MUID	Text[40]	Generic Parameter set ID
WetSteep	Double	
InfExpDryLarge	Double	
ManningLarge	Double	
ManningMedium	Double	
ManningSmall	Double	

InfMinMedium	Double
ManningSteep	Double
WetSmall	Double
InfExpDryMedium	Double
InfExpDrySmall	Double
InfExpWetLarge	Double
InfExpWetMedium	Double
StorageSmall	Double
ManningFlat	Double
InfMinLarge	Double
StorageFlat	Double
WetMedium	Double
StorageMedium	Double
StorageLarge	Double
InfMaxSmall	Double
InfMaxMedium	Double
InfMaxLarge	Double
InfMinSmall	Double
WetLarge	Double

Table

msm_HParC

Group CS MOUSE

Description MOUSE Runoff Model C Parameter Set Database Table Attributes

Field Name	Data Type	Description
InfiltrNo	Short Integer	Domain: 0=False, 1=True (checkbox)
DryCond	Double	
WetCond	Double	
MinCap	Double	

MaxCap	Double	
Ctime	Double	
Lagtime	Double	
Iloss	Double	
MUID	Text[40]	Generic Parameter set ID
Rfactor	Double	

Table

msm_HParRDII

Group CS MOUSE

Description MOUSE Runoff Model RDII Parameter Set Database Table Attributes

Field Name	Data Type	Description
Tg	Double	
Cqof	Double	
Umax	Double	
MUID	Text[40]	Generic Parameter set ID
InitIf	Double	
InitL	Double	
GwSy	Double	
InitGwl	Double	
GwLmin	Double	
GwLbf0	Double	
Lmax	Double	
InitOf	Double	
GwCarea	Double	
Ck	Double	
Ckif	Double	
Ckbf	Double	
SnowmeltNo	Short Integer	Domain: 0=False, 1=True (Checkbox)

SnowmeltC	Double
Tof	Double
Tif	Double
InitU	Double
GwLfl1	Double

Table

msm_LAAggrLoad

Group CS MOUSE

Description Aggregated Load allocation

Field Name	Data Type	Description
LoadItemTypeNo	Short Integer	Domain: 1=Water; 2=Pollutant; 3=Sediment, 4=LoadUnits (should be set by aggregation tool)
MUID	Long Integer	ID
TargetTypeNo	Short Integer	Domain: 1=Node, 2= Link, in Rel1 always set to 1
NodeID	Text(40]	Relation 1:N to msm_Node/MUID
LinkID	Text(40]	Relation 1:N to msm_Link/MUID, not used in Rel1
LoadCategoryNo	Short Integer	Domain: user-specified domain msCLoadType
Substance	Text[40]	
AggrLoadValue	Double	Sum of all load units (if method= Load units) or loads of the same source category and SubstanceID allocated to current node
Distance	Float	Calculated as a weighted distance, not used in Rel1

Table

msm_LANodeCon

Group CS MOUSE

Description Load allocation links feature class - internal table

Field Name	Data Type	Description
MUID	Text(40)	ID
Connects load point with a		

Table

msm_Link

Group CS MOUSE

Description MOUSE Links Database Table Attributes (Circular, Egg, O, Rectangular, CRS, CRS

Field Name	Data Type	Description
Length_S	Short Integer	Domain: user-specified domain msCStatus
Height	Double	
Description	Text[255]	User's descriptive information related to the link
AssetName	Text[40]	Non-unique identifyer associated with current element in the original data source
Width_S	Short Integer	Domain: user-specified domain msCStatus
PMApprNo	Short Integer	Domain: 0=No, 1=Yes. All other but circular are set to NO.
Rough	Double	Editable. Per default empty. When filled, used by the engine in computations. It is considered as "hard" value - can be affected only by field editing
Manning	Double	Editable. Per default empty. When filled, used by the engine in computations. It is considered as "hard" value - can be affected only by field editing
FricNo	Short Integer	Domain: 0=FALSE, 1=TRUE

FricTypeNo	Short Integer	Domain: 1=Manning Explicite, 2=Manning Implicite, 3=Colebrook-White, 4=Hazen Williams
MaterialID	Text[40]	Relation 1:N to ms_Material/MUID
Maxdx	Double	Defines max DX between CRSs
NetTypeNo	Short Integer	Domain: user-specified domain msCNetType
CrsID	Text[40]	Relation 1:N to ms_CRS/MUID
DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
WIdth	Double	
Diameter	Double	Applies for three MOUSE types, the meaning is always a nominal size of the pipe
Slope_C	Double	calculated on the fly, not applicable for irregular links
Length_C	Double	Non-editable field on the dialog. If no other information present in the system, filled in by the length value from the GIS geometry. During import or mapping from asset data, set to the specified length, if available.
DwLevel_C	Double	Non-editable field on the dialog. If no other information present in the system, per default set to "To" node bottom level. During import or mapping from asset data set to the specified level, if available. For natural channels, filled by the bottom level
UpLevel_C	Double	Non-editable field on the dialog. If no other information present in the system, per default set to "From" node bottom level. During import or mapping from asset data, set to the specified level, if available. For natural channels, filled by the bottom le
Length	Double	Editable. Per default empty. When filled, used by the engine in computations. Also, used for the slope calculation. It is considered as "hard" value - can be affected only by field editing
DwLevel	Double	Editable. Per default empty. When filled, used by the engine in computations. Also, used for the slope calculation. It is considered as "hard" value - can be affected only by field editing

UpLevel	Double	Editable. Per default empty. When filled, used by the engine in computations. Also, used for the slope calculation. It is considered as "hard" value - can be affected only by field editing
TypeNo	Short Integer	Domain: 1=circular, 2=CRS, 3=Rectangular, 4=OShape, 5=EggShape and 6=CRS Irregular (or "Natural Channel"). This will be placed in a group box with the title "Geometrical properties". Therefore label is just "Shape" Square is removed, as it is is a sub-set of rectangular
MUID	Text[40]	
TopographyID	Text[40]	Relation 1:N to ms_Topo/MUID
CrsId_S	Short Integer	Domain: user-specified domain msCStatus
NonReturnNo	Short Integer	Domain:0=False;1=True
HWCoef	Double	Editable. Per default empty. When filled, used by the engine in computations.
Rough_S	Short Integer	Domain: user-specified domain msCStatus
Element_S	Short Integer	Domain: user-specified domain msCStatus
TopographyID_S	Short Integer	Domain: user-specified domain msCStatus
Height_S	Short Integer	Domain: user-specified domain msCStatus
Diameter_S	Short Integer	Domain: user-specified domain msCStatus
DwLevel_S	Short Integer	Domain: user-specified domain msCStatus
UpLevel_S	Short Integer	Domain: user-specified domain msCStatus
Manning_S	Short Integer	Domain: user-specified domain msCStatus

Table

msm_LinkAdv

Group CS MOUSE

Description MOUSE Link Advanced parameters Database Table Attributes

Field Name	Data Type	Description
SlotNo	short Integer	Domain: 0=False, 1=True a checkbox, indicates if a user-specified slot width for this link is specified. Label is in the group box title
ManTop	Double	
ManExp	Double	
ManBott	Double	
Slot	Double	User specified slot width, relative to link width. Accesible only if SlotNo=1
Grid	Long Integer	User-specified number of grid points
GridNo	short Integer	Domain: 0=False, 1=True checkbox, indicates if a user-specified number of grid points for this link is specified. Label is in the group box title
LinkID	Text[40]	Relation 1:1 to msm_Link/MUID
Grid_C	Long Integer	Number of grid points as calculated by the dialog (non-editable). Filled in automatically when "Compute" function is activated
VarManNo	short Integer	Domain: 0=False, 1=True a checkbox, indicates if a depth-variable manning number for this link is specified. Label is in the group box title

Table

msm_LossPar

Group CS MOUSE

Description MOUSE Default local loss Database Table Attributes

Field Name	Data Type	Description
EffAreaNo	Short Integer	Domain: 1=Full Node Area, 2= Calculated Eff. Area , 3=Reduced Calculated Eff. Area
LimitNo	Short Integer	Domain: 1=Water depth, 2=Velocity head
MUID	Text[40]	
Coeff	Double	Default loss coeffcient for classic method
CoeffNo	Short Integer	Domain: 1=Km, 2=Contraction HLC, 3= Total HLC
OutletShapeNo	Short Integer	Domain 1=Classic, 2=No Head Losses, 3=Mean Energy Approach

Table

msm_LTSInit

Group CS MOUSE

Description MOUSE LTS Initial Conditions Database Table Attributes

Field Name	Data Type	Description
InitFrom	Double	
InitDate	Date	
InitTo	Double	
MUID	Long Integer	ID, used as primary key
HotStartFilename	Text[255]	

Table

msm_LTSInito

Group CS MOUSE

Description MOUSE LTS Initial Conditions Option Database Table Attributes

Field Name	Data Type	Description
MUID	Long Integer	ID, used as primary key
InitCondNo	Short Integer	Domain: 1=Empty System; 2= Use Hotstart (Radio buttons)

Table

msm_LTSJobStart

Group CS MOUSE

Description MOUSE LTS Job List Start Criteria Database Table Attributes

Field Name	Data Type	Description
ConditionNo	Short Integer	Domain: 1=Total Inflow
StartValue	Double	
MUID	Text[40]	
LocationNo	Short Integer	Domain: 1=General, 2=List, 3=Individual
LocationID	Text[255]	if JLLocationNo = 3, then should opel list node. If JLLocationNo=2, then opens a file browser
StartTime	Double	

Table

msm_LTSJobStop

Group CS MOUSE

Description MOUSE LTS Job List Stop Criteria Database Table Attributes

Field Name	Data Type	Description
StopTime	Double	continuous duration
StopValue	Double	Total inflow threshold for ending the job

MUID	Long Integer	ID, used as primary key

Table

msm_LTSResult

Group CS MOUSE

Description MOUSE LTS Statistics definition Database Table Attributes

Field Name	Data Type	Description
DtQV	Long Integer	
DtQTn	Long Integer	
EmissionsNo	Short Integer	Domain: 0=False, 1=True (checkbox)
StatFrequencyNo	Short Integer	Domain: 1= Yearly, 2=Monthly
DtH	Long Integer	
MUID	Long Integer	ID, used as primary key

Table

msm_LTSResultL

Group CS MOUSE

Description MOUSE LTS Links Statistics Database Table Attributes

Field Name	Data Type	Description
SaveNo	Short Integer	Domain: 1= Do Not save, 2= Upstream Point, 3= Downstream Point, 4=Up & Downstream Point, 5= All Points
EventLimit	Long Integer	
StatLocation	Text[255]	Should open a file browser or list of links
StatLocationNo	Short Integer	Domain: 1=General, 2=List, 3=Individual
ResultNo	Short Integer	Domain:1= Max. Level, 2=Max. Flow, 3= Max. Velocity, 4=Annual Discharge, 5= Event Loads
MUID	Long Integer	ID, used as primary key

Table

msm_LTSResultN

Group CS MOUSE

Description MOUSE LTS Nodes Statistics Database Table Attributes

Field Name	Data Type	Description
ResultNo	Short Integer	Domain:1= Max.Level, 2=Events Discharge, 3= Duration Discharge, 4=Annual Discharge, 5= Max. Concentrations, 6= Event Loads, 7= Annual Loads
StatLocationNo	Short Integer	Domain: 1=General, 2=List, 3=Individual, 4=All Weirs, 5=All Pumps, 6=All Outlets
EventLimit	Long Integer	
StatLocation	Text[255]	Should open a file browser or list of nodes or…
MUID	Long Integer	ID, used as primary key

Table

msm_LTSRunM

Group CS MOUSE

Description MOUSE LTS Run Time Stop Criteria Evaluation Matrix Database Table Attributes

Field Name	Data Type	Description
Condition5	Text[40]	Relation 1:N to msm_LTSRunS/MUID
Condition4	Text[40]	Relation 1:N to msm_LTSRunS/MUID
Condition3	Text[40]	Relation 1:N to msm_LTSRunS/MUID
Condition2	Text[40]	Relation 1:N to msm_LTSRunS/MUID
Condition1	Text[40]	Relation 1:N to msm_LTSRunS/MUID
MUID	Long Integer	ID, used as primary key

Table

msm_LTSRunS

Group CS MOUSE

Description MOUSE LTS Run Time Stop Criteria Database Table Attributes

Field Name	Data Type	Description
ConditionNo	Short Integer	Domain: 1=Inflow-Outflow; 2=Outflow; 3=Total Volume; 4=Filling Degree
StopTime	Double	
MUID	Text[40]	
LocationID	Text[255]	if RunLocationNo = 3, then should opel list node. If RunLocationNo=2, then opens a file browser
LocationNo	Short Integer	Domain: 1=General, 2=List, 3=Individual
StopValue	Double	

Table

msm_Node

Group CS MOUSE

Description MOUSE Nodes Database Table Attributes (Manhole, Basin, Outlet and Storage Nod

Field Name	Data Type	Description
Coupling_2D	Short Integer	Checkbox Default value=0 Domain msmNode_PMTypeNo: unchecked=0, checked=1
GroundLevel_S	Short Integer	Domain: user-specified domain msCStatus
Diameter_S	Short Integer	Domain: user-specified domain msCStatus
Geometry_S	Short Integer	Domain: user-specified domain msCStatus
Element_S	Short Integer	Domain: user-specified domain msCStatus
InvertLevel_S	Short Integer	Domain: user-specified domain msCStatus

CouplingMethod_2D	Sort Integer	Radio button Default value=1 Domain msm_msmNode_2DCouplingMethod: 1 (orifice equation), 2 (Weir equation), 3 (Exponental function)
MaxFlow_2D	Double	Default value=0.1
InletArea_2D	Double	Defalt value=0.16
NetTypeNo	Short Integer	Domain: user-specified domain msCNetType
OrificeCoef_2D	Double	Defalt value=0.98
OutletQHID	Text[40]	Relation 1:N to ms_Tab/MUID
CrestWidth_2D	Double	Default value=1
ScaleFactor_2D	Double	Default value=1
QdH_2D	Double	Default value=0
SubModelNo	Short Integer	Domain: user-specified domain msCModel
Description	Text[255]	User's descriptive information related to the node
DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
AssetName	Text[40]	
LossCoeff	Double	Applies only for "Classic" and "Mean energy". Label is not required, because this filed is localed in direct relation to the "Coeff." label
InletControlNo	Short Integer	Domain: 0=False, 1=True (checkbox)
PMLevel	Double	fixed level at the receiving (i.e. tail) node
PMTypeNo	Short Integer	Domain: 0=False, 1=True
EffAreaNo	Short Integer	Domain: 1=Full Node Area, 2=Calculated Eff. Area, 3=Reduced calculated Eff. Area
QHTypeNo	Short Integer	Domain: 1=True, 0=False. This is a checkbox placed in a group box titled "Q-H relation". Therefore no lable is needed
SpillCoeff	Double	Only active if "spilling"
BufferPressure	Double	Only active if "spilling"
Exponent_2D	Double	Default value=1
-		Water level in outlet has been removed from this table. Specified as constant level BC

MaxInlet	Double	Requires adaptation on the engine
MUID	Text[40]	
LossTypeNo	Short Integer	Domain: 1=Km, 2=Contraction HLC, 3=Total HLC; Applies only for "Classic" and "mean energy.
LossParNo	Short Integer	Domain: 0=False, 1=True (checkbox)
OutletShapeNo	Short Integer	Domain: 1=Classic, 2=No Head Losses, 3=Mean Energy Approach This should only be displayed from the table msm_LossPar. It does not make sense to change it locally
LossParID	Text[40]	Relation 1:N to msm_LossPar/MUID
CriticalLevel	Double	Critical level. Used in result presentation
GeometryID	Text[40]	Relation 1:N to ms_Tab/MUID Represents ID of the geometry table. Geometry to be specified relative to bottom. The ides is to place this in a group box with a title "Basin Geometry". Therefre label can be just "ID "
Diameter	Double	Manhole diameter
GroundLevel	Double	Ground level
CoverTypeNo	Short Integer	Domain: 1=Normal, 2=Sealed, 3=Spilling. Should be as in MOUSE. The field is placed in a group box with title "Cover". Therefore lable is just "Type "
InvertLevel	Double	Bottom level
TypeNo	Short Integer	Domain: 1=Manhole, 2=Basin, 3=Outlet, 4=Storage Node ;Should be as in MOUSE

Table

msm_OnGradeD

Group CS MOUSE

Description MOUSE OnGradeD Table Attributes

Field Name	Data Type	Description
Slope	Double	

QQrelationID	Text[40]	Relation 1:N to ms_Tab/MUID	QQ-relation curve
Sqn	Long Integer	Internal Sequence Number	
CaptureID	Text[40]	Relation N:1 to msm_OnGrade/MUID	

Table

msm_Option

Group CS MOUSE

Description MOUSE Options Database Table Attributes

Field Name	Data Type	Description
PumpCalculationNo	Short Integer	Domain: 1=Explicite, 2=Implicite
LengthTypeNO	Short Integer	Domain: 1=Center, 2=Edge
MUID	LongInteger	ID, used as primary key, default value is 1

Table

msm_Orifice

Group CS MOUSE

Description MOUSE Orifices Database Table Attributes

Field Name	Data Type	Description
Invertlevel	Double	
FlapNo	Short Integer	Domain: 0=False, 1= True (Flap prevents reverse flow)
ControlTypeNo	Short Integer	Domain: 0=No control, 1=RTC
CrsID	Text[40]	Relation 1:N to ms_CRS/MUID
Height	Double	
DischargeCoeff_S	Short Integer	Domain: user-specified domain msCStatus
Diameter	Double	
Element_S	Short Integer	Domain: user-specified domain msCStatus
AssetName	Text[40]	
TypeNo	Short Integer	Domain: 1=Circular, 2=CRS, 3=Rectangular.

MUID	Text[40]	
DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
NetTypeNo	Short Integer	Domain: user-specified domain msCNetType
DischargeCoeff	Double	Allows for calibrating orifice flows
CrsID_S	Short Integer	Domain: user-specified domain msCStatus
Height_S	Short Integer	Domain: user-specified domain msCStatus
Width_S	Short Integer	Domain: user-specified domain msCStatus
Diameter_S	Short Integer	Domain: user-specified domain msCStatus
Invertlevel_S	Short Integer	Domain: user-specified domain msCStatus
TypeNo_S	Short Integer	Domain: user-specified domain msCStatus
Width	Double	
Description	Text[255]	User's descriptive information related to the orifice

Table

msm_PasReg

Group CS MOUSE

Description MOUSE Passive regulation Database Table Attributes

Field Name	Data Type	Description
ControlNodeBID	Text[40]	Relation 1:N to msm_Node/MUID
ControlNodeAID	Text[40]	Relation 1:N to msm_Node/MUID
FunctionID	Text[40]	Relation 1:N to ms_Tab/MUID
TypeNo	short Integer	Domain: 1=Regulation Qmax(H), 2=Regulation Qmax(dH)
LinkID	Text[40]	Relation 1:1 to msm_Link/MUID

Table

msm_Project

Group CS MOUSE

Description MOUSE Projectdata Database Table Attributes

Field Name	Data Type	Description
NodeSelectionName	Text[255]	Node selection File name+path
ADPRunoffFileNo	Short Integer	Domain: 0=False, 1=True (checkbox) (flag for use of ADP file in Runoff simulation)
RDIIHotStartNo	Short Integer	Domain: 0=False, 1=True (checkbox)
RDIIDtFRCSec	Long Integer	RDII FRC Time Step
RDIIDtSRCHour	Double	RDII FRC Time Step
ADPNetworkFileNo	Short Integer	Domain: 0=False, 1=True (checkbox)(flag for use of ADP file in Network simulation)
SummaryLinkInputNo	Short Integer	Domain: 0=False, 1=True (checkbox)
STComputationNo	Short Integer	Domain: 0=False, 1=True (checkbox) (flag for running a sediment transport network simulation)
LinkSelectionNo	Short Integer	Domain: 0=False, 1=True (checkbox)
LinkSelectionName	Text[255]	Link selection File name+path
LanguageTypeNo	Short Integer	Domain: according to the actual MU language list
UnitTypeNo	Short Integer	Domain: according to the actual MU unit system list
Timestep_2D	Double	Time step for 2D overland flow simulation
Filename_2D	Text[255]	Name of file for static flood map output from 2D overland simulation
UpdateFreq_2D	Short Integer	Update frquesncy for static flood map generation
MaxDepth_2D	Short Integer	Flag for static flood map output (enable or disable output). Domain: 0=False, 1=True (checkbox)
DtDryPeriodSec	Long Integer	Surface Runoff (C) simulation time step for dry periods

DtSaveSec	Long Integer	
DtSaveMin	Long Integer	
DtSaveHour	Long Integer	Save result frequency for network model
DtIncreaseFactor	Double	
DtMaxSec	Long Integer	
DtMinSec	Long Integer	Time step data for network model
NetworkModelTypeNo	Short Integer	Domain: 1=Dynamic Wave, 2=Diffusive Wave, 3=Kinematic Wave
ADComputationNo	Short Integer	Domain: 0=False, 1=True (checkbox) (flag for simulating TRAP advection-dispersion process in network simulation)
SummaryLinkDischargeN	Short Integer	Domain: 0=False, 1=True (checkbox)
RTCComputationNo	Short Integer	Domain: 0=False, 1=True (checkbox)(flag for simulation of RTC in network simulation)
CRFFileNo	Short Integer	Domain: 0=False, 1=True (checkbox)
ComputationModeNo	Short Integer	Domain: 1=Continuous, 2=Discontinuous (radio buttons)
GradedSedimentNo	Short Integer	Domain: 0=False, 1=True (checkbox)(flag for use of ST graded sediments data in network simulation)
NodeSelectionNo	Short Integer	Domain: 0=False, 1=True (checkbox)
WQComputationNo	Short Integer	Domain: 0=False, 1=True (checkbox) (flag for running WQ processes in network simulation)
ComputationEngine	Short Integer	Flag for selection engine (MOUSE=1,MIKE 1D=2)
CRFFileName	Text[255]	
StandardResultNo	Short Integer	Domain: 0=False, 1=True (checkbox) (flag for generating the standard result file)
ActiveJob	Short Integer	Actually functions like domain: 0=False, 1=True, should be set atomatically by the dialog accoridng to specification, default value = 0
IncludeToBatchNo	Short Integer	Domain: 0=False, 1=True (checkbox) (flag to includes the simualtion(I.e. scenario) into the batch simulation)

