Database

Surface Manager

Version 2.19

2020-11-24

DISCLAIMER: This document does not necessarily describe the actual, up-to-date, database structure. Even though this document is written with the best intentions, the truth is in the actual code. There may be information mistyped, missing, or other mistakes. This document should therefore be seen as informational. To view the actual database structure, please check the database structure created/maintained by the Surface Manager installation package.

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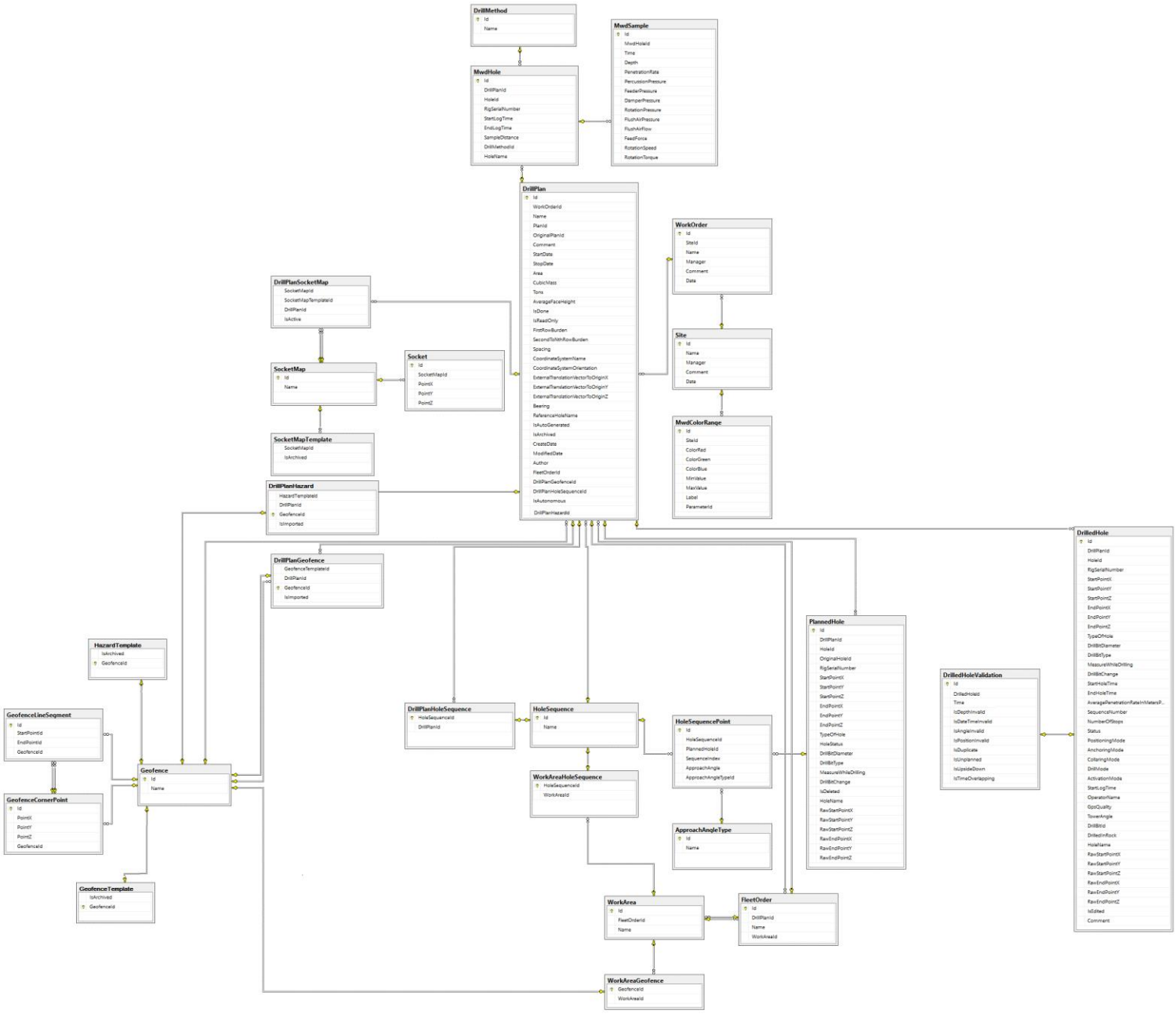
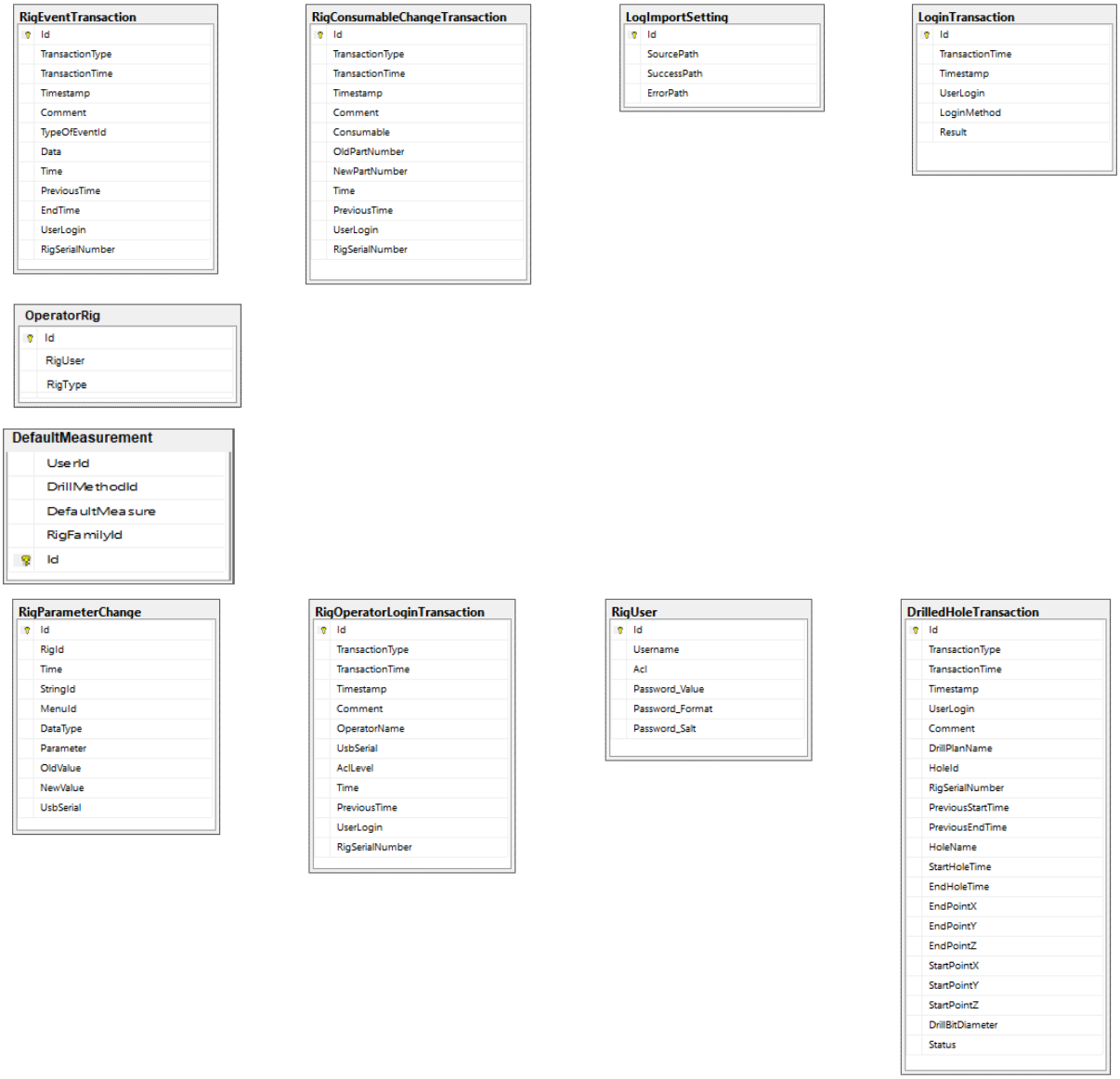
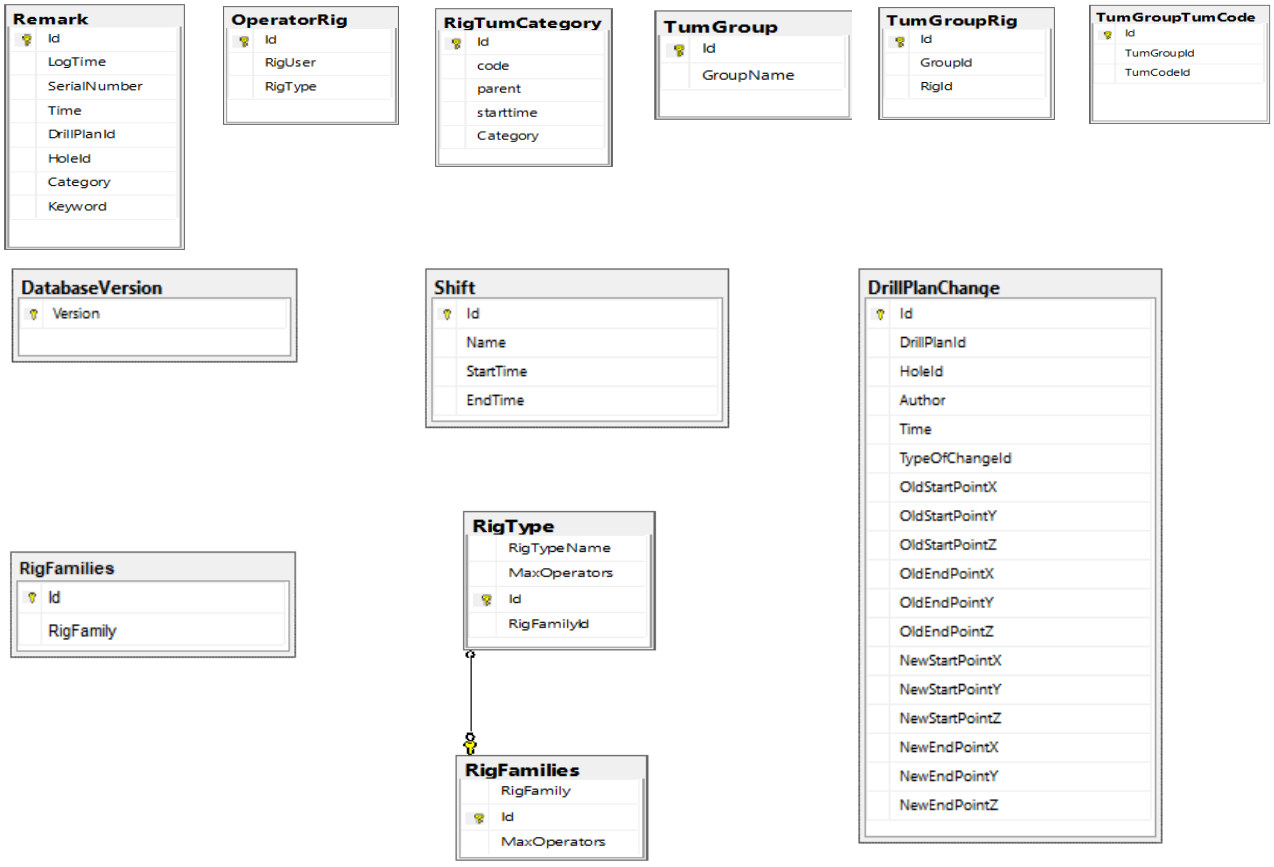
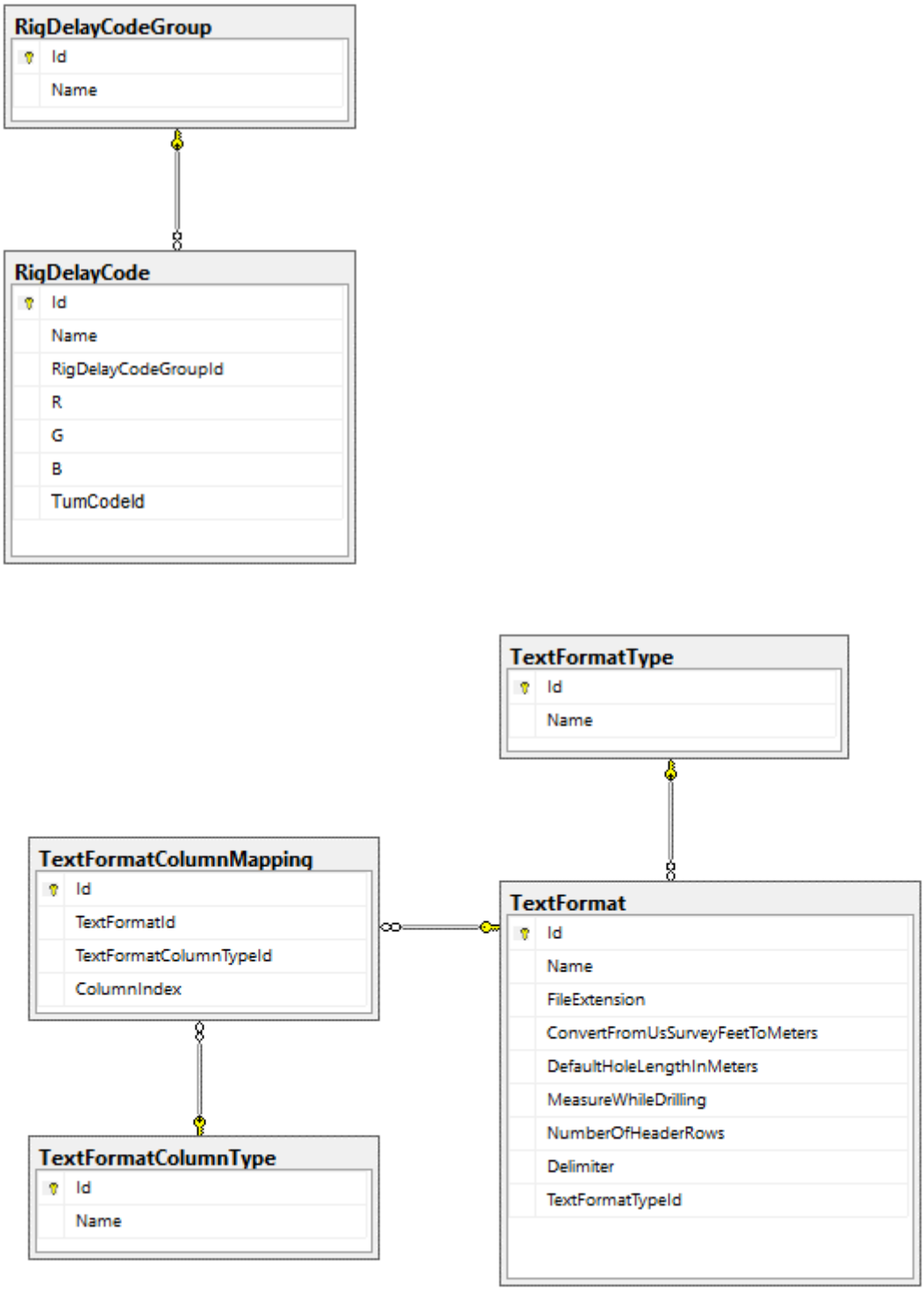
Schema

