

WQX Web User Guide

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Office of Water

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1. Glossary

The following is a glossary of some of the acronyms or terms used in this document (and the WQX Web Application). If a definition includes a term that is also in the glossary, it is displayed like [this](#).

Acronym/Term	Definition
Activity	A general term for a field sampling event that produces one or more Result or Metric . In WQX, an Activity tracks the location, date, and time of the sample or field measurement, as well as the equipment and methods used to collect, transport and store the sample.
Activity ID	<p>Each Activity must have its own Activity ID which is used to identify it in the system. An Activity ID must be unique (within your Organization). Accidentally reusing an Activity ID would result in data being overwritten in the system, so it's important to follow a standard that guarantees that each Activity ID is unique.</p> <p>One simple approach to creating your Activity ID is to combine several pieces of information about your Activity (such as the location, date, and type of activity). For example, a lab sample collected on 05/04/2013 at the "BearRiver1" Monitoring Location might have an ID of "BearRiver1-20130504-L" (where L represents lab data). Field Measurements & Observations at the same location might have an ID of "BearRiver1-20130504-F" (where F represents field data).</p> <p>If you collect several samples at a location, you might need to include the "Activity Start Time" (or something else) as part of your Activity ID to make sure that it is unique.</p>
Activity Group	<p>A collection of Activities that are related to each other. Each Activity Group must have an ID, a Type and include at least two Activities. The following types are currently supported:</p> <p><i>Field Set:</i> groups all of the field observations, measurements, and samples collected at a monitoring location on a specific date.</p> <p><i>QC Sample:</i> groups the samples and their related QC sample(s). For example, you might group a "Trip Blank" with all the samples from the trip.</p> <p><i>Replicate:</i> links a replicate sample with the original sample (that it would be compared against)</p> <p><i>Subsample:</i> groups composites, splits, or subsamples with their respective parent or related samples.</p>
Attachment	<p>Also known as an Attached Object (in WQX). This is an external computer file that is attached to a record in the database. The attachment may be a photo, a document, a spreadsheet, etc. The following entities allow attachments: Project, Monitoring Location, Activity, and Result.</p> <p>A common attachment on a Project might be your QAPP Document.</p>

	<p>A Monitoring Location or Activity might include a photo of the location.</p> <p>In locations where you collect continuous monitoring Results, EPA recommends that you create a summary Result (such as a 12-hour mean value) and then provide an attachment with the complete set of result values.</p>
<p>Biological Intent</p>	<p>An indicator of the type of biological results being providing. The following values are allowed:</p> <ul style="list-style-type: none"> • "Population Census" is for providing the total number of a particular species found in a sample or collection effort. • "Frequency Class" is for providing the number of a particular species that have certain attributes. One or more frequency class descriptors and, optionally, a lower and upper bound determine the class being counted. <ul style="list-style-type: none"> ○ Examples: <ul style="list-style-type: none"> ▪ the count of all Adult Males ▪ the count of those with tumors ▪ the count of those with a length between 5 and 10 cm • "Group Summary" is for providing summary information about all of a particular species that were collected. <ul style="list-style-type: none"> ○ For example: the Maximum, Minimum, and Mean Weight of a particular species of fish. • "Individual" is for reporting measurements for one individual. • "Tissue" is for reporting analysis results of a tissue sample. • "Toxicity" is for reporting the results of toxicity testing on a species.
<p>CDX</p>	<p><i>[The] Central Data Exchange.</i> EPA's name for their node on the Exchange Network. Software, like WQX Web, communicates with CDX when it submits data to EPA and checks on the status of a data submission.</p> <p>CDX has two types of accounts that can be created:</p> <p style="padding-left: 40px;">CDX-Web Account: this account is used to log into the CDX web site and is required for every WQX Web User.</p> <p style="padding-left: 40px;">NAAS Account: this account is used by a Node (or Node Client) to communicate directly with CDX. WQX Web Users do not need a NAAS Account.</p> <p>The CDX Help Desk can be reached at: (888) 890-1995 or helpdesk@epacdx.net</p>
<p>Characteristic</p>	<p>The WQX element that identifies "what is being measured" in a field or lab result. This is sometimes called the analyte or parameter name in other systems.</p> <p>For example, if you collected a Dissolved Oxygen measurement of 8.27 mg/l and then wanted to load this result into WQX Web, then the Characteristic would be</p>

	<p>"Dissolved oxygen (DO)". Also, the Result Value would be "8.27" and the Result Unit would be "mg/l".</p>
<p><u>Characteristic Pick List or Choice List</u></p>	<p>The list of <u>result</u> values that are allowed for a specific <u>characteristic</u>. Only a small number of characteristics include a "Pick List".</p> <p>For example, when the <u>characteristic</u> is set to "Turbidity severity (choice list)" the <u>result</u> value must be one of the following:</p> <p>NONE, MILD, MODERATE, SERIOUS, EXTREME</p> <p>Most <u>characteristics</u> with a pick list, include "(choice list)" in their name. The WQX Web "Lookup Tables" page includes a link to the list of "Characteristics with [a] Pick List" and a link to the "Characteristic Pick List Value[s]" for each of those <u>characteristics</u>.</p>
<p><u>Conducting Organization</u></p>	<p>This is the name of the organization that collects a field sample or measurement. It's useful to understand that there are two organizations that can be referenced on an <u>activity</u> record in WQX.</p> <p>The [WQX] <u>Organization</u> (defined separately), is an official organization created in the <u>WQX</u> system. It's the organization that manages a set of data and submits it to EPA. When the term "organization" is used, it generally refers to a <u>WQX Organization</u>.</p> <p>In cases where the organization that performs the field work is not the same as the official <u>WQX Organization</u>, you are allowed to list one or more "Conducting Organization" for your <u>activity</u>. This might be the name of a contractor or external group that collected the sample. These organizations do not have unique IDs and are not validated in any way.</p> <p>Most smaller organizations do not use the Conducting Organization <u>element</u>, because they do their own field work.</p>
<p><u>Context</u></p>	<p>In WQX Web, context often refers to the bounds within which an identifier must be unique.</p> <p>For example, an "Analytical Method Context" is used to identify the organization that manages a set of Analytical Methods. This may be a <u>WQX Organization</u> (like "UTAHDWQ") or an external organization (like "IDEXX"). For example, the IDEXX context includes an Analytical Method ID of "Colilert". This does not prevent the "UTAHDWQ" context from also having an Analytical Method ID of "Colilert". When you reference an Analytical Method ID (in an import file, for example) you must also provide an Analytical Method Context.</p> <p>Most IDs, however, do not have an explicitly named "context". Instead, the <u>WQX Organization</u> is the context for entities that are imported and for some organization-specific domain values. For all other domain values, the context is the entire WQX <u>System</u></p>
<p><u>Crosstab File</u></p>	<p>In WQX Web, a crosstab file is a special type of <u>spreadsheet</u> or <u>flat file</u> format where column headers contain data that relates to all the rows of the file. A crosstab file is more concise than a standard file, because it avoids some of the</p>

repetition that occurs in a standard file and typically includes many of the same type of [entities](#) on a single row of the file. For example you could include many results on a single row (rather than just one). Many crosstab formats are supported in WQX Web, but the import configurations for them are quite a bit more difficult to set up.