ScenarioID	Text[40]	read-only field automatically filled in by the dialog
MUID	Text[40]	Upon creation of a new scenario, automatically filled-in by a default name (ProjectName+_+ScenarioName). Upon creation of a new simulation, remains empty, I.e. must be manually specified. User-editable
HDHotStartNo	Short Integer	Domain: 0=False, 1=True (checkbox) (flag for use of Hot Start for network simulation
DtWetPeriodSec	Long Integer	Surface Runoff (C) simulation time step for rainy periods
Description	Text[255]	
SummaryLinkVelocityNo	Short Integer	Domain: 0=False, 1=True (checkbox)
HDHotStartDateTime	Date	Date and time for hot start
UserSpecifiedResultNo	Short Integer	Domain: 0=False, 1=True (checkbox)(flag for generating the user-specified result file)
LTSStatisticsNo	Short Integer	Domain: 0=False, 1=True (checkbox)(flag for activating LTS statistics)
SummaryNodeNo	Short Integer	Domain: 0=False, 1=True (checkbox)
SummaryWeirNo	Short Integer	Domain: 0=False, 1=True (checkbox)
SummaryPumpNo	Short Integer	Domain: 0=False, 1=True (checkbox)
SummaryLinkNo	Short Integer	Domain: 0=False, 1=True (checkbox)
SummaryLinkLevelNo	Short Integer	Domain: 0=False, 1=True (checkbox)
ADHotStartNo	Short Integer	Domain: 0=False, 1=True (checkbox) (flag for using AD hot-start)
RAllowOverWriteNo	Short Integer	Domain: 0=False, 1=True (checkbox) Comment: If True, then the system will overwrite the existing runoff result file with current name. If False, the system will generate a new file with different index number.
ComputationTypeNo	Short Integer	Domain: 1=Runoff, 2=Network, 3=Runoff followed by Network, 4=Simultaneous Runoff+Network, 5=Network and 2D overland
MJLFileName	Text[255]	User specified path+name
ADPFileName	Text[255]	User specified path+name
RSFDataID	Text[40]	Relation 1:N to msm_RS/MUID

PRFHotStartFileName	Text[255]	File name+path
ComputationEnd	Date	In case of combined runoff+network simulation, this is valid for both models
NAllowOverWriteNo	Short Integer	Domain: 0=False, 1=True (checkbox) Comment: If True, then the system will overwrite the existing network result file(s) with current name. In False, the system will generate a new file with different index number.
RunoffModelTypeNo	Short Integer	Domain:1=T-A Curve (A), 2=Kinematic Wave (B), 3=Model C1 4=Model C2 5=RDI (solo), 6=RDI + A, 7= RDI + B, 8=UHM, 9=RDI + UHM
SRQComputationNo	Short Integer	Domain: 0=False, 1=True (checkbox)
ComputationBegin	Date	In case of combined runoff+network simulation, this is valid for both models
GenerateJobListNo	Short Integer	Domain: 0=False, 1=True (checkbox) (flag to induce job list generation)
DtFixedSec	Long Integer	Surface Runoff simulation time step (A, B, UHM)
NOFHotStartFileName	Text[255]	File name+path

Table

msm_Project2DParam

Group CS MOUSE

Description MU-2D Overland additional simulation parameters for map and time series output

Field Name	Data Type	Description
Velocity	Short Integer	Flag for including Velocity in result file
Depth	Short Integer	Flag for including Depth in result file
NoSteps	Short Integer	Number of times result is saved to output file during a simulation.
Flux	Short Integer	Flag for including Flux in result file
X0	Double	Lower left corner x-coordinate of result request area
Level	Short Integer	Flag for including Level in result file

Y1	Double	Upper right corner y-coordinate of result request area
FileName_2D	Text[255]	2D overland result file name (static flood map with max. depth)
ProjMUID	Text[100]	Simulation MUID in msm_Project table
Y0	Double	Lower left corner y-coordinate of result request area
Area	Short Integer	Result request area definition 'Model Area' or 'Selected Area'
X1	Double	Upper right corner x-coordinate of result request area
Period	Short Integer	Result file period 'simulation period' or 'selected period' definition
Start	Date	Start time of simulation if 'simulation period' period is selected
End_	Date	End time of simulation if 'simulation period' period is selected
FileName	Text[255]	Name of result file
Title	Text[255]	Simulation title
FileSize	Double	Expected result file size
Type	Short Integer	Result file request 'Flood maps' or 'Time series' definition

Table

msm_Pump

Group CS MOUSE

Description MOUSE Pumps Database Table Attributes

Field Name	Data Type	Description
QMaxSetID_S	Short Integer	Domain: user-specified domain msCStatus
Offset1_S	Short Integer	Domain: user-specified domain msCStatus
QMinSetID_S	Short Integer	Domain: user-specified domain msCStatus
Offset2_S	Short Integer	Domain: user-specified domain msCStatus
StartLevel_S	Short Integer	Domain: user-specified domain msCStatus

StopLevel_S	Short Integer	Domain: user-specified domain msCStatus
ControlTypeNo_S	Short Integer	Domain: user-specified domain msCStatus
AccTime_S	Short Integer	Domain: user-specified domain msCStatus
DecTime_S	Short Integer	Domain: user-specified domain msCStatus
Coupled2D	Short Integer	Domain msm_YN 0=unchecked, 1= checked. Default=0
SpeedNo_S	Short Integer	Domain: user-specified domain msCStatus
DecTime	Short Integer	This is now standard for all pumps, not only RTC
WetWellSetPoint_S	Short Integer	Domain: user-specified domain msCStatus
ControlTypeNo	Short Integer	IF SpeedNo = 1 THEN Domain: 0=No control, 1=RTC ELSE Domain: 0=No control, 1=RTC, 2=Wet Well Set Point
MUID	Text[40]	
Offset2	Double	Active only if the pump is specified as variable speed
QMinSetID	Text[40]	Relation 1:N to ms_Tab/MUID Capacity curve for Min RPM. Active only if the pump is specified as variable speed
Offset1	Double	Only for Q-H
CapTypeNo	Short Integer	Domain: 1=Q-H 2=Q-DeltaH, 3=Constant Flow
QMaxSetID	Text[40]	Relation 1:N to ms_Tab/MUID Capacity curve for max RPM
SpeedNo	Short Integer	Domain: 1=Constant, 2=Variable
TypeNo	Short Integer	Domain: 1=Propeller, 2=Centrifugal, 3=Mixed Flow, 4=Archimedes Screw
StopLevel	Double	
CapTypeNo_S	Short Integer	Domain: user-specified domain msCStatus
AccTime	Short Integer	This is now standard for all pumps, not only RTC
DutyPoint	Double	Constant flow of the pump
WetWellSetPoint	Double	
AssetName	Text[40]	

DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
Description	Text[255]	User's descriptive information related to the pump
NetTypeNo	Short Integer	Domain: user-specified domain msCNetType
Element_S	Short Integer	Domain: user-specified domain msCStatus
StartLevel	Double	

Table

msm_RESCatchment

Group CS MOUSE

Description MOUSE Catchment Result Summary Database Table Attributes - internal table

Field Name	Data Type	Description
QSRCMin	Double	Minimum SRC runoff for the simulation
QSRCMax	Double	Maximum SRC runoff for the simulation
QSRCAccum	Double	Accumulated SRC for the simulation
QTotalMax	Double	Maximum total runoff for the simulation
QTotalMin	Double	Minimum total runoff for the simulation
CatchmentID	Text[40]	Relation 1:N to ms_Catchment/MUID
QFRCMin	Double	Minimum FRC runoff for the simulation
QFRCAccum	Double	Accumulated FRC for the simulation
QTotalAccum	Double	Accumulated total for the simulation
QFRCMax	Double	Maximum FRC runoff for the simulation

Table

msm_RESLink

Group CS MOUSE

Description MOUSE Pipes & canals Result Summary Database Table Attributes - internal table

Field Name	Data Type	Description
VAver	Double	Average velocity for the simulation

VMax	Double	Maximum velocity for the simulation
Qaccum	Double	Accumulated discharge for the simulation
QAver	Double	Average discharge for the simulation
QMax	Double	Maximum discharge for the simulation
QMin	Double	Minimum discharge for the simulation
LinkID	Text[40]	Relation 1:N to msm_Link/MUID
VPosition	Double	Distance of the grid point from the upstream end
VMin	Double	Minimum velocity for the simulation
HPosition	Double	Distance of the grid point from the upstream end
HMin	Double	Minimum water level for the simulation
HMax	Double	Maximum water level for the simulation
HAver	Double	Average water level for the simulation
QPosition	Double	Distance of the grid point from the upstream end

Table

msm_RESNode

Group CS MOUSE

Description MOUSE Nodes Result Summary Database Table Attributes (Manhole, Basin, Outlet

Field Name	Data Type	Description
NodeID	Text[40]	Relation 1:N to msm_Node/MUID
HMin	Double	Minimum water level for the simulation
HMax	Double	Maximum water level for the simulation
HAver	Double	Average water level for the simulation

Table

msm_RESOrifice

Group CS MOUSE

Description MOUSE Weirs & orifices Result Summary Database Table Attributes - internal tabl

Field Name	Data Type	Description
QMax	Double	Maximum discharge for the simulation
Qaccum	Double	Accumulated discharge for the simulation
OrificeID	Text[40]	Relation 1:N to msm_Orifice/MUID
QMin	Double	Minimum discharge for the simulation

Table

msm_RESPump

Group CS MOUSE

Description MOUSE Pumps Result Summary Database Table Attributes - internal table

Field Name	Data Type	Description
QMin	Double	Minimum pump discharge for the simulation
QMax	Double	Maximum pump discharge for the simulation
PumpID	Text[40]	Relation 1:N to msm_Pump/MUID
Qaccum	Double	Accumulated pump discharge for the simulation

Table

msm_RESWeir

Group CS MOUSE

Description MOUSE Weirs & orifices Result Summary Database Table Attributes - internal tabl

Field Name	Data Type	Description
Qaccum	Double	Accumulated discharge for the simulation
QMax	Double	Maximum discharge for the simulation
QMin	Double	Minimum discharge for the simulation

WeirID	Text[40]	Relation 1:N to msm_Weir/MUID

Table

msm_RS

Group CS MOUSE

Description MOUSE Global Result selection Database Table Attributes

Field Name	Data Type	Description
VolumeSaveNo	Short Integer	Domain: 0=False, 1=True (checkbox)
TimestepSaveNo	Short Integer	Domain: 0=False, 1=True (checkbox)
BeginTime	Date	date box
EndTime	Date	date box
SaveHr	Short Integer	
SaveMin	Short Integer	
SaveSec	Short Integer	
MUID	Text[40]	Internal ID

Table

msm_RSLink

Group CS MOUSE

Description MOUSE Link Result selection Database Table Attributes

Field Name	Data Type	Description
HSaveNo	Short Integer	Domain: 0=False, 1=True (checkbox)
VSaveNo	Short Integer	Domain: 0=False, 1=True (checkbox)
RSID	Text[40]	Relation 1:N to msm_RS/MUID
PointSaveNo	Short Integer	Domain: 1=First, 2=First and Last, 3=All (could be extended with Last, Middle)
LinkID	Text[40]	Relation 1:N to msm_Link/MUID
Sqn	Long Integer	Internal Sequence Number
QSaveNo	Short Integer	Domain: 0=False, 1=True (checkbox)

Table

msm_RSNode

Group CS MOUSE

Description MOUSE Node Result selection Database Table Attributes

Field Name	Data Type	Description
Sqn	Long Integer	Internal Sequence Number
NodeID	Text[40]	Relation 1:N to msm_Node/MUID
HSaveNo	Short Integer	Domain: 0=False, 1=True (checkbox)
RSID	Text[40]	Relation 1:N to msm_RS/MUID

Table

msm_RSOrifice

Group CS MOUSE

Description MOUSE Orifice Result selection Database Table Attributes

Field Name	Data Type	Description
Sqn	Long Integer	Internal Sequence Number
OrificeID	Text[40]	Relation 1:N to msm_Orifice/MUID
RSID	Text[40]	Relation 1:N to msm_RS/MUID
QSaveNo	Short Integer	Domain: 0=False, 1=True (checkbox)

Table

msm_RSPump

Group CS MOUSE

Description MOUSE Link Result selection Database Table Attributes

Field Name	Data Type	Description
Sqn	Long Integer	Internal Sequence Number
PumpID	Text[40]	Relation 1:N to msm_Pump/MUID
QSaveNo	Short Integer	Domain: 0=False, 1=True (checkbox)

RSID	Text[40]	Relation 1:N to msm_RS/MUID

Table

msm_RSValve

Group CS MOUSE

Description MOUSE Valve Result selection Database Table Attributes

Field Name	Data Type	Description
Sqn	Long Integer	Internal Sequence Number
ValveID	Text[40]	Relation 1:N to msm_Valve/MUID
QSaveNo	Short Integer	Domain: 0=False, 1=True (checkbox)
RSID	Text[40]	Relation 1:N to msm_RS/MUID

Table

msm_RSWeir

Group CS MOUSE

Description MOUSE Weir Result selection Database Table Attributes

Field Name	Data Type	Description
QSaveNo	Short Integer	Domain: 0=False, 1=True (checkbox)
WeirID	Text[40]	Relation 1:N to msm_Weir/MUID
Sqn	Long Integer	Internal Sequence Number
RSID	Text[40]	Relation 1:N to msm_RS/MUID

Table

msm_RTCCondition

Group CS MOUSE

Description MOUSE RTC Logical Condition Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	Generic Logical Condition ID

Table

msm_RTCConditionD

Group CS MOUSE

Description MOUSE RTC Logical Condition Data Database Table Attributes

Field Name	Data Type	Description
LimitValue	Double	
Sqn	Long Integer	Internal Sequence Number
ConditionID	Text[40]	Relation 1:N to msm_RTCCondition/MUID
Source1ID	Text[40]	Relation 1:N to msm_RTCSensor/MUID
Source2ID	Text[40]	Relation 1:N to msm_RTCSensor/MUID
OperatorNo	Short Integer	Domain: 1=<, 2=>, 3=True, 4=False
SourceNo	Short Integer	Domain: 1=Sensor Value, 2=Change In Sensor Value, 3=Diff of 2 Sensor Values, 4=Sum of 2 Sensor Values, 5=Pump Active, 6=Function Active, 7=Accumulated Value

Table

msm_RTCDevice

Group CS MOUSE

Description MOUSE RTC Device Database Table Attributes

Field Name	Data Type	Description
DeviceNo	Short Integer	Domain: 1=Pump, 2=Weir, 3=Gate in rectangular orifice,4=Weir in rectangular orifice, 5=Valve
MaxValveSpeed	Double	
MaxSpeedDw	Double	
MaxSpeedUp	Double	
PidID	Text[40]	Relation 1:N to msm_RTCPID/MUID

ControlNo	Short Integer	Domain:1=Static (No Control), 2=Direct Setting, 3=Setpoint - PID
ValveID	Text[40]	Relation 1:1 to msm_Valve/MUID
GateID	Text[40]	Relation 1:1 to msm_Orifice/MUID
PumpID	Text[40]	Relation 1:1 to msm_Pump/MUID
MUID	Long Integer	Internal MU identifier
MinOpening	Double	
MaxLevel	Double	
WeirID	Text[40]	Relation 1:1 to msm_Weir/MUID
MaxStartLevel	Double	
MaxOpening	Double	
AccCurveNo	Short Integer	Domain: 0=False, 1=True (checkbox)
MinStopLevel	Double	
MinTimeOff	Double	
AccCurveID	Text[40]	Relation 1:N to ms_Tab/MUID
MinLevel	Double	
MinTimeOn	Double	

Table

msm_RTCDeviceD

Group CS MOUSE

Description MOUSE RTC Device Data Database Table Attributes

Field Name	Data Type	Description
DeviceID	Long Integer	Relation 1:N to msm_RTCDevice/MUID
BlockTime	Long Integer	
FunctionID	Text[40]	Relation 1:N to msm_RTCFunction/MUID
ConditionID	Text[40]	Relation 1:N to msm_RTCCondition/MUID
Sqn	Short Integer	Internal Sequence Number

Table

msm_RTCFunction

Group CS MOUSE

Description MOUSE RTC Control Function Database Table Attributes

Field Name	Data Type	Description
DataTypeName1	Text[100]	Browse in the DFS0 file. The system takes automatically the type of the first TS in the source, can be retyped
StopLevel	Double	
StartLevel	Double	
Sensor2ID	Text[40]	Relation 1:N to msm_RTCSensor/MUID
InputNo	Short Integer	Domain:1=Constant, 2=Sensor Value, 3=Diff. of 2 Sensor Values, 4=Time Since Simulation Start, 5=Absolute Time, 6=Absolute Time
FunctionNo	Short Integer	Domain: DeviceNo= 1(pump) -> 1=Setting of Start/Stop Levels, 3=PID Control of Level, 4=PID Control of Discharge; DeviceNo=2 (weir) OR 3(gate) -> 2=Setting of Weir/Gate Position, 3=PID Control of Level, 4=PID Control of Discharge; DeviceNo=4 (valve) -> 5=Setting of Valve Opening, 3=PID Control of Level, 4=PID Control of Discharge
DeviceNo	Short Integer	Domain: 1=Pump, 2=Weir, 3=Gate, 4=valve
SetpointSensorID	Text[40]	Relation 1:N to msm_RTCSensor/MUID
TimeSeriesName1	Text[100]	Browse in the DFS0 file. The system takes automatically the type of the first TS in the source, can be retyped
TimeSeriesName2	Text[100]	Browse in the DFS0 file. The system takes automatically the type of the first TS in the source, can be retyped
TSConnection1	Text[255]	File1 path & name. This file is used for weir/gate elevation, valve position, pump START level, flow set point, discharge setpoint
FOpening	Double	
FDischarge	Double	

TSConnection2	Text[255]	File2 path & name. This file is only used for Pumps STOP values
FLevel	Double	
DataTypeName2	Text[100]	Browse in the DFS0 file. The system takes automatically the type of the first TS in the source, can be retyped
FPosition	Double	
MUID	Text[40]	Generic action (function) ID
Sensor1ID	Text[40]	Relation 1:N to msm_RTCSensor/MUID

Table

msm_RTCFunctionD

Group CS MOUSE

Description MOUSE RTC Control Function Data Database Table Attributes

Field Name	Data Type	Description
InputValueAbsTime	Date	
FunctionID	Text[40]	Relation 1:N to msm_RTCFunction/MUID
Sqn	Long Integer	Internal Sequence Number
InputValueRelTime	Long Integer	
FOpening	Double	
Startlevel	Double	
Stoplevel	Double	
FPosition	Double	
FLevel	Double	
FDischarge	Double	
InputValueSensor	Double	

Table

msm_RTCPID

Group CS MOUSE

Description MOUSE RTC PID Database Table Attributes

Field Name	Data Type	Description
ITime	Double	Integration time
MUID	Text[40]	Generic PID-set ID
Alpha3	Double	weighting coeff Alpha3
Alpha2	Double	weighting coeff Alpha2
Alpha1	Double	weighting coeff Alpha1
DTime	Double	Derivation time
PFactor	Double	Proportionality factor

Table

msm_RTCSensor

Group CS MOUSE

Description MOUSE RTC Sensor Database Table Attributes

Field Name	Data Type	Description
OrificeLocationID	Text[40]	Relation 1:N to msm_Orifice/MUID
Delay	Double	
SInterval	Double	
ComponentID	Text[40]	Relation 1:N to msm_ADComponent/MUID
MUID	Text[40]	generic sensor ID
ValveLocationID	Text[40]	Relation 1:N to msm_Valve/MUID
WeirLocationID	Text[40]	Relation 1:N to msm_Weir/MUID
LinkLocationID	Text[40]	Relation 1:N to msm_Link/MUID
NodeLocationID	Text[40]	Relation 1:N to msm_Node/MUID

LocationNo	Short Integer	Domain: TypeNo= 1(Level) -> 1=Node, TypeNo=2 (Discharge) ->2=Link, TypeNo= 3 (Surface Runoff) -> 1=Node; TypeNo=4 (Concentration) -> 1=Node, 2=Link, 3=Weir, 4=Gate, 5=Pump, TypeNo= 5 (Mass Flux) ->2=Link, 3=Weir, 4=Gate, 5=Pump, TypeNo= 6 (Weir/Gate Position) -> 3=Weir, 4=Gate, TypeNo= 7 (Pump ON/OFF)->5=Pump, TypeNo= 14 (valve opening)->7=Valve
TypeNo	Short Integer	Domain: 1=Level, 2=Discharge, 3=Surface Runoff, 4=Concentration, 5=Mass Flux, 6=Weir/Gate Position, 7=Pump ON/OFF, 14=Valve Opening
PumpLocationID	Text[40]	Relation 1:N to msm_Pump/MUID

Table

msm_SRQ

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
FineGrainSize	Double	
GullyVolPerPot	Double	
SaveAsConcNo	Short Integer	Domain : 0 = False, 1 = True (checkbox)
FineDensity	Double	
CoarseGrainSize	Double	
CoarseDensity	Double	
MUID	LongInteger	ID, used as primary key, default value is 1
WashoffExp	Double	Dimensionless - no unit
DetachRate	Double	
ADWP	Double	
MaxBuildup	Double	
GullyPotCalcNo	Short Integer	Domain : 0 = False, 1 = True (checkbox)
BuildupTypeNo	Short Integer	Domain: 1=Linear, 2=Exponential
GullyPotsPerHa	Long Integer	

