

## Data Dictionary

### Imiq Table and Field Structure.

The following is a description of the tables, data types and data of the Imiq. Examples are given of the information stored in each field, constraints imposed on each field, and the origin of each field (CUAHSI, UAF-IARC, Berkeley-Sensor). In some cases fields originating from one database are stored in a table originating from another database -- "Berkeley Sensor / CUAHSI" means that the table is from Berkeley sensor, but the field was originally associated with the CUAHSI ODM database. Tables are organized by the order in which they should be added to the database. Controlled vocabulary tables are not included. For more information on the controlled vocabulary tables, see the "CUAHSI Community Observation Data Model Design (ODM) Version 1.1 Design Specifications" (Tarboton et al 2008).

<b>ISOMetadata</b>	This table lists project level metadata for partial compliance with the draft ISO 19115 standards.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
MetadataID	integer	Primary key. Unique integer identifier.	"23"	mandatory, primary key	CUAHSI
TopicCategory	nvarchar(255)	Describes a broad topic category for data that is populated by the TopicCategoryCV lookup table.	"biota", "inlandWaters", "climatology/meteorology/atmosphere"	mandatory, foreign key	CUAHSI
Title	nvarchar(255)	Title of project -- the title should be somewhat descriptive and include limited information about location and variables measured.	"Climate monitoring in the Kuparuk River Basin"	mandatory	CUAHSI
Abstract	nvarchar(MAX)	Abstract for a specific data source. This abstract should be related to the TopicCategory selected in the previous field.		mandatory	CUAHSI
ProfileVersion	nvarchar(255)	The profile version of metadata.	"ISOXXX"	mandatory	CUAHSI

MetadataLink	nvarchar(500)	Additional metadata provided by the data source can be linked here.	"http..."	optional	CUAHSI
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<b>Sources</b>	Source information for the Sites that are populating the database.				
Field Name	Data Type	Description	Example	Constraint	Origin
SourceID	integer	Primary key. Unique integer identifier.	"149"	mandatory, primary key	CUAHSI
Organization	nvarchar(255)	Name of the organization that collected or published the data.	BLM and UAF_WERC	mandatory	CUAHSI
SourceDescription	nvarchar(MAX)	A more detailed description of where the data was actually obtained and/or is currently stored. For example, data were obtained from a scanned report (see citation link) and are now stored in a csv file on Xxxx XXXX's computer in documents/sources/Xxxx/Xxxxx/Xxxxx.csv."	"http..." or "frost.ine.uaf.edu/documents..."	mandatory	CUAHSI
SourceRole	nvarchar(50)	Notes whether the source is the 'originator', 'publisher' or both.		mandatory	UAF-IARC
SourceLink	nvarchar(500)	Link that can be pointed at the original data file, associated metadata, and/or project website.	"http..."	optional	CUAHSI
ContactName	nvarchar(255)	Name of contact for information about data.	"Jane Doe"	mandatory	CUAHSI
Phone	nvarchar(255)	Phone number of contact.	xxx-xxx-xxxx	mandatory	CUAHSI
Email	nvarchar(255)	Email address of contact.	<a href="mailto:xxxxx@xxx.xxx">xxxxx@xxx.xxx</a>	mandatory	CUAHSI
Address	nvarchar(255)	Street address of contact.	456 Xxxxxx St.	mandatory	CUAHSI
City	nvarchar(255)	City associated with contact person's mailing address.	Fairbanks	mandatory	CUAHSI
State	nvarchar(255)	State/territory associated with contact person's mailing address.	AK	mandatory	CUAHSI
ZipCode	nvarchar(255)	Zip code associated with contact's mailing address.	99709	mandatory	CUAHSI

Citation	nvarchar(MAX)	Citation to be used when the data from this source is used. When available, journal citations should be used. Published dataset example: Y. Xxxxx, Z. Rrrrrr, and M. Nnnnnn. Surface water and fisheries data collected between 2002 and 2006 at Xxxxx. Hyperlink. (year and date of retrieval). Published article example: Y. Xxxxx, Z. Rrrrrr, and M. Nnnnnn. 2009. Vulnerability of XXX to climate change. Water Resources Research. 92(9): 172-187.		mandatory	CUAHSI
MetadataID	integer	Integer identifier that references the record in the ISOMetadata table.	23	mandatory, foreign key	CUAHSI