Here is an example of a standard file (with one Activity and one Result per row):

Activity ID	Activity Type	Activity Start Date	Monitoring Location ID	Characteristic	Result	Unit
A1	Field Msr/Obs	5/4/1999	ML1	Temperature, water	1.5	deg C
A1	Field Msr/Obs	5/4/1999	ML1	Turbidity	-0.21	NTU
A1	Field Msr/Obs	5/4/1999	ML1	DO	6.5	mg/l
A2	Field Msr/Obs	8/8/1999	ML3	Temperature, water	15	deg C
A2	Field Msr/Obs	8/8/1999	ML3	Turbidity	4.3	NTU
A2	Field Msr/Obs	8/8/1999	ML3	DO	12	mg/l

And an example of the equivalent crosstab file (with one Activity and many Results per row):

Activity ID	Activity Type	Activity Start Date	Monitoring Location ID	Temperature, water deg C	Turbidity NTU	DO mg/l
A1	Field Msr/Obs	5/4/1999	ML1	1.5	-0.21	6.5
A2	Field Msr/Obs	8/8/1999	ML3	15	4.3	12

[CSV](#) *Comma Separated Value*. A computer file format for a table where each piece of information is separated by a comma.

Files in this format can be imported into WQX Web.

Microsoft Excel has a "Save As" menu that allows you to convert your spreadsheet to other computer file formats. If you choose the "CSV" type, then your file will be stored in a format where each column is separated by a comma character and each row is separated by a carriage return character.

[Data](#) In computing, data is information that is stored in a format that is convenient to process.

Data may come from a [probe](#), a lab, or be hand entered into software. Data is often stored in a [flat file](#), [spreadsheet](#), or database. The purpose of WQX Web is to convert this data into the format that is required for [WQX](#).

[Data Flow](#) A named standard for a specific type of data available on the [Exchange Network](#). Each data flow has a documented format (based on [XML](#)) that must be used when submitting that type of data to a node. [WQX](#) is the only data flow that is used by the WQX Web application

[Dataset](#) A dataset is a copy of the original data (from your [spreadsheet](#) or [flat file](#)) that has been imported into the WQX Web application. A dataset is temporary and

	<p>only becomes permanent once it has been exported and submitted to CDX (and receives a status of "Completed at CDX").</p> <p>A dataset should be deleted once it has been successfully submitted to CDX. If it is not deleted manually, it will be automatically deleted from the system (after a defined expiration period). This prevents the system from getting overloaded with temporary data that is no longer used.</p>
Domain Value or Lookup Value	<p>A value within the list of allowed values for a specific element. Each allowed value is unique (within a certain context)</p> <p>For example, "Water" is a domain value for "Activity Media". "Kick Net" is a domain value for "Sample Collection Equipment".</p>
Domain Value List or Lookup Table	<p>The list of allowed values for a specific element (or domain).</p> <p>For example, the domain value list for "Activity Media" includes: Air, Sediment, Soil, Water, etc.</p>
Element or Data Element	<p>In WQX Web, an element is a piece of information stored in the database. Examples of data elements are "Latitude", "Longitude", "Project Name" and "Activity Start Date".</p> <p>See also: Entity and Import Configuration.</p>
Entity	<p>A concept represented by a record in the database.</p> <p>Projects, Monitoring Locations, and Results are examples of entities.</p> <p>Each entity has a set of elements whose values describe it.</p> <p>For example: each Project (entity) has Project ID, Project Name, and Project Description (elements) whose values describe that specific project.</p> <p>Entities and Elements are particularly relevant when working with Import Configurations</p>
EPA	<i>[United States] Environmental Protection Agency</i>
Exchange Network	<p>Short for the National Environmental Information Exchange Network (NEIEN). The Exchange Network is an Internet-based system used by states, tribes, and other public/private organizations to securely share environmental data with one another and the EPA. Partners exchange data using a software application known as a node. The largest trading partner on the Exchange Network is the EPA. Their node is known by the acronym CDX.</p>
Flat File or Text File	<p>"Flat File" refers to a computer file that is organized into rows and columns. The term "flat" is used to differentiate it from file formats, like XML, that are hierarchical. "Text File" refers to a file that is plain text (i.e. no formatting or styling information, like fonts or colors, is included in the file). These two terms are often used interchangeably to refer to a file that contains plain text (data) and just a few specific formatting characters, which are used to mark the columns and rows in the file.</p>