AttachPollutantsNo	Short Integer	Domain : 0 = False, 1 = True (checkbox)
BuildupRate	Double	

Table

msm_SRQ_GullyData

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
ComponentID	Text[40]	Relation 1:1 to msm_ADComponent/MUID
MUID	Text[40]	
GullyBuildupRate	Double	
GullyIniConc	Double	
GullyMaxBuildup	Double	

Table

msm_SRQAttachPol

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
FineSediPct	Double	
ComponentID	Text[40]	Relation 1:1 to msm_ADComponent/MUID
MUID	Text[40]	
PolSediRatio	Double	
CoarseSediPct	Double	

Table

msm_ST

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
STPorosity	Double	
IniTauTop	Double	
IniTauBot	Double	
IniUseCritBedNo	Short Integer	Domain : 0 = False, 1 = True (checkbox)
IniManning	Double	
IniManningTypeNo	Short Integer	Domain: 1=Computed 2=Specified
IniSediDepth	Double	
ThetaCritical	Double	
STMinManning	Double	
IniVarTau	Double	
DensityOrgSedi	Double	
DensityFricSedi	Double	
ResultsDepthLevelNo	Short Integer	Domain: 1=Depth, 2=Level
ResultsLoadConcNo	Short Integer	Domain: 1=Load, 2=Concentration
MorphModelNo	Short Integer	Domain : 0 = False, 1 = True (checkbox)
HDSTBedShearNo	Short Integer	Domain : 0 = False, 1 = True (checkbox)
STModelTypeNo	Short Integer	Domain: 1=Engelund-Hansen, 2=Ackers-White, 3=Engelund-Fredsoe-Deigaard, 4=Van Rijn, 5=Hydraulic Impact Only
MUID	LongInteger	ID, used as primary key, default value is 1
STMaxManning	Double	

Table

msm_STFraction

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
GrainSize	Double	
FractionPct	Double	
TransportTypeNo	Short Integer	Domain: 1=ST Model, 2=AD Model
MUID	Text[40]	
ErodabilityCoef	Double	
CritTauDepo	Double	
CritTauEro	Double	
FallVelocity	Double	

Table

msm_STInitDepthLocal

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
LocIniUseCritBedNo	Short Integer	Domain : 0 = False, 1 = True (checkbox)
LocIniVarTau	Double	
LocIniTauBot	Double	
LocIniManning	Double	
LocSediDepth	Double	
LinkID	Text[40]	Relation 1:N to msm_Link/MUID
MUID	Text[40]	
LocIniTauTop	Double	
LocIniManningTypeNo	Short Integer	Domain: 1=Computed 2=Specified

Table

msm_STRemovalBasin

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
NodeID	Text[40]	Relation 1:N to msm_Node/MUID
RemovalCoef	Double	
MUID	Text[40]	

Table

msm_STRemovalWeir

Group CS MOUSE

Description MOUSE TRAP

Field Name	Data Type	Description
K1	Double	
Sigma1	Double	
WeirID	Text[40]	Relation 1:N to msm_Weir/MUID
EfficiencyFac	Double	
MethodTypeNo	Short Integer	Domain: 1=Constant Efficiency, 2=Efficiency(flow), 3=Efficiency(W/V0)
EfficiencyFunctionID	Text[40]	Relation 1:N to ms_Tab/MUID (MOUSE tab-data type (Q vs. efficiency))
my1	Double	
MUID	Text[40]	
WeirTypeNo	Short Integer	Domain: 1=Central Weir, 2=Vortex Separator
K2	Double	
my2	Double	
Sigma2	Double	

Table

msm_SWQLocTreat_Coeff

Group CS MOUSE

Description MOUSE Table Attributes

Field Name	Data Type	Description
A3	Double	Coeffcient for the polynomium
HighFac	Double	Correction factor to change computed removal efficiency during high concentartions
NormFac	Double	Correction factor to change computed removal efficiency during normal concentartions
LowFac	Double	Correction factor to change computed removal efficiency during low concentartions
B1	Double	Coeffcient for the polynomium
A2	Double	Coeffcient for the polynomium
A1	Double	Coeffcient for the polynomium
MUID	Text[40]	Name of relashionship
B3	Double	Coeffcient for the polynomium
C1	Double	Coeffcient for the polynomium
C2	Double	Coeffcient for the polynomium
C3	Double	Coeffcient for the polynomium
LowConc	Double	Typical low concentration
NormConc	Double	Typical normal concentration
B2	Double	Coeffcient for the polynomium
HighConc	Double	Typical high concentration

Table

msm_SWQLocTreat_Node

Group CS MOUSE

Description MOUSE Table Attributes

Field Name	Data Type	Description
MUID	Long Integer	Autonumber, not displayed
TSS_AvgConc	Double	Initial concentration used when computing the average inflowing concentration to the basin
TSS_RelID	Text[40]	Relation 1:N to msm_LocalTreatment_Coefficients/MUID
TSS_ID	Text[40]	Relation 1:N to msm_ADcomponent/MUID
AvgMethodNo	Short Integer	Domain: 1=Cst. inflow, 2=Moving average inflow
AvgFlow	Double	Initial inflow to the basin
AvgTime	Double	Duration of time window used when computing the average flow into the basin
BasinVol	Double	Basin volume in m3
NodeID	Text[40]	Relation 1:N to msm_Nodes/MUID
BOD_RelID	Text[40]	Relation 1:N to msm_LocalTreatment_Coefficients/MUID
BOD_AvgConc	Double	Initial concentration used when computing the average inflowing concentration to the basin
HydEff	Double	Hydraulic efficiency based on basin shapes
Zn_RelID	Text[40]	Relation 1:N to msm_LocalTreatment_Coefficients/MUID
UD2_AvgConc	Double	Initial concentration used when computing the average inflowing concentration to the basin
UD2_RelID	Text[40]	Relation 1:N to msm_LocalTreatment_Coefficients/MUID
UD2_ID	Text[40]	Relation 1:N to msm_ADcomponent/MUID
UD1_AvgConc	Double	Initial concentration used when computing the average inflowing concentration to the basin

UD1_RelID	Text[40]	Relation 1:N to msm_LocalTreatment_Coefficients/MUID
BOD_ID	Text[40]	Relation 1:N to msm_ADcomponent/MUID
Zn_AvgConc	Double	Initial concentration used when computing the average inflowing concentration to the basin
Zn_ID	Text[40]	Relation 1:N to msm_ADcomponent/MUID
Cd_AvgConc	Double	Initial concentration used when computing the average inflowing concentration to the basin
Cd_RelID	Text[40]	Relation 1:N to msm_LocalTreatment_Coefficients/MUID
N_RelID	Text[40]	Relation 1:N to msm_LocalTreatment_Coefficients/MUID
UD1_ID	Text[40]	Relation 1:N to msm_ADcomponent/MUID
N_ID	Text[40]	Relation 1:N to msm_ADcomponent/MUID
Cd_ID	Text[40]	Relation 1:N to msm_ADcomponent/MUID
N_AvgConc	Double	Initial concentration used when computing the average inflowing concentration to the basin
PO4_ID	Text[40]	Relation 1:N to msm_ADcomponent/MUID
PO4_RelID	Text[40]	Relation 1:N to msm_LocalTreatment_Coefficients/MUID
PO4_AvgConc	Double	Initial concentration used when computing the average inflowing concentration to the basin
Cu_ID	Text[40]	Relation 1:N to msm_ADcomponent/MUID
Cu_RelID	Text[40]	Relation 1:N to msm_LocalTreatment_Coefficients/MUID
Cu_AvgConc	Double	Initial concentration used when computing the average inflowing concentration to the basin

Table

msm_SWQPollutant

Group CS MOUSE

Description MOUSE Surface Runoff Pollutants Table Attributes

Field Name	Data Type	Description
FRCConc	Double	Concentration for the Fast Runoff Component

Exponent	Double	Exponet used in Method = 3
ADWPmin	Double	Minimum antecedent dry weather period to distinguish rainfall events
ADWPini	Double	Antecedent dry weather period for first rainfall event
K	Double	K-factor used in Method = 3
TOTDataSetID	Text[40]	Relation 1:N to ms_Tab/MUID "Undefined"
FRCDataSetID	Text[40]	Relation 1:N to ms_Tab/MUID "Undefined"
EventThreshold	Double	Start and stop criterium for rainfall events
TOTConc	Double	Concentration for all Runoff
SRCConc	Double	Concentration for the Slow Runoff Component
ComponentID	Text[40]	Relation 1:N to msm_ADcomponent/MUID
SRCDataSetID	Text[40]	Relation 1:N to ms_Tab/MUID "Undefined"
MethodNo	Short Integer	Domain: 1=Cst. concentration, 2=Table concentration, 3=EMC formula
CatchmentID	Text[40]	Relation 1:N to ms_Catchment/MUID
MUID	Long Integer	Autonumber, not displayed

Table

msm_Valve

Group CS MOUSE

Description MOUSE Valve Database Table Attributes

Field Name	Data Type	Description
Area	Double	
MethodNo_S	Short Integer	Domain: user-specified domain msCStatus
TypeNo	Short Integer	Domain: 1=Butterfly, 2=Ball, 3=Globe, 4=Plug, 5=Sleeve, 6=Needle, 7=Wicket Gate
FlapNo	Short Integer	Domain: 0=False, 1= True
InvertLevel_S	Short Integer	Domain: user-specified domain msCStatus

MethodNo	Short Integer	Domain: 1=Q = (sqrt(2gh/k))*A
TypeNo_S	Short Integer	Domain: user-specified domain msCStatus
Diameter	Double	
FlapNo_S	Short Integer	Domain: user-specified domain msCStatus
Area_C	Double	
RatingCurveID	Text[40]	Relation 1:N to ms_Tab/MUID
Opening	Double	
ControlTypeNo	Short Integer	Domain: 0=No control, 1=RTC
Opening_S	Short Integer	Domain: user-specified domain msCStatus
RatingCurveID_S	Short Integer	Domain: user-specified domain msCStatus
InvertLevel	Double	
Element_S	Short Integer	Domain: user-specified domain msCStatus
DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
Description	Text[255]	User's descriptive information related to the weir
AssetName	Text[40]	
NetTypeNo	Short Integer	Domain: user-specified domain msCNetType
MUID	Text[40]	

Table

msm_Weir

Group CS MOUSE

Description MOUSE Weirs Database Table Attributes

Field Name	Data Type	Description
DataSource	Text[40]	Reference to an external data source (tableID) where the record has been imported from
QHID	Text[40]	Relation 1:N to ms_Tab/MUID
AngleNo	Short Integer	Domain: 0=0 Degrees, 90=90 Degrees
Coeff	Double	

ControlTypeNo	Short Integer	Domain: 0=No control, 1=RTC
FlapNo_S	Short Integer	Domain: user-specified domain msCStatus
TypeNo_S	Short Integer	Domain: user-specified domain msCStatus
Element_S	Short Integer	Domain: user-specified domain msCStatus
Description	Text[255]	User's descriptive information related to the weir
Coupled2D	Short Integer	Domain msm_YN 0=unchecked, 1= checked. Default=0
AssetName	Text[40]	
WeirCrestID	Text[40]	Relation 1:N to ms_CRS/MUID (only for ms_CRS.TytpeNo=4)
SourceLinkID	Text[40]	Relation 1:N to msm_Link/MUID (only for msm_Link.TytpeNo=6)
MethodNo_S	Short Integer	Domain: user-specified domain msCStatus
Crestwidth	Double	
MethodNo	Short Integer	IF TypeNo = 1 then Domain: 1=Q-H, 2=Weir Formula ; IF TypeNo = 5 then Domain: 3=Fragmented ; IF TypeNo = 6 then Domain: 2=Weir Formula ; ELSE Domain: 1=Q-H
DestinationLinkID	Text[40]	Relation 1:N to msm_Link/MUID (only for msm_Link.TytpeNo=6)
CrestLevel_S	Short Integer	Domain: user-specified domain msCStatus
NetTypeNo	Short Integer	Domain: user-specified domain msCNetType
CrestLevel	Double	
Coeff_S	Short Integer	Domain: user-specified domain msCStatus
FlapNo	Short Integer	Domain: 0=False, 1=True (Flap prevents reverse flow)
TypeNo	Short Integer	Domain: 1=Rectangular, 2=V-Notch, 3=Trapezoidal 4=Irregular, 5= Long Weir. 6= CRS Weir --- The 2, 3 and 4 can only be specified as QH. "5" can only be spe cified as "Fragmented"
MUID	Text[40]	
AngleNo_S	Short Integer	Domain: user-specified domain msCStatus
QHID_S	Short Integer	Domain: user-specified domain msCStatus

Crestwidth_S	Short Integer	Domain: user-specified domain msCStatus

Table

msm_WQProcess

Group CS MOUSE

Description MOUSE TRAP - Global values - NOgrid-dialog

Field Name	Data Type	Description
EroSediOD	Double	2
OutputTypeNo	Short Integer	1
MUID	LongInteger	1
Coefficient3	Double	0.375
Coefficient2	Double	0.17
Coefficient1	Double	0.96
TColiDecayRate	Double	0.8
BOD	Double	0.8
StrepDecayRate	Double	0.75
DOComponentID	Text[40]	
FColiTempCoef	Double	1.05
TDBODComponentID	Text[40]	
HydroTempCoef	Double	1.05
DissolvedOxygen	Double	0.3
ReaerationCoef	Double	1.024
MaxYeildCst	Double	0.65
TempCoef	Double	1.05
MaxGrowthRate	Double	5
ORemovalCst	Double	3
ModelBioNo	Short Integer	0
TempComponentID	Text[40]	
FColiDecayRate	Double	0.7

Biomass	Double	0.75
StrepComponentID	Text[40]	
TColiComponentID	Text[40]	
FColiComponentID	Text[40]	
SuspDOComponentID	Text[40]	
StrepTempCoef	Double	1.05
TColiTempCoef	Double	1.05
HydroDecayConst	Double	0.075
BODCODFac	Double	2.5

Table

MSS_AQUIFER

Group CS SWMM

Description SWMM5 AQUIFERS Database Table Attributes

Field Name	Data Type	Description
WP	Double	soil wilting point (fraction)
Por	Double	soil porosity (fraction)
UMC	Double	unsaturated zone moisture content at start of simulation (fraction
WTE	Double	water table elevation at start of simulation (ft or m)
BE	Double	elevation of the bottom of the aquifer (ft or m)
GWR	Double	rate of percolation from saturated zone to deep groundwater when water table is at ground surface (in/hr or mm/hr)
LED	Double	maximum depth into the lower saturated zone over which evapotranspiration can occur (ft or m)
UEF	Double	fraction of total evaporation available for evapotranspiration in the upper unsaturated zone
Yslope	Double	slope of soil tension versus moisture content curve
FC	Double	soil field capacity (fraction)

MUID	Text[40]	Aquifer Name
Kslope	Double	slope of hydraulic conductivity versus moisture content curve
K	Double	saturated hydraulic conductivity (in/hr or mm/hr)

Table

mss_BCCatchment

Group CS MOUSE

Description SWMM BCV Catchments Database Table Attributes - internal table

Field Name	Data Type	Description
CatchmentID	Text[40]	Relation 1:N to ms_Catchment.MUID
MUID	Text[40]	

Table

mss_BCLink

Group CS MOUSE

Description SWMM BCV Links Database Table Attributes - internal table

Field Name	Data Type	Description
RaingaugeID	Text[40]	Relation 1:N to mss_Raingauge.MUID
CatchmentID	Text[40]	Relation 1:N to ms_Catchment.MUID
NodeID	Text[40]	Relation 1:N to mss_Node.MUID
MUID	Text[40]	
TypeNo	Short Integer	mssBCLink_TypeNo domain: 1 - Catchment to node ; 2 - Raingauge to catchment ; 3 - Catchment to catchment
Catchment2ID	Text[40]	Relation 1:N to ms_Catchment.MUID

Table

mss_BCNode

Group CS MOUSE

Description SWMM BCV Nodes Database Table Attributes - internal table

Field Name	Data Type	Description
MUID	Text[40]	
DWFID	Text[40]	Relation 1:N to mss_DWF.MUID
TypeNo	Short Integer	mssBCNode_TypeNo domain: 1 - Inflow ; 2 - Outfall ; 3 - Dry weather flow
InflowID	Text[40]	Relation 1:N to mss_Inflow.MUID
NodeID	Text[40]	Relation 1:N to mss_Node.MUID

Table

MSS_BUILDUP

Group CS SWMM

Description SWMM5 BUILDUP Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	
LanduseID	Text[40]	1:N Connection to table mss_Landuse/MUID
C2	Double	
NormalizerNo	Short Integer	Domain: 1='AREA', 2='CURBLENGTH'
C2_ScalingFactor	Double	
C1	Double	
C3	Double	
PollutantID	Text[40]	1:N Connection to table mss_Pollutant/MUID
FuncTypeNo	Short Integer	Domain: 1='NONE', 2='POW', 3='EXP', 4='SAT', 5='EXT'
ExternalTimeSeriesID	Text[40]	1:N Connection to table mss_Timeseries/MUID

Table

MSS_CATCHCONLINK

Group CS SWMM

Description Catchments connections links feature class (for SWMM)

Field Name	Data Type	Description
NodeID	Text(40)	Relation 1:1 to mss_Node/MUID
MUID	Text(40)	
CatchID	Text(40)	Relation 1:1 to ms_Catchment/MUID
Connects a catchment cent		

Table

MSS_CATCHMODEL

Group CS SWMM

Description SWMM5 Runoff Models Database Table Attributes

Field Name	Data Type	Description
OutletNodeID	Text[40]	Relation 1:N to mss_Node/MUID
DecayRate	Double	
Suction	Double	
DPerv	Double	
CatchID	Text[40]	Relation 1:1 to ms_Catchment/MUID
Description	Text[255]	
Tag	Text[40]	
RouteToNo	Short Integer	Domain: 1='IMPERV', 2='PERV', 3='OUTLET'
LoadToNo	Short Integer	Domain: 1='Node' (Default), 2='Catchment'
PctRouted	Double	
OutletCatchmentID	Text[40]	Relation 1:1 to ms_Catchment/MUID
Conduct2	Double	
RunoffCN	Short Integer	

InitDef	Double	
Conduct	Double	
Width	Double	Characteristic width of the subcatchment (feet or meters)
Slope	Double	Average slope
RaingageID	Text[40]	Relation 1:N to mss_Raingauge/MUID
NPerv	Double	
MaxInFil	Double	
HRegen	Double	
MaxRate	Double	
ImpervPctZero	Double	
Impervious	Double	
NImperv	Double	
DImperv	Double	
SnowPackID	Text[40]	Relation 1:N to mss_SnowPack/SnowPackID
CurbLength	Double	
CRegen	Double	
InfiltrationMethodNo	Short Integer	Domain: 1='HORTON' (Default), 2='GREEN_AMPT', 3='CURVE_NUMBER'. Runoff method is set generally under [OPTIONS]
MinRate	Double	

Table

MSS_COVERAGE

Group CS SWMM

Description SWMM5 COVERAGE Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	
Percentage	Double	Percent Coverage. MJK: Sum of percent coverage <= 100%

LandUseID	Text[40]	Relation 1:N to mss_Landuse/MUID
SubCatchID	Text[40]	Relation 1:N to ms_Catchment/MUID

Table

MSS_DWF

Group CS

Description SWMM5 DWF Database Table Attributes ()

Field Name	Data Type	Description
PatternWeekHourlyID	Text[40]	Pattern3
NodeID	Text[40]	Node
PollutNo	Short Integer	Item
MUID	Text[40]	
Description	Text[255]	
FlowValue	Double	Value
PatternMonthID	Text[40]	Pattern1
PatternWeekID	Text[40]	Pattern2
PatternWeekendHourlyID	Text[40]	Pattern4

Table

MSS_DWFD

Group CS

Description SWMM5 DWF Database Table Attributes ()

Field Name	Data Type	Description
Sqn	Long Integer	-
PollutantID	Text[40]	Item
BValue	Double	Value
PatternMonthID	Text[40]	Pattern1
PatternWeekID	Text[40]	Pattern2
PatternWeekHourlyID	Text[40]	Pattern3

DwfID	Text[40]	-
PatternWeekendHourlyID	Text[40]	Pattern4

Table

MSS_EVAPORATION

Group CS SWMM

Description SWMM5 EVAPORATION Database Table Attributes

Field Name	Data Type	Description
ConstValue	Double	
Value10	Double	
Value9	Double	
Value8	Double	
Value7	Double	
Value6	Double	
Value5	Double	
Value4	Double	
Value3	Double	
MUID	Text[40]	
Value1	Double	
TypeNo	Short Integer	Domain: 1='CONSTANT, 2='MONTHLY', 3='TIMESERIES', 4='FILE', 5=TEMPERATURE
Value11	Double	
Pan8	Double	
Value2	Double	
Pan7	Double	
SoilRecoveryPatternID	Text[255]	Relation 1:N to mss_Pattern/MUID
Pan12	Double	
Pan11	Double	
Pan10	Double	

Pan6	Double	
DryOnlyNo	Short Integer	Domain: 0 = NO (Default), 1= YES
Value12	Double	
Pan5	Double	
Pan4	Double	
Pan3	Double	
Pan2	Double	
Pan1	Double	
TimeSeriesID	Text[40]	Relation 1:N to mss_Timeseries/MUID
Pan9	Double	

Table

MSS_GROUNDWATER

Group CS SWMM

Description SWMM5 GROUNDWATER Database Table Attributes

Field Name	Data Type	Description
NodeID	Text[40]	
SubCatchID	Text[40]	Relation 1:N to mss_Aquifer/MUID
MUID	Text[40]	Relation 1:N to ms_Catchment/MUID
AquiferID	Text[40]	Relation 1:N to mss_Node/MUID
SurfElev	Double	
B1	Double	
A2	Double	
B2	Double	
A3	Double	
TW	Double	
A1	Double	
Description	Text[255]	
E	Double	