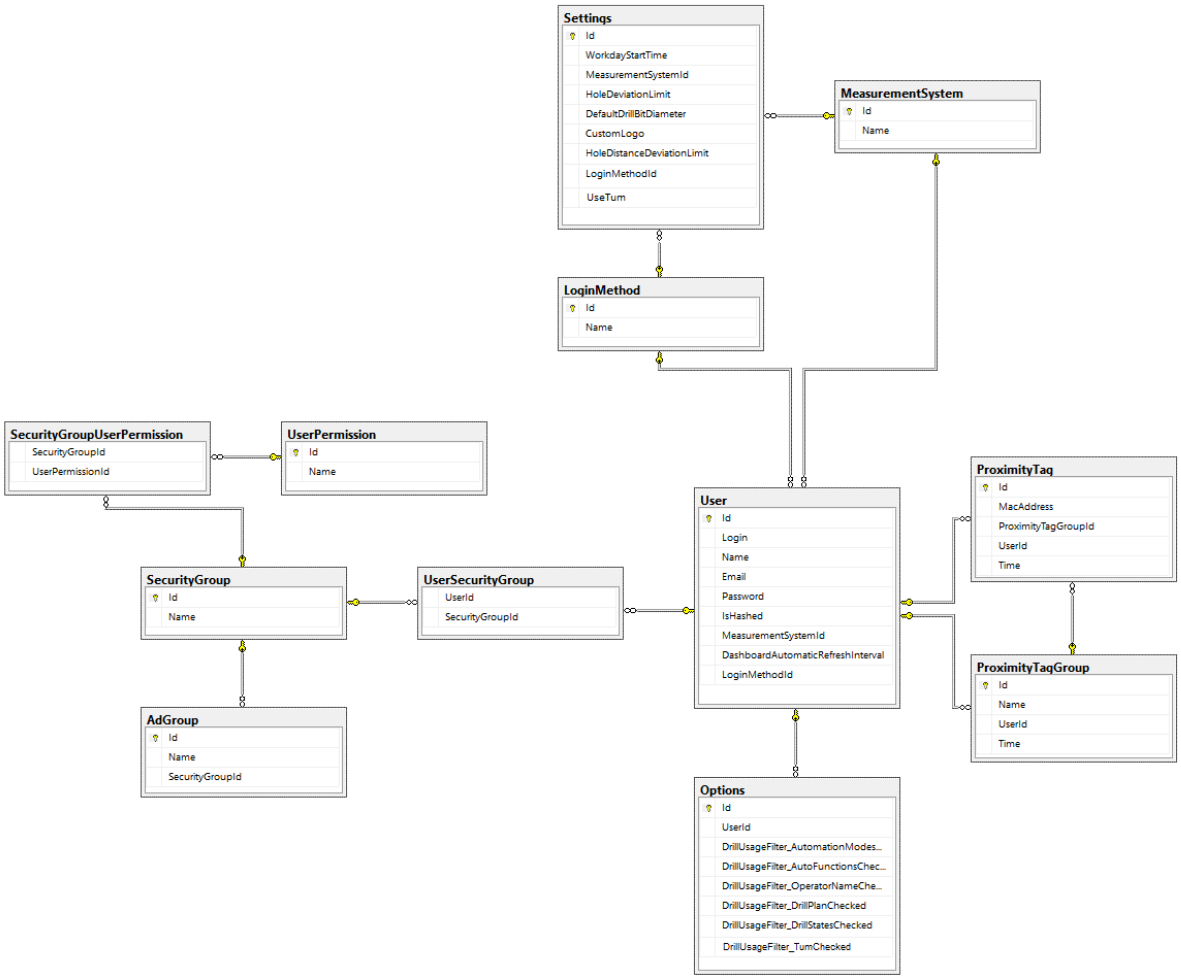

DrillMethod
Id
Name
MwdSample
Id
MwdHoleId
Time
Depth
PenetrationRate
PercussionPressure
FeederPressure
DamperPressure
RotationPressure
FlushAirPressure
FlushAirFlow
FeedForce
RotationSpeed
RotationTorque
MwdHole
Id
DrillPlanId
HoleId
RigSerialNumber
StartLogTime
EndLogTime
SampleDistance
DrillMethodId
HoleName
DrillPlan
Id
WorkOrderId
Name
PlanId
OriginalPlanId
Comment
StartDate
StopDate
Area
CubicMass
Tons
AverageFaceHeight
IsDone
IsReadOnly
FirstRowBurden
SecondToNthRowBurden
Spacing
CoordinateSystemName
CoordinateSystemOrientation
ExternalTranslationVectorToOriginX
ExternalTranslationVectorToOriginY
ExternalTranslationVectorToOriginZ
Bearing
ReferenceHoleName
IsAutoGenerated
IsArchived
CreateDate
ModifiedDate
Author
FleetOrderId
DrillPlanGeofenceId
DrillPlanHoleSequenceId
IsAutonomous
DrillPlanHazardId
WorkOrder
Id
SiteId
Name
Manager
Comment
Date
Site
Id
Name
Manager
Comment
Date
MwdColorRange
Id
SiteId
ColorRed
ColorGreen
ColorBlue
MinValue
MaxValue
Label
ParameterId
DrillPlanSocketMap
SocketMapId
SocketMapTemplateId
DrillPlanId
IsActive
SocketMap
Id
Name
Socket
Id
SocketMapId
PointX
PointY
PointZ
SocketMapTemplate
SocketMapId
IsArchived
DrillPlanHazard
HazardTemplateId
DrillPlanId
GeofenceId
IsImported
DrillPlanGeofence
GeofenceTemplateId
DrillPlanId
GeofenceId
IsImported
DrilledHole
Id
DrillPlanId
HoleId
RigSerialNumber
StartPointX
StartPointY
StartPointZ
EndPointX
EndPointY
EndPointZ
TypeOfHole
DrillBitDiameter
DrillBitType
MeasureWhileDrilling
DrillBitChange
StartHoleTime
EndHoleTime
AveragePenetrationRateInMetersP...
SequenceNumber
NumberOfStops
Status
PositioningMode
AnchoringMode
CollaringMode
DrillMode
ActivationMode
StartLogTime
OperatorName
GpsQuality
TowerAngle
DrillBitId
DrilledInRock
HoleName
RawStartPointX
RawStartPointY
RawStartPointZ
RawEndPointX
RawEndPointY
RawEndPointZ
IsEdited
Comment
PlannedHole
Id
DrillPlanId
HoleId
OriginalHoleId
RigSerialNumber
StartPointX
StartPointY
StartPointZ
EndPointX
EndPointY
EndPointZ
TypeOfHole
HoleStatus
DrillBitDiameter
DrillBitType
MeasureWhileDrilling
DrillBitChange
IsDeleted
HoleName
RawStartPointX
RawStartPointY
RawStartPointZ
RawEndPointX
RawEndPointY
RawEndPointZ
DrilledHoleValidation
Id
DrilledHoleId
Time
IsDepthInvalid
IsDateTimeInvalid
IsAngleInvalid
IsPositionInvalid
IsDuplicate
IsUnplanned
IsUpsideDown
IsTimeOverlapping
HazardTemplate
IsArchived
GeofenceId
GeofenceLineSegment
Id
StartPointId
EndPointId
GeofenceId
GeofenceCornerPoint
Id
PointX
PointY
PointZ
GeofenceId
Geofence
Id
Name
GeofenceTemplate
IsArchived
GeofenceId
DrillPlanHoleSequence
HoleSequenceId
DrillPlanId
HoleSequence
Id
Name
HoleSequencePoint
Id
HoleSequenceId
PlannedHoleId
SequenceIndex
ApproachAngle
ApproachAngleTypeId
ApproachAngleType
Id
Name
WorkAreaHoleSequence
HoleSequenceId
WorkAreaId
WorkArea
Id
FleetOrderId
Name
FleetOrder
Id
DrillPlanId
Name
WorkAreaId
WorkAreaGeofence
GeofenceId
WorkAreaId

RigStatistics
Id
RigId
StatisticsDate
SystemVersion
AccumulatedPercussionTimeInSec...
AccumulatedHoleLengthInMeters
TotalEngineTimeInSeconds
TotalTramTimeInSeconds
Memory1
Memory2
HoleLengthSinceGrindingInMeters
FuelConsumptionInLiters
EngineTimeInSeconds
PercussionTimeInSeconds
TramTimeInSeconds
AccumulatedRotationTimeInSecon...
AccumulatedMachineTimeInSecon...
AccumulatedEngineTimeInSeconds
AccumulatedLubePumpTimeInSec...
AccumulatedEngineHoursRaw
RigStateEvent
Id
RigId
State
Time
RigStateEventType
Depth
CradlePos
OpsSerialNumber
DrillPlanId
HoleName
RigEcmFault
Id
RigId
State
Time
Spn
Fmi
ProximityEventType
Id
EventType
RigProximityDetectionEvent
Id
RigId
ProximityEventTypeId
Time
State
ProximityTagMacAddress
ProximityTagGroupName
RigStbStateTransition
Id
RigId
Time
State
RRAStatus
Id
Name
RigStatusEntry
Id
RigId
StartLogTime
EndLogTime
ReportId
OperatorName
ExternalPositionX
ExternalPositionY
ExternalPositionZ
EngineHours
MachineStateId
SystemVersion
RotationHoursInSeconds
MachineHoursInSeconds
LubePumpHoursInSeconds
AutoNavigationHoursInSeconds
AccumulatedHoleLength
TotalTramHoursInSeconds
AirOnHoursInSeconds
ElectricalPowerConsumption
WaterLevel
OilLevel
FuelLevel
RodHandlingHoursInSeconds
PositioningHoursInSeconds
TramHoursInSeconds
PercussionHoursInSeconds
CompressorTempHighStage
CompressorTempLowStage
EngineTemp
AmbientTemp
HydraulicOilTemp
WaterMistTankLevelLow
HECLOilTankLevelLow
Discriminator
Rig
Id
Name
SerialNumber
RigInformationDate
ExportPath
RRAStatusId
HasGps
EquipmentType
IsArchived
RigOperatorLogin
Id
RigId
OperatorName
UsbSerial
AclLevel
Time
IsEdited
Comment
RigConsumableChange
Id
RigId
Consumable
OldPartNumber
NewPartNumber
Time
IsEdited
Comment
RigProductionEntry
Id
RigId
Date
MetersDrilled
HolesDrilled
PenetrationRateInMetersPerMinute
PercussionTimeInSeconds
EngineTimeInSeconds
TramTimeInSeconds
RigGpsQuality
Id
RigId
Quality
Time
RigEvent
Id
RigId
Time
Data
TypeOfEventId
EndTime
IsEdited
Comment
TumCodeId


RigEventTransaction
Id
TransactionType
TransactionTime
Timestamp
Comment
TypeOfEventId
Data
Time
PreviousTime
EndTime
UserLogin
RigSerialNumber
RigConsumableChangeTransaction
Id
TransactionType
TransactionTime
Timestamp
Comment
Consumable
OldPartNumber
NewPartNumber
Time
PreviousTime
UserLogin
RigSerialNumber
LogImportSetting
Id
SourcePath
SuccessPath
ErrorPath
LoginTransaction
Id
TransactionTime
Timestamp
UserLogin
LoginMethod
Result
OperatorRig
Id
RigUser
RigType
DefaultMeasurement
UserId
DrillMethodId
DefaultMeasure
RigFamilyId
Id
RigParameterChange
Id
RigId
Time
StringId
MenuId
DataType
Parameter
OldValue
NewValue
UsbSerial
RigOperatorLoginTransaction
Id
TransactionType
TransactionTime
Timestamp
Comment
OperatorName
UsbSerial
AclLevel
Time
PreviousTime
UserLogin
RigSerialNumber
RigUser
Id
Username
Acl
Password_Value
Password_Format
Password_Salt
DrilledHoleTransaction
Id
TransactionType
TransactionTime
Timestamp
UserLogin
Comment
DrillPlanName
HoleId
RigSerialNumber
PreviousStartTime
PreviousEndTime
HoleName
StartHoleTime
EndHoleTime
EndPointX
EndPointY
EndPointZ
StartPointX
StartPointY
StartPointZ
DrillBitDiameter
Status