	<p>These files often use tabs, pipes () or tildes (~) as delimiters (see Tab-delimited) and typically their file names end in ".txt". When commas are used as a delimiter, the files typically end in ".csv" (see CSV).</p> <p>WQX Web can only read flat files, so spreadsheets must be converted to one of these formats before they can be imported.</p>
IBI	<p><i>Index of Biological Integrity</i> (or <i>Index of Biotic Integrity</i>). An IBI uses the results of fish assemblage surveys to assess the ecological quality of waters. An IBI Score is the assessment score for a particular monitoring location on a particular date. An IBI is one type of index that is supported by WQX and WQX Web.</p>
ID, Identifier, or Unique Identifier	<p>A series of letters, numbers and/or other characters that serve as a unique label for an entity or concept. In WQX, IDs are not case-sensitive (e.g. "ABC-1" would be considered identical to "abc-1").</p> <p>Most entities that you import have an element that is its ID (e.g. Project ID, Monitoring Location ID, Activity ID, Activity Group ID, Index ID, and Metric ID). Many other elements are constrained to a list of allowed values (i.e. lookup table), which are referenced by their ID (although the element may not include "ID" in its name). Examples include: Sample Collection Method ID, Metric Type ID, Characteristic Name, and Result Laboratory Comment Code.</p> <p>In WQX Web, uniqueness is enforced within a specific context (see "Context")</p>
Index	<p>Each occurrence of a biological or habitat assessment record within the system. For example, if a habitat assessment is performed each year, for 3 years, on each of 5 monitoring locations, then there will be 15 Index records in the system. Each one will store the habitat assessment score for a particular monitoring location on a particular date.</p> <p>An Index Score is generally determined by totaling or averaging a group of Metric Scores for a particular monitoring location on a particular date.</p>
Index Type	<p>This element describes the type of index being evaluated.</p> <p>Before an organization can import their [Biological or Habitat] Index data, they must manually enter their list of Index Types into WQX Web.</p> <p>For example: Before importing your IBI data, you must first create an Index Type for your organization. The Index Type ID could be "IBI" and the Index Type Name could be "Index of Biotic Integrity". Each organization can create as many Index Types as they wish.</p>
Import Configuration	<p>A definition or map for each type of file that is imported into WQX Web.</p> <p>WQX Web provides a web page where a user can create their own import configurations. Import Configurations allow you to list each column that you have in your import file and map it to data elements that exist in WQX. You can create (and save) an unlimited number of Import Configurations, and you can share them with others, as needed. When you import a file into WQX Web, you must select an import configuration (by its name). This tells WQX Web what type</p>

	<p>of data you are importing and how it should interpret the data in your file.</p> <p>WQX Web includes a handful of import configurations that have been created and shared with all users. There are also some <i>example</i> Excel Spreadsheets that can create files that match these shared import configurations. These Excel Spreadsheets are referred to as Templates (see also "Templates")</p> <p>If a user relies entirely on templates, then they do not need to create their own import configurations. However, creating your own import configurations may reduce the work needed (in the long run) to get your data imported into WQX Web.</p>
<p>Metric</p>	<p>Each instance of a quantifiable component used in a biological or habitat assessment. A Metric has a score and a value (which is optional).</p> <p>For example: a metric for "Riparian Vegetation Zone Width" may have a value of "12.5 ft." and a score of "4".</p> <p>A metric is not required to be, but generally is, part of a biological or habitat assessment (whose final assessment score is stored in an index record).</p> <p>For example: the total of all the metric scores for an IBI determines the overall IBI score.</p> <p>Like Results, each Metric in WQX must be part of an Activity. Metrics do not have a [Unique] ID. Because of this, there is no way to add, update, or delete an individual Metric via an import file. You must always import an entire Activity and all of its Metrics, even when only one metric has changed.</p>
<p>Metric Type</p>	<p>This element describes the type of metric that is being evaluated.</p> <p>Before an organization can begin importing their Metric data, they must first create the list of Metric Types that they will be using.</p> <p>Examples of habitat metric types are "Riparian Veg Zone Width" and "Bank Stability".</p> <p>Examples of biological metric types are "Percent of Tolerant Species" and "Percent of Hybrids".</p>
<p>Monitoring Location</p>	<p>Also known as a site or station. This is the location (on a water body) where samples or field measurements and observations are collected.</p> <p>Before an organization's Activities, Results, Metrics or Indexes can be imported, their Monitoring Locations List must be imported and submitted to CDX.</p> <p>Updating a Monitoring Location will not affect the Activities, Metrics, or Results below it. However, deleting a Monitoring Location will delete the Activities, Metrics and Results below it.</p>
<p>NAAS</p>	<p><i>Network Authentication and Authorization Services</i>. The NAAS is used on the Exchange Network to validate a user before gaining access to a node.</p> <p>WQX Web uses a single NAAS Account when it communicates with CDX, so WQX</p>

	Web Users do not need to have their own individual NAAS Account.
<u>Node or Node Client</u>	Software used to send or receive data on the <u>Exchange Network</u> . Nodes can submit data to, and request data from, other nodes as well as receive data and respond to requests for data from other nodes. The most significant node on the <u>Exchange Network</u> is <u>CDX</u> (operated by the EPA). A limited node, known as a Node Client, is built into WQX Web, so that it can submit data to <u>CDX</u> .
<u>Organization</u> <u>or</u> <u>WQX Organization</u>	A state, tribe, volunteer monitoring group, or other public/private organization that manages water monitoring data. A physical organization may have multiple Organization records in WQX. For example, a state or tribe may choose to have separate Organizations [in WQX] for their beach monitoring program and their other monitoring programs. In WQX, an Organization is the <u>entity</u> that is the parent of all other <u>entities</u> (e.g. Projects, Monitoring Locations, Activities, etc.). Each Organization has a unique ID (which is approved by the EPA). Likewise, a user must be assigned rights to an Organization before he/she is allowed to import data belonging to it.
<u>Pick List</u>	A list of allowed values. In the WQX Web Application, a pick list may be displayed in a dropdown list, or a full page list (also called the "Pick List"). The user can then select their choice from the list to complete the input operation.
<u>Probe or Sonde</u>	A water quality monitoring instrument, that may be stationary or may move up and down a water column, measuring, but not limited to, the following water characteristics: temperature, conductivity, salinity, dissolved oxygen, pH, turbidity, and depth Sonde is French for probe
<u>Project</u>	Typically refers to a water monitoring project with specific objectives and procedures. However, in WQX Web, a project is an <u>entity</u> created to group monitoring data for a variety of reasons. A project may represent an actual monitoring project, a source of funding (or program), or a department or group within the organization who is interested in a specific set of data. Before an <u>organization</u>'s <u>Activities</u>, <u>Results</u>, <u>Metrics</u> or <u>Indexes</u> can be imported, their <u>Projects List</u> must be imported and submitted to <u>CDX</u>. Updating a Project will not affect the <u>Activities</u> , <u>Metrics</u> , or <u>Results</u> below it. However, deleting a Project will delete the <u>Activities</u> , <u>Metrics</u> , and <u>Results</u> below it (unless the <u>Activity</u> relates to more than one Project). A Project must include a Project ID, Project Name, and either a Project Description or Project <u>Attachment</u> (often for the <u>QAPP</u>). Each <u>Activity</u> in WQX must be linked to a Project, and can, optionally, be linked to multiple Projects.
<u>QAPP</u>	<i>Quality Assurance Project Plan</i> . Documents the planning, implementation, and assessment procedures for a particular <u>project</u> , as well as any specific quality assurance and quality control activities. All work performed or funded by EPA,