Table

MSS_HYDROGRAPH

Group CS SWMM

Description SWMM5 Hydrograph Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	
RaingageID	Text[40]	Relation 1:N to mss_Raingauge/MUID
Description	Text[255]	

Table

MSS_HYDROGRAPHD

Group CS SWMM

Description SWMM5 Hydrograph Database Table Attributes

Field Name	Data Type	Description
IA_Rec	Double	
IA_Init	Double	
IA_Rec1	Double	
IA_Max2	Double	
IA_Max	Double	
IA_Init2	Double	
T3	Double	
IA_Max3	Double	
IA_Rec3	Double	
IA_Rec2	Double	
K3	Double	
R3	Double	
K1	Double	
T2	Double	

T1	Double	
IA_Init3	Double	
IA_Init1	Double	
R1	Double	
R2	Double	
K2	Double	
MonthNo	Short Integer	Domain: 0='ALL' (Default), 1='JAN', 2='FEB', 3='MAR', 4='APR', 5='MAY', 6='JUN', 7='JUL', 8='AUG', 9='SEP', 10='OCT', 11='NOV', 12='DEC'
IA_Max1	Double	
HydrographID	Text[40]	Relation 1:N to mss_Hydrograph/MUID
Sqn	Long Integer	

Table

MSS_INFLOW

Group CS

Description SWMM5 INFLOW Database Table Attributes ()

Field Name	Data Type	Description
MUID	Text[40]	
BaselinePatternID	Text[40]	Pat
ScaleFlowFactor	Double	
BaseFlowValue	Double	
PollutNo	Short Integer	
FlowSeriesID	Text[40]	Flowseries
NodeID	Text[40]	Name
Description	Text[255]	

Table

MSS_INFLOWD

Group CS

Description SWMM5 INFLOW Database Table Attributes ()

Field Name	Data Type	Description
InflowID	Text[40]	-
FormatNo	Short Integer	Format
PollutantID	Text[40]	
ConvFactor	Double	ConvFactor
BasePollutValue	Double	BaseLine
ScalePollutFactor	Double	Scale Factor
PollutSeriesID	Text[40]	PollutSeries
Sqn	Long Integer	-

Table

MSS_LANDUSE

Group CS SWMM

Description SWMM5 LANDUSES Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	
Description	Text[255]	
SweepInterval	Short integer	Days between sweep
Availability	Double	Fraction of pollutant buildup available for removal by street sweeping
LastSweep	Short integer	Days since last sweeping at start of the simulation

Table

MSS_LIDCONTROL

Group CS SWMM

Description SWMM5 LID_CONTROLS Database Table Attributes

Field Name	Data Type	Description
Offset	Double	DRAIN
Slope	Double	SURFACE
Height	Double	STORAGE
SVratio	Double	STORAGE
Xslope	Double	SURFACE
Filt	Double	STORAGE
SVclog	Double	STORAGE
DrainNo	Short Integer	Domain= 0 = 'FALSE'', 1= 'TRUE'. If LIDTypeNo = (1, or 2 or 3) and Coeff = 0 then DrainNo = 0 (FALSE) otherwise 1 (TRUE)
Expon	Double	DRAIN
PVratio	Double	PAVEMENT
SThick	Double	SOIL
Por	Double	SOIL
Delay	Double	DRAIN
Coeff	Double	DRAIN
Rough	Double	SURFACE
WP	Double	SOIL
Ksat	Double	SOIL
Kcoeff	Double	SOIL
PThick	Double	PAVEMENT
StorHt	Double	SURFACE
FracImp	Double	PAVEMENT
Perm	Double	PAVEMENT

PVclog	Double	PAVEMENT
LIDTypeNo	Short Integer	Domain: 1='Bio Retention Cell', 2='Porous Pavement', 3=Infiltration Trench', 4='Rain Barrel', 5= 'Vegetative Swale'
MUID	Text[40]	
FC	Double	SOIL
VegFrac	Double	SURFACE
Suct	Double	SOIL

Table

MSS_LIDUSAGE

Group CS SWMM

Description SWMM5 LIDUSAGE Database Table Attributes ()

Field Name	Data Type	Description
FromImp	Double	
InitSat	Double	
ToPervNo	Short Integer	Domain: 0 = 'Outlet', 1 = 'Pervious Area'
Area	Double	
CatchID	Text[40]	Relation 1:N to ms_Catchment/MUID
Width	Double	
RptFileNo	Short Integer	Domain: 0 = 'FALSE', 1 = 'TRUE'
RptFileName	Text[255]	
LidID	Text[40]	Relation 1:N to mss_LIDcontrol/MUID
MUID	Text[40]	
ReplicateNumber	Integer	

Table

MSS_LINK

Group CS

Description SWMM5 Conduits Database Table Attributes (Circular, Egg, O, Rectangular, CRS,

Field Name	Data Type	Description
TransectID_S	Short Integer	-
Exponent_S	Short Integer	-
MaxFlow	Double	Maximum flow
Exponent	Double	Geom3
RightSideSlope	Double	Geom4
LeftSideSlope	Double	Geom3
TopWidth	Double	Geom2
BottomWidth	Double	Geom2
SedimentDepth	Double	Geom2
Depth	Double	Geom1
FlapGateNo	Short Integer	Flap Gate
AvgLossCoeff	Double	Avg. Loss Coeff.
BottomRadius_S	Short Integer	-
EntryLossCoeff	Double	Entry Loss Coeff.
Barrels	Short Integer	Barrels
InitialFlow	Double	Init. Flow
OutletInvert	Double	Outlet Invert Ht.
InletInvert	Double	Inlet Invert Ht.
Roughness	Double	Roughness
Length	Double	Length
ShapeTypeNo	Short Integer	Shape
Tag	Text[40]	Tag
Description	Text[255]	Description

MUID	Text[40]	Name
ExitLossCoeff	Double	Exit Loss Coeff.
InletInvert_S	Short Integer	-
TriangleHeight_S	Short Integer	-
RightSideSlope_S	Short Integer	-
LeftSideSlope_S	Short Integer	-
TopWidth_S	Short Integer	-
BottomWidth_S	Short Integer	-
TriangleHeight	Double	Geom3
OutletInvert_S	Short Integer	-
BottomRadius	Double	Geom3
Roughness_S	Short Integer	-
Length_S	Short Integer	-
Element_S	Short Integer	
NetTypeNo	Short Integer	
DataSource	Text[40]	
AssetName	Text[40]	
TransectID	Text[40]	Name
CulvertCode	Short Integer	Culvert Code
Depth_S	Short Integer	-

Table

MSS_LOADING

Group CS SWMM

Description SWMM5 LOADINGS Database Table Attributes ()

Field Name	Data Type	Description
MUID	Text[40]	
Description	Text[255]	
InitBuildUp	Double	

PollutantID	Text[40]	Relation 1:N to mss_Pollutant/MUID
CatchID	Text[40]	Relation 1:N to ms_Catchment/MUID

Table

MSS_NODE

Group CS

Description SWMM5 Junctions Database Table Attributes (Junction, StorageUnit, Outfall, Flow

Field Name	Data Type	Description
Dsur	Double	Dsur
DivertedMinFlow	Double	Min. Flow
Dmax	Double	Dmax
TideGateTSID	Text[40]	Time Series Name
TideGateID	Text[40]	Tide Table Name
FixedStage	Double	Fixed Stage
FlapGateTypeNo	Short Integer	Type
FlapGateNo	Short Integer	Tide Gate
DivertionCoeff	Double	Coefficient
DataSource	Text[40]	
DivertedMaxFlow	Double	Max. Flow
NetTypeNo	Short Integer	
DivertedFlowID	Text[40]	Table Name
CutoffFlow	Double	Cutoff Flow
DividerTypeNo	Short Integer	Type
LinkID	Text[40]	
StorageInitialDeficit	Double	IMD
StorageConductivity	Double	HC
StorageSuctionHead	Double	SH
DivertedMaxDepth	Double	Max. Depth
GeomCoeff	Double	A1

TypeNo	Short Integer	
Description	Text[255]	Description
Tag	Text[40]	Tag
Einv	Double	Einv
D0	Double	D0
Apond	Double	Apond
AssetName	Text[40]	
GeomConst	Double	A0
MUID	Text[40]	Name
GeomExponent	Double	A2
GeomID	Text[40]	Table Name
Fevap	Double	Fevap
StorageInfiltrationNo	Short Integer	-
GeomID_S	Short Integer	
MaxDepth_S	Short Integer	
InvertLevel_S	Short Integer	
Element_S	Short Integer	
GeomTypeNo	Short Integer	

Table

MSS_ORIFICE

Group CS

Description SWMM5 Orifices Database Table Attributes (Circular and Rectangular)

Field Name	Data Type	Description
NetTypeNo	Short Integer	
Tag	Text[40]	Tag
DischargeCoeff_S	Short Integer	
CrestHeight_S	Short Integer	
Height_S	Short Integer	

Element_S	Short Integer	
DataSource	Text[40]	
AssetName	Text[40]	
FlapGateNo	Short Integer	Flap Gate
DischageCoeff	Double	Disch. Coeff.
CrestHeight	Double	Crest Height
Width	Double	Width
Height	Double	Height
TypeNo	Short Integer	Type
Description	Text[255]	Description
MUID	Text[40]	Name
FlapGateNo_S	Short Integer	
ShapeTypeNo	Short Integer	Shape

Table

MSS_OUTLET

Group CS

Description SWMM5 Outlet database table

Field Name	Data Type	Description
NetTypeNo	Short Integer	
Tag	Text[40]	Tag
Height	Double	Height
TypeNo	Short Integer	
QcurveID	Text[40]	Qcurve
FlapGateNo	Short Integer	FlapGate
Qcoeff	Double	QCoeff
Qexpon	Double	Qexpon
AssetName	Text[40]	
DataSource	Text[40]	

Height_S	Short Integer	-
MUID	Text[40]	Name
Description	Text[255]	
Element_S	Short Integer	

Table

MSS_PATTERN

Group CS

Description SWMM5 PATTERN Database Table Attributes ()

Field Name	Data Type	Description
Day6	Double	
PMW10	Double	
PMW11	Double	
Mdr8	Double	
Mdr9	Double	
Mdr10	Double	
Mdr11	Double	
Mdr12	Double	
Day1	Double	
Day2	Double	
Day3	Double	
Day5	Double	
PMW7	Double	
Day7	Double	
AM12	Double	
AM1	Double	
AM2	Double	
AM3	Double	
AM4	Double	

AM5	Double	
AM6	Double	
AM7	Double	
AM8	Double	
Day4	Double	
MUID	Text[40]	Name
TypeNo	Short Integer	-
Description	Text[255]	-
Mdr1	Double	
Mdr2	Double	
Mdr3	Double	
Mdr4	Double	
Mdr5	Double	
Mdr6	Double	
PM3	Double	
PMW9	Double	
AM9	Double	
PMW8	Double	
AMW9	Double	
AMW10	Double	
AMW11	Double	
PMW12	Double	
PMW1	Double	
PMW2	Double	
PMW3	Double	
PMW4	Double	
PMW5	Double	
PMW6	Double	
Mdr7	Double	

PM10	Double
AM10	Double
AMW6	Double
AMW5	Double
AMW4	Double
AMW3	Double
AMW2	Double
AMW1	Double
PM11	Double
AMW7	Double
PM9	Double
PM2	Double
AM11	Double
AMW8	Double
AMW12	Double
PM1	Double
PM8	Double
PM4	Double
PM5	Double
PM6	Double
PM7	Double
PM12	Double

Table

MSS_POLLUANT

Group CS SWMM

Description SWMM5 POLLUTANTS Database Table Attributes ()

Field Name	Data Type	Description
Description	Text[255]	

SnowFlag	Short Integer	YES if pollutant buildup occurs only when snowfall occurs, NO otherwise
Cdwf	Double	
CoFract	Double	
CoPollut	Text[40]	
Kdecay	Double	
Cii	Double	Concentration of pollutant in inflow/infiltration
Cgw	Double	
Crain	Double	
TypeNo	Short Integer	Domain: 1='mg/l', 2='ug/l', 3='#/L'
MUID	Text[40]	

Table

MSS_PROJECT

Group CS

Description SWMM5 Projectdata Database Table Attributes

Field Name	Data Type	Description
SubCatchmentsNo	Short Integer	Domain: 0=All (Default), 1=NONE, 2=List of subcatchments
NormalFlowLimited	Short Integer	Domain: 0='NO' (Default), 1='YES'
VariableStep	Double	Default=0
LengtheningStep	Long Integer	Default=0
MinSurfArea	Double	Default=12.556 ft2 equal 4ft manhole
IgnoreRainfall	Short Integer	Domain: 0='NO' (Default), 1='YES'
InputNo	Short Integer	Domain: 0='NO' (Default), 1='YES'
FlowStatsNo	Short Integer	Domain: 0='NO', 1='YES' (Default)
ContinuityNo	Short Integer	Domain: 0='NO', 1='YES' (Default)
ControlsNo	Short Integer	Domain: 0='NO' (Default), 1='YES'

ActiveJob	Short Integer	Actually functions like domain: 0=False, 1=True, should be set atomatically by the dialog accoridng to specification, default value = 0
InitialDampingNo	Short Integer	Domain: 0='NONE', 1='PARTIAL' (Default), 2='FULL'
SubCatchmentFileName	Text[254]	
InfiltrationTypeNo	Short Integer	Domain: 1=HORTON (Default), 2=GREEN-AMPT, 3=CURVE_NUMBER
ReportStartTime	Date	
NodesNo	Short Integer	Domain: 0=All (Default), 1=NONE, 2=List of nodes
HotStartFileNo	Short Integer	Domain: 0='FALSE', 1='TRUE'
ReportStartDate	Date	
EndTime	Date	
EndDate	Date	
StartTime	Date	
StartDate	Date	
SkipSteadyState	Short Integer	Domain: 0='NO' (Default), 1='YES'
ScenarioID	Text[40]	Relation 1:N to m_SCENARIO/MUID
FlowRoutingNo	Short Integer	Domain: 1=STEADY, 2=KINWAVE, 3=DYNWAVE
ReportStep	Date	Default = Routing Time Step
UnitNo	Short Integer	Domain: 1=CFS, 2=GPM, 3=MGD, 4=CMS, 5=LPS, 6=MLD
Description	Text[255]	
IncludeToBatchNo	Short Integer	Domain: 0=False, 1=True (checkbox) (flag to includes the simualtion(I.e. scenario) into the batch simulation)
MUID	Text[40]	Upon creation of a new scenario, automatically filled-in by a default name (ProjectName+_+ScenarioName). Upon creation of a new simulation, remains empty, I.e. must be manually specified. User-editable
SweepStartDate	Date	

SweepEndDate	Date	
DryDays	Long Integer	
WetStep	Date	Default = 1 hour
DryStep	Date	Default = 24 hours
RoutingStep	Date	Default for KW = 5 minutes, DW = 30 seconds
AllowPondingNo	Short Integer	Domain: 0='NO' (Default), 1='YES'
IncludeSnowMeltNo	Short Integer	Domain: 0 = FALSE (Default), 1 = TRUE
RunoffFileUseSaveNo	Short integer	Domain: 1='OPEN', 2='Save'
IncludeWaterQualityNo	Short Integer	Domain: 0 = FALSE (Default), 1 = TRUE
NodesFileName	Text[254]	
IncludeGroundwaterNo	Short Integer	Domain: 0 = FALSE (Default), 1 = TRUE
IncludeRainfallRunoffNo	Short Integer	Domain: 0 = FALSE, 1 = TRUE (Default)
MinimumPipeSlope	Double	Minimum slope in % for conduit slope. Default = 0
OutflowFileName	Text[254]	User specified path+name, ONLY SAVE Possible
OutflowFileNo	Short Integer	Domain: 0='FALSE', 1='TRUE'
InflowFileName	Text[254]	User specified path+name, ONLY OPEN Possible
InflowFileNo	Short Integer	Domain: 0='FALSE', 1='TRUE'
RDIIFileName	Text[254]	User specified path+name
RainfallFileName	Text[254]	User specified path+name
IncludeFlowRoutingNo	Short Integer	Domain: 0 = FALSE (Default), 1 = TRUE
RDIIFileUseSaveNo	Short integer	Domain: 1='OPEN', 2='Save'
LinksFileName	Text[254]	
RainfallFileNo	Short Integer	Domain: 0='FALSE', 1='TRUE'
LinksNo	Short Integer	Domain: 0=All (Default), 1=NONE, 2=List of links
RunoffFileNo	Short Integer	Domain: 0='FALSE', 1='TRUE'
RunoffFileName	Text[254]	User specified path+name
RDIIFileNo	Short Integer	Domain: 0='FALSE', 1='TRUE'

HotstartFileName	Text[254]	User specified path+name
RainfallFileUseSaveNo	Short integer	Domain: 1='OPEN', 2='Save'
HotStartFileUseSaveNo	Short integer	Domain: 1='OPEN', 2='Save'

Table

MSS_PUMP

Group CS

Description SWMM5 Pumps Database Table Attributes (Q-Volume (discrete steps), Q-H (discr

Field Name	Data Type	Description
Element_S	Short Integer	
MUID	Text[40]	Name
Description	Text[255]	Description
PumpCurveID	Text[40]	Pump Curve
NetTypeNo	Short Integer	
DataSource	Text[40]	
AssetName	Text[40]	
InitialStatusNo	Short Integer	Init. Status
Tag	Text[40]	Tag

Table

MSS_RAINGAUGE

Group CS SWMM

Description SWMM5 RAINGAGES Database Table Attributes

Field Name	Data Type	Description
UnitNo	Short Integer	Domain: 1=in, 2=mm
FileNameSeries	Text[255]	Supported external formats are, NWS 3240, NWS 3260 and Canadian CMC fomat
Description	Text[255]	

TimeInterval	Double	Time interval between gage readings (in decimal hours or hours:minutes format) - do we need to split this up into two variables - one for each format ?
FormNo	Short Integer	Domain: 1='INTENSITY', 2='VOLUME', 3='CUMULATIVE'
TimeSeriesID	Text[40]	Relation 1:N to mss_Timeseries/MUID
StationName	Text[80]	
TypeNo	Short Integer	Domain: 1='FILE', 2='TIMESERIES'
MUID	Text[40]	
Scf	Double	

Table

MSS_RDII

Group CS SWMM

Description SWMM5 RDII Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	
NodeID	Text[40]	Relation 1:N to mss_Node/MUID
HydrographID	Text[40]	Relation 1:N to mss_Hydrograph/MUID
SewerArea	Double	
Description	Text[255]	

Table

mss_RESCatchment

Group CS SWMM

Description SWMM Catchment Result Summary Database Table Attributes - internal table

Field Name	Data Type	Description
QTotalAccum	Double	Accumulated total for the simulation
QTotalMin	Double	Minimum total runoff for the simulation
QTotalMax	Double	Maximum total runoff for the simulation

CatchmentID	Text[40]	Relation 1:N to ms_Catchment/MUID

Table

mss_RESLink

Group CS SWMM

Description SWMM Conduits Result Summary Database Table Attributes - internal table

Field Name	Data Type	Description
VAver	Double	Average velocity for the simulation
QMin	Double	Minimum discharge for the simulation
HAver	Double	Average water level for the simulation
HMax	Double	Maximum water level for the simulation
HMin	Double	Minimum water level for the simulation
LinkID	Text[40]	Relation 1:N to mss_Link/MUID
QAver	Double	Average discharge for the simulation
Qaccum	Double	Accumulated discharge for the simulation
VMin	Double	Minimum velocity for the simulation
QMax	Double	Maximum discharge for the simulation
VMax	Double	Maximum velocity for the simulation

Table

mss_RESNode

Group CS SWMM

Description SWMM Nodes Result Summary Database Table Attributes (Junction, StorageUnit,

Field Name	Data Type	Description
HMin	Double	Minimum water level for the simulation
HMax	Double	Maximum water level for the simulation
HAver	Double	Average water level for the simulation
NodeID	Text[40]	Relation 1:N to mss_Node/MUID

Table

mss_RESOrifice

Group CS SWMM

Description SWMM Orifices Result Summary Database Table Attributes - internal table

Field Name	Data Type	Description
OrificeID	Text[40]	Relation 1:N to mss_Orifice/MUID
QMin	Double	Minimum discharge for the simulation
QMax	Double	Maximum discharge for the simulation
Qaccum	Double	Accumulated discharge for the simulation

Table

mss_RESPump

Group CS SWMM

Description SWMM Pumps Result Summary Database Table Attributes - internal table

Field Name	Data Type	Description
QMax	Double	Maximum pump discharge for the simulation
PumpID	Text[40]	Relation 1:N to mss_Pump/MUID
QMin	Double	Minimum pump discharge for the simulation
Qaccum	Double	Accumulated pump discharge for the simulation

Table

mss_RESWeir

Group CS SWMM

Description SWMM Weirs Result Summary Database Table Attributes - internal table

Field Name	Data Type	Description
Qaccum	Double	Accumulated discharge for the simulation
QMax	Double	Maximum discharge for the simulation
QMin	Double	Minimum discharge for the simulation

WeirID	Text[40]	Relation 1:N to mss_Weir/MUID

Table

MSS_RULE

Group CS

Description SWMM5 CONTROLS database table

Field Name	Data Type	Description
MUID	Text[40]	Rule
Description	Text[255]	
Priority	Short Integer	Priority

Table

MSS_RULED

Group CS

Description SWMM5 CONTROLS database table

Field Name	Data Type	Description
AAttributeNo	Short Integer	
RValue	Text[40]	
AObjectName	Text[40]	
AObjectNo	Short Integer	
Sqn	Long Integer	
RuleID	Text[40]	Rule
CRelationNo	Short Integer	
TypeNo	Short Integer	
OperatorNo	Short Integer	
CObjectNo	Short Integer	
CObjectName	Text[40]	
CAttributeNo	Short Integer	