<b>Organizations</b>	Data source that is associated with multiple organizations.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
OrganizationID	integer	Integer identifier that references a record in the OrganizationDescriptions table.	60	mandatory, foreign key	UAF-IARC
SourceID	integer	Integer identifier that references the record in the Sources table.	142	mandatory, foreign key	UAF-IARC

<b>OrganizationDescriptions</b>	Organizations, which are associated with Sources.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
OrganizationID	integer	Primary key. Unique integer identifier.	60	mandatory, Primary key	UAF-IARC
OrganizationCode	nvarchar(50)	Organization code used by organization that collects the data.	"USGS"	mandatory	UAF-IARC
OrganizationDescription	nvarchar(max)	Full text description of the organization.	"U.S. Geological Survey"	mandatory	UAF-IARC

<b>Processing (Optional)</b>	The Processing table lists Qa/Qc that was done to the Sources, ISOMetadata and Sites tables. It also lists any known data restrictions, priority of data entry and processing needs that need to be done.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
ProcessingID	integer	Primary key. Unique integer identifier.		mandatory, primary key	UAF-IARC
SourceID	integer	Integer identifier that references a record in the Sources table.		Optional, foreign key	UAF-IARC
SiteID	Integer	Integer identifier that references a record in the Sites table.		Optional, foreign key	UAF-IARC
MetadataID	integer	Integer identifier that references a record in the ISOMetadata table.		Optional, foreign key	UAF-IARC
DataRestrictions	nvarchar(255)	Any known restrictions on data	"na", "no"	optional	UAF-IARC
DataPriority	integer	Priority level for data entry	"High priority", "Low priority"	optional	UAF-IARC
ProcessingNeeds	nvarchar(MAX)	Things that need to be done before data are entered into the database.	enter data from field 27 field notebooks	optional	UAF-IARC
QaQcPerson	nvarchar(255)	Name of database team member who has performed the QaQc on a Sources, ISOMetadata or Sites record.		optional	UAF-IARC
QaQcComments	nvarchar(MAX)	The QA/QC comments	<p>"QaQc at level A", "Metadata was verified by the Xxxx Xxxx, position, affiliation on 5May 2011 via email. A record of this email can be found on...."</p> <p>"Fifty percent of the data values entered (hand-typed) from the report were randomly selected and qa/qc'd. Two out of 100 data values had to be</p>	optional	UAF-IARC

			corrected. These data were checked again and no additional errors were found. The other half of the data values were QA/QC'd and no additional errors were found. All variable information for this datastream was verified."		
QaQcDate	nvarchar(50)	Date that QaQc was performed.		optional	UAF-IARC

<b>Sites</b>	Site information that describes where the data values were sampled.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
SiteID	integer	Primary key. Unique integer identifier.	2460	mandatory, primary key	CUAHSI
SiteCode	nvarchar(50)	Unique text code for site.	"UAFWERC_BettyPingoMet", "UAFWERC_BettyPingo_SnowSurvey"	mandatory	CUAHSI
SiteName	nvarchar(255)	Site name used by organization that collects data.	"USK1"	optional,	CUAHSI
SpatialCharacteristics	nvarchar(50)	Indicates whether site is a point, polygon, linestring.	"point", "polygon"	mandatory	SciScope
SourceID	integer	Integer identifier that references the record in the Sources table.	149	mandatory, foreign key	CUAHSI

VerticalDatum	nvarchar(255)	Vertical datum of the elevation. Use Controlled Vocabulary.	"NAVD88", "Unknown"	optional, foreign key	CUAHSI
LocalProjectionID	integer	Integer identifier that references a record in the SpatialReferences table. For this implementation, all local coordinates should be converted to WGS84, so that the spatial capabilities of SQL Server 2008 R2 can be utilized.	NULL	optional	CUAHSI
PosAccuracy_m	float	Positional accuracy of coordinates in meters.	30	optional	CUAHSI
State	nvarchar(255)	State/territory where site is located.	"AK", "Yukon"	optional	CUAHSI
County	nvarchar(255)	County /country where site is located.	"North Slope Borough", "Canada"	optional	CUAHSI
Comments	nvarchar(MAX)	Any additional site comments that are not related to the location of the site.	"GPS location was recorded while flying over site", "coordinates were inferred from Google Maps".	optional	CUAHSI
LatLongDatumID	integer	Foreign key references SpatialReferenceID in SpatialReferences table. To enable spatial calculations, all datum should be WGS84 (the code for this is 3).	3 (WGS84)	mandatory, foreign key	CUAHSI
GeoLocation	nvarchar(MAX)	Coordinates and elevation given in a specific format for points and polygons. Latitude and Longitude should be in decimal degrees. Elevation is in meters. Point locations are stored as "Point (long lat elevation)".	POINT(-141.78956 69.12345 312), POLYGON (-146.34425083697045 69.688296227508985, -146.34308827446938 69.688355477509049,...)	optional	SciScope
LocationDescription	nvarchar(MAX)	Description of location from publication or project web site.	"Station is on east bank of XX Rver. Surrounding vegetation consists of...."	optional	UAF-IARC