	that involves the acquisition of environmental data, must have an approved <i>Quality Assurance Project Plan</i> .
<u>QA/QC</u>	<i>Quality Assurance/Quality Control</i>
<u>Result</u>	<p>This <u>entity</u> describes the results of a field measurement, sampling event, observation, or laboratory analysis.</p> <p>Each result in WQX, must be part of an <u>Activity</u>. Unlike most other entities in WQX, Results do not have a Unique ID. Because of this, there is no way to add, update, or delete an individual Result via an import file. You must always import an entire <u>Activity</u> and all of its Results.</p> <p>Example: You collect five Results from your multi-parameter <u>probe</u> at a site. You import and then submit these Results to CDX as part of a <i>single Activity</i>. You then discover a correction that needs to be made to one of the Results. To avoid any data being dropped from WQX, you need to import and resubmit the entire <u>Activity</u> including all five Results, rather than just the one result that changed.</p>
<u>Spreadsheet</u>	<p>A computer file for data in tabular form (i.e. rows and columns). Rows are often referenced with numbers and columns are often referenced with letters. The file can also include functions, formatting information, charts, comments, etc.</p> <p>The most common spreadsheet software is Microsoft Excel. Others include OpenOffice Calc and Google Docs Spreadsheets.</p> <p>Before a spreadsheet's data can be used by WQX Web, it must be converted to a simpler, <u>flat file</u> format.</p>
<u>STORET</u>	<p>STORage and RETrieval [System]. The original name for the software and database [system], created by the EPA in the late 1960's, to hold ambient water monitoring data throughout the country. In 1999, EPA created a new system, Modernized STORET, which it provided freely for organization to manage their own data. They also created a national database known as the STORET Data Warehouse. At that time the original STORET system became known as Legacy STORET. In 2006, EPA released <u>WQX</u> and a few years later retired the [Modernized] STORET System.</p> <p>Today, STORET refers to the STORET Data Warehouse that holds data from the Modernized STORET System and from <u>WQX</u>.</p> <p>STORET is also the name for the helpdesk, at The EPA, which supports WQX, WQX Web and the STORET Data Warehouse. The helpdesk can be reached at: (800) 424-9067 or STORET@epa.gov</p>
<u>System</u>	Another term for a software application (and database). For example, the "WQX Web" System.
<u>Tab-Delimited File</u>	<p>A computer file format for a table where each piece of information is separated by a tab character.</p> <p>Files in this format can be imported into WQX Web.</p>

	<p>Microsoft Excel has a "Save As" menu that allows you to convert your spreadsheet to other computer file formats. If you choose the "Text (tab delimited)" type, then your file will be stored in a format where each column is separated by a tab character and each row is separated by a carriage return character.</p>
<u>Template</u>	<p>An Excel <u>Spreadsheet</u> that EPA provides to <u>users</u> of WQX Web. <u>Users</u> can enter their data into one of these <u>spreadsheets</u> and use it to create a file that can be imported into WQX Web.</p> <p>WQX Web Templates are just one way to build a data file that can be imported into WQX Web. WQX Web can import files in a wide variety of formats, but if you use your own format, you will also need to create your own <u>import configuration</u> to match it (or modify an existing <u>import configuration</u>).</p>
<u>User</u>	<p>An individual who uses a <u>system</u> (i.e. software). Someone with a <u>CDX-Web Account</u> who has been granted access to the WQX Web <u>System</u> is a WQX Web User.</p> <p>A user must provide their login name and password before gaining access to WQX Web. EPA must grant a user with rights to a specific <u>Organization</u> before the user is allowed to view, import, or submit data for that <u>Organization</u>.</p>
<u>WQX</u>	<p><i>Water Quality Exchange.</i> The <u>data flow</u> (at <u>CDX</u>) and the <u>system</u> at the EPA which receives ambient water monitoring data from organizations throughout the United States. WQX was developed by Gold Systems in 2006. It replaced the <u>STORET System</u>.</p>
<u>WQX Web</u>	<p>Software created for the EPA, by Gold Systems, to assist users with converting their electronic data files into the format that is required for <u>WQX</u>.</p>
<u>XML</u>	<p><i>Extensible Markup Language.</i> A common standard for formatting data for computer <u>systems</u> to read. XML is a hierarchical format where child data can be nested within parent data. This is the basis for all data exchanged on the <u>Exchange Network</u> (including <u>WQX</u>). It is more difficult for humans to create and/or read than a <u>spreadsheet</u> (such as the WQX Web <u>Templates</u>) or a <u>flat file</u>. WQX Web Users should not generally need to work with XML documents directly.</p>

2. Introduction

The Water Quality Exchange (WQX) has been implemented to support the exchange of ambient water-quality data between EPA and its partners. WQX version 1.0 supported physical, chemical and fish tissue results. WQX version 2.0 incorporated biological and habitat data elements into the standard.

The WQX data standard is based on XML – a widely supported format for electronic data communication. Adopting the WQX standard frees a data provider from a dependency on any specific system, such as STORET, for managing and submitting data to EPA. However, this also means that a data provider must format their data in compliance with the WQX standard before it can be accepted by the EPA.

In the transition from STORET to WQX (and the Exchange Network), the EPA recognizes that new challenges have been presented for some of their data providers. In particular, many of the smaller organizations such as the nations' tribes, volunteer monitoring groups, and superfund programs may need support to produce the XML file required by WQX. Additionally, many of these organizations may not be familiar with, or have access to, the exchange network node software required to submit WQX files to the EPA.

WQX Web is a web-based application designed to assist organizations with these specific needs.