Table

MSS_SNOWPACK

Group CS SWMM

Description SWMM5 SNOWPACK database attribute table

Field Name	Data Type	Description
Description	Text[255]	
Fwf2	Double	
MUID	Text[40]	
Cmax1	Double	
Tbase1	Double	
Fwf1	Double	
Sd01	Double	
Fw01	Double	
Snn0	Double	
Cmin2	Double	
Cmin1	Double	
Fperv	Double	
Cmin3	Double	
Cmax3	Double	
Tbase3	Double	
Fwf3	Double	
Sd03	Double	
Fw03	Double	
SD1003	Double	
Sdplow	Double	
Fout	Double	
Cmax2	Double	
Fimperv	Double	

Tbase2	Double	
Fimelt	Double	
SubCatchID	Text[40]	Relation 1:N to ms_Catchment/MUID
Fsubcatch	Double	
SD1002	Double	
Fw02	Double	
Sd02	Double	

Table

MSS_TAB

Group CS

Description SWMM5-Tabular Data Database Table Attributes

Field Name	Data Type	Description
Description	Text[255]	User's descriptive information related to the data curve
TypeNo	Short Integer	Domain: 1='STORAGE', 2='DIVIDER', 3='TIDAL', 4='TYPE1', 5='TYPE2', 6='TYPE3', 7='TYPE4', 8='RATING',
MUID	Text[40]	Generic Table ID

Table

MSS_TABD

Group CS

Description SWMM5 Tabular data values Database Table Attributes

Field Name	Data Type	Description
TabID	Text[40]	Relation 1:N to mss_Tab/MUID
Sqn	Long Integer	Internal Sequence Number
Value2	Double	
Value1	Double	

Table

MSS_TEMPERATURE

Group CS SWMM

Description SWMM5 TEMPERATURE Database Table Attributes

Field Name	Data Type	Description
Rnm	Double	
Value12	Double	
Value5	Double	
AdcPerv1	Double	
AdcPerv0	Double	
ADCNo	Short Integer	Domain: 1='IMPERVIOUS', 2='PERVIOUS'
Dtlong	Double	
Lat	Double	
AdcPerv3	Double	
Atiwt	Double	
AdcPerv4	Double	
Value11	Double	
Value10	Double	
Value9	Double	
Value8	Double	
Value7	Double	
Value6	Double	
Elev	Double	
AdcImPerv3	Double	
SnowTemp	Double	
StartNo	Short Integer	Domain 0:Fasle--1:True. Default to False
AdcImPerv9	Double	
AdcImPerv8	Double	

AdcImPerv7	Double	
AdcImPerv6	Double	
AdcPerv2	Double	
AdcImPerv4	Double	
AdcPerv5	Double	
AdcImPerv2	Double	
AdcImPerv1	Double	
AdcImPerv0	Double	
AdcPerv9	Double	
AdcPerv8	Double	
AdcPerv6	Double	
AdcImPerv5	Double	
AdcPerv7	Double	
Value3	Double	
Value2	Double	
Value1	Double	
WindSpeedTypeNo	Short Integer	Domain: 1='NONE', 2='MONTHLY', 3='FILE',
Start	Date	Month-Day-Year format
FileName	Text[255]	Name of file (NWS data)
TimeSeriesID	Text[40]	Relation 1:N to mss_Timeseries/MUID
TypeNo	Short Integer	Domain: 1='NONE', 2='TIMESERIES',3='FILE'
Value4	Double	
MUID	Long Integer	Internal Sequence Number

Table

MSS_TIMESERIES

Group CS

Description SWMM5 TIMESERIES

Field Name	Data Type	Description
ExternalTimeSeriesID	Text[255]	
TypeNo	Short Integer	
MUID	Text[40]	Name
Description	Text[255]	Description
TimeSeriesTypeNo	Short Integer	

Table

MSS_TIMESERIESD

Group CS

Description SWMM5 TIMESERIES

Field Name	Data Type	Description
TimeseriesID	Text[40]	Name
Sqn	Long Integer	
TSDate	Date	
TSValue	Double	

Table

MSS_TRANSECT

Group CS

Description SWMM5 TRANSECTS database table (HEC-2 format CRS)

Field Name	Data Type	Description
Nright	Double	Nright
MUID	Text[40]	Name

Description	Text[255]	
Nleft	Double	Nleft
NChannel	Double	NChannel
Nsta	Short Integer	Nsta
Xleft	Short Integer	Xleft
Lfactor	Double	Lfactor
Wfactor	Double	Wfactor
Eoffset	Double	Eoffset
Xright	Short Integer	Xright

Table

MSS_TRANSECTD

Group CS

Description SWMM5 TRANSECTS database table (HEC-2 format CRS)

Field Name	Data Type	Description
TransectID	Text[40]	Name
Sqn	Long Integer	
Station	Double	Station
Elevation	Double	Elevation

Table

MSS_TREATMENT

Group CS SWMM

Description SWMM5 TREATMENT Database Table Attributes

Field Name	Data Type	Description
Description	Text[255]	
NodeID	Text[40]	Relation 1:N to mss_Node/MUID
MUID	Long Integer	Internal Sequence Number
Function	Text[100]	

PollutantID	Text[40]	Relation 1:N to mss_Pollutant/MUID

Table

MSS_WASHOFF

Group CS SWMM

Description SWMM Weirs Result Summary Database Table Attributes - internal table

Field Name	Data Type	Description
BMPEfficiency	Double	
Description	Text[255]	
SweepEfficiency	Double	
C2	Double	
FuncTypeNo	Short Integer	Domain: 1='EXP', 2='RC', 3='EMC'
PollutantID	Text[40]	Relation 1:N to mss_Pollutant/MUID
LanduseID	Text[40]	Relation 1:N to mss_Landuse/MUID
C1	Double	
MUID	Text[40]	

Table

MSS_WEIR

Group CS

Description SWMM5 Weirs Database Table Attributes (Weir formula and QH)

Field Name	Data Type	Description
Tag	Text[40]	Tag
CrestHeight	Double	Crest Height
CrestHeight_S	Short Integer	
SideSlope	Double	Side Slope
Length	Double	Length
MUID	Text[40]	Name
TypeNo	Short Integer	Type

Description	Text[255]	Description
DischargeCoeff	Double	Disch. Coeff
DataSource	Text[40]	
Height	Double	Height
FlapGateNo	Short Integer	Flap Gate
NoEndContractions	Short Integer	End Contractions
Cd2	Double	Cd2
AssetName	Text[40]	
NetTypeNo	Short Integer	
Element_S	Short Integer	
TypeNo_S	Short Integer	
FlapGateNo_S	Short Integer	
Height_S	Short Integer	
Length_S	Short Integer	
DischargeCoeff_S	Short Integer	

Table

mw_AirChamber

Group WD EPANE

Description Nodes Database Table Attributes (Reservoirs, and Tanks)

Field Name	Data Type	Description
PZoneID	text (40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
INITLEVEL_S	Short Integer	Domain: (user-specified domain mwCStatus)
MINLEVEL_S	Short Integer	Domain: (user-specified domain mwCStatus)
MAXLEVEL_S	Short Integer	Domain: (user-specified domain mwCStatus)
INITLEVEL	float	Tank initial water depth
TypeNo	short integer	Domain: 0: circular, 1: rectangular, 2: table
WIDTH_S	Short Integer	Domain: (user-specified domain mwCStatus)

ELEV _S	Short Integer	Domain: (user-specified domain mwCStatus)
ELEMENT_S	Short Integer	Domain: (user-specified domain mwCStatus)
SMFLAG	short integer	Domain: mwSMstatus (0: Inherited, 1: Changed, 2:New)
StateNo	short integer	Domain: Node state (0: unmarked, 1: marked)
VolCurveID	text (40)	Relation 1:N to mw_Curve/MUID (Tank depth-volume curve)
KAPA	float	Polytropic expansion factor
MAXLEVEL	float	Tank maximum water depth
WIDTH	float	Tank width (b)
LENGTH	float	Tank length (a) (to be taken from diameter)
DIAMETER	float	Tank diameter
DZoneID	text (40)	Relation 1:N to mw_DZone/MUID Demand Zone ID)
TypeNo_S	Short Integer	Domain: (user-specified domain mwCStatus)
ELEV	float	Junction elevation, Reservoir HGL, Tank base elevation
DESCRIPTION	text(255)	Node description
DataSource	text(80)	Data source
Z_S	Short Integer	Domain: (user-specified domain mwCStatus)
LENGTH_S	Short Integer	Domain: (user-specified domain mwCStatus)
Asset	text(40)	Asset ID
DIAMETER_S	Short Integer	Domain: (user-specified domain mwCStatus)
PZoneID_S	Short Integer	Domain: (user-specified domain mwCStatus)
MUID	text (40)	Unique ID (junctions, tanks, air-chambers)
MINLEVEL	float	Tank minimum water depth
Z	float	Surface elevation

Table

mw_BCJunction

Group CS MOUSE

Description WD BCV Junctions Database Table Attributes - internal table

Field Name	Data Type	Description
JunctionID	Text[40]	Relation 1:N to mw_Junction.MUID
MUID	Text[40]	
MDemandID	Text[40]	Relation 1:N to mw_MDemand.MUID

Table

mw_CFloCon

Group WD EPANE

Description

Field Name	Data Type	Description
VAL	float	Meassured value
ACC	float	Meassurement accuracy
DESCRIPTION	text(255)	Description
PipeID	Text(40)	Relation 1:1 to mw_Pipe/MUID

Table

mw_CGlobal

Group WD EPANE

Description

Field Name	Data Type	Description
MUID	Text(40)	
NOFCPIPES	long integer	
PMAX	float	
QMIN	float	

PMIN	float	
USECPIPES	Short Integer	
QMAX	float	
ADDPOPGROWTH	long integer	Additional population growth
MAXGENCOUNT	long integer	Maximum population count
INIPOPSIZE	long integer	Initital population size

Table

mw_CGroup

Group WD EPANE

Description

Field Name	Data Type	Description
TAG	text(40)	Internal field
GNAME	Text(50)	Group name
DESCRIPTION	text(100)	Group description
CMIN	float	Minimum roughness
CMAX	float	Maximum roughness
CCALC	float	Calculated roughness
CFINAL	float	Accepted roughness
MUID	Text(40)	Group ID

Table

mw_CGroupC

Group WD EPANE

Description MIKE NET tables, used in the Import/export bridge

Field Name	Data Type	Description
MUID	text(40)	Group name
COND	text(250)	Group SQL condition

Table

mw_Control

Group WD EPANE

Description Controls Database Table Attributies

Field Name	Data Type	Description
CLEVEL	float	Control pressure level
ClockTimeMin	Long Integer	Clock time min
ClockTimeHrs	Long Integer	Clock time hours
ClockTimeUnitsNo	short integer	Domain (0: AM, 1:PM) ControlClockTimeUnits
TimeUnitsNo	short integer	Domain (0: Seconds, 1: Minutes, 2: Hours, 3: Days) ControlTimeUnits
JunctionID	text(40)	Relation 1:N to mw_Junction/MUID
TVALUE	float	Time setting
SETVALUE	float	Control setting value
SETTINGNo	short integer	Domain (0: Open, 1: Closed, 2: Value) LinkSetting
ControlJunctionID	text(40)	Relation 1:N to mw_Junction/MUID
PipeID	text(40)	Relation 1:N to mw_Pipe/MUID
DESCRIPTION	text(255)	Control description
CONDITIONNo	short integer	Domain (0: If Node Below, 1: If Node Above, 2: At Time, 3: At Clocktime) ControlCondition
MUID	text(40)	Control ID
LinkTypeNo	short integer	Domain (0: Pipe, 1: Pump, 2: Valve) LinkType

Table

mw_CPreCon

Group WD EPANE

Description

Field Name	Data Type	Description
JunctionID	text(40)	Relation 1:1 to mw_Junction/MUID
NodeTypeNo	Short Integer	Domain (0: Junction, 1: Tank), NodeType
ACC	float	Meassurement accuracy
DESCRIPTION	CHAR(255)	Description
VAL	float	Meassured value

Table

mw_Curve

Group WD EPANE

Description Curves Database Table Attributies

Field Name	Data Type	Description
MUID	text(40)	Curve ID
TYPENO	short integer	(Domain: 1:Pump efficiency, 2:Valve head loss, 3:Pump Q-H curve, 4:Tank depth-volume curve, 5:Water source price, 6:Transient Q-Boundary, 7:Transient H-Boundary , 8:Valve operation schedule, 9:Valve characteristics Cd, 10:Dual-acting valve characteristics, 11:Pump operational schedule, 12:Pump torque, 13:Motor torgue, 14: Valve Characteristics Kv, 15: PID Set Point Value Curve) Curve category
DESCRIPTION	text(255)	Curve description

Table

mw_CurveD

Group WD EPANE

Description Curves Database Table Attributies

Field Name	Data Type	Description
VAL3	float	Y-value
CurveID	text(40)	Relation 1:N to mw_Curve/MUID
Sqn	Long Integer	Internal position
VAL1	float	X-value
VAL2	float	Y-value

Table

mw_DemAlloc

Group WD EPANE

Description Deman Allocation Database Table Attributies

Field Name	Data Type	Description
MINPRE	float	Minimum required pressure
X	double	Demand X coordinate
MUID	Text(40)	ID
REFERENCE_ID	text(40)	Reference-Asset ID
PATTERN	text(40)	Demand pattern
MAXDEMAND	Float	Minimum demand
MINDEMAND	Float	Minimum demand
PipeID	Text(40)	Relation 1:N to mw_Pipe/MUID
JunctionID	Text(40)	Relation 1:N to mw_Junction/MUID
DEM_ET	float	Demand ET
DEM_EP	float	Demand Equivalent person
DESCRIPTION	text(255)	Description

FLAG	Short Integer	Flag the data
Z	float	Elevation of the demand point (service pipe, for example)
DZoneID	text (40)	Relation 1:N to mw_DZone/MUID Demand Zone ID)
PZoneID	text(40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
Y	double	Demand Y coordinate
ESTHEIGHT	float	Estate hight
AVEDEMAND	Float	Average demand
DEM_CATEGORY	text(40)	Demand category
CATEGORY_TYPE	text(40)	Category type
DEM_OWNER	text(40)	Owner
DEM_LOCATION	text(40)	Address, Location
TAG	text(25)	Tag
DEMDATE	text(25)	Date of the demand data
DEM_UNITS	text(25)	Demand units
ACTDEMAND	float	Actual value

Table

mw_DemAllocJunctionCon

Group WD EPANE

Description Demand allocation connection (to junction) feature class - internal table

Field Name	Data Type	Description
MUID	Text(40)	ID

Table

mw_DemAllocPipeCon

Group WD EPANE

Description Demand allocation connection (to pipe) feature class - internal table

Field Name	Data Type	Description
MUID	Text(40)	ID

Table

mw_DemStat

Group WD EPANE

Description Demand Sttistics Database Table Attributies - internal table

Field Name	Data Type	Description
SumDemand	float	Calculated Total Demand
CatTypeNo	Short Integer	Domain (0:Fixed, 1: Scaled)
NewSumDemand	float	New Total Demand
MUID	Text(40)	ID
AvgDemand	float	Calculated Average Demand
MaxDemand	float	Calculated Maximum Demand
MinDemand	float	Caclulated Minimum Demand
Category	Text(40)	Category
PZoneID	Text(40)	Zone ID
RecTypeNo	Short Integer	Domain (0:Data, 1: Zone, 2: Network)
Sqn	Long Integer	Internal Sequence Number
NewAvgDemand	float	New Average Demand

Table

mw_DPPattern

Group WD EPANE

Description Water diurnal profile Database Table Attributes

Field Name	Data Type	Description
MUID	Text(40)	Profile ID
DeltaT	Long Integer	DeltaT [min]:
Category	Text(40)	
Description	Text(40)	

Table

mw_DPPatternD

Group WD EPANE

Description WATER diurnal profile data Database Table Attributes

Field Name	Data Type	Description
IntervalStart	Date	
DPValue	Double	
Sqn	Long Integer	
IntervalEnd	Date	
PatternID	Text(40)	

Table

mw_DPProfile

Group WD EPANE

Description WATER Daily Profiles / DP_Group

Field Name	Data Type	Description
Description	Text(40)	
MUID	Text(40)	

InterpolationNo	Short Integer
Category	Text(40)
P_Rewind	Short Integer
P_Scale	Short Integer
PZoneID	text (40)
PTimeStep	float
PDuration	float
PDayOfWeekNo	Short Integer
DataRelationNo	Short Integer

Table

mw_DPProfileD

Group WD EPANE

Description Daily Profiles / DP_Group hr24_Set

Field Name	Data Type	Description
Sqn	Long Integer	
PatternID	Text(40)	
ProfileID	Text(40)	

Table

mw_DZone

Group WD EPANE

Description MIKE NET tables, used in the Import/export bridge

Field Name	Data Type	Description
MUID	text(40)	Demand zone ID
DESCRIPTION	text(255)	Demand zone description
ZONE_DEM	float	Zone demand

Table

mw_Energy

Group WD EPANE

Description Energy Database Table Attributies

Field Name	Data Type	Description
DEMCHARGE	float	Global demand charge
MUID	Long Integer	Internal ID
EfficPatID	text(40)	Relation 1:N to mw_DPProfile/MUID (Global pump efficiency pattern ID)
EFFIC	float	Global pump efficiency
DESCRIPTION	text(255)	Description
SFLAG	Short Integer	Internal field
ECurrency	text(8)	Currency
PricePatID	text(40)	Relation 1:N to mw_DPProfile/MUID (Global energy price pattern ID)
PRICE	float	Price

Table

mw_EPA_Sum

Group WD EPANE

Description EPANET Summary Database Table Attributies - internal table

Field Name	Data Type	Description
PipeID	text(40)	Relation 1:N to mw_Pipe/MUID
MSGTIMES	text(40)	Simulation time (dd:hh:mm:ss)
ElementID	text(40)	
MSGTIMED	double	Simulation time in seconds
TypeNo	Short Integer	Domain
MESSAGE	text(255)	Error or warning message

ElementIDNo	Short Integer	Domain (0: Junction, 1: Tank, 2:Pipe, 3: Pump. 4: Valve)
POS	Long Integer	Chronological ID (line number)

Table

mw_FireFlow

Group WD EPANE

Description Fire Flow Settings

Field Name	Data Type	Description
UseNodeDemMultNo	short integer	Domain: (0: No, 1: Yes) YesNo
CriNodeRadius	float	Critical node search radius
UseCriNodeRadiusNo	short integer	Domain: (0: No, 1: Yes) YesNo
DesignFlow	float	Design fire flow
CriNodePressure	float	Critical node pressure
NodeDemMult	float	Node demand multiplier
ReportCriNodesNo	short integer	Domain: (0: No, 1: Yes) YesNo
FirHydPipeDiameter	float	Fire hydrant connecting pipe diameter
FirHydPipeLength	float	Fire hydrant connecting pipe length
SimulateFireHydrantNo	short integer	Domain: (0: No, 1: Yes) YesNo
FirHydMinorLoss	float	Fire hydrant local loss coefficient
DesignPressure	float	Design fire pressure
SearchWithinZoneNo	short integer	Domain: (0: No, 1: Yes) YesNo
UseMaxFlowLimitNo	short integer	Domain: (0: No, 1: Yes) YesNo
UseMinResPreNo	short integer	Domain: (0: No, 1: Yes) YesNo
PreventBackFlowNo	short integer	Domain: (0: No, 1: Yes) YesNo
FirHydPipeRoughness	float	Fire hydrant connecting pipe roughness
DESCRIPTION	text(255)	Description
MaxFlowLimit	float	Maximum flow limit
UseResNodeRadiusNo	short integer	Domain: (0: No, 1: Yes) YesNo

MUID	Long Integer	
TypeNo	short integer	Domain: (0: Calculate available flow for design pressure, 1: Calculate available pressure for design flow, 2: Calculate Q-H Curve) FireFlowType
MinResPre	float	Minimum residual pressure
ResNodeRadius	float	Residual pressure node search radius
SelTimeLevel	Long Integer	Selected time level
SelNodeTypeNo	short integer	Domain: (0: Use only selected junction nodes, 1: Use all junction nodes, 2: Geocode hydrants) SelNodeType

Table

mw_Friction

Group WD EPANE

Description Friction Database Table Attributies

Field Name	Data Type	Description
M	float	Chezy-Manning formula
HW	float	Hazen-Williams formula
DW	float	Darcy-Weisbach formula
MUID	Long Integer	
DESCRIPTION	text(255)	Description

Table

mw_Global

Group WD EPANE

Description Global Database Table Attributies

Field Name	Data Type	Description
WALLCOEFF	float	Wall rate coefficient
BULKCOEFF	float	Bulk rate coefficient
USEORDERWNo	short integer	Domain: (0: No, 1: Yes) UseWallReactionOrder

USEORDERBNo	short integer	Domain: (0: No, 1: Yes) UseBulkReactionOrder
USELIMITPNo	short integer	Domain: (0: No, 1: Yes) UseLimitingPotential
USECORRCNo	short integer	Domain: (0: No, 1: Yes) UsePipeFrictionCorrelation
ORDERWALL	float	Pipe wall reaction order
LIMITPOT	float	Limiting potential
ORDERBULK	float	Bulk reaction order
NEWBULKCOEFFHRS	float	Time when the new bulk coefficient applies
MUID	text(40)	Unique ID
NEWBULKCOEFF	float	New bulk rate coefficient
CORRCOEFF	float	Pipe friction correlation factor

Table

mw_Junction

Group WD EPANE

Description Nodes Database Table Attributes (Junctions)

Field Name	Data Type	Description
PZoneID_S	Short Integer	Domain: (user-specified domain mwCStatus)
FFFLOREQ	float	Fire flow requirement
AV_DIAMETER	float	Air-Valve diameter
AV_Height	float	Air-Valve chamber height
AV_ValveCurveID	text (40)	Relation 1:N to mw_Curve/MUID (Air-Valve Dual-acting valve characteristics curve)
AV_KAPA	float	Air-Valve Polytropic expansion factor
Damage	float	Damage parameter
SMFLAG	short integer	Domain: mwSMstatus (0: Inherited, 1: Changed, 2:New)
ELEMENT_S	Short Integer	Domain: (user-specified domain mwCStatus)
Z_S	Short Integer	Domain: (user-specified domain mwCStatus)
Emitter_S	Short Integer	Domain: (user-specified domain mwCStatus)