<b>Attributes (Optional)</b>	Lookup table, used with the SiteAttributes table, of attributes for a Site.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
AttributeID	integer	Primary key. Unique integer identifier.	1	mandatory, primary key	UAF-IARC
AttributeName	nvarchar(255)	The name of the attribute.	"Water Type", "Citation", "References"	mandatory	UAF-IARC

<b>SiteAttributes (Optional)</b>	Lists site attributes values that are non-numeric.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
SiteID	integer	Integer identifier that references a record in the Sites table.		mandatory, foreign key	UAF-IARC
AttributeID	integer	Integer identifier that references a record in the Attributes table.	1	mandatory, foreign key	UAF-IARC
AttributeValue	nvarchar(255)	The non-numeric data value	"Lake", "Stream"	mandatory	UAF-IARC
AttributeComment	nvarchar(MAX)	Attribute comment.		optional	UAF-IARC

<b>Incidents (Optional)</b>	Lists natural or anthropogenic incidents, that may have affected a site, data values or an instruments ability to collect data.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
IncidentID	integer	Primary key. Unique integer identifier.		mandatory, primary key	UAF-IARC
SiteID	integer	Integer identifier that references a record in the Sites table.		optional	UAF-IARC
DatastreamID	integer	Integer identifier that references a record in the Datastreams table.		optional	UAF-IARC

StartTime	Datetime	When incident started -- note this does not refer to the measurement start time.	4/3/2011	optional	UAF-IARC
StartPrecision	nvarchar(255)	Precision of the recorded incident start time.	"sometime after 4/3/2011"	optional	UAF-IARC
EndTime	Datetime	When incident ended.	9/30/2011	optional	UAF-IARC
EndPrecision	nvarchar(255)	Precision of the recorded incident end time.	"one day"	optional	UAF-IARC
Type	nvarchar(255)	Type of incident that affected data collection or values.	"animal attack", "sensor malfunction", "programming error", etc	mandatory	UAF-IARC
Description	nvarchar(MAX)	Detailed description of what happened (or what state equipment was found in" and what measurements may have been affected	"Found met station tripod and sensors on ground on 9/30/2011, soil sensors were intact, air temperature sensor was on ground..." OR "Data logger malfunctioned..."	optional	UAF-IARC
ReportedBy	nvarchar(96)	Person who reported incident.	"Jane Doe"	optional	UAF-IARC
Comments	nvarchar(MAX)	Additional comments on incident.		optional	UAF-IARC

<b>Categories (Optional)</b>	The Categories table defines the non-numeric data values for categorical variables. Records are required for Variables that have a DataType specified as "Categorical." A Variable can have multiple entries, one for each possible non-numeric data value.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
CategoryID	integer	Primary key. Unique integer identifier.		mandatory, primary key	UAF-IARC
VariableID	integer	Integer identifier that references a record in the Variables table	12	mandatory, foreign key	CUAHSI



CategoryName	nvarchar(255)	Name of the category used in the data set.	“00” , “A”	mandatory	UAF-IARC
CategoryDescription	nvarchar(MAX)	Description of categorical variable value. If provided, the description of the CategoryName given by the data source.	"" None, SKC or CLR”, “Abridged Beaufort, NCDC ISH”	mandatory	CUAHSI