3. WQX Web Overview

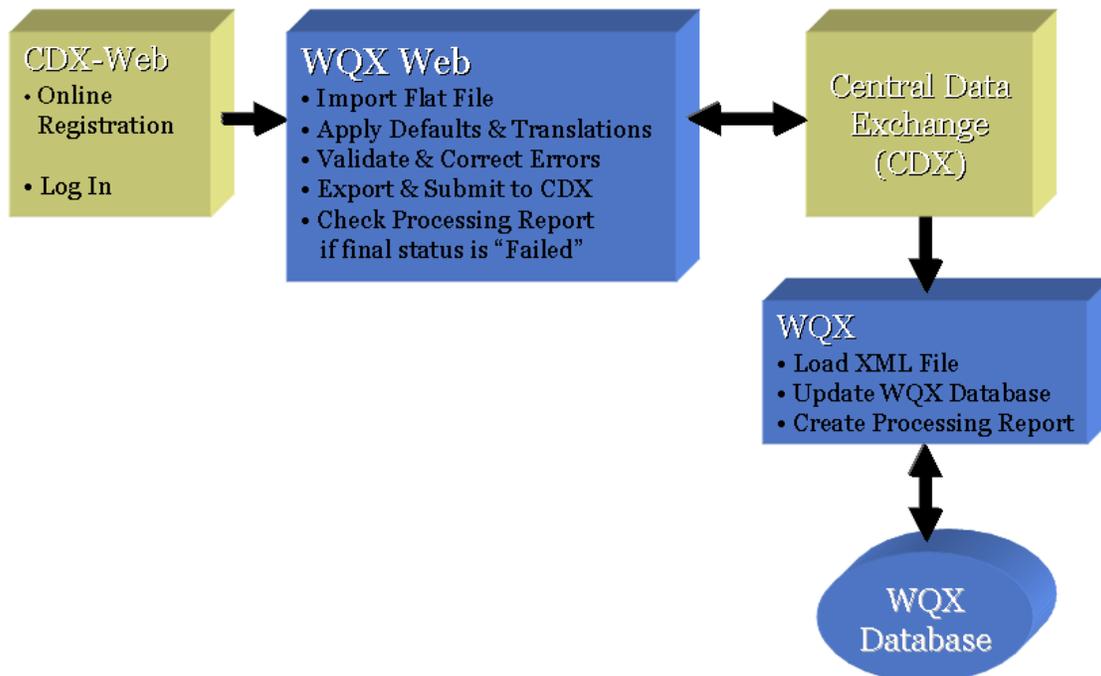
3.1 What does WQX Web do?

WQX Web is a tool for converting tabular data files (such as data from a spreadsheet) into an XML file that complies with the WQX Data Standard. WQX Web also interacts with the Central Data Exchange (CDX), which is the EPA's portal through which all environmental data is expected to flow. WQX Web is also a data conversion and validation tool, providing support for user-defined file formats and user-defined translations to WQX domain values for Characteristics, Taxonomic Names, Analytical Methods, etc.

3.2 How does WQX Web fit into the big picture?

WQX Web integrates into a set of products and services provide by the EPA, as shown in figure 1 below. This set includes the following items:

- **CDX-Web:** This is CDX's web portal, providing access to applications and data flows within CDX that are accessible via a web browser. Before a user can use WQX Web, they must first register with CDX-Web, be given an Organization ID and granted access to the WQX Web application. Once you log into CDX-Web, you will see a link to the WQX Web application.
- **WQX Web:** The tool that will assist a user in converting a flat file into a WQX-compatible submission file.
- **CDX:** Central Data Exchange (EPA's Node on the Exchange Network). Once a WQX Submission File is created in WQX Web, it can be submitted directly to CDX.
- **WQX:** This is the backend system that processes a WQX Submission File and loads it into the WQX Database. This data is also loaded into the STORET Data Warehouse on a regular basis.



With the addition of WQX Web in January 2009, an organization had two options for submitting ambient water quality monitoring data to the EPA:

XML file sent directly to CDX:

This method requires a node on the Exchange Network and the ability to create a WQX-compatible XML file. This is the method commonly used by states and other large organizations with their own Information Technology support staff.

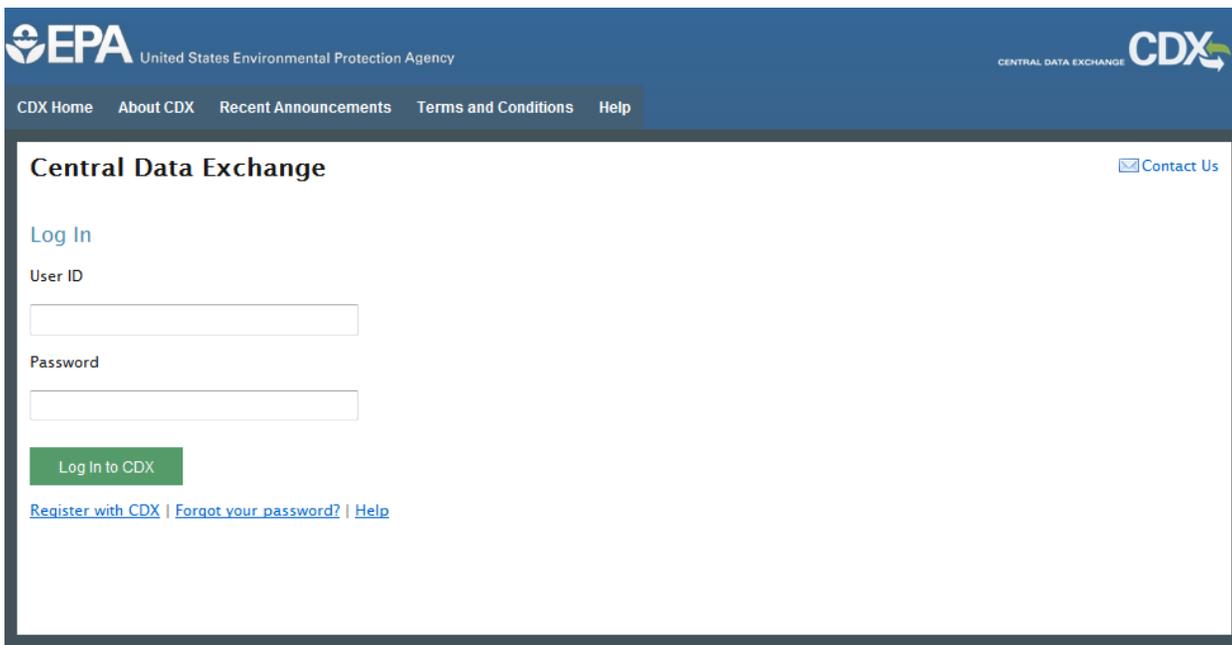
Tabular data file imported into WQX Web, converted to a WQX-compatible XML file and then submitted to CDX:

This method requires a text file (such as a CSV or TXT file created from products like Microsoft Excel or Access). This is the method anticipated to be used by smaller organizations without IT support staff or their own Exchange Network Node. Files that may not initially comply with the WQX standard can be converted to the standard.