MinPre_S	Short Integer	Domain: (user-specified domain mwCStatus)
EstHeight_S	Short Integer	Domain: (user-specified domain mwCStatus)
DemCoeff_S	Short Integer	Domain: (user-specified domain mwCStatus)
ESTHEIGHT	float	Estate building height
Elev_S	Short Integer	Domain: (user-specified domain mwCStatus)
ELEV	float	Junction elevation, Reservoir HGL, Tank base elevation
FFPREREQ	float	Fire flow pressure requirement
EM_FLOWCOEFF	float	Emitter flow coefficient
MUID	text (40)	Unique ID (junctions, tanks, air-chambers)
Asset	text(40)	Asset ID
DESCRIPTION	text(255)	Node description
Z	float	Surface elevation
PZoneID	text (40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
DZoneID	text (40)	Relation 1:N to mw_DZone/MUID Demand Zone ID)
TypeNo	short integer	Domain: 0: Junction, 1: Emitter, 2: Air-Valve
StateNo	short integer	Domain: state (0: unmarked, 1: marked)
DEMCOEFF	float	Junction demand coefficient
MINPRE	float	Minimum required pressure
DataSource	text(80)	Data source

Table

mw_Loss

Group WD EPANE

Description Losses Database Table Attributies

Field Name	Data Type	Description
COEFF	float	Minor loss coefficient
DESCRIPTION	text(255)	Minor loss description

MUID	Long Integer

Table

mw_MDemand

Group WD EPANE

Description Mdemands Database Table Attributies

Field Name	Data Type	Description
CATEGORY	text(40)	Demand category
DESCRIPTION	text(255)	Demand description
PatternID	text(40)	Relation 1:N to mw_DPProfile/MUID
Sqn	Long Integer	internal counter
MUID	Long Integer	
JunctionID	text(40)	Relation 1:N to mw_Junction/MUID
DEMCOEFF	float	Demand coefficient
DEMAND	float	Demand

Table

mw_OnCalcDem

Group WD EPANE

Description OnLine: Calculated Demand Table Attributies

Field Name	Data Type	Description
EpanetInOffset	float	Offest factor
MUID	text(40)	
Sqn	Long Integer	
DIMSName	text(40)	Meassurement name in DIMS database
EpanetInMult	float	Multiplication factor
Description	text(255)	Description of the record
EpanetName	text(40)	EPANET ID of the element

Table

mw_OnCalcFCV

Group WD EPANE

Description OnLine: Calculated FCV Table Attributies

Field Name	Data Type	Description
Description	text(255)	Description of the record
MUID	text(40)	
Sqn	Long Integer	
DIMSName	text(40)	Meassurement name in DIMS database
EpanetName	text(40)	EPANET ID of the element
EpanetInMult	float	Multiplication factor
EpanetInOffset	float	Offest factor

Table

mw_OnDemZone

Group WD EPANE

Description OnLine: Demand zonesTable Attributies

Field Name	Data Type	Description
MUID	text(40)	Zone ID
Sqn	Long Integer	
CoeffA	float	demand coefficient
Description	text(255)	Description of the record
CoeffB	float	demand coefficient

Table

mw_OnDemZoneD

Group WD EPANE

Description OnLine: Demand zones dataTable Attributies

Field Name	Data Type	Description
Sqn	Long Integer	
TankInterval	Long Integer	
TankDiameter	float	
TankFlowMult	float	
TankName	text(40)	
EpanetInMult	float	Multiplication factor
Description	text(255)	Description of the record
DemandTypeNo	short integer	Domain: 0: Add, 1: Remove, 2: Tank
DemZoneID	Text(40)	Relation 1:N to mw_ondemzone.MUID
DIMSName	text(40)	Meassurement name in DIMS database

Table

mw_OnFromDIMS

Group WD EPANE

Description OnLine: read from DIMS Database Table Attributies

Field Name	Data Type	Description
EpanetName	text(40)	EPANET ID of the element
EpanetTypeNo	short integer	Domain: 0: Node Demand, 1: Reservoir, 2: Tank, 3: Pipe, 4: Pipe with a check valve, 5: PRV Valve, 6: PSV Valve, 7: PBV Valve, 8: FCV Valve, 9: TCV Valve, 10: GPV Valve, 11: Pump, 12: Closed Link, 13: Demand Item
EpanetElev	float	EPANET Elevation of the node
DIMSName	text(40)	Meassurement name in DIMS database
Sqn	Long Integer	

MUID	text(40)	
EpanetInNo	short integer	Domain: 0: No, 1: Yes
EpanetInMult	float	Multiplication factor
Description	text(255)	Description of the record

Table

mw_OnSettings

Group WD EPANE

Description OnLine: SettingsTable Attributies

Field Name	Data Type	Description
RulesClockTimeTypeNo	short integer	Domain: 0: No, 1: Yes
EPSLevelSec	long integer	Seconds per level
DeleteFilesDays	long integer	Delete files olde than xxx days
LogFileTypeNo	short integer	Domain: 0: No, 1: Yes
Description	text(255)	Description of the record
MUID	text(40)	
EPSRoundMin	long integer	Round to minutes
ErrFileTypeNo	short integer	Domain: 0: No, 1: Yes
BackupTypeNo	short integer	Domain: 0: No, 1: Yes
SaveDimsTypeNo	short integer	Domain: 0: No, 1: Yes
DeleteFilesTypeNo	short integer	Domain: 0: No, 1: Yes
EPSLevelTypeNo	short integer	Domain: 0: None 1: Selected level: 2: All levels
EPSLevel	long integer	EPS level to retrieve results from
EPSMaxLevels	long integer	Maximum number of EPS levels
GMTTypeNo	short integer	Domain: 0: No, 1: Yes

Table

mw_OnToDIMS

Group WD EPANE

Description OnLine: write to DIMS Database Table Attributies

Field Name	Data Type	Description
Sqn	Long Integer	
Description	text(255)	Description of the record
EpanetOutMult	float	Multiplication factor
EpanetOutNo	short integer	Domain: 0: No, 1: Yes
EpanetName	text(40)	EPANET ID of the element
EpanetTypeNo	short integer	Domain: 0: Calculated node pressure, 1: Calculated node grade, 2: Calculated node demand, 3: Calculated node water quality, 4: Calculated tank flow, 5: Calculated link flow, 6: Calculated link velocity, 7: Calculated link headloss, 8: Calculated link water quality
DIMSName	text(40)	Meassurement name in DIMS database
MUID	text(40)	

Table

mw_OnWaterAge

Group WD EPANE

Description OnLine: Water AgeTable Attributies

Field Name	Data Type	Description
Description	text(255)	Description of the record
WaterAgeTypeNo	short integer	Domain: 0: No, 1: Yes
MUID	text(40)	

Table

mw_PID

Group WD EPANE

Description PID Settings Table Attributes

Field Name	Data Type	Description
ControlElement	text(40)	Control element ID
MUID	text(40)	Unique ID
ControlValueMin	float	Minimum value
ControlVariableNo	Short Integer	Domain (0: Flow Rate, 1: Flow Velocity, 2: Headloss, 3: Actual Link Status, 4: Pipe Roughness, 5: Actual Pump Speed, 6: Actual Valve Settings, 7: Energy Expended in KWatts) Control Element Variable
PIDKP	float	KP proportionalty constant
ControlValueMax	float	Maximum value
ControlTypeNo	Short Integer	Domain:(0: Pipe with CV, 1: Pipe, 2:Pump Speed, 3: PRV Valve, 4: PSV Valve, 5: PBV Valve, 6: FCV Valve, 7: TCV Valve, 8: GPV Valve) Control Element Type
Description	text(255)	Description
PIDTI	float	TI integration time
SetPointValueCurveID	Text(40)	Relation 1:N to mw_Curve/MUID Set Point Value Curve, (15: PID Set Point Value Curve)
SetPointValue	float	Set Point Value
SetPoint	text(40)	Set Point ID
SetPointVariableNo	Short Integer	Domain (0: Base Demand, 1: Actual Demand, 2: Hydraulic Head, 3: Pressure, 4: Actual Quality, 5: Source Quality, 6: Mass Flow Rate) Control Element Variable
SetPointTypeNo	Short Integer	Domain:(0: Junction, 1: Reservoir, 2: Tank) Control Element Type
ControlMaxDecRate	float	Maximum decrease rate
ControlMaxIncRate	float	Maximum increase rate

PIDTD	float	TD derivation time

Table

mw_Pipe

Group WD EPANE

Description Links Database Table Attributes (Pipes)

Field Name	Data Type	Description
CVNo	short integer	Domain: Check Valve (0: "", 1: CV)
COEFF4	float	Demand coefficient 4
StatusNo	short integer	Domain: Initial setting (0: Open, 1: Closed)
MATERIAL	text(25)	Material
DIAMETER	float	Diameter
THICKNESS	float	Wall thickness
GroupID	text(40)	Relation 1:N to mw_CGroup/MUID
L	float	Pipe Length
LCOEFF	float	Minor loss coefficient
PN	float	Pressure normal
PZoneID	text(40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
DZoneID	text (40)	Relation 1:N to mw_DZone/MUID Demand Zone ID)
PMapZone	text (40)	Pressure zone mapping
COEFF3	float	Demand coefficient 3
StateNo	short integer	Domain: Link state (0: unmarked, 1: marked)
MUID	text(40)	Unique ID (pipes, valves, pumps)
STREETNAME	text(40)	Street name
POPULATION	float	Number of connected residents
TAG	text(40)	Additional description
UserLNo	short integer	Domain: User defined length (0: not used, 1: used)

RCOEFF	float	Roughness coefficient
StatusNO_S	Short Integer	Domain: (user-specified domain mwCStatus)
MATERIAL_S	Short Integer	Domain: (user-specified domain mwCStatus)
DIAMETER_S	Short Integer	Domain: (user-specified domain mwCStatus)
BULK_COEFF	float	Bulk reaction rate coefficient
WALL_COEFF	float	Pipe wall reaction rate coefficient
ELEMENT_S	Short Integer	Domain: (user-specified domain mwCStatus)
Damage	float	Damage parameter
RCOEFF_S	Short Integer	Domain: (user-specified domain mwCStatus)
SMFLAG	short integer	Domain: mwSMstatus (0: Inherited, 1: Changed, 2:New)
CDATE	date	Construction Date
WAVESPEED	float	Celerity, wave speed (WH)
COEFF2	float	Demand coefficient 2
PZoneID_S	Short Integer	Domain: (user-specified domain mwCStatus)
L_S	Short Integer	Domain: (user-specified domain mwCStatus)
DESCRIPTION	text(255)	Link description
CYEAR	long integer	Construction Year
Asset	text(40)	Asset ID
DataSource	text(80)	Data source
COEFF1	float	Demand coefficient 1
LCOEFF_S	Short Integer	Domain: (user-specified domain mwCStatus)

Table

mw_PipeRel

Group WD EPANE

Description Database Table Attributies

Field Name	Data Type	Description
QHr	float	Description

MUID	text(40)	Internal ID
TimeHrs	float	Time level in hours (fraction of hour)
MinPre	float	Minimum node pressure
Q	float	Ending time level
UseGlobal	short integer	0/1 Use global settings

Table

mw_Project

Group WD EPANE

Description Project Database Table Attributies

Field Name	Data Type	Description
UNBALANCEDNo	Short Integer	Domain Unbalanced (0: Stop, 1: Continue) Hydraulic solution status
TRIALS	Long Integer	Maximum numbers of trials
MAP	Text(80)	Map file name
PName	Text(255)	Project file name
NTRIALS	Long Integer	Number of trials
QUALITYNO	Short Integer	Domain: Water quality type (0:NONE, 1:CHEMICAL, 2:AGE, 3:TRACE)
SEGMENTS	Long Integer	Maximum number of segments
HYDR_USE	Text(80)	Name of HD file (to use)
TraceNodeTypeNo	Short Integer	Domain: TraceNodeType (0: Junction, 1: Tank)
VISCOSITY	FLOAT	Kinetic viscosity
UNITSNO	Short Integer	Domain: Project units (0:CFS, 1:GPM, 2:MGD, 3:IMGD, 4:AFD, 5:LPS, 6:LPM, 7:MLD, 8:CMH, 9:CMD, 10:SICUSTOM)
VERSION	Long Integer	Database version
TOLERANCE	FLOAT	Water quality accuracy
MAXCHECK	Long Integer	Number of solution trials after which periodic status checks
DAMPLIMIT	FLOAT	Accuracy value at which solution damping and status checks on PRVs and PSVs should begin

TITLE	text(255)	Project title
TraceNode	text(40)	Source node ID
DEMAND	float	Total network demand
HYDR_SAVE	Text(80)	Name of HD file (to save)
CHECKFREQ	Long Integer	Number of solution trials that pass during hydraulic balancing
MUID	text(40)	Unique ID
ACCURACY	float	Hydraulic solution accuracy
DIFFUSIVITY	float	Molecular difusivity
EMITTER	float	Emitter exponent
TypeNo	Short Integer	Domain: (0: Steady State Simulation, 1: Extended Period Simulation, 2: Water Quality Analysis, 3: Water Hammer Analysis, 4: Fire Flow Analysis, 5: Pipe Roughness Calibration, 6: Demand Adjusted Analysis, 7: Remaining System Capacity)
GRAVITY	float	Specific gravity multiplier
HEADLOSSNO	Short Integer	Domain: Headloss formula (0:Darcy-Weisbach, 1:Hazen-Williams, 2:Manning)
HOTTYPE	Long Integer	Use HD hot start

Table

mw_Pump

Group WD EPANE

Description Links Database Table Attributes (Pumps)

Field Name	Data Type	Description
DataSource	text(80)	Data source
EfCurveID	Text(40)	Relation 1:N to mw_Curve/MUID (Pump efficiency curve ID)
OperCurveID	text(40)	Relation 1:N to mw_Curve/MUID (Operation Curve)
EPRICE	float	Pump energy price

EPatternID	Text(40)	Relation 1:N to mw_Curve/MUID (Pump energy price pattern ID)
PAR0	float	Pump H-Q curve parameter 0
DESCRIPTION	text(255)	Link description
C_MTorqueID	text(40)	Relation 1:N to mw_Curve/MUID (Motor torque curve name (WH))
C_PTorqueID	text(40)	Relation 1:N to mw_Curve/MUID (Pump torque curve name (WH))
PAR1	float	Pump H-Q curve parameter 1
CDATE	date	Construction Date
P_IW_S	Short Integer	Domain: (user-specified domain mwCStatus)
Asset	text(40)	Asset ID
VSD_PRESSURE	float	Variable speed drive: control pressure
CYEAR	long integer	Construction Year
M_TORQUE_S	Short Integer	Domain: (user-specified domain mwCStatus)
EPRICE_S	Short Integer	Domain: (user-specified domain mwCStatus)
ELEMENT_S	Short Integer	Domain: (user-specified domain mwCStatus)
SETTING	float	Pump setting
SMFLAG	short integer	Domain: mwSMstatus (0: Inherited, 1: Changed, 2:New)
MUID	text(40)	Unique ID (pipes, valves, pumps)
QHCurveID_S	Short Integer	Domain: (user-specified domain mwCStatus)
VSD_MINSPEED	float	Variable speed drive: minimum speed
PAR2	float	Pump H-Q curve parameter 2
P_SPEED_S	Short Integer	Domain: (user-specified domain mwCStatus)
P_TORQUE_S	Short Integer	Domain: (user-specified domain mwCStatus)
PZONEID_S	Short Integer	Domain: (user-specified domain mwCStatus)
SETTING_S	Short Integer	Domain: (user-specified domain mwCStatus)
StatusNo_S	Short Integer	Domain: (user-specified domain mwCStatus)
PAR3	float	Pump H-Q curve parameter 3
VSD_MAXSPEED	float	Variable speed drive: maximum speed

StateNo	long integer	Domain: Link state (0: unmarked, 1: marked)
P_SPEED	float	Pump speed in rpm (WH)
P_IW	float,	Moment of intertia (WH)
PatternID	Text(40)	Relation 1:N to mw_Curve/MUID (Pump pattern ID)
PAR6	float	Pump H-Q curve parameter 6
STATUSNO	short integer	Domain: Initial setting (0: Open, 1: Closed)
PAR5	float	Pump H-Q curve parameter 5
P_ScheduleNo	short integer	Domain Pump Schedule (0: Pump Schedule, 1: Pump TripOff, 2: Pump StartUp)
P_WHTYPE	long integer,	Pump operation type (WH)
QHCurve0ID	Text(40)	Relation 1:N to mw_Curve/MUID (Pump Head-flow curve ID)
VSD_NODE	long integer	Variable speed drive: control node
TypeNo	short integer	Domain: Pump Type (1: Constant, 2: 1-point, 3: 3-point curve, 4: Table)
TAG	text(40)	Additional description
VSD_TYPENO	short integer	Domain VSDTYPE (0: No Control, 1: Downstream Node Control, 2: Remote Node Control)
QHCurveID	Text(40)	Relation 1:N to mw_Curve/MUID (Pump Head-flow curve ID)
P_TSTARTUP	long integer,	Pump startup level (WH)
P_TTRIPOFF	long integer,	Pump trip off level (WH)
P_ScheduleID	text(40)	Relation 1:N to mw_Curve/MUID (Pump schedule (WH))
STREETNAME	text(40)	Street name
PZoneID	text(40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
DZoneID	text (40)	Relation 1:N to mw_DZone/MUID Demand Zone ID)
PAR4	float	Pump H-Q curve parameter 4

Table

mw_PZone

Group WD EPANE

Description Pzone Database Table Attributies

Field Name	Data Type	Description
MUID	text(40)	Pressure zone ID
DESCRIPTION	text(255)	Pressure zone description
ZONE_DEM	float	Zone demand
Selected	Yes/No	Zone is used for calculation
Qhr	float	Maximum hour demand

Table

mw_Quality

Group WD EPANE

Description Quality Database Table Attributies

Field Name	Data Type	Description
MUID	text(40)	Node ID
Node1ID	text(40)	relation 1:1 to mw_Junction-Tank/MUID (Starting node ID)
Quality	float	Initial water quality
Node2ID	text(40)	relation 1:1 to mw_Junction-Tank/MUID (Ending node ID)

Table

mw_Reaction

Group WD EPANE

Description Reactions Database Table Attributies

Field Name	Data Type	Description
NODE2ID	text(40)	Relation 1:1 to mw_Junction-Tank/MUID

NODE1ID	text(40)	Relation 1:1 to mw_Junction-Tank/MUID
PIPE2ID	text(40)	Relation 1:1 to mw_Pipe/MUID (Ending pipe ID)
PIPE1ID	text(40)	Relation 1:1 to mw_Pipe/MUID (Starting pipe ID)
COEFF	float	Reaction rate coefficient
MUID	text(40)	Reaction ID
RTYPENo	short integer	Domain: (0: Bulk, 1: Pipe Wall, 2: Tank) ReactionRateType

Table

mw_Reliability

Group WD EPANE

Description Report Database Table Attributies

Field Name	Data Type	Description
Description	text(255)	Description
DebugLevel	short integer	Debug level
nCoeff	float	Coefficient
EndingLevel	float	Ending time level
StartingLevel	float	Starting time level
MaxPre	float	Maximum node pressure
MinPre	float	Minimum node pressure
MUID	Long Integer	Internal ID
SelectionFile	text(255)	Seleciton set file (Mknet or MU)

Table

mw_RemCapacity

Group WD EPANE

Description Remaining System Capacity Settings - MIKE NET tables, used in the Import/export

Field Name	Data Type	Description
MUID	Long Integer	
SelTimeLevel	Long Integer	Selected time level
SelNodeTypeNo	short integer	Domain: (0: Use only selected junction nodes, 1: Use all junction nodes, 2: Geocode hydrants) SelNodeType
ResNodeRadius	float	Residual pressure node search radius
UseResNodeRadiusNo	short integer	Domain: (0: No, 1: Yes) YesNo
DESCRIPTION	text(255)	Description
MinResPre	float	Minimum residual pressure

Table

mw_Report

Group WD EPANE

Description Report Database Table Attributies

Field Name	Data Type	Description	
PAGESIZE	long integer	Page size	
MUID	Long Integer	Internal ID	
SummaryNo	Short Integer	Domain: (0=No, 1=Yes)	Report summary
StatusNo	Short Integer	Doamin: (0=No, 1=Yes) simulation status	Report
SFLAG	Short Integer	Internal field	
REPTYPE	Long Integer	Report type	
POS	FLOAT	Internal field	
NODES	text(255)	Node to report (statement)	

LINKS	text(255)	Link to report (statement)	
FNAME	text(255)	Report file name	
EnergyNo	Short Integer	Domain: (0=No, 1=Yes)	Report energy
DESCRIPTION	text(255)	Description	
CONDITION	text(255)	Report condition	
R2	FLOAT	Internal field	

Table

mw_RESInfo

Group WD EPANE

Description Res_tanks Database Table Attributes - internal table

Field Name	Data Type	Description
RESFILE	text(255)	Result file name including path
TSTEP_START	long integer	Starting level
EXTRACTION_DATE	Date	Extraction date
EXTRACTION_NAME	text(80)	Extraction name
SCENNAME	text(100)	Scenario name
TStep_Stop	long integer	Ending level
EXTRACTION_ID	long integer	Extraction ID

Table

mw_RESJunction

Group WD EPANE

Description Res_Junction Database Table Attributes - internal table

Field Name	Data Type	Description
RISK_PMIN	float	Minimum pressure risk
CHEMICAL_MAX	float	Maximum water quality
CHEMICAL_MIN	float	Minimum water quality
CHEMICAL_AVG	float	Average water quality

