**NIDIS Programs**

# Stored Procedures

## BimonthlyAggregator/ MonthlyAggregator

PURPOSE OF STORED PROCEDURE: This Stored Procedure Takes the Level 1 data and Aggregates to either the 1st of the month for Monthly, or the 1st and the 16th for the Bimonthly. If any time period has no values a Nodatavalue is used. For the time periods where there is data but some is missing a qualifier is used to indicate the percentage of datavalues missing.

INPUTS: @origVariableID INT: The Variable of the Level 1 data that will be gathered to calculate the Aggregate.

@siteType NVARCHAR(50): The SiteType of the Data being calculated

@tooConnectionstring VARCHAR(100): The Connection string for the database where the Aggregate data will be saved.

@tooDBName VARCHAR(50): The Name of the DataBase where the Aggregate Data will be saved

@fromConnectionstring VARCHAR(100): The Connection string for the database where the Level 1 data used for the current calculation is stored.

@fromDBName VARCHAR(50): The Name of the Database where the Level 1 data used for the current calculation is stored.

OUTPUTS: @returnVal INT: The number of DataValues created and saved to the database.

DEDICATED TABLES IN DATABASE: AggregateSeries.

STRUCTURE OF DEDICATED TABLES:

AggregateSeries:

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **…………………………………………………………………….** |
| AggregateID | int | Primary key |
| SiteType | nvarchar(255) | Indicates what type of data is at the site |
| OriginalVariableID | int |  |
| AggregateMethod | nvarchar(50) | Indicates how to aggregate the data e.g. Max, Min, Total, End of Interval |
| VariableID | int |  |
| SourceID | int |  |
| QualityControlLevelID | int |  |
| MethodID | int |  |
| DataTimePeriod | nvarchar(50) | Indicates whether the row is for Monthly or BiMonthly Calculations |
| L1DBDataSource | nvarchar(255) |  |
| L1DBInitialCatalog | nvarchar(255) |  |
| L1DBUsername | nvarchar(255) |  |
| L1DBPassword | nvarchar(255) |  |
| DBDataSource | nvarchar(255) |  |
| DBInitialCatalog | nvarchar(255) |  |
| DBUsername | nvarchar(255) |  |
| DBPassword | nvarchar(255) |  |

## CalcIndexVariables

PURPOSE OF STORED PROCEDURE: This Stored procedure is to take the temporally aggregated level 2 data and spatially aggregate it into Huc 10’s. Previously the relevant sites or gages where chosen based on a set of criteria, and then run through set of equations to create the IVtoTADxRef table.

INPUTS: @FormulaNo INT:

@siteType NVARCHAR(50):

@tooConnectionstring VARCHAR(100):

@tooDBName VARCHAR(50):

@fromConnectionstring VARCHAR(100):

@fromDBName VARCHAR(50):

OUTPUTS: @returnVal INT: The number of DataValues created and saved to the database.

DEDICATED TABLES IN DATABASE: IVtoTADxRef.

STRUCTURE OF DEDICATED TABLES:

IVtoTADxRef:

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **…………………………………………………………………….** |
| SiteType | nvarchar(255) |  |
| SiteIDTAD | int |  |
| SiteCodeTAD | nvarchar(50) |  |
| VariableIDTAD | int |  |
| VariableCodeTAD | nvarchar(50) |  |
| QualityControlLevelIDTAD | int |  |
| SourceIDTAD | int |  |
| SiteIDIV | int |  |
| SiteCodeIV | int |  |
| VariableIDIV | int |  |
| VariableCodeIV | nvarchar(50) |  |
| MethodIDIV | int |  |
| QualityControlLevelIDIV | int |  |
| SourceIDIV | int |  |
| FormulaNo | int |  |
| Weight | float |  |
| TADDBDataSource | nvarchar(255) |  |
| TADDBInitialCatalog | nvarchar(255) |  |
| TADDBUsername | nvarchar(255) |  |
| TADDBPassword | nvarchar(255) |  |
| IVDBDataSource | nvarchar(255) |  |
| IVDBInitialCatalog | nvarchar(255) |  |
| IVDBUsername | nvarchar(255) |  |
| IVDBPassword | nvarchar(255) |  |

## CalcIndexVariablesWatershed

INPUTS: @origVariableID FLOAT:

@origMethodID FLOAT:

@siteType NVARCHAR(50):

@tooConnectionstring VARCHAR(100):

@tooDBName VARCHAR(50):

@fromConnectionstring VARCHAR(100):

@fromDBName VARCHAR(50):

OUTPUTS: @returnVal INT: The number of DataValues created and saved to the database.