A third, hybrid option for submitting data to EPA could be to use WQX Web to create a WQX-compatible submission file, then download the file and submit it CDX via your state or tribe's node. This may be appropriate if you have your own node on the Exchange Network, but don't have the ability to create a WQX-compatible XML File.

3.3 Overview of WQX Web Security

In order to access the WQX Web application, you must log into CDX-Web, as shown in Figure 2 below.



The screenshot shows the login interface for the Central Data Exchange (CDX) on the EPA website. At the top, the EPA logo and "United States Environmental Protection Agency" are on the left, and the "CENTRAL DATA EXCHANGE CDX" logo is on the right. Below the header is a navigation menu with links for "CDX Home", "About CDX", "Recent Announcements", "Terms and Conditions", and "Help". The main content area is titled "Central Data Exchange" and includes a "Log In" link. Below this are two input fields: "User ID" and "Password". A green button labeled "Log In to CDX" is positioned below the password field. At the bottom of the login section, there are three links: "Register with CDX", "Forgot your password?", and "Help". A "Contact Us" link with an envelope icon is located in the top right corner of the main content area.

After successfully logging in, you will be placed on the MyCDX Page. If you've been granted access to the WQX Web System, you will see a link to it on the My CDX Page (see figure 3 below).

Clicking on the "WQX Web" link will redirect you to the WQX Web Home Page below:

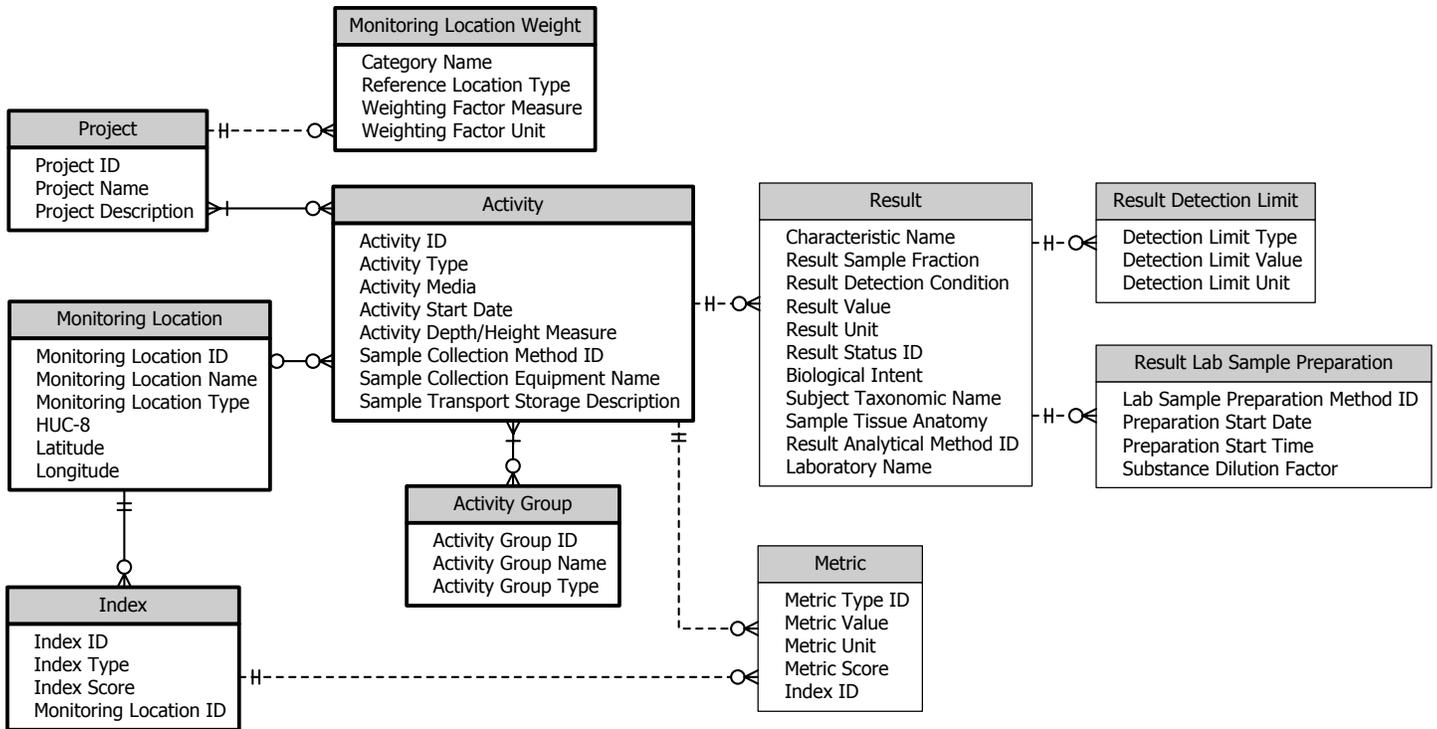
The following is a summary of the security features in WQX Web:

- **Users:** Each user must have an account in the system and must log into CDX Web with his/her password in order to access the system.

- **Roles:** Each user is assigned to a role which will determine their access rights to certain pages or features within the system. Roles are not, for the most part, used to assign rights to data. See "Access Rights" below to understand how users gain access to data. Most users are assigned the "Standard User" role. There are also roles for "Administrator" and "Support User" which have different access rights. Administrators are allowed to manage users, organizations and rights to those organizations. Administrators and Support Users are allowed to view some "admin" pages in WQX Web that are used to review logs, check on status of transactions, etc.
- **Access Rights:** A user must be granted access to an organization before they can view, import, or submit data (relating to that organization). A user can be assigned "Read-Only" rights or "Administrator" rights on an organization. Only an organization administrator can manage that organization's lookup table values.
- **Lookup tables:** Most lookup tables are read-only and are managed by EPA staff. However, WQX has a couple of tables (e.g. "Analytical Method" and "Metric Type") which support organization-specific values as well as EPA managed values. WQX Web also supports a number of additional lookup tables that do not exist in WQX. These tables are used to simplify import files by allowing a file to reference a set of related fields by their ID. For example: A Sample Collection Method in WQX includes the following fields: Method ID, Context, Name, Qualifier Type, and Description. Rather than repeating all of this information on every sample in the import file, once you set up the Sample Collection Method in WQX Web's lookup table, you can reference it in your import file by its ID and all the details will be automatically inserted into your submission file when you export it. The WQX tables, Analytical Method and Metric Type work similarly. However, you must reference the ID and Context in your import file to identify one of these.
- **Import Configurations:** An import configuration is used to describe what an import file looks like. You can create as many import configurations as you like. By default, the import configuration is only accessible by the user who created it. However, you can assign rights to any additional users. You can also restrict access to be "Read-only", if you wish to allow someone to use it or create copies of it, but not be able to modify it.
- **Datasets:** a collection of data that has been imported for an organization is accessible by anyone who has been granted at least "read-only" rights to the organization.