RELIABILITY	float	Reliability
RELIABILITY_PMIN	float	Minimum pressure reliability
RELIABILITY_PMAX	float	Maximum pressure reliability
RELIABILITY_PALL	float	Combined pressure reliability
FAILURE_PMIN	float	Minimum pressure failure
FAILURE_PALL	float	Combined pressure failure
RISK_PMAX	float	Maximum pressure risk
RISK_PALL	float	Combined pressure risk
RELDEMAND_MAX	float	Maximum available demand
RELDEMAND_MIN	float	Minimum available demand
RELDEMAND_AVG	float	Average available demand
CHEMICAL	float	Junction water quality
DEMAND	float	Junction node demand
FAILURE_PMAX	float	Maximum pressure failure
DEMAND_AVG	float	Average demand
MUID	text(40)	relation 1:1 to mw_Junction/MUID
EXTRACTION_ID	text(40)	Extraction ID
ASSET	text(40)	Asset ID
DESCRIPTION	text(100)	Junction description
ELEV	float	Junction node elevation
Z	float	Surface elevation
DEMAND_MIN	float	Minimum demand
DEMAND_MAX	float	Maximum demand
PRESSURE_AVG	float	Average pressure
GRADE	float	Junction node hydraulic grade
GRADE_MAX	float	Maximum hydraulic grade line
GRADE_MIN	float	Minimum hydraulic grade line
GRADE_AVG	float	Average hydraulic grade line
PRESSURE	float	Junction node pressure

PRESSURE_MIN	float	Maximum pressure
PRESSURE_MAX	float	Minimum pressure
X	float	X coordinate
Y	float	Y coordinate
TSTEP	long integer	Time level
FIREPRESSURE	float	Fire flow pressure
FIREFLOW	float	Fire flow capacitty

Table

mw_RESLink

Group WD EPANE

Description Res_links Database Table Attributes - internal table

Field Name	Data Type	Description
HEADLOSS_AVG	float	Average headloss
POWER_MAX	float	Maximum pump power
POWER	float	Pump power
CHEMICAL_AVG	float	Average water quality
CHEMICAL_MIN	float	Minimum water quality
CHEMICAL_MAX	float	Maximum water quality
HEADLOSS1000_AVG	float	Average headloss per 1000
HEADLOSS1000	float	Headloss per 1000
StatusNo	short integer	Domain: Link status code (0 = closed (max. head exceeded), 1 = temporarily closed, 2 = closed, 3 = open, 4 = active (partially open), 5 = open (max. flow exceeded), 6 = open (flow setting not met), 7 = open (pressure setting not met)
HEADLOSS_MIN	float	Minimum headloss
HEADLOSS_MAX	float	Maximum headloss
HEADLOSS	float	Headloss
HEADLOSS1000_MAX	float	Maximum headloss per 1000

POWER_AVG	float	Average pump power
HEAD_MAX	float	Maximum pump head
RELIABILITY	float	Reliability
RELIABILITY_PMIN	float	Minimum pressure reliability
RELIABILITY_PMAX	float	Maximum pressure reliability
RELIABILITY_PALL	float	Combined pressure reliability
FAILURE_PMIN	float	Minimum pressure failure
FAILURE_PMAX	float	Maximum pressure failure
FAILURE_PALL	float	Combined pressure failure
RISK_PMIN	float	Minimum pressure risk
RISK_PMAX	float	Maximum pressure risk
RISK_PALL	float	Combined pressure risk
TSTEP	long integer	Time level
POWER_MIN	float	Minimum pump power
CDATE	Date	
HEADLOSS1000_MIN	float	Minimum headloss per 1000
MUID	text(40)	Link (Pipe, Valve, Pump) ID
EXTRACTION_ID	text(40)	Extraction ID
Asset	text(40)	Asset ID
DESCRIPTION	text(100)	Description
LINKTYPE	Short Integer	Link type
TAG	text(40)	Label
NODE1	text(40)	Beginning node ID
NODE2	text(40)	Ending node ID
DIAMETER	float	Diameter
L	float	Length
HEAD_AVG	float	Average pump head
MATERIAL	Text(25)	Material
HEAD_MIN	float	Minimum pump head

COEFF1	float	Demand coefficient 1
COEFF2	float	Demand coefficient 2
FLOW	float	Flow
FLOW_MAX	float	Maximum flow
FLOW_MIN	float	Minimum flow
FLOW_AVG	float	Average flow
VELOCITY	float	Velocity
VELOCITY_MAX	float	Maximum velocity
VELOCITY_MIN	float	Minimum velocity
VELOCITY_AVG	float	Average velocity
HEAD	float	Pump Head
RCOEFF	float	Roughness coefficient
CHEMICAL	float	Water quality

Table

mw_RESNode

Group WD EPANE

Description Res_nodes Database Table Attributes - internal table

Field Name	Data Type	Description
DEMAND	float	Junction node demand
PRESSURE_MAX	float	Minimum pressure
PRESSURE_MIN	float	Maximum pressure
PRESSURE	float	Junction node pressure
GRADE_AVG	float	Average hydraulic grade line
GRADE_MIN	float	Minimum hydraulic grade line
GRADE_MAX	float	Maximum hydraulic grade line
GRADE	float	Junction node hydraulic grade
DEMAND_AVG	float	Average demand
MUID	text(40)	Node ID (Junction, Tank, Airchamber)

DEMAND_MAX	float	Maximum demand
CHEMICAL_MAX	float	Maximum water quality
Z	float	Surface elevation
ELEV	float	Elevation
TAG	text(40)	Label
NODETYPE	Short Integer	Node type
DESCRIPTION	text(100)	Description
ASSET	text(40)	Asset ID
EXTRACTION_ID	text(40)	Extraction ID
DEMAND_MIN	float	Minimum demand
FAILURE_PMAX	float	Maximum pressure failure
Y	float	Y-coordinate
X	float	X-coordinate
TSTEP	long integer	Time level
FIREFLOW	float	Fire flow capacitty
RELDEMAND_MIN	float	Minimum available demand
RELDEMAND_MAX	float	Maximum available demand
RISK_PALL	float	Combined pressure risk
RISK_PMAX	float	Maximum pressure risk
PRESSURE_AVG	float	Average pressure
FAILURE_PALL	float	Combined pressure failure
CHEMICAL	float	Junction water quality
FAILURE_PMIN	float	Minimum pressure failure
RELIABILITY_PALL	float	Combined pressure reliability
RELIABILITY_PMAX	float	Maximum pressure reliability
RELIABILITY_PMIN	float	Minimum pressure reliability
RELIABILITY	float	Reliability
CHEMICAL_AVG	float	Average water quality
CHEMICAL_MIN	float	Minimum water quality

RELDEMAND_AVG	float	Average available demand
RISK_PMIN	float	Minimum pressure risk
FIREPRESSURE	float	Fire flow pressure

Table

mw_RESPipe

Group WD EPANE

Description Res_pipes Database Table Attributes - internal table

Field Name	Data Type	Description
MATERIAL	text(25)	Material
MUID	text(40)	relation 1:1 to mw_Pipe/MUID
VELOCITY_AVG	float	Average velocity
VELOCITY_MIN	float	Minimum velocity
VELOCITY_MAX	float	Maximum velocity
VELOCITY	float	Pipe velocity
FLOW_MIN	float	Minimum flow
FLOW	float	Pipe flow
COEFF2	float	Demand coefficient 2
HEADLOSS_MAX	float	Maximum headloss
CDATE	Date	
HEADLOSS_MIN	float	Minimum headloss
RCOEFF	float	Roughness coefficient
L	float	Length
DIAMETER	float	Diameter
NODE2	text(40)	Ending node ID
NODE1	text(40)	Beginning node ID
TAG	text(40)	Label
DESCRIPTION	text(100)	Description
ASSET	text(40)	Asset ID

EXTRACTION_ID	text(40)	Extraction ID
COEFF1	float	Demand coefficient 1
StatusNo	short integer	Domain: Link status code (0 = closed (max. head exceeded), 1 = temporarily closed, 2 = closed, 3 = open, 4 = active (partially open), 5 = open (max. flow exceeded), 6 = open (flow setting not met), 7 = open (pressure setting not met)
TSTEP	long integer	Time level
RISK_PALL	float	Combined pressure risk
RISK_PMAX	float	Maximum pressure risk
RISK_PMIN	float	Minimum pressure risk
FAILURE_PALL	float	Combined pressure failure
FAILURE_PMAX	float	Maximum pressure failure
FAILURE_PMIN	float	Minimum pressure failure
RELIABILITY_PALL	float	Combined pressure reliability
RELIABILITY_PMAX	float	Maximum pressure reliability
HEADLOSS	float	Headloss
RELIABILITY	float	Reliability
FLOW_MAX	float	Maximum flow
CHEMICAL_AVG	float	Average water quality
CHEMICAL_MIN	float	Minimum water quality
CHEMICAL_MAX	float	Maximum water quality
CHEMICAL	float	Water quality
HEADLOSS1000_AVG	float	Average headloss per 1000
HEADLOSS1000_MIN	float	Minimum headloss per 1000
HEADLOSS1000_MAX	float	Maximum headloss per 1000
HEADLOSS1000	float	Headloss per 1000
HEADLOSS_AVG	float	Average headloss
RELIABILITY_PMIN	float	Minimum pressure reliability
FLOW_AVG	float	Average flow

Table

mw_RESPipeRel

Group WD EPANE

Description

Field Name	Data Type	Description
Qhr	float	Zone max hour demand
PipeID	text(40)	PipeID
ZoneID	text(40)	ZoneID
Q	float	Zone demand
P1	float	Performance indicator 1
P2	float	Performance indicator 2
P3	float	Performance indicator 3
SumLength	float	Sum of pipe length
P4	float	Performance indicator 4
C	float	Performance indicator combined
SumNodes	integer	Sum of nodes

Table

mw_RESPump

Group WD EPANE

Description Res_pumps Database Table Attributes - internal table

Field Name	Data Type	Description
RISK_PALL	float	Combined pressure risk
HEAD	float	Pump power
HEAD_MIN	float	Minimum pump head
POWER	float	Pump power
POWER_MAX	float	Maximum pump power
POWER_MIN	float	Minimum pump power

POWER_AVG	float	Average pump power
SPEED	float	Pump speed
StatusNo	short integer	Domain: Link status code (0 = closed (max. head exceeded), 1 = temporarily closed, 2 = closed, 3 = open, 4 = active (partially open), 5 = open (max. flow exceeded), 6 = open (flow setting not met), 7 = open (pressure setting not met)
RELIABILITY	float	Reliability
TSTEP	long integer	Time level
RELIABILITY_PMIN	float	Minimum pressure reliability
RISK_PMAX	float	Maximum pressure risk
RISK_PMIN	float	Minimum pressure risk
FLOW_AVG	float	Average flow
FAILURE_PALL	float	Combined pressure failure
HEAD_MAX	float	Maximum pump head
FAILURE_PMAX	float	Maximum pressure failure
FAILURE_PMIN	float	Minimum pressure failure
RELIABILITY_PALL	float	Combined pressure reliability
RELIABILITY_PMAX	float	Maximum pressure reliability
FLOW_MAX	float	Maximum flow
FLOW	float	Pump flow
HEAD_AVG	float	Average pump head
NODE2	text(40)	Ending node ID
NODE1	text(40)	Beginning node ID
TAG	text(40)	Label
DESCRIPTION	text(100)	Description
ASSET	text(40)	Asset ID
EXTRACTION_ID	text(40)	Extraction ID
MUID	text(40)	relation 1:1 to mw_LPump/LinkID

FLOW_MIN	float	Minimum flow

Table

mw_RESSusNode

Group WD EPANE

Description

Field Name	Data Type	Description
Description	text(255)	Description
MaxPressureFluct	float	Maximum pressure fluctuation
MaxPressure	float	Maximum pressure
MUID	text(40)	MUID
MinPressure	float	Minimum pressure

Table

mw_RESSusPipe

Group WD EPANE

Description

Field Name	Data Type	Description
MaxVelocity	float	Maximum velocity
MaxVelocityFluct	float	Maximum velocity fluctuation
MaxUnitHeadloss	float	Maximum unit headloss
Description	text(255)	Description
MUID	text(40)	MUID
MaxReverseFlow	integer	Maximum number of reverse flow conditions

Table

mw_RESTank

Group WD EPANE

Description Res_tanks Database Table Attributes - internal table

Field Name	Data Type	Description
PRESSURE_MAX	float	Minimum pressure
GRADE_MAX	float	Maximum hydraulic grade line
GRADE_MIN	float	Minimum hydraulic grade line
GRADE_AVG	float	Average hydraulic grade line
GRADE	float	Tank hydraulic grade
PRESSURE_MIN	float	Maximum pressure
DEMAND	float	Tank demand
PRESSURE_AVG	float	Average pressure
PRESSURE	float	Tank pressure
Z	float	Surface elevation
ELEV	float	Tank elevation
DEMAND_MIN	float	Minimum demand
ASSET	text(40)	Asset ID
EXTRACTION_ID	text(40)	Extraction ID
MUID	text(40)	relation 1:1 to mw_Tank/MUID
DEMAND_MAX	float	Maximum demand
CHEMICAL	float	Tank water quality
DEMAND_AVG	float	Average demand
FAILURE_PMIN	float	Minimum pressure failure
DESCRIPTION	text(100)	Tank description
CHEMICAL_MAX	float	Maximum water quality
TSTEP	long integer	Time level
Y	float	y coordinate

X	float	x coordinate
RISK_PALL	float	Combined pressure risk
RISK_PMAX	float	Maximum pressure risk
RISK_PMIN	float	Minimum pressure risk
FAILURE_PALL	float	Combined pressure failure
FAILURE_PMAX	float	Maximum pressure failure
RELIABILITY_PALL	float	Combined pressure reliability
RELIABILITY_PMAX	float	Maximum pressure reliability
RELIABILITY_PMIN	float	Minimum pressure reliability
CHEMICAL_AVG	float	Average water quality
CHEMICAL_MIN	float	Minimum water quality
RELIABILITY	float	Reliability

Table

mw_RESUDF

Group WD EPANE

Description

Field Name	Data Type	Description
HydrantFlow	float	Hydrant flow
MaxVelocity	float	Maximum velocity
IsVelSatisfied	short integer	Domain Yes/No
TypeNo	short integer	Domain UDFElementResType(0: Pipe, 1: Node, 2: Hydrant. 3: System)
IsMinPreSatisfied	short integer	Domain Yes/No
MinFlushingTime	float	Minimum flushuing time
ElementID	text(40)	MUID of the respective model element
Description	text(255)	Description
EventID	text(40)	Event ID
MUID	text(40)	MUID

MinPressure	float	Minimum pressure

Table

mw_RESValve

Group WD EPANE

Description Res_valves Database Table Attributes - internal table

Field Name	Data Type	Description
DIAMETER	float	Valve diameter
MUID	text(40)	Relation 1:1 to mw_Valve/MUID
EXTRACTION_ID	text(40)	Extraction ID
ASSET	text(40)	Asset ID
DESCRIPTION	text(100)	Description
NODE1	text(40)	Beginning node ID
VELOCITY	float	Pipe velocity
NODE2	text(40)	Ending node ID
HEADLOSS_MIN	float	Minimum headloss
RISK_PMAX	float	Maximum pressure risk
RISK_PMIN	float	Minimum pressure risk
FAILURE_PALL	float	Combined pressure failure
FAILURE_PMAX	float	Maximum pressure failure
FAILURE_PMIN	float	Minimum pressure failure
RELIABILITY_PALL	float	Combined pressure reliability
RELIABILITY_PMAX	float	Maximum pressure reliability
RISK_PALL	float	Combined pressure risk
RELIABILITY_PMIN	float	Minimum pressure reliability
RELIABILITY	float	Reliability
FLOW_MIN	float	Minimum flow
HEADLOSS_AVG	float	Average headloss
TSTEP	long integer	Time level

HEADLOSS_MAX	float	Maximum headloss
HEADLOSS	float	Headloss
VELOCITY_AVG	float	Average velocity
VELOCITY_MIN	float	Minimum velocity
VELOCITY_MAX	float	Maximum velocity
TAG	text(40)	Label
FLOW_AVG	float	Average flow
FLOW_MAX	float	Maximum flow
FLOW	float	Pipe flow
RType	text(25)	Text from the domain
StatusNo	short integer	Domain: Link status code (0 = closed (max. head exceeded), 1 = temporarily closed, 2 = closed, 3 = open, 4 = active (partially open), 5 = open (max. flow exceeded), 6 = open (flow setting not met), 7 = open (pressure setting not met)

Table

mw_Rule

Group WD EPANE

Description Rules Database Table Attributies

Field Name	Data Type	Description
SFLAG	Short Integer	Internal field
DESCRIPTION	text(100)	Rule description
MUID	text(40)	Rule ID
Sqn	Long Integer	Rule position
CONDITION	text(255)	Rule condition
CONDITION1	text(255)	Rule condition
CONDITION2	text(255)	Rule condition

Table

mw_Source

Group WD EPANE

Description Sources Database Table Attributies

Field Name	Data Type	Description
Description	text(100)	Source description
NodeTypeNo	Short Integer	Domain:(0: Junction, 1: Tank)
SrcTypeNo	short integer	Domain (0: Concentration 1:Mass 2:Flow paced 3:Set point) Source Type
PatternID	text(40)	Relation 1:N to mw_DPProfile/MUID (Pattern ID)
NodeID	text(40)	Relation 1:1 to mw_Junction-Tank/MUID
CONC	float	Source concentration

Table

mw_Tank

Group WD EPANE

Description Nodes Database Table Attributes (Reservoirs, and Tanks)

Field Name	Data Type	Description
PZoneID	text (40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
MINVOL	float	Tank minimum volume
MINLEVEL	float	Tank minimum water depth
MAXLEVEL	float	Tank maximum water depth
INITLEVEL	float	Tank initial water depth
WIDTH	float	Tank width (b)
DIAMETER	float	Tank diameter
MUID	text (40)	Unique ID (junctions, tanks, air-chambers)
Z	float	Surface elevation

ELEV	float	Junction elevation, Reservoir HGL, Tank base elevation
DataSource	text(80)	Data source
VolCurveID	text (40)	Relation 1:N to mw_Curve/MUID (Tank depth-volume curve)
TypeNo	short integer	Domain: 0: circular, 1: rectangular, 2: table
PZoneID_S	Short Integer	Domain: (user-specified domain mwCStatus)
LENGTH	float	Tank length (a) (to be taken from diameter)
MIXMODELNO	short integer	Domain: Tank mixing type (0:'MIXED', 1:'2-COMPARTMENT', 2 'FI-FO', 3:LI-FO')
COMVOL	float	Compartment volume
PatternID	text (40)	Relation 1:N to mw_DPProfile/MUID (Pattern ID)
StateNo	short integer	Domain: Link state (0: unmarked, 1: marked)
ELEMENT_S	Short Integer	Domain: (user-specified domain mwCStatus)
DZoneID	text (40)	Relation 1:N to mw_DZone/MUID Demand Zone ID)
Z_S	Short Integer	Domain: (user-specified domain mwCStatus)
DESCRIPTION	text(255)	Node description
SMFLAG	short integer	Domain: mwSMstatus (0: Inherited, 1: Changed, 2:New)
HGL_S	Short Integer	Domain: (user-specified domain mwCStatus)
TypeNo_S	Short Integer	Domain: (user-specified domain mwCStatus)
DIAMETER_S	Short Integer	Domain: (user-specified domain mwCStatus)
LENGTH_S	Short Integer	Domain: (user-specified domain mwCStatus)
WIDTH_S	Short Integer	Domain: (user-specified domain mwCStatus)
ELEV _S	Short Integer	Domain: (user-specified domain mwCStatus)
MAXLEVEL_S	Short Integer	Domain: (user-specified domain mwCStatus)
INITLEVEL_S	Short Integer	Domain: (user-specified domain mwCStatus)
HGLTYPENO	short integer	Domain: 0: constant HGL(reservoir), 1: variable (tank)
HGL	float	Fixed HGL

MINVOL_S	Short Integer	Domain: (user-specified domain mwCStatus)
MIXMODELNO_S	Short Integer	Domain: (user-specified domain mwCStatus)
Asset	text(40)	Asset ID
MINLEVEL_S	Short Integer	Domain: (user-specified domain mwCStatus)

Table

mw_Time

Group WD EPANE

Description Times Database Table Attributies

Field Name	Data Type	Description
PAT_UNITS	Short Integer	Domain: Time units(0: days, 1: hrs, 2: min, 3: sec) pattern time step units
RET_UNITS	Short Integer	Domain: Time units(0: days, 1: hrs, 2: min, 3: sec) report time step units
REPORT_TIMESTEP	float	Report time step
USEQUAL_TIMESTEPN	Short Integer	Domain: Use specific quality time step (0:no, 1:yes)
QUAL_TIMESTEP	float	Quality time step
PATTERN_TIMESTEP	float	Pattern time step
RES_UNITS	Short Integer	Domain: Time units(0: days, 1: hrs, 2: min, 3: sec), report start time units
MIN_UNITS	Short Integer	Domain: Time units(0: days, 1: hrs, 2: min, 3: sec) minimum trvel time units
MIN_TRAVELTIME	float	Minimum travel time
HYDR_TIMESTEP	float	Hydraulic time step
HYD_UNITS	Short Integer	Domain: Time units(0: days, 1: hrs, 2: min, 3: sec) hydraulic time step units
DURATION	float	Simulation duration
DUR_UNITS	Short Integer	Domain: Time units(0: days, 1: hrs, 2: min, 3: sec) simulaton duration units
CLOCKMIN	long integer	Simulation clock minute
CLOCKHRS	long integer	Simulation clock hours

CLOCKAMPMNo	Short Integer	Domain (0: AM, 1: PM)
STATISTICSNO	Short Integer	Domain: Results averiging (0: without statistics, 1: minimum values, 2: maximum values, 3: averaged)
MUID	text(40)	Unique ID
QUA_UNITS	Short Integer	Domain: Time units(0: days, 1: hrs, 2: min, 3: sec) quality time step units
REPORT_START	float	Report start