DEDICATED TABLES IN DATABASE: WatershedSeries.

STRUCTURE OF DEDICATED TABLES:

WatershedSeries:

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **…………………………………………………………………….** |
| SiteType | nvarchar(255) |  |
| DataTimePeriod | nvarchar(50) |  |
| L3VariableID | int |  |
| L3VariableCode | nvarchar(50) |  |
| L3MethodID | int |  |
| VariableID | int |  |
| VariableCode | nvarchar(50) |  |
| MethodID | int |  |
| SourceID | int |  |
| QualityControlLevelID | int |  |
| L3DBDataSource | nvarchar(255) |  |
| L3DBInitialCatalog | nvarchar(255) |  |
| L3DBUsername | nvarchar(255) |  |
| L3DBPassword | nvarchar(255) |  |
| DBDataSource | nvarchar(255) |  |
| DBInitialCatalog | nvarchar(255) |  |
| DBUsername | nvarchar(255) |  |
| DBPassword | nvarchar(255) |  |

PURPOSE OF STORED PROCEDURE:

## CalcIndexValues

INPUTS: @origVariableID FLOAT:

@origMethodID FLOAT:

@siteType NVARCHAR(50):

@tooConnectionstring VARCHAR(100):

@tooDBName VARCHAR(50):

@fromConnectionstring VARCHAR(100):

@fromDBName VARCHAR(50):

OUTPUTS: @returnVal INT: The number of DataValues created and saved to the database.

DEDICATED TABLES IN DATABASE: IndexValuexRef

STRUCTURE OF DEDICATED TABLES:

IndexValuexRef:

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **…………………………………………………………………….** |
| SiteType | nvarchar(255) |  |
| DataTimePeriod | nvarchar(50) |  |
| L3VariableID | int |  |
| L3VariableCode | nvarchar(50) |  |
| L3MethodID | int |  |
| VariableID | int |  |
| VariableCode | nvarchar(50) |  |
| MethodID | int |  |
| SourceID | int |  |
| QualityControlLevelID | int |  |
| L3DBDataSource | nvarchar(255) |  |
| L3DBInitialCatalog | nvarchar(255) |  |
| L3DBUsername | nvarchar(255) |  |
| L3DBPassword | nvarchar(255) |  |
| DBDataSource | nvarchar(255) |  |
| DBInitialCatalog | nvarchar(255) |  |
| DBUsername | nvarchar(255) |  |
| DBPassword | nvarchar(255) |  |

PURPOSE OF STORED PROCEDURE:

## spMonthlyDVCountByVariableEmail

INPUTS: NONE

OUTPUTS: NONE

DEDICATED TABLES IN DATABASE: NONE

STRUCTURE OF DEDICATED TABLES: NONE

PURPOSE OF STORED PROCEDURE:

## spMonthlyDVCountByVariableQry

INPUTS: @MonthPrev INT:

OUTPUTS: NONE

DEDICATED TABLES IN DATABASE: NONE

STRUCTURE OF DEDICATED TABLES: NONE

PURPOSE OF STORED PROCEDURE:

## UpdateTableSeriesCatalog

INPUTS: @TempTable DataValueTable READONLY

OUTPUTS: NONE

DEDICATED TABLES IN DATABASE: NONE

STRUCTURE OF DEDICATED TABLES: NONE

PURPOSE OF STORED PROCEDURE:

# Harvesters

## SNOTEL

## SNODAS

## NCDC

## USBR

# Desktop Applications

## DataSummary

Level 1 Data Harvest

DEDICATED TABLES IN DATABASE: L1HarvestList

|  |  |  |
| --- | --- | --- |
| **Column Name** | **Data Type** | **…………………………………………………………………….** |
| HarvestID | int | Primary key |
| SiteCode | nvarchar(50) |  |
| SiteName | nvarchar(50) |  |
| VariableCode | nvarchar(50) |  |
| WebServiceURL | nvarchar(MAX) |  |
| SiteID | int |  |
| VariableID | int |  |
| SourceID | int |  |
| QualityControlLevelID | int |  |
| MethodID | int |  |
| SiteType | int |  |
| DBDataSource | nvarchar(255) |  |
| DBInitialCatalog | nvarchar(255) |  |
| DBUsername | nvarchar(255) |  |
| DBPassword | nvarchar(255) |  |

Level 2 Time Aggregation

Level 3 Spatial Aggregation

Level 4 Drought Index Variable

# Custom WebServices

## SNOTEL

## USBR