Remark
Id
LogTime
SerialNumber
Time
DrillPlanId
HoleId
Category
Keyword
OperatorRig
Id
RigUser
RigType
RigTumCategory
Id
code
parent
starttime
Category
TumGroup
Id
GroupName
TumGroupRig
Id
GroupId
RigId
TumGroupTumCode
Id
TumGroupId
TumCodeId
DatabaseVersion
Version
Shift
Id
Name
StartTime
EndTime
DrillPlanChange
Id
DrillPlanId
HoleId
Author
Time
TypeOfChangeId
OldStartPointX
OldStartPointY
OldStartPointZ
OldEndPointX
OldEndPointY
OldEndPointZ
NewStartPointX
NewStartPointY
NewStartPointZ
NewEndPointX
NewEndPointY
NewEndPointZ
RigFamilies
Id
RigFamily
RigType
RigTypeName
MaxOperators
Id
RigFamilyId
RigFamilies
RigFamily
Id
MaxOperators


RigDelayCodeGroup
Id
Name
RigDelayCode
Id
Name
RigDelayCodeGroupId
R
G
B
TumCodeId
TextFormatType
Id
Name
TextFormatColumnMapping
Id
TextFormatId
TextFormatColumnTypeId
ColumnIndex
TextFormat
Id
Name
FileExtension
ConvertFromUsSurveyFeetToMeters
DefaultHoleLengthInMeters
MeasureWhileDrilling
NumberOfHeaderRows
Delimiter
TextFormatTypeId
TextFormatColumnType
Id
Name


Settings
Id
WorkdayStartTime
MeasurementSystemId
HoleDeviationLimit
DefaultDrillBitDiameter
CustomLogo
HoleDistanceDeviationLimit
LoginMethodId
UseTurn
MeasurementSystem
Id
Name
LoginMethod
Id
Name
SecurityGroupUserPermission
SecurityGroupId
UserPermissionId
UserPermission
Id
Name
ProximityTag
Id
MacAddress
ProximityTagGroupId
UserId
Time
User
Id
Login
Name
Email
Password
IsHashed
MeasurementSystemId
DashboardAutomaticRefreshInterval
LoginMethodId
SecurityGroup
Id
Name
UserSecurityGroup
UserId
SecurityGroupId
ProximityTagGroup
Id
Name
UserId
Time
AdGroup
Id
Name
SecurityGroupId
Options
Id
UserId
DrillUsageFilter_AutomationModes...
DrillUsageFilter_AutoFunctionsChec...
DrillUsageFilter_OperatorNameChe...
DrillUsageFilter_DrillPlanChecked
DrillUsageFilter_DrillStatesChecked
DrillUsageFilter_TurnChecked

Change History

2.18 to 2.19

New Tables

- DefaultMeasurement
- OperatorRig
- Remark
- RigFamilies
- RigTumCategory
- RigType
- TumGroup
- TumGroupRig
- TumGroupTumCode

Modifications

- RigDelayCode Table
  - Added Column TumCodeId
- Options Table
  - Added column DrillUsageFilter_TumChecked
- RigEvent Table
  - Added Column TumCodeId
  - Added Column Time_Timezone
  - Added Column EndTime_Timezone
- Settings Table
  - Added Column UseTum
- DrilledHole
  - Added Column StartHoleTime_Timezone
  - Added Column EndHoleTime_Timezone
  - Added Column StartLogTime_Timezone
- MwdHole
  - Added Column StartLogTime_Timezone
  - Added Column EndLogTime_Timezone
- MwdSample
  - Added Column Time_Timezone
- RigConsumablesChange
  - Added Column Time_Timezone
- RigGpsQuality
  - Added Column Time_Timezone
  - Added Column GpsQuality1
  - Added Column GpsQuality2
- RigOperatorLogin

    - Added Column Time_Timezone
- RigParameterChange
    - Added Column Time_Timezone
- RigProductionEntry
    - Added Column Date_Timezone
    - Added Column LastUpdateTime_Timezone
    - Added Column FuelConsumptionInLiters
    - Added Column LastUpdateTime
- RigProximityDetectionEvent
    - Added Column Time_Timezone
- RigStateEvent
    - Added Column Time_Timezone
- RigStatusEntry
    - Added Column StartLogTime_Timezone
    - Added Column EndLogTime_Timezone
    - Added Column EngineTotalFuelUsedJ1939
- RigStbStateTransition
    - Added Column Time_Timezone

Removed unused columns

- UserId from DefaultMeasurement table
- MaxOperators from RigFamilies table
- StartTime from RigTumCategory

2.17 to 2.18

New Tables

- DrillPlanHazard
- HazardTemplate

Modifications to DrillPlan Table

- Added Column DrillPlanHazardId

Modifications to Rig Table

- Added Column IsArchived

2.16 to 2.17

There is no change in Database schema

2.15 to 2.16

New Tables

- DrilledHoleTransaction
- LoginTransaction

Dropped Tables

- RigEquipmentType

Modifications to RigEventTransactions Table

- Added Column UserLogin
- Added Column RigSerialNumber

Modifications to RigConsumableChangeTransaction Table

- Added Column UserLogin
- Added Column RigSerialNumber

Modifications to RigOperatorLoginTransaction Table

- Added Column UserLogin
- Added Column RigSerialNumber

Modifications to DrilledHole Table

- Added Column IsEdited
- Added Column Comment

Modifications to RigConsumableChange Table

- Added Column IsEdited
- Added Column Comment

Modifications to RigEvent Table

- Added Column IsEdited
- Added Column Comment

Modifications to RigOperatorLogin Table

- Added Column IsEdited

- Added Column Comment

2.14 to 2.15

New Tables

- AdGroup
- DrillPlanSocketMap
- LoginMethod
- SecurityGroup
- SecurityGroupUserPermission
- Socket
- SocketMap
- SocketMapTemplate
- UserPermission
- UserSecurityGroup

Dropped Tables

- SecurityLevel

Modifications to DrilledHole Table

- Removed Column RigAssignedHoleName

Modifications to DrillPlanGeofence Table

- Added Column IsImported

Modifications to MwdHole Table

- Renamed Column RigAssignedHoleId to HoleId

Modifications to PlannedHole Table

- Removed Column RigAssignedHoleName

Modifications to Settings Table

- Added Column LoginMethodId

Modifications to TextFormatColumnMapping Table

- Renamed TextFormatColumnId to TextFormatColumnTypeId

Modifications to User Table

- Removed Column SecurityLevelId
- Added Column LoginMethodId

2.13 to 2.14

New Tables

- DrilledHoleValidation
- Options
- ProximityEventType
- ProximityTag
- ProximityTagGroup
- RigEquipmentType
- RigProximityDetectionEvent
- TextFormatColumnType

Dropped Tables

- TextFormatColumn

Modifications to Rig Table

- Removed Column EquipmentType
- Removed Column RigFamily
- Removed Column MaxNumberOfHoles
- Added Column EquipmentTypeId

Modifications to RigDelayCode Table

- Added Columns R, G and B.

Modifications to RigUser Table

- Added Column Acl
- Added Column Password_Format
- Added Column Password_Salt
- Added Column Password_Value

2.12.5 to 2.13

New Tables

- RigConsumableChangeTransaction
- RigEventTransaction
- RigOperatorLoginTransaction

Modifications to RigStateEvent Table

- Added Column Depth
- Added Column CradlePos
- Added Column OpsSerialNumber
- Added Column DrillPlanId
- Added Column HoleName

AdGroup

Active directory groups mapped to Surface Manager security groups.

Id

Active directory group id

Name

Active directory group name

SecurityGroupId

Foreign key to mapped security group

ApproachAngleType

Surface Manager internal

DatabaseVersion

Version

Surface Manager database version

DefaultMeasurement

Configuration of the default measurement to be shown for Hardness widget

Id

Database id

RigFamilyId

Rig Family for which the measure is configured

DrillMethodId

Drill method for which the measure is configured

DefaultMeasure

Default measure to be shown for the rigfamily and drillmethod

DrilledHole

Drilled holes from drill quality (DQ) logs.

Id

Primary key for each drilled hole

DrillPlanId

Foreign key to the DrillPlan table

HoleId

Hole id

RigSerialNumber

Rig serial number to match with Rig

StartPointX, StartPointY, StartPointZ

Start point for hole.

Coordinated is transformed depending on drill plan coordinate system. Typically when using GPS coordinates the coordinates are translated by DrillPlan ExternalTranslationVector.

EndPointX, EndPointY, EndPointZ

End point for hole.

Coordinated is transformed depending on drill plan coordinate system. Typically when using GPS coordinates the coordinates are translated by DrillPlan ExternalTranslationVector.

TypeOfHole

0 = Undefined

1 = Reference

2 = CutHole

3= ReamingHole

4 = EasersHole

5 = BoltHole

6 = InjectionHole

7 = SecondContour

8 = Bottom

9 = Contour

10 = Casing

11 = Probe

12 = Grout

13 = Spiling

14 = Cleaning

15 = Others

DrillBitDiameter

<DrillBitDia> in DQ logs

Drill Bit Diameter in millimeters

DrillBitType

<DrBitType> in DQ log

0 = Undefined

1 = Button

2 = Cross

3 = Reaming

4 = Others

MeasureWhileDrilling

<MwdOn> in DQ log

0 = MWD data was not captured for this hole

1 = MWD data was captured for this hole and an MWD log has been generated

DrillBitChange

<BitChange> in DQ log

StartHoleTime

StartHoleTime

EndHoleTime

EndHoleTime

AveragePenetrationRateInMetersPerMinute

AvgPenetr (in DQ log) * 60

AvgPenetr is the average instantaneous penetration rates while drilling. This measure does not factor in interruptions in drilling, such as jams or mid-hole cleaning.