<b>Variables</b>	This table provides a complete description about variables measured.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
<b>VariableID</b>	integer	Primary key. Unique integer identifier.	42	mandatory, primary key	CUAHSI
VariableCode	nvarchar(50)	Text code to identify the variable.	“USFWS_0003”	mandatory	CUAHSI
VariableName	nvarchar(255)	Variable name, which is selected from the VariableNameCV table’s controlled vocabulary.	“discharge”	mandatory, foreign key	CUAHSI
VariableDescription	nvarchar(MAX)	Description of the variable.	discharge_cfs_daily_avg_-9999	optional	UAF-IARC
Speciation	nvarchar(255)	Speciation code, which is selected from the SpeciationCV table’s controlled vocabulary.	“NO3”	mandatory, foreign key	CUAHSI
VariableUnitsID	integer	Measured unit, which is selected from the Units table’s controlled vocabulary.	4	mandatory, foreign key	CUAHSI
SampleMedium	nvarchar(255)	Sample medium, which is selected from the SampleMediumCV table’s controlled vocabulary.	“surface water”, “air”	mandatory, foreign key	CUAHSI
ValueType	nvarchar(255)	Value type, which is selected from the ValueTypeCV table’s controlled vocabulary.	"model simulation results", "field observation"	mandatory, foreign key	CUAHSI
IsRegular	bit	Indicates whether data are from a regularly sampled time-series (TRUE or FALSE)	"True", "False"	mandatory	CUAHSI
TimeSupport	float	Interval of measure.	“15” for every 15 minutes	mandatory	CUAHSI

TimeUnitsID	integer	Unit ID, which is selected from the Units table's controlled vocabulary.	UnitID 104 = 'daily' measurement	mandatory, foreign key	CUAHSI
DataType	nvarchar(255)	Data type, which is selected from the DataTypeCV table's controlled vocabulary. If the data type is categorical, then there must be at least one associated CategoricalID to the VariableID.	"average", "categorical", "continuous", "cumulative", "minimum"	mandatory, foreign key	CUAHSI
GeneralCategory	nvarchar(255)	General category, which is selected from the GeneralCategoryCV table's controlled vocabulary.	"water quality", "climate"	mandatory, foreign key	CUAHSI
NoData value	float	Numeric value used to encode no data values for this variable.	-9999	mandatory	CUAHSI

<b>Devices</b>	This table provides a description of devices used to collect data.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
DeviceID	integer	Primary key. Unique integer identifier.		mandatory, primary key	Berkeley Sensor
DeviceName	nvarchar(255)	Make and model or type of device	WS2000 CRX	mandatory	Berkeley Sensor
SerialNumber	nvarchar(50)	Serial number associated with device	1728360271	optional	Berkeley Sensor
DateActivated	date	date sensor was activated	3/4/2010	optional	Berkeley Sensor
DateDeactivated	date	date sensor was deactivated	3/6/2011	optional	Berkeley Sensor
Comments	nvarchar(MAX)	how the device was installed, what height, etc		optional	Berkeley Sensor

<b>Methods</b>	This table provides a description of methods used to collect data.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>

<b>MethodID</b>	integer	Primary key. Unique integer identifier.	6	mandatory, primary key	CUAHSI
MethodName	nvarchar(255)	Name of method used.		mandatory	
MethodDescription	nvarchar(MAX)	Description of method.	"turbidity was measured using a Horiba XXX..."	mandatory	CUAHSI
MethodLink	nvarchar(500)	Link to additional reference material on method.		optional	CUAHSI

<b>QualityControlLevels (Optional)</b>	This table references the quality control levels used to indicate what level of quality control data has been through and allows for versioning of the data in the database.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
<b>QualityControlLevelID</b>	integer	Primary key. Unique integer identifier.	0, 1, 2, 3, 4, or 5	mandatory, primary key	CUAHSI
QualityControlLevelCode	nvarchar(50)	Code used to identify the level of quality control to which data values have been subjected.	"raw", "qc checked", etc	mandatory, no tab line feed or carriage return characters	CUAHSI
Definition	nvarchar(255)	Definition of quality control level	"Raw data", "quality control level", "published data", etc.	mandatory, no tab line feed or carriage return characters	CUAHSI
Explanation	nvarchar(MAX)	Explanation of quality control level	"raw data has not undergone quality control"	mandatory	CUAHSI

<b>OffsetTypes (Optional)</b>	This table describes measurement offsets, including vertical and horizontal offsets.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>