3.4 Understanding the WQX Data Structure

To fully understand how to use WQX Web, it is necessary to first understand the types of data WQX supports and how they relate to one another. Below is a simplified model of the entities and elements that exist in WQX (as well as the relationships between them).

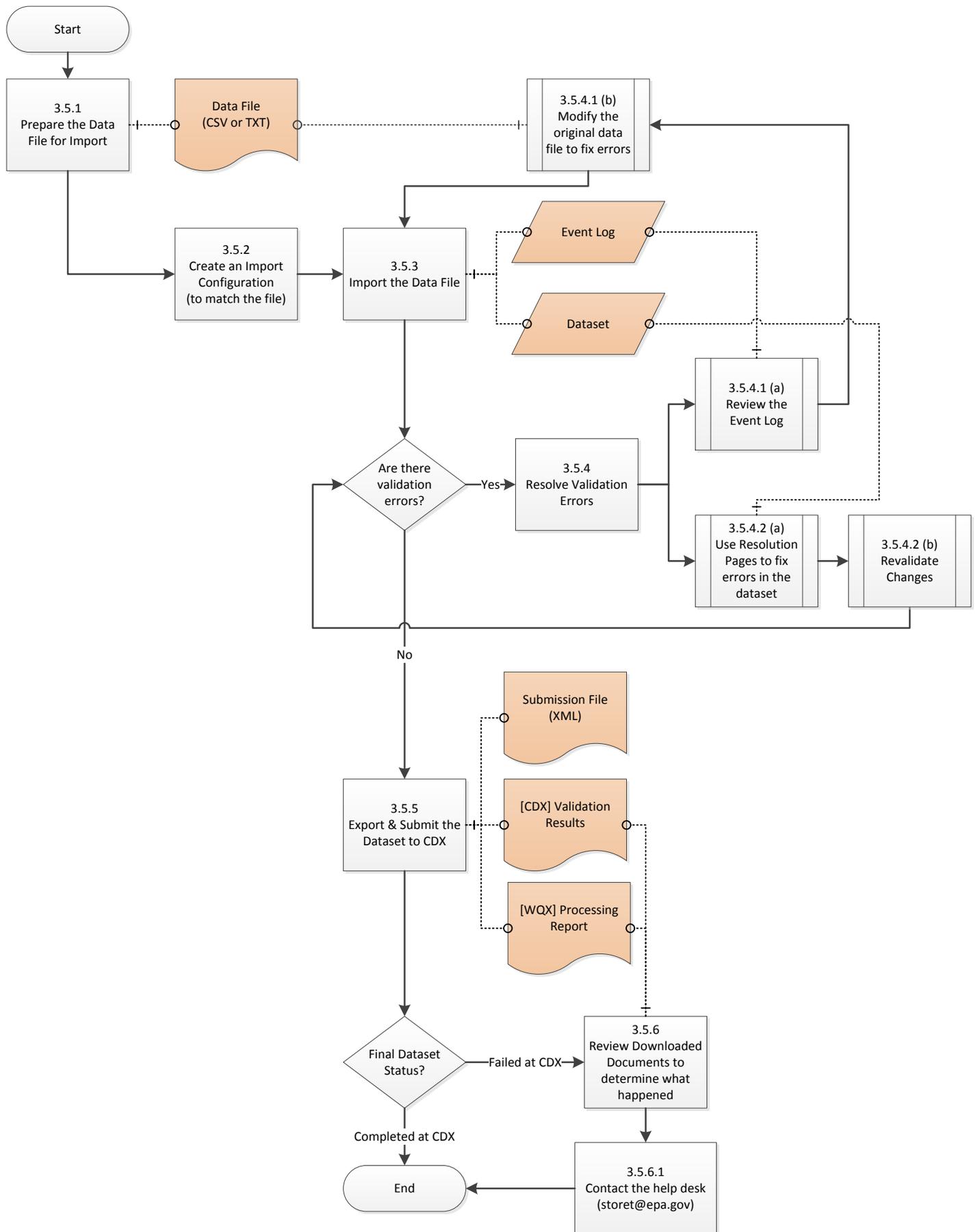


See Section 1 for a description of each of the entities (i.e. boxes) in the model above.

A box of related elements is known as an "entity". Lines connecting boxes represent relationships between entities. A three-pronged symbol (known as a crow's foot) on one end of a line, indicates that the entity on the other end of the line can relate to more than one of the entity with the crow's foot. For example, an Activity (e.g. a water sample) can relate to more than one [Lab] Result and a Result can have more than one Result Detection Limit.

3.5 Overview of WQX Web Work Flow

The diagram below outlines the basic work flow for importing a data file into WQX Web and submitting it to CDX (for final processing).



3.5.1 Prepare the Data File for Import

The user gathers their water quality monitoring data into a series of text files that are organized into rows and columns, with the columns delimited by a character such as a comma or a tab. Microsoft Excel supports comma and tab-delimited files from its "Save As" menu. This is convenient for hand-entered data that is already in a spreadsheet. Lab data or probe data is often in a format supported by WQX Web. However, you may need to load it into a spreadsheet to do clean up or to add additional values required by WQX.

The following types of import files are supported by WQX Web:

- Projects
- Monitoring Locations
- Monitoring Location Weights
- Biological/Habitat Indices
- Activities and Results
- Activities and Metrics
- Activity Groups
- IDs for Projects to be Deleted
- IDs for Monitoring Locations to be Deleted
- IDs for Biological/Habitat Indices to be Deleted
- IDs for Activities to be Deleted
- IDs for Activity Groups to be Deleted

3.5.2 Create an Import Configuration

Before importing a file, a matching import configuration must be defined. An import configuration describes the columns in your import file and maps them to data elements in WQX. You can provide default values for elements that may not have a value or that are not included in the file. Additionally, you can define translations to convert values in your files to valid values in WQX. You may leverage existing import configurations that have been shared with you (if you belong to a group that follows a standard format for your import files), or you can create import configurations from scratch to match your own proprietary file format.