SequenceNumber

DrillSeq in quality log

NumberOfStops

NumStops in quality log

Status

Hstatus in quality log.

0 = Unspecified

1 = Undrilled

2 = Success, Drilled

3 = Fail

4 = Others

5 = Aborted

6 = Redrilled

PositioningMode

PosMode in quality log

-1 = Unspecified

0 = Manual

1 = Automatic

AnchoringMode

-1 = Unspecified

0 = Manual

1 = Automatic

CollaringMode

-1 = Unspecified

0 = Manual

1 = Automatic

DrillMode

-1 = Unspecified

0 = Manual

1 = Automatic

ActivationMode

-1 = Unspecified

0 = Manual

1 = Automatic

StartLogTime

StartLogTime

OperatorName

OperatorName

GpsQuality

GPSQuality in quality log

TowerAngle

TowerAngle

DrillBitId

BitId

DrilledInRock

DrilledInRock

HoleName

HoleName

RawStartPointX, RawStartPointY, RawStartPointZ

Raw log file start point for hole.

RawEndPointX, RawEndPointY, RawEndPointZ

Raw log file end point for hole.

IsEdited

0 = Hole is not edited

1 = Hole is edited

Comment

Comment from the last editing

StartHoleTime_Timezone

The time zone offset of StartHoleTime

EndHoleTime_Timezone

The time zone offset of EndHoleTime

DrilledHoleTransaction

Contains information on all the changes made in the DrilledHole table, i.e. a DrilledHole is imported, created, modified or deleted.

Id

Database id

TransactionType

Type of transaction:
0 = Unknown
1 = Add
2 = Import
3 = Modify
4 = Delete

TransactionTime

Time of the transaction

Timestamp

Surface Manager internal

UserLogin

Login name of the user responsible for the transaction

Comment

Comment on the transaction

DrillPlanName

Name of the drillplan containing the drilled hole

HoleId

See HoleId in DrilledHole

RigSerialNumber

See RigSerialNumber in DrilledHole

PreviousStartTime

StartHoleTime of the DrilledHole before changes

PreviousEndTime

EndHoleTime of the DrilledHole before changes

HoleName

See HoleName in DrilledHole

StartHoleTime

New StartHoleTime on the DrilledHole

EndHoleTime

New EndHoleTime on the DrilledHole

EndPointX, EndPointY, EndPointZ

New EndPoint on the DrilledHole

StartPointX, StartPointY, StartPointZ

New StartPoint on the DrilledHole

DrillBitDiameter

New DrillBitDiameter on the DrilledHole

Status

New Status on the DrilledHole

DrilledHoleValidation

Validation Results for Drilled Holes.

Is calculated when a Drilled Hole is parsed from a Quality Log.

Id

Unique Identifier for the Validation Entry

DrilledHoleId

Foreign key to the Drilled Hole for this validation data.

Time

The date and time the validation was computed.

IsDepthInvalid

True when a hole depth is physically too long for any supported equipment to reach.

IsDateTimeInvalid

True when the start and/or end date do not make sense, or the drilling time is greater than 1 week.

IsAngleInvalid

True when the angle of a hole is over 45 degrees.

IsPositionInvalid

True when the collar [X,Y] of the actual hole is more than 1m away from the planned collar [X,Y].

Is separate from the client tolerance settings.

IsDuplicate

True when the HoleName or HoleId matches an already existing Drilled Hole on the Drill Plan.

IsUnplanned

True when the HoleName or HoleId are negative, indicating an automatically assigned unplanned hole by RCS.

IsUpsideDown

True when the Z value for the actual toe position is higher than the Z value for the actual collar position.

IsTimeOverlapping

True when this hole’s start or end time is overlapping another hole’s start or end time, drilled by a rig with the same serial number.

DrillMethod

Surface Manager internal

Id

Database id

Name

Name of drilling method.

- TopHammer
- DTHD65
- DTH
- Unknown
- Rotary

DrillPlan

All drill plans. Parsed from drill plan log or generated from csv.

Id

Database id

WorkOrderId

Foreign key to the WorkOrder

Name

PlanName when parsed or custom set.

PlanId

Internal id

OriginalPlanId

Custom plan id typically from CAD

Comment

Drill plan custom comment

StartDate

First use of drill plan

StopDate

Last Surface Manager use of drill plan (export date)

Area

Area

CubicMass

CubicMass

Tons

Tons

AverageFaceHeight

AvgFaceHeight

IsDone

Done

IsReadOnly

N/A

FirstRowBurden

FirstRowBurden

SecondToNthBurden

SecondToNthBurden

Spacing

Spacing

CoordinateSystemName

CoordSysName

CoordinateSystemOrientation

Csystype, L = LeftHanded

ExternalTranslationVectorToOriginX, ExternalTranslationVectorToOriginY, ExternalTranslationVectorToOriginZ

Translation vector applied to coordinates relative to the drill plan.

Bearing

N/A

ReferenceHoleName

N/A

IsAutoGenerated

0 = Drill plan was imported

1 = Drill plan container was created from a drilled hole log

IsArchived

0 = Active

1 = Archived

CreateDate

The timestamp when the drill plan was imported

ModifiedDate

The timestamp when the drill plan was modified

Author

The author that made the last modification to the drill plan

FleetOrderId

Foreign key to the current selected FleetOrder

DrillPlanGeofenceId

Foreign key to the Geofence of the DrillPlan

DrillPlanHazardId

Foreign key to the Hazard of the DrillPlan

DrillPlanHoleSequenceId

Foreign key to the HoleSequence of the DrillPlan

IsAutonomous

0 = This is not an autonomous drill plan

1 = This is an autonomous drill plan

DrillPlanChange

Log of all changes to drill plans performed when reimporting a drill plan.

Id

Database id

DrillPlanId

The DrillPlan identifier

HoleId

The hole identifier

Author

The logged on user performing the change

Time

The timestamp of the change

TypeOfChangeId

The type of change executed.

ID	Action
80BA4C92-915C-45ED-AA50-300DF3722D99	Added
EA102EC2-A58B-4232-BA34-7681B1D1849A	Modified

OldStartPointX, OldStartPointY, OldStartPointZ

The previous hole start point

OldEndPointX, OldEndPointY, OldEndPointZ

The previous hole end point

NewStartPointX, NewStartPointY, NewStartPointZ

The new hole start point

NewEndPointX, NewEndPointY, NewEndPointZ

The new hole end point

DrillPlanGeofence

Link between a geofence and a drill plan

GeofenceTemplateId

Foreign key to the Geofence

DrillPlanId

Foreign key to the DrillPlan

GeofenceId

Foreign key to Geofence

IsImported

Shows if the geofence is imported or not.

DrillPlanHazard

Link between a Hazard and a drill plan

HazardTemplateId

Foreign key to the Geofence (Hazard is stored as a Geofence)

DrillPlanId

Foreign key to the DrillPlan

GeofenceId

Foreign key to Geofence (Hazard is stored as a Geofence)

IsImported

Shows if the Hazard is imported or not.

IsActive

Shows if the Hazard is active or not.

DrillPlanHoleSequence

Link between hole sequence and drill plan.

HoleSequenceId

Foreign key to the HoleSequence

DrillPlanId

Foreign key to the DrillPlan

DrillPlanSocketMap

Sockets in a drill plan.

SocketMapId

Foreign key to SocketMap

SocketMapTemplateId

Foreign key to SocketMap. Id of the socket map template this drill plan socket map was created from.

DrillPlanId

Foreign key to DrillPlan

IsActive

0 = Not active

1 = Active

FleetOrder

Id

Database id

DrillPlanId

Foreign key to the DrillPlan

Name

Name of the fleet order

WorkAreaId

Foreign key to the WorkArea

Geofence

Id

Database id

Name

Name of the geofence

GeofenceCornerPoint

A geofence corner point

Id

Database id

PointX, PointY, PointZ

The coordinate of the corner point

GeofenceId

Foreign key to Geofence

GeofenceLineSegment

A geofence line segment

Id

Database id

StartPointId, EndPointId

Foreign key to a GeofenceCornerPoint

GeofenceId

Foreign key to the Geofence

GeofenceTemplate

A geofence line segment

IsArchived

0 = Active

1 = Archived

GeofenceId

Foreign key to Geofence

HazardTemplate

A Hazard line segment

IsArchived

0 = Active

1 = Archived

GeofenceId

Foreign key to Geofence (Hazard is internally represented as this Geofence)

HoleSequence

A hole sequence

Id

Database id

Name

The name of the sequence

HoleSequencePoint

A point in a hole sequence

Id

Database id

HoleSequenceId

Foreign key to HoleSequence

PlannedHoleId

Foreign key to PlannedHole

SequenceIndex

The index of the planned hole in the hole sequence. Starting from 0.

ApproachAngle

Approach angle in degrees where 0 is straight down.

ApproachAngleTypeId

Surface Manager internal.

LogImportSetting

All settings for where to look for log files.