Table

mw_UDFevent

Group WD EPANE

Description Water_src Database Table Attributies

Field Name	Data Type	Description
Description	text(255)	Decription
ElementID	text(40)	Element ID (node of pipe MUID)
MUID	text(40)	Unique event ID
TypeNo	short integer	Domain UDFElementType (0: Isolation valve, 1: Hydrant)
EmitterCoeff	float	Emitter coefficient
ValveStatusNo	short integer	Domain Open/Closed (0:open, 1: closed)
SetID	text(40)	Pipe set ID
HydrantStatusNo	short integer	Domain Open/Closed (0:open, 1: closed)

Table

mw_UDFpipeset

Group WD EPANE

Description Water_src Database Table Attributies

Field Name	Data Type	Description
MUID	text(40)	Unique event ID
SetID	text(40)	Pipe set ID

PipeID	text(40)	Pipe MUID
Description	text(255)	Decription

Table

mw_UDFsetup

Group WD EPANE

Description Water_src Database Table Attributies

Field Name	Data Type	Description
MUID	text(40)	Unique ID
EmitterCoeff	float	Emitter coefficient
MinPre	float	Minimum required pressure
TargetVel	float	Target velocity
TimeLevelHrs	float	Time level in hours

Table

mw_Valve

Group WD EPANE

Description Links Database Table Attributes (Valves)

Field Name	Data Type	Description
DIAMETER	float	Diameter
TAG	text (40)	Additional description
TypeNo	short integer	Domain:Valve type (1:PRV, 2:PSV, 3:PBV, 4:FCV, 5:TCV, 6:GPV)
ValveCurveID	text(40)	Relation 1:N to mw_Curve/MUID (Valve characteristics Cd, Valve characteritics Kd (WH))
SMFLAG	short integer	Domain: mwSMstatus (0: Inherited, 1: Changed, 2:New)
STATUSNO	short integer	Domain: Initial setting (0: Open, 1: Closed)
StateNo	long integer	Domain: Link state (0: unmarked, 1: marked)
SETTING	float	Valve setting

DZoneID	text (40)	Relation 1:N to mw_DZone/MUID Demand Zone ID)
PZoneID	text (40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
OperCurveID	text(40)	Relation 1:N to mw_Curve/MUID (Operation schedule (WH))
MATERIAL	text (40)	Material
LOSSCOEFF	float	Valve loss coefficient
SETTING_S	Short Integer	Domain: (user-specified domain mwCStatus)
Asset	text(40)	Asset ID
ELEMENT_S	Short Integer	Domain: (user-specified domain mwCStatus)
DIAMETER_S	Short Integer	Domain: (user-specified domain mwCStatus)
LOSSCOEFF_S	Short Integer	Domain: (user-specified domain mwCStatus)
MATERIAL_S	Short Integer	Domain: (user-specified domain mwCStatus)
PZONEID_S	Short Integer	Domain: (user-specified domain mwCStatus)
LCOEFF	float	Minor loss coefficient
DataSource	text(80)	Data source
HLCurveID	text (40)	Relation 1:N to mw_Curve/MUID (Valve head-loss curve ID)
MUID	text(40)	Unique ID (pipes, valves, pumps)
CDATE	date	Construction Date
CYEAR	long integer	Construction Year
DESCRIPTION	text(255)	Link description
STREETNAME	text(40)	Street name
STATUSNO_S	Short Integer	Domain: (user-specified domain mwCStatus)

Table

mw_Water_Src

Group WD EPANE

Description Water_src Database Table Attributies

Field Name	Data Type	Description
NodeTypeNo	Short Integer	Domain (0: Junction, 1: Tank), NodeType
PriceTypeNo	Short Integer	Domain (0:constant, 1:linear, 2:tabular), Price type
DESCRIPTION	text(100)	Description
FLT1	FLOAT	Internal field
FLT2	float	Internal field
INT1	float	Internal field
INT2	Long Integer	Internal field
LocalI	Long Integer	Local ID
COEFFB	float	Price coefficient B
PRICEFIXED	float	Fixed price
NODEID	text(40)	relation 1:1 to mw_Junction-Tank/MUID (Water source ID)
COEFFA	float	Price coefficient A
PriceCrvID	Text(40)	Relation 1:N to mw_DPProfile/MUID (Price pattern)

Table

mw_WH_Boundary

Group WD EPANE

Description Water_src Database Table Attributies

Field Name	Data Type	Description
TypeNo	short integer	Domain: Boundary type (0: Q-Boundary, 1:H-Boundary)

CurveID	Text(40)	Relation 1:N to mw_Curve/MUID (Boundary Curve)
DESCRIPTION	text(100)	Description
NodeTypeNo	Short Integer	Domain: (0: Junction, 1: Tank)
NODEID	text(40)	relation 1:1 to mw_Junction-Tank/MUID (Boundary Node ID)

Table

mw_WH_Options

Group WD EPANE

Description Water_src Database Table Attributies

Field Name	Data Type	Description
ALPHA	FLOAT	Numerical coefficient aplha
TEMPERATURE	FLOAT	Water temperature
HVAP	FLOAT	Vapour cavity pressure
HATM	FLOAT	Atmospheric pressure
G	FLOAT	Gravity acceleration
HOTFILE	Text255)	Hotstart file name
INITYPENO	short integer	Domain: Initial conditions type (2: topo.ini 3: hotstart)
CALTYPENO	short integer	Domain: Calculation type (1: WD, 2: Slow Transient, 3: InitialConditions, 4: WaterHammer)
THETA	FLOAT	Numerical coefficient theta
PSI	FLOAT	Numerical coefficient psi
MUID	text(40)	Unique ID

Table

mwa_Hydrant

Group WD ASSET

Description Asset Hydrants

Field Name	Data Type	Description
Cadastre	text(80)	
SEATDIAMETER	float	The diameter of the hydrant seat
SurfaceTypeNo	short integer	Domain (0: Type 1, 1: Type 2, 2: Type 3, 3:Type 4)
AssesmentDepth	float	
HydrantStateNo	short integer	Domain (0: Good, 1: Bad, 2: Breakdown, 3: Critical, 4: Not defined, 5: Unknown)
HydrantTypeNo	short integer	Domain (0: Type 1, 1: Type 2, 2: Type 3, 3:Type 4)
MUID	text(40)	Hydrant ID
Manufacturer	text(80)	
ConstructionCostPerItem	float	
HydrantType	text(80)	
Ownership	text(80)	
Operator	text(80)	
SystemID	Text[40]	Relation 1:N to the table mwa_System/MUID
SubSystemID	Text[40]	Relation 1:N to the table mwa_SubSystem/MUID
PropertyName	text(80)	
ConstructionName	text(80)	
MunicipalityPart	text(80)	
REQFLOW	float	Required flow
DESCRIPTION	text(255)	Description
StreetName	text(80)	
DataSource	text(80)	Data source

WaterOfficePermit	text(80)	
ModelPipeID	text(25)	Link to model pipe ID
ASSET	text(40)	Asset hydrant ID
Location	text(80)	
REQPRE	float	Required pressure
Locality	text(80)	
OUTLETCONFIGURATI	text(25)	The configuration of the hydrant outlets
PZoneID	text(40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
Catalogue	text(80)	
BARRELDIAMETER	float	The diameter of the barrel of the hydrant
MAINVALVETYPE	text(25)	The type of the valve used with the hydrant
NOZZLEDIAMETER	float	The diameter of each of the four possible nozzles on the hydrant
ELEV	float	Hydrant elevation
MINPRE	float	Minimum pressure
DocName	text(255)	
Municipality	text(80)	
InspectionDate	Date	
SupplyCostPerItem	float	
DocDescription	text(255)	
DocFileName	text(255)	
DocPrintToPassport	short integer	
DocAuthor	text(80)	
DocTypeNo	short integer	Domain (0: Photo of structure, 1: Photo of crash, 2: Documentation)
PolylineStructureID	text(40)	Relation 1:N to the table msa_PolylineStructure/MUID
PolygonStructureID	text(40)	Relation 1:N to the table msa_PolygonStructure/MUID
StructureNo	Short Integer	Domain: 1=Building, 2=Conduit (radio buttons)

DocDate	Date
AcceptanceDate	Date

Table

mwa_LinkType

Group WD ASSET

Description Link Type List Database Table Attributes

Field Name	Data Type	Description
TypeNo	Short Integer	Open/Closed:
MUID	Text[40]	Link Type:
AliasNo	Short Integer	Alias:

Table

mwa_Pipe

Group WD ASSET

Description Asset Pipes

Field Name	Data Type	Description
PipeStateNo	short integer	Domain (0: Good, 1: Bad, 2: Breakdown, 3: Critical, 4: Not defined, 5: Unknown)
PipeTypeNo	short integer	Domain (0: Type 1, 1: Type 2, 2: Type 3, 3:Type 4)
Municipality	text(80)	
MunicipalityPart	text(80)	
StreetName	text(80)	
Ownership	text(80)	
Cadastre	text(80)	
PN	float	
Thickness	float	
AssesmentTypeNo	short integer	Domain (0:In ground, 1: Protection pipe, 2: Collector, 3: Main corridor)

AssesmentDepth	float	
Operator	text(80)	
JointTypeNo	short integer	Domain (0: CM, 1: FL, 2: MECH, 3:PO, 4: RCCB, 5: SOL, 6: WELD)
PolygonStructureID	text(40)	Relation 1:N to the table msa_PolygonStructure/MUID
SurfaceTypeNo	short integer	Domain (0: Type 1, 1: Type 2, 2: Type 3, 3:Type 4)
L	float	Pipe Length
DocName	text(255)	
DocDescription	text(255)	
DocFileName	text(255)	
DocPrintToPassport	short integer	
DocDate	Date	
DocAuthor	text(80)	
AcceptanceDate	Date	
PolylineStructureID	text(40)	Relation 1:N to the table msa_PolylineStructure/MUID
SystemID	Text[40]	Relation 1:N to the table mwa_System/MUID
StructureNo	Short Integer	Domain: 1=Building, 2=Conduit (radio buttons)
Locality	text(80)	
InspectionDate	Date	
WaterOfficePermit	text(80)	
ConstructionName	text(80)	
PropertyName	text(80)	
SubSystemID	Text[40]	Relation 1:N to the table mwa_SubSystem/MUID
DocTypeNo	short integer	Domain (0: Photo of structure, 1: Photo of a pipe failure, 2: Documentation)
DataSource	text(80)	Data source
POPULATION	float	Population connected
Location	text(80)	

SupplyCostPerUnitLength	float	
ConstructionCostPerItem	float	
SupplyCostPerItem	float	
ConstructionCostPerUnitL	float	
Asset	text(40)	Asset Pipe ID
DESCRIPTION	text(255)	Link description
DIAMETER	float	Diameter
MATERIAL	text(25)	Material
COEFF1	float	Demand coefficient 1
COEFF2	float	Demand coefficient 2
COEFF3	float	Demand coefficient 3
COEFF4	float	Demand coefficient 4
PZoneID	text(40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
MUID	text(40)	Pipe ID

Table

mwa_PolygonStructure

Group WD ASSET

Description Asset Polygon Structure Database Table Attributes

Field Name	Data Type	Description
TypeNo	Short Integer	Structure Category:
OwnerName	Text[100]	Owner
OperatorName	Text[100]	Operator
AddressName	Text[100]	Street/Site
SubSystemID	Text[40]	Sub-System
Description	Text[255]	General Information
MUID	Text[40]	Structure ID:
SystemID	Text[40]	System

Table

mwa_PolylineStructure

Group WD ASSET

Description Asset Polyline Structure Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	Conduit ID:
TypeNo	Short Integer	Structure Category:
Description	Text[255]	General Information
SystemID	Text[40]	System
SubSystemID	Text[40]	Sub-System
AddressName	Text[100]	Street/Site
OwnerName	Text[100]	Owner
OperatorName	Text[100]	Operator

Table

mwa_Pump

Group WD ASSET

Description Asset Pumps

Field Name	Data Type	Description
PumpStateNo	short integer	Domain (0: Good, 1: Bad, 2: Breakdown, 3: Critical, 4: Not defined, 5: Unknown)
PolygonStructureID	text(40)	Relation 1:N to the table msa_PolygonStructure/MUID
MUID	text(40)	Pump ID
SystemID	Text[40]	Relation 1:N to the table mwa_System/MUID
ConstructionCostPerItem	float	
SupplyCostPerItem	float	
DocName	text(255)	
DocDescription	text(255)	

DocFileName	text(255)	
DocPrintToPassport	short integer	
ASSET	text(40)	Assett ID
DocTypeNo	short integer	Domain (0: Photo of structure, 1: Photo of crash, 2: Documentation)
DocAuthor	text(80)	
StructureNo	Short Integer	Domain: 1=Building, 2=Conduit (radio buttons)
AcceptanceDate	Date	
InspectionDate	Date	
WaterOfficePermit	text(80)	
ConstructionName	text(80)	
PropertyName	text(80)	
SubSystemID	Text[40]	Relation 1:N to the table mwa_SubSystem/MUID
Operator	text(80)	
Municipality	text(80)	
DocDate	Date	
Manufacturer	text(80)	
DISCHARGEDIAMETER	float	The diameter of the pump discharge (outlet)
INLETDIAMETER	float	The diameter of the pump inlet
RATEDFLOW	text(25)	The flow rating of the pump
RATEDPRESSURE	text(25)	The pressure rating of the pump
TOTALDYNAMICHEAD	text(25)	The measurment of the total dynamic head generated by the pump
Location	text(80)	
Locality	text(80)	
PZoneID	text(40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
Catalogue	text(80)	
SurfaceTypeNo	short integer	Domain (0: Type 1, 1: Type 2, 2: Type 3, 3:Type 4)

AssesmentDepth	float	
MunicipalityPart	text(80)	
StreetName	text(80)	
NodeID	text(40)	Node ID (generated information)
PolylineStructureID	text(40)	Relation 1:N to the table msa_PolylineStructure/MUID
Cadastre	text(80)	
Ownership	text(80)	
PumpType	text(80)	
PumpTypeNo	short integer	Domain (0: AxisFlow, 1: Centrifugal, 2: Jet, 3:Reciprocating, 4: Rotary, 5: Screw, 6: Turbine, 7: Other)
DataSource	text(80)	Data source
DESCRIPTION	text(255)	Description

Table

mwa_SrvPipe

Group WD ASSET

Description Asset Service Pipes

Field Name	Data Type	Description
DocTypeNo	short integer	Domain (0: Photo of structure, 1: Photo of crash, 2: Documentation)
Cadastre	text(80)	
Ownership	text(80)	
Operator	text(80)	
SystemID	Text[40]	Relation 1:N to the table mwa_System/MUID
SubSystemID	Text[40]	Relation 1:N to the table mwa_SubSystem/MUID
PropertyName	text(80)	
ConstructionName	text(80)	
WaterOfficePermit	text(80)	

InspectionDate	Date	
AcceptanceDate	Date	
StructureNo	Short Integer	Domain: 1=Building, 2=Conduit (radio buttons)
POPULATION	float	Population connected
PolylineStructureID	text(40)	Relation 1:N to the table msa_PolylineStructure/MUID
StreetName	text(80)	
DocAuthor	text(80)	
DocDate	Date	
DocPrintToPassport	short integer	
DocFileName	text(255)	
DocDescription	text(255)	
DocName	text(255)	
SupplyCostPerUnitLength	float	
ConstructionCostPerUnitL	float	
SupplyCostPerItem	float	
ConstructionCostPerItem	float	
PolygonStructureID	text(40)	Relation 1:N to the table msa_PolygonStructure/MUID
Locality	text(80)	
DIAMETER	float	Diameter
L	float	Pipe Length
DESCRIPTION	text(255)	Link description
DataSource	text(80)	Data source
ModelPipeID	text(40)	Link to Model Pipe ID (generated information)
Asset	text(40)	Asset service pipe ID
MUID	text(40)	Service PipeID
MATERIAL	text(25)	Material
COEFF1	float	Demand coefficient 1
COEFF2	float	Demand coefficient 2

PZoneID	text(40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
Location	text(80)	
JointTypeNo	short integer	Domain (0: Type 1, 1: Type 2, 2: Type 3, 3:Type 4)
Thickness	float	
Municipality	text(80)	
PipeTypeNo	short integer	Domain (0: Type 1, 1: Type 2, 2: Type 3, 3:Type 4)
PipeStateNo	short integer	Domain (0: Good, 1: Bad, 2: Breakdown, 3: Critical, 4: Not defined, 5: Unknown)
PN	float	
MunicipalityPart	text(80)	
AssesmentTypeNo	short integer	Domain (0:In ground, 1: Protection pipe, 2: Collector, 3: Main corridor)
AssesmentDepth	float	
SurfaceTypeNo	short integer	Domain (0: Type 1, 1: Type 2, 2: Type 3, 3:Type 4)

Table

mwa_SubSystem

Group WD ASSET

Description Subsystem List Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	Sub-System ID:
SystemID	Text[40]	System ID:

Table

mwa_System

Group WD ASSET

Description system list Database Table Attributes

Field Name	Data Type	Description
MUID	Text[40]	System ID:

Table

mwa_Tank

Group WD ASSET

Description Asset Pumps

Field Name	Data Type	Description
PropertyName	text(80)	
StreetName	text(80)	
Cadastre	text(80)	
MunicipalityPart	text(80)	
Ownership	text(80)	
Operator	text(80)	
SystemID	Text[40]	Relation 1:N to the table mwa_System/MUID
DocDate	Date	
DocAuthor	text(80)	
DocTypeNo	short integer	Domain (0: Photo of structure, 1: Photo of crash, 2: Documentation)
PolylineStructureID	text(40)	Relation 1:N to the table msa_PolylineStructure/MUID
PolygonStructureID	text(40)	Relation 1:N to the table msa_PolygonStructure/MUID
StructureNo	Short Integer	Domain: 1=Building, 2=Conduit (radio buttons)
AcceptanceDate	Date	

InspectionDate	Date	
ConstructionName	text(80)	
Municipality	text(80)	
DocDescription	text(255)	
WaterOfficePermit	text(80)	
PZoneID	text(40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
DocFileName	text(255)	
DocName	text(255)	
SubSystemID	Text[40]	Relation 1:N to the table mwa_SubSystem/MUID
ConstructionCostPerItem	float	
DocPrintToPassport	short integer	
MUID	text(40)	Tank ID
ASSET	text(40)	Asset ID
NodeID	text(40)	Node ID (generated information)
SupplyCostPerItem	float	
DESCRIPTION	text(255)	Description
NetworkUsage	text(80)	The usage of the structure
MAXVOLUME	float	The maximum storage volume
DIMENSION	text(80)	The dimension of the tank
MINLEVEL	float	The minimum water depth
MAXLEVEL	float	The minimum water depth
OPERLEVEL	float	The opertional water depth
TOTALDYNAMICHEAD	text(25)	The measurment of the total dynamic head generated by the pump
Location	text(80)	
Locality	text(80)	
TankType	text(80)	
DataSource	text(80)	Data source

Table

mwa_Valve

Group WD ASSET

Description Asset Valves

Field Name	Data Type	Description
Catalogue	text(80)	
MotorizedNo	Short Integer	Domain (0: No, 1: Yes) Whether the system valve is motorized
ValveStateNo	short integer	Domain (0: Good, 1: Bad, 2: Breakdown, 3: Critical, 4: Not defined, 5: Unknown)
AssesmentDepth	float	
Manufacturer	text(80)	
ValveType	text(80)	
Locality	text(80)	
Location	text(80)	
TURNSTOCLOSE	long integer	The number of turns required to close the system valve
REGULATIONTYPE	text(25)	The regulation type used on the system valve
PRESSURESETTING	text(25)	The pressure setting of the system valve
SurfaceTypeNo	short integer	Domain (0: Type 1, 1: Type 2, 2: Type 3, 3:Type 4)
NormallyOpenNo	Short Integer	Domain (0: No, 1: Yes) Whether the system valve is normally open
MunicipalityPart	text(80)	
CurrentlyOpenNo	Short Integer	Domain (0: No, 1: Yes) Whether the system valve is currently open
BypassValveNo	Short Integer	Domain (0: No, 1: Yes) Represent whetehr the system valve has a bypass valve
PZoneID	text(40)	Relation 1:N to mw_PZone/MUID (Pressure Zone ID)
DIAMETER	float	Valve diameter
ELEV	float	Valve elevation

DESCRIPTION	text(255)	Description
DataSource	text(80)	Data source
ModelPipeID	text(40)	Link Model Pipe ID (generated information)
ASSET	text(40)	Asset ID
MUID	text(40)	Valve ID
PERCENTOPEN	long integer	The percentage the system valve is open
InspectionDate	Date	
SupplyCostPerItem	float	
DocName	text(255)	
DocDescription	text(255)	
DocFileName	text(255)	
DocPrintToPassport	short integer	
DocDate	Date	
DocAuthor	text(80)	
DocTypeNo	short integer	Domain (0: Photo of structure, 1: Photo of crash, 2: Documentation)
PolylineStructureID	text(40)	Relation 1:N to the table msa_PolylineStructure/MUID
PolygonStructureID	text(40)	Relation 1:N to the table msa_PolygonStructure/MUID
ValveTypeNo	short integer	Domain (0: Valve, 1: AirValve, 2: PRV, 3:Drain, 4: Tap, 5: Gate, 6: Section valve)
AcceptanceDate	Date	
Municipality	text(80)	
WaterOfficePermit	text(80)	
ConstructionName	text(80)	
PropertyName	text(80)	
SubSystemID	Text[40]	Relation 1:N to the table mwa_SubSystem/MUID
SystemID	Text[40]	Relation 1:N to the table mwa_System/MUID
Operator	text(80)	

Ownership	text(80)	
Cadastre	text(80)	
StreetName	text(80)	
ConstructionCostPerItem	float	
StructureNo	Short Integer	Domain: 1=Building, 2=Conduit (radio buttons)