<b>OffsetTypeID</b>	integer	Primary key. Unique integer identifier.	3	mandatory, primary key	CUAHSI
OffsetUnitsID	integer	Units for horizontal or vertical offset, which is selected from the Units table's controlled vocabulary.		mandatory, foreign key	CUAHSI
OffsetDescription	nvarchar(MAX)	Description of offset type.	"vertical distance above ground in meters"	mandatory	CUAHSI

<b>Datastreams</b>	This table lists relevant information about a particular datastream.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
<b>DatastreamID</b>	integer	Primary key. Unique integer identifier.	312	mandatory, primary key	Berkeley Sensor
DatastreamName	nvarchar(255)	Name of the datastream.	"WindDir_Jago_10_meter"	mandatory, foreign key	Berkeley Sensor
SiteID	integer	Integer identifier that references a record in the Sites table	2300	mandatory, foreign key	Berkeley Sensor / CUAHSI
VariableID	integer	Integer identifier that references a record in the Variables table	57	mandatory, foreign key	Berkeley Sensor / CUAHSI
FieldName	nvarchar(50)	Field name of incoming datastream.	"airtemp_2m"	optional	Berkeley Sensor
DeviceID	integer	Integer identifier that references a record in the Device table	7	mandatory, foreign key	Berkeley Sensor
MethodID	integer	Integer identifier that references a record in the Methods table	9	mandatory, foreign key	Berkeley Sensor / CUAHSI
Comments	nvarchar(MAX)	Comments related to the incoming datastream.		optional	
QualityControlLevelID	integer	Integer identifier that references a record in the QualityControlLevels table	0	optional, foreign key	Berkeley Sensor / CUAHSI

RangeMin	decimal(8, 2)	Minimum threshold value for a sensor	0	optional	Berkeley Sensor / CUAHSI
RangeMax	decimal(8, 2)	Maximum threshold value for a sensor	360	optional	Berkeley Sensor / CUAHSI
StartDate	date	Start date of a sensor.	5/30/1998	optional	IARC-UAF
EndDate	date	End date of a sensor.	9/30/2000	optional	IARC-UAF
AnnualTiming	nvarchar(255)	Annual timing of data collection.	May to Sept	optional	IARC-UAF
DownloadDate	date	Date that data set was acquired from a source.	2/26/2010	optional	IARC-UAF

<b>Qualifiers (Optional)</b>		Provides additional information concerning the conditions of the weather, instrumentation, etc, that a data value was collected.			
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
QualifierID	integer	Primary key. Unique integer identifier.	9	mandatory, primary key	CUAHSI
QualifierCode	nvarchar(50)	Code used by organization collecting the data.	"i"	optional, no tab line feed or carriage return characters	CUAHSI
QualifierDescription	nvarchar(MAX)	Description of the conditions in which the data value was acquired.	"ice affected"	mandatory	CUAHSI

<b>DerivedFrom (Optional)</b>		Contains two data values, one for the derived data value and one for the data value it was derived from. If the ValueID was derived from more than one 'DerivedFromID', then all should be listed separately.			
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>

DerivedFromID	integer	The ValueID of the data value that the 'derived from' data value is based on.	7	mandatory, primary key	CUAHSI
ValueID	integer	The ValueID of the derived data value.	10234568	mandatory	CUAHSI

<b>Groups (Optional)</b>	Groups data values that are related to each other.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
GroupID	integer	Integer identifier that references a record in the GroupDescriptions table		mandatory, foreign key	CUAHSI
ValueID	integer	Integer identifier that references a record in the Data values, RawData values or RasterData values table		mandatory, foreign key	CUAHSI

<b>GroupDescription (Optional)</b>	Describes the relation of a group of data values.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
GroupID	integer	Primary key. Unique integer identifier.		mandatory, primary key	CUAHSI
GroupDescription	nvarchar(MAX)	Describes how the data values are related to each other.	"Snow survey measurements taken along a 50 meter transect near Betty Pingo, May 2011"	optional	CUAHSI

<b>Data values</b>	Data values. If the data value is non-numeric, the data value should be NULL and the Categories table should be used. If the data value is missing, the data value should be NULL and the QualifierID should be set to a missing marker.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
ValueID	integer	Primary key. Unique integer identifier.	10265349	mandatory, primary key	CUAHSI
Data value	float	Numeric or NULL data value. The data value is NULL if it is Categorical or the data value is missing.	6.5, NULL	optional	CUAHSI