Id

Database id

SourcePath

Source folder

SuccessPath

Success folder

ErrorPath

Error folder

LoginMethod

Surface Manager internal

LoginTransaction

Stores all login attempts to Surface Manager

Id

Database id

TransactionTime

Time of the transaction

Timestamp

Surface Manager internal

UserLogin

Username of the login attempt

LoginMethod

Type of login, e.g. SurfaceManager, Active Directory

Result

Result of the login, e.g. Success, PermissionDenied, LoginServerUnreachable

MeasurementSystem

Surface Manager internal

Id

Database id

Name

Name of measurement system

- Metric
- Imperial

MwdColorRange

Mwd color ranges. Managed by Surface Manager.

Id

Database id

SiteId

Foreign key to the Site

ColorRed

Byte value for red channel

ColorGreen

Byte value for green channel

ColorBlue

Byte value for blue channel

MinValue

Color range min value

MaxValue

Color range max value

Label

A readable representation of color range

ParameterId

Id of the mwd parameter.

HardnessByTopHammer = new MwdParameter(10, ...);

FracturingByTopHammer = new MwdParameter(11, ...);

PenetrationRate = new MwdParameter(0, ...);

PercussionPressure = new MwdParameter(1, ...);

FeederPressure = new MwdParameter(2, ...);

DamperPressure = new MwdParameter(3, ...);

RotationPressure = new MwdParameter(4, ...);

FlushAirPressure = new MwdParameter(5, ...);

HardnessByRotaryDrilling = new MwdParameter(12, ...);

FracturingByRotaryDrilling = new MwdParameter(13, ...);

FlushAirFlow = new MwdParameter(6, ...);

FeedForce = new MwdParameter(7, ...);

RotationSpeed = new MwdParameter(8, ...);

RotationTorque = new MwdParameter(9, ...);

MwdHole

All mwd holes parsed from mwd logs

Id

Database id

DrillPlanId

Foreign key to the DrillPlan

HoleId

MWDholeId in mwd log

RigSerialNumber

EqpSerNo in mwd log

StartLogTime

StartLogTime

EndLogTime

EndLogTime

SampleDistance

SampleDistance

DrillMethodId

Foreign key for DrillMethod

HoleName

MWDHoleName in mwd log

StartLogTime_Timezone

Date time offset for StartLogTime

EndLogTime_Timezone

Date time offset for EndLogTime

MwdSample

All mwd samples parsed from mwd logs.

Id

Database id

MwdHoleId

Foreign key to the MwdHole

Time

Sample time stamp

Depth

Sample depth in meters

PenetrationRate

PenetrRate in mwd log.

Penetration rate at depth in m/min

PercussionPressure, FeederPressure, DamperPressure, RotationPressure, FlushAirPressure

N/A

FlushAirFlow

FlushFlow in mwd log in l/min.

FeedForce

FeedForce in mwd log in kN.

RotationSpeed

RotSpeed in mwd log in r/min.

RotationTorque

RotationTorque in mwd log in Nm.

Time_Timezone

Date time offset for Time column.

OperatorRig

Assign Operators to Rig

Id

Database id

RigUser

RigUser from RigUser Table

RigType

RigTypeName from RigType table

Options

User settings

Id

Database id

UserId

Foreign key to the User

DrillUsageFilter_AutomationModesChecked

0 Automation Modes in Drill Usage is hidden
1 Automation Modes in Drill Usage is visible

DrillUsageFilter_AutoFunctionsChecked

0 Auto Functions in Drill Usage is hidden
1 Auto Functions in Drill Usage is visible

DrillUsageFilter_OperatorNameChecked

0 Operator Names in Drill Usage is hidden
1 Operator Names in Drill Usage is visible

DrillUsageFilter_DrillPlanChecked

0 Drillplans in Drill Usage is hidden
1 Drillplans in Drill Usage is visible

DrillUsageFilter_DrillStatesChecked

0 Drill States in Drill Usage is hidden
1 Drill States in Drill Usage is visible

DrillUsageFilter_DrillStatesChecked

0 Drill States in Drill Usage is hidden
1 Drill States in Drill Usage is visible

DrillUsageFilter_TummChecked

0 Tum is Hidden
1 Tum is Shown

PlannedHole

All planned holes.

Id

Database id

DrillPlanId

Foreign key to the DrillPlan

HoleId

Generated internally by Surface Manager.

OriginalHoleId

Hole id from CAD system typically

RigSerialNumber

Rig serial number

StartPointX, StartPointY, StartPointZ

Start point for hole.

Coordinated is transformed depending on drill plan coordinate system. Typically when using GPS coordinates the coordinated is translated by DrillPlan.ExternalTranslationVector.

EndPointX, EndPointY, EndPointZ

End point for hole.

Coordinated is transformed depending on drill plan coordinate system. Typically when using GPS coordinates the coordinated is translated by DrillPlan.ExternalTranslationVector.

TypeOfHole

0 = Undefined

1 = Reference

2 = CutHole

3 = ReamingHole

4 = EasersHole

5 = BoltHole

6 = InjectionHole

7 = SecondContour

8 = Bottom

9 = Contour

10 = Casing

11 = Probe

12 = Grout

13 = Spiling

14 = Cleaning

15 = Others

16 = Production

HoleStatus

0 = Undefined

1 = Undrilled

2 = Drilled

3 = Redrilled

4 = Charged

DrillBitDiameter

DrillBitDia in drill plan log

DrillBitType

DrBitType in drill plan log

0 = Undefined

1 = Button

2 = Cross

3 = Reaming

4 = Others

MeasureWhileDrilling

MwdOn in drill plan log

DrillBitChange

BitChange in drill plan log

IsDeleted

Used internally by Surface Manager

HoleName

The name of the hole. Usually a number.

RawStartPointX, RawStartPointY, RawStartPointZ

Raw log file start point for hole.

EndPointX, EndPointY, EndPointZ

Raw log file end point for hole.

ProximityEventType

Supported Event Types that can be triggered by the Proximity System on Pit Vipers.

Id

Unique Identifier for the type of event

EventType

Description of the type of event. Matches RigEventLog entry.

ProximityTag

Record of assigned proximity detection system tags and their group assignments.

Contains who last edited it and when.

Id

Unique identifier of the Proximity Tag Entry.

MacAddress

The physical address of the proximity tag device.

ProximityTagGroupId

Foreign key to the ProximityTagGroup assignment of the tag.

UserId

Foregin key to the User who last edited the group assignment.

Time

The date time when the group assignment was last changed.

ProximityTagGroup

List of all supported groups that can have Proximity Tags assigned.

Id

Unique identifier of the Proximity Tag Group entry.

Name

Name of the group.

UserId

Foreign key to the User who last edited the group name.

Time

The date time when the group name was last changed.

Remark

Collection of Remarks added to the Drilled hole

Id

Database id

LogTime

Time the remark was logged

SerialNumber

The serial number for the rig.

Time

The time stamp when the remark was logged

DrillPlanId

Drill Plan Id for which the remark was logged

HoleId

HoleId for which the remark was logged

Category

Category for the Remark

Keyword

Keyword for the remark

LogTime_Timezone

Date time offset for LogTime.

Time_Timezone

Date time offset for Time.

Rig

All rigs in the system.

A rig is added to the system when a new serial number is referenced in a parsed log file.

A rig is updated when a log file with newer date than RigInformationDate is parsed.

Id

Database id

Name

The name of the rig

SerialNumber

The serial number for the rig.

RigInformationDate

The time stamp when the rig information was last updated.

ExportPath

The path used when exporting a file to the drill.

RRAStatusId

Foreign key to RRAStatus.

Last known RRA status for the rig.

HasGps

1 = True

0 = False

EquipmentType

Foreign key to RigEquipmentType

IsArchived

0 = Active

1 = Archived

RigConsumableChange

All rig consumable changed events. Parsed from event log.

Id

Database id

RigId

Foreign key to Rig

Consumable

Type in event log.

OldPartNumber

OldPartNumber

NewPartNumber

NewPartNumber

Time

TimeTag (Iredes 1.0)

or

EventTime (Iredes 1.2)

in event log.

IsEdited

0 = Has not been edited

1 = Has been edited

Comment

Comment from the last editing

Time_Timezone

Date time offset for Time.

RigConsumableChangeTransaction

Contains information on all the changes made in the RigConsumableChange table, i.e. a RigConsumableChange is imported, created, modified or deleted.

Id

Database id

TransactionType

Type of transaction:
0 = Unknown
1 = Add
2 = Import
3 = Modify
4 = Delete

TransactionTime

Time of the transaction

Timestamp

Surface Manager internal

Comment

Comment on the transaction

Consumable

See Consumable in RigConsumableChanged

OldPartNumber

See OldPartNumber in RigConsumableChanged

NewPartNumber

See NewPartNumber in RigConsumableChanged

Time

See Time in RigConsumableChanged

PreviousTime

Time of the previous event when an event has been modified or deleted

UserLogin

Login name of the user responsible for the transaction

RigSerialNumber

See RigSerialNumber in RigConsumableChange

RigDelayCode

Rig delay code list maintained within Surface Manager. The delay list is sent from Surface Manager through RRA to rigs.

Id

Database id

Name

Name of the delay

RigDelayCodeGroupId

Foreign key to RigDelayCodeGroup

R

Red component for the delay code

G

Green component for the delay code

B

Blue component for the delay code

TumCodeId

Tum Code mapped to the Delay Code

RigDelayCodeGroup

Delay code groups used internally by Surface Manager. Supported groups are Operational and Mechanical.