ValueAccuracy	float	Measurement accuracy of the data value.	9.99	optional	CUAHSI
LocalDateTime	datetime	Local date and time in the following format (Month/Date/Year): 00/00/0000 0:00:00		mandatory	CUAHSI
UTCOffset	float	Offset in hours from UTC time for the corresponding LocalDateTime.		mandatory	CUAHSI
QualifierID	integer	Integer identifier that references a record in the Qualifiers table		optional, foreign key	CUAHSI
DerivedFromID	integer	Integer identifier that references a record in the DerivedFrom table		optional, foreign key	CUAHSI
DatastreamID	integer	Integer identifier that references a record in the Datastreams table		mandatory, foreign key	CUAHSI
CensorCode	nvarchar(50)	Indication of censoring from the CensorCodeCV controlled vocabulary. The default for this field is 'nc' (not censored). Other censor codes include codes to modify the data value, such as 'lt' for 'less than' the data value.	"lt", "gt", "nc"	optional, foreign key	CUAHSI
OffsetTypeID	integer	Integer identifier that references a record in the OffsetTypes table	2	optional, foreign key	Berkeley Sensor / CUAHSI
OffsetValue	float	A set distance from a base point that the data value was measured.	10	optional	Berkeley Sensor / CUAHSI
CategoryID	integer	Integer identifier that references a record in the OffsetTypes table	7	optional, foreign key	UAF-IARC

<b>RasterData values</b>		Similar to the Data values table, but used for raster and grid data. This table is not currently in use and is based on SciScope's handling of non-point data values. Please refer to: <a href="http://research.microsoft.com/pubs/70602/tr-2008-92.pdf">http://research.microsoft.com/pubs/70602/tr-2008-92.pdf</a>			
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
ValueID	integer	Primary key. Unique integer identifier.		mandatory, primary key	SciScope / CUAHSI
Data value	nvarchar(MAX)	GRID(3 4 5, 6 7 8), 10: Rows separated by commas and data values separated by spaces. The cell size is specified in decimal degrees.		optional	SciScope / CUAHSI

ValueAccuracy	float	Measurement accuracy of the data value.		optional	SciScope / CUAHSI
LocalDateTime	datetime	Local date and time in the following format (Month/Date/Year): 00/00/0000 0:00:00		mandatory	SciScope / CUAHSI
UTCOffset	float	Offset in hours from UTC time for the corresponding LocalDateTime.		mandatory	SciScope / CUAHSI
QualifierID	integer	Integer identifier that references the record in the Qualifiers table		optional, foreign key	SciScope / CUAHSI
DerivedFromID	integer	Integer identifier that references the record in the DerivedFrom table		optional, foreign key	SciScope / CUAHSI
DatastreamID	integer	Integer identifier that references the record in the Datastreams table		mandatory, foreign key	SciScope / CUAHSI
CensorCode	nvarchar(50)	Indication of censoring from the CensorCodeCV controlled vocabulary. The default for this field is 'nc' (not censored). Other censor codes include codes to modify the data value, such as 'lt' for 'less than' the data value.	"lt", "gt", "nc"	optional, foreign key	/ CUAHSI

<b>Data valuesRaw</b>	Data values that are not made available to the general public.				
<b>Field Name</b>	<b>Data Type</b>	<b>Description</b>	<b>Example</b>	<b>Constraint</b>	<b>Origin</b>
ValueID	integer	Primary key. Unique integer identifier.		mandatory, primary key	CUAHSI
Data value	float	Numeric or NULL data value. The data value is NULL if it is Categorical or the data value is missing.		optional	CUAHSI
ValueAccuracy	float	Measurement accuracy of the data value.		optional	CUAHSI
LocalDateTime	datetime	Local date and time in the following format (Month/Date/Year): 00/00/0000 0:00:00		mandatory	CUAHSI



UTCOffset	float	Offset in hours from UTC time for the corresponding LocalDateTime.		mandatory	CUAHSI
QualifierID	integer	Integer identifier that references the record in the Qualifiers table		optional, foreign key	CUAHSI
DatastreamID	integer	Integer identifier that references the record in the Datastreams table		mandatory, foreign key	CUAHSI

**Imiq database diagram (shown on following page).**