RigEcmFault

All rig state events. Parsed from event log.

Id

Database id

RigId

Foreign key to Rig

State

Off = 0

On = 1

Notification = 2

Time

TimeTag (Iredes 1.0)

or

EventTime (Iredes 1.2)

in event log.

Spn

Spn code

Fmi

Fmi code

Time_Timezone

Time zone offset for Time.

RigEvent

Rig events from event log that matches MachineState, DelayCode and HoleDepth.

Id

Database id

RigId

Foreign key to Rig

Time

Start time for event.

TimeTag (Iredes 1.0)

or

EventTime (Iredes 1.2)

in event log.

Data

Additional data belonging to the event. Typically the actual delay code for a delay when TypeOfEventId is 6.

TumCodeId

TumCategory to which the event is mapped. Foreign key for RigTumCategory code column

TypeOfEventId

0 = Unknown

1 = Propel (PitViper)

2 = Drill (PitViper)

3 = Setup (PitViper)

4 = Park (PitViper)

5 = Operator login

6 = Delay code

7 = Hole depth reset

8 = Idle (D65)

9 = Tramming (D65)

10 = Positioning (D65)

11 = Drilling (D65)

12 = Rod handling (D65)

13 = Park state (D65)

EndTime

End time for event (optional)

EndLogTime in event log.

Start and end event typically comes in different logs, but is stored as a single row in database.

IsEdited

0 = Has not been edited

1 = Has been edited

IsTumCode

Used internally within Surface Manager, to indicate whether this event was parsed as a delay code or TUM code

IsCalculatedEndTime

Planned to internally use within Surface Manager, to indicate whether this event end time was parsed form log file or calculated based on the next event's start time. Can be dropped in future release.

Comment

Comment from the last editing

Time_Timezone

Date time offset for Time.

EndTime_Timezone

Date time offset for EndTime

RigEventTransaction

Contains information on all the changes made in the RigEvent table, i.e. a RigEvent is imported, created, modified or deleted.

Id

Database id

TransactionType

Type of transaction:
0 = Unknown
1 = Add
2 = Import
3 = Modify
4 = Delete

TransactionTime

Time of the transaction

Timestamp

Surface Manager internal

Comment

Comment on the transaction

TypeOfEventId

See TypeOfEventId in RigEvent

Data

See Data in RigEvent

Time

See Time in RigEvent

PreviousTime

Time of the previous event when an event has been modified or deleted

EndTime

See EndTime in RigEvent

UserLogin

Login name of the user responsible for the transaction

RigSerialNumber

See RigSerialNumber in RigEvent

RigFamilies

List of Rig Families

Id

Database id

RigFamily

Name of Rig Family

RigGpsQuality

All rig state events. Parsed from event log.

Id

Database id

RigId

Foreign key to Rig

Quality

RCS 5.5 and before

Value	Definition	Status	
0	Fix not available or invalid	Bad	
1	Autonomous GPS fix	Bad	
2	RTK float solution	Other	
3	RTK fix solution	Good	
4	Differential, code phase only solution (DGPS)	Other	
5	SBAS solution – WAAS/EGNOS/MSAS	Other	
6	RTK Float 3D network solution	Other	
7	RTK Fixed 3D network solution	Good	
8	RTK Float 2D network solution	Other	
9	RTK Fixed 2D network solution	Other	
10	OmniSTAR HP/XP solution	Other	
11	OmniSTAR VBS solution	Other	
12	Location RTK	Other	
13	Beacon DGPS	Other	
14	CenterPoint RTX	Good	
15	xFill	Good	

RCS 5.6 and after

This is a summary of GpsQuality1 and GpsQuality2

Value	Color	Status
1	Red	Bad
2	Yellow	Other
3	Green	Good

Time

Start time for event.

TimeTag (Iredes 1.0)

or

EventTime (Iredes 1.2)

in event log.

GpsQuality1

Quality of the cab-side GPS antenna.

Value	Definition	Status	
0	Fix not available or invalid	Bad	
1	Autonomous GPS fix	Bad	
2	RTK float solution	Other	
3	RTK fix solution	Good	
4	Differential, code phase only solution (DGPS)	Other	
5	SBAS solution – WAAS/EGNOS/MSAS	Other	
6	RTK Float 3D network solution	Other	
7	RTK Fixed 3D network solution	Good	
8	RTK Float 2D network solution	Other	
9	RTK Fixed 2D network solution	Other	
10	OmniSTAR HP/XP solution	Other	
11	OmniSTAR VBS solution	Other	
12	Location RTK	Other	
13	Beacon DGPS	Other	
14	CenterPoint RTX	Good	
15	xFill	Good	

GpsQuality2

Quality of the non cab-side GPS antenna.

Definition is the same as GpsQuality1.

Time_Timezone

Time zone offset of Time.

RigOperatorLogin

All rig operator logins. Parsed from event log.

Id

Database id

RigId

Foreign key to Rig

OperatorName

OperatorID in event log

UsbSerial

USBSerial in event log

AclLevel

ACLLevel in event log

-1 = Unknown

0 = No

1 = Op

2 = Se

3 = Ac

4 = Acp

5 = Dev

Time

TimeTag (Iredes 1.0)

or

EventTime (Iredes 1.2)

in event log.

IsEdited

0 = Has not been edited

1 = Has been edited

Comment

Comment from the last editing

Time_Timezone

Time zone offset of Time.

RigOperatorLoginTransaction

Contains information on all the changes made in the RigOperatorLogin table, i.e. a RigOperatorLogin is imported, created, modified or deleted.

Id

Database id

TransactionType

Type of transaction:
0 = Unknown
1 = Add
2 = Import
3 = Modify
4 = Delete

TransactionTime

Time of the transaction

Timestamp

Surface Manager internal

Comment

Comment on the transaction

OperatorName

See OperatorName in RigOperatorLogin

UsbSerial

See UsbSerial in RigOperatorLogin

AclLevel

See AclLevel in RigOperatorLogin

Time

See Time in RigOperatorLogin

PreviousTime

Time of the previous event when an event has been modified or deleted

UserLogin

Login name of the user responsible for the transaction

RigSerialNumber

See RigSerialNumber in RigOperatorLogin

RigParameterChange

All drill parameter change events. Parsed from event log.

Id

Database id

RigId

Foreign key to Rig

Time

TimeTag (Iredes 1.0)

or

EventTime (Iredes 1.2)

in event log.

StringId

RCS internal identifier

MenuId

The menu id for parameter

DataType

RCS internal data type

Parameter

The name of the parameter

OldValue

The previous parameter value

NewValue

The new parameter value

UsbSerial

The USB key serial number

Time_Timezone

Time zone offset of Time.

RigProductionEntry

From SmarROC PerfLogs. Keeps track of certain statistics for each day.

Id

Database Id.

RigId

Foreign key for Rig table.

Date

MetersDrilled

HolesDrilled

PenetrationRateInMetersPerMinute

PercussionTimeInSeconds

EngineTimeInSeconds

TramTimeInSeconds

FuelConsumptionInLiters

LastUpdateTime

Time of the most recent update. From the FileCreateDate tag in PerfLog

Date_Timezone

Time zone offset of Date

LastUpdateTime_Timezone

Time zone offset of LastUpdateTime

RigProximityDetectionEvent

Record of all events triggered by Proximity Detection Systems.

Id

Unique identifier of the Proximity Detection Event.

RigId

Foreign key to the Rig which triggered the event.

ProximityEventTypeId

Foreign key to the ProximityEventType of the triggered event.

Time

The date time that the triggered event occurred.

State

Can be true or false. Set to true while an event is triggered, set to false when the event is cleared.

ProximityTagMacAddress

Mac address of the tag that triggered the event

ProximityTagGroupName

Group name that the proximity tag was assigned to at the time of the event.

Time_Timezone

Time zone offset for Time.

RigStateEvent

All rig state events. Parsed from event log.

Id

Database id

RigId

Foreign key to Rig

State

Off = 0

On = 1

Notification = 2

Time

TimeTag (Iredes 1.0)

or

EventTime (Iredes 1.2)

in event log.

RigStateEventType

State event type

Depth

Current depth of the drill bit at the time of the state event

CradlePos

Current position of the cradle in the tower at the time of the state event. This is usually recorded in the RodSupportAutoOpen or RodSupportAutoClose state events.

OpsSerialNumber

The serial number of the Operator Station that is recorded in the TeleremoteAllocated state event.

DrillPlanId

Foreign key to DrillPlan that this state event relates to

HoleName

The name of the hole on the drillplan the state event relates to.

JamCount

The number of Auto Drill 2 jams within one minute. Recorded in AutoDrillEvent under RigStateEventType.

AutoAggressiveness

The Auto Drill 2 aggressiveness setting that is adjusted based on JamCount. Recorded in AutoDrillEvent under RigStateEventType.

Time_Timezone

The timestamp of the state event including the time zone offset. This column is added to support time reporting changes in RCS 5.7

ObstacleTypes

Obstacle type detected by Obstacle Detection System

- Solid (detected by horizontal laser)
- Safey Berm
- Drop-off
- Gap
- Slope

Obstacle Directions

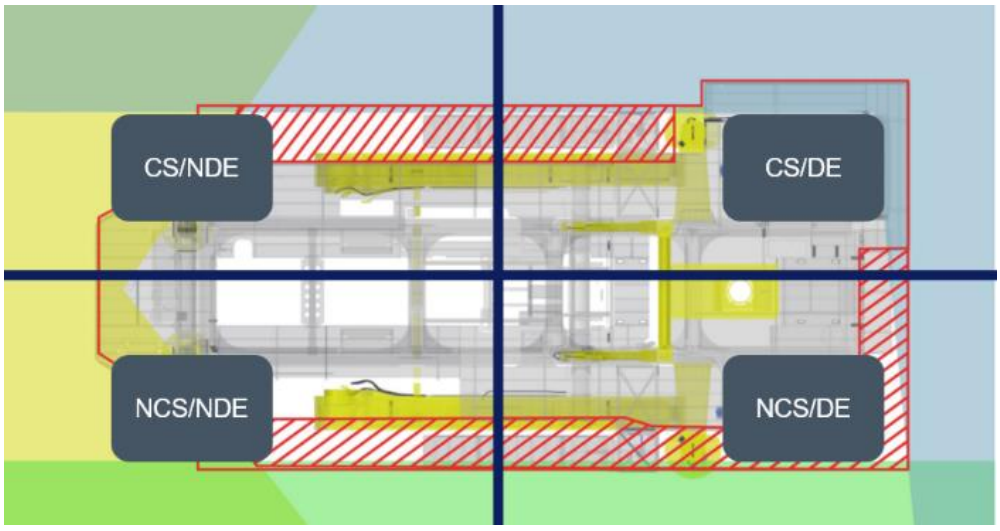
Direction of obstacle detected by Obstacle Detection System.

CS = Cab Side

NCS = Non Cab Side

DE = Drill End

NDE = Non drill End



Reason

Reason tag given for some state events.

RigStatistics

N/A

RigStatusEntry

Iredes status log.

Id

Database id

RigId

Foreign key to Rig

StartLogTime

StartLogTime

EndLogTime

EndLogTime

ReportId

Usually denoted as the path to the Drill Status xml log.

OperatorName

OperatorId in status log

ExternalPositionX, ExternalPositionY, ExternalPositionZ

DrillRigPosition in status log

EngineHours

EngineHours

MachineStateId

The state of the machine. Refer to the description under TypeOfEventId in RigEvent

SystemVersion

EqpSysVer in status log

RotationHoursInSeconds

RotationHours in status log

MachineHoursInSeconds

MachineHours in status log

LubePumpHoursInSeconds

LubePumpHours in statuslog

AutoNavigationHoursInSeconds

AutoNavigationHours in status log

AccumulatedHoleLength

AccHoleLength in status log

TotalTramHoursInSeconds

TotalTramHours in status log

AirOnHoursInSeconds

AirOnHours in status log

ElectricalPowerConsumption

ElectricalPowerConsumption

WaterLevel

WaterTankLevel (in Pit Viper status log) * 0.01
AnalogWaterMistTankLevel (in SmartROC status log) * 0.01

OilLevel

LubeTankLevel (in status log) * 0.01
AnalogHECLOilTankLevel (in SmartROC status log) * 0.01

FuelLevel

FuelTankLevel (in status log) * 0.01

RodHandlingHoursInSeconds

PositioningHoursInSeconds

TramHoursInSeconds

PercussionHoursInSeconds

CompressorTempHighStage

CompressorTempLowStage

EngineTemp

AmbientTemp

HydraulicOilTemp

WaterMistTankLevelLow

HECLOilTankLevelLow

Discriminator

EngTotFuelUsedJ1939

Fuel consumption in liters reported through J1939

StartLogTime_Timezone

Time zone offset of StartLogTime

EndLogTime_Timezone

Time zone offset of EndLogTime.

RigStbStateTransition

Safe to board state transitions from Iredes event log.

Id

Database id

RigId

Foreign key to Rig

Time

Start time for event.

State

The stb state.

Currently available states are:

STB State Local Manual
STB State Remote Switched
STB State Reserved
STB State Remote Allocated
STB State Remote Autonomous

Time_Timezone

Time zone offset for Time.

RigTumCategory

List of Tum Categories

Id

Database id

code

Code for the tum category

Parent

Code of parent of the tum category

Category

Name of the TUM category

RigType

List of Rig Types in the System

Id

Database id

RigFamilyId

Foreign key to Rig Family

RigTypeName

Name of Rig Type

MaxOperators

Maximum operators allowed for Rig Type

RigUser

The rig user list. Maintained by Surface Manager and sent from Surface Manager through RRA to rigs.

Id

Database id

Username

The username

Acl

RCS access control level

Password_Value

The password

Password_Format

The password format

Password_Salt

The salt used to encrypt the password

RRAStatus

The defined RRA statuses

Id

Database id

Name

Descriptive name of status (not used by application)

SecurityGroup

Security groups defined in Surface Manager.

Id

Database id

Name

Security group name

SecurityGroupUserPermission

Link between security groups and user permissions.

SecurityGroupId

Foreign key to SecurityGroup

UserPermissionId

Foreign key to UserPermission

Settings

Surface Manager global settings.

Id

Database id

WorkDayStartTime

The time when work day starts. Date ignored.

MeasurementSystemId

Foreign key to MeasurementSystem.
If set, globally specified measurement system that overrides user specified.

HoleDeviationLimit

Hole deviation limit setting

DefaultDrillBitDiameter

Default drill bit diameter in meters. Used when missing hole information.

CustomLogo

Report custom logo. Binary stored.

HoleDistanceDeviationLimit

Hole distance deviation limit setting

LoginMethodId

Foreign key to LoginMethod

UseTum

A False value indicates Delay Codes tab should be shown within Object Management and True indicates TUM tab should be shown instead

Shift

The shifts defined. Managed within Surface Manager.

Id

Database id

Name

Shift name

StartTime

The start time of the shift. Date ignored.

EndTime

Then end time of the shift. Date ignored.

Site

N/A

Socket

Represents a socket in a DrillPlanSocketMap or a SocketMapTemplate.

Id

Database id

SocketMapId

Foreign key to SocketMap

PointX, PointY, PointZ

The socket coordinate

SocketMap

Id

Database id

Name

DrillPlanSocketMap or SocketMapTemplate name

SocketMapTemplate

SocketMapId

Foreign key to SocketMap

IsArchived

0 = Active

1 = Archived

TextFormat

Available drill plan text (csv) formats

Id

Database id

Name

Text format name

FileExtension

Drill plan csv format file extension

ConvertFromUsSurveyFeetToMeters

Lengths in file is converted if 1. If 0 no conversion.

DefaultHoleLengthInMeters

The default hole length if omitted.

MeasureWhileDrilling

Internally used

NumberOfHeaderRows

Number of ignored header rows in csv

Delimiter

The chosen delimiter

TextFormatTypeId

ID	Action
59D3380F-6BC6-4C2A-8567-88C701E50E3C	EndCoordinateAndAngles
640F165C-12C0-4F00-B7D9-E083173DF62E	StartAndEndCoordinate

TextFormatColumnMapping

Mapping of text format (drill plan csv) column and drill plan property.

Id

Database id

TextFormatId

Foreign key to TextFormat

TextFormatColumnTypeId

Foreign key to TextFormatColumnType

ColumnIndex

The column index mapped

TextFormatColumnType

The drill plan properties available

Id

Database id

Name

Descriptive name of property (not used by application)

TextFormatType

Listing of available text formats

Id

Database id

Name

Name of the text format

TumGroup

Tum group name for Exporting tum codes to Groups.

Id

Database id

GroupName

Tum Group Name

TumGroupRig

List of Rigs assigned to TumGroup.

Id

Database id

GroupId

Tum Group Id from table TumGroup

RigId

Serial Number of Rig

TumGroupTumCode

List of Tum Codes Assigned to a Tum Group.

Id

Database id

TumGroupId

Tum Group Id from table TumGroup

TumCodeId

TumCodeId from RigDelayCodes table

User

Surface Manager users. Managed from within Surface Manager.

Id

Database id

Login

User login

Name

User name

Email

User e-mail

Password

User password is stored in clear when IsHashed is 0.
Hash of user password is stored when IsHashed is 1.

IsHashed

Set to 1 when hash of password is stored in Password.
Set to 0 when password is stored in clear text in Password.

MeasurementSystemId

Foreign key to MeasurementSystem

DashboardAutomaticRefreshInterval

Automatic refresh of dashboard in seconds for this user.

LoginMethodId

Foreign key to LoginMethod

UserPermission

The different permissions in Surface Manager.

Id

Database id

Name

Permission name

UserSecurityGroup

Link between users and security groups.

UserId

Foreign key to User

SecurityGroupId

Foreign key to SecurityGroup

WorkArea

Id

Database id

FleetOrderId

Foreign key to FleetOrder

Name

Name of the work area

WorkAreaGeofence

Link between a geofence and a work area

GeofenceId

Foreign key to the Geofence

WorkAreaId

Foreign key to the WorkArea

WorkAreaHoleSequence

Link between hole sequence and work area.

HoleSequenceId

Foreign key to the HoleSequence

WorkAreaId

Foreign key to the DrillPlan

WorkOrder

N/A