3.5.3 Import the Data File

To import a file, you will need to indicate the import configuration that describes your import file format. Then browse to your file and begin the import process. As the file is being processed, the system will load your data into a temporary table in the database. This will be called a "Dataset" by the system. The system will also log any warnings or errors that it encounters into an "Event Log". Once the import has completed, a "Dataset Summary Page" will display the following:

- the number of valid and invalid records
- the number of each type of validation error and, in some cases, a link to a page where that type of error can be corrected.

- a link to the Event Log where you can review all errors and warnings encountered while processing the file.

3.5.4 Resolve Validation Errors

There are two approaches to resolving errors with your import file (or dataset).

1. Review the errors in the event log, modify the original data file, then reimport the file.
2. Use "Resolution Pages" to fix errors in the dataset and then revalidate the changes.

3.5.4.1

a) Review the Event Log

The Event Log lists the messages, warnings, and errors that occurred with your file while it was being processed. The page can provide a list of each individual error (and the row it occurred on) or a summary of each error (with the number of times it occurred). You can also export the log if you wish to review it offline.

b) Modify the Original Data File to Fix Errors

Using the list of errors from the Event Log, you can then correct your original data file, using a tool like Microsoft Excel, and then reimport your file to confirm that all of the errors have been corrected.

3.5.4.2

a) Use Resolution Pages to Fix Errors in the Dataset

An alternative to correcting your import file, is to make corrections to your imported dataset within WQX Web. You can click on the links next to a specific type of validation error to navigate to a page where you can resolve the error. For example, if a value from your import file did not match a valid domain value in WQX, a resolution page will let you correct the value, by picking a valid value from a list, and, if you wish, create a translation so you will not have to make the same correction in the future (which can be a big time-saver). At this time, however, not all validation errors can be corrected. If an error is one of these "other" errors, which only show up in the Event Log, then you may be required to correct your original file and then re-import it (as explained previously).

b) Revalidated Changes

When any changes have been made to your dataset, it must be revalidated. This is done, after all changes have been completed, by clicking on the "Revalidate Changes" button (on the Dataset Summary Page). When the button is clicked, all rules will be rechecked against your modified dataset to determine what validation rules, if any, are still broken. The Dataset Summary Page will then provide updated counts of the number of validation errors that originally occurred and the number that are still unresolved.

3.5.5 Export & Submit the Dataset to CDX

Once the validation errors have been resolved, you should export and submit your data file to CDX to make the data final. Technically, you are allowed to submit your data when there are still unresolved validation errors, but any invalid records will be excluded. Once your data has been exported from WQX Web, the Dataset Summary Page will provide a link to the submission file that was created and then the file will be submitted to CDX. CDX will then validate that the file is in the correct XML format and then

send the file to the backend WQX System, which will load it into the official WQX Database. While the file is being processed by CDX and WQX, your dataset status will be "Processing at CDX". For large submission files, this could take more than an hour to process. WQX Web doesn't currently have access to the progress on this step (at CDX and WQX), so it just displays a fixed "% Complete" (e.g. "60% complete") until it receives notification that the file has completed processing by the WQX System. At that point your dataset's status will change to reflect the final outcome by WQX. If the file was processed without any errors, which should generally be the case, then the dataset's status will change to "Completed at CDX". In this case, no further steps are required. Otherwise, the status will change to "Failed at CDX".

3.5.6 Review Downloaded Documents (to determine what happened)

WQX Web should have checked all of the WQX rules before sending your file to CDX (and WQX), so it should be rare for a submission to fail. When the final status of your dataset is "Failed at CDX", then you should review the documents that were downloaded from CDX, to try to determine what happened. There are two files to review:

ValidationResults.xml: this file indicates whether the submission file was formatted correctly and was considered valid by CDX before it passed the file to the backend WQX System to be loaded.

ProcessingReport.xml: this is the processing report created by WQX when it attempted to load your submission file. There are two ways to view this report: As XML or as a web report (in the browser). Generally the web report is much simpler to read (although it only provides a summary of the errors).

3.5.6.1 Contact the Help Desk

If, after reviewing these files, it appears that an error occurred at CDX or in the WQX System, then you should contact the WQX/STORET Help Desk for further assistance. You can do this by sending an email to storet@epa.gov. You should provide them with the Dataset ID # and the error message from the downloaded file.

3.6 Standard Page Features

There are many features within WQX Web that are common to all pages or to a group of pages. These sections describe those common features.

3.6.1 General Page Features

- All dates in the system will be formatted as “MM-DD-YYYY”.
- Pages are designed for screens that are least 1,280 pixels wide (the size of a typical modern laptop).
- Breadcrumb navigation will be available at the top of the page to facilitate navigation to higher-level pages in a hierarchy (see below):

You are here: [Home](#) >> [Import Configurations](#) >> [Import Configuration Detail](#) >> [Translations](#)

- Each page will have links at the bottom to access the STORET Home page, view the privacy notice or contact the STORET/WQX Support. Note: these links navigate out of the application. It's recommended that you right click on them and choose to open them in a new tab or new page (see below):

[STORET Home](#) | [Privacy and Security Notice](#) | [Contact Us](#)

- A navigation panel will exist on the left side of the page to assist you in accessing the system's top-level pages (see below):



- All of the links will navigate to a new page.
- The "Logout" link is a special case that deserves some explanation. When you click the link your session will be closed and you will return to the Login Page at CDX. This is a good practice when you are done using the application because it frees up resources that are used by your application session.

- Also, the Logout link will display the time remaining before you will be automatically logged out (due to inactivity). The time is refreshed every 5 minutes. Any time you perform an action that causes a page to be accessed, the time will reset to its default (45 minutes).

3.6.2 List Page Features

All pages whose purpose is to display a list/table of data will have the following standard features:

- Tables will display a user-specified number of rows (e.g. 500) as defined in your user preferences.
- Row numbers will be displayed to indicate what portion of the total rows you are viewing (e.g. Row 1 - 500 of 29072).
- First, Previous, Next and Last buttons will be available for paging through the list (when there are more than one page of data)
- Column headings can be clicked to sort the list by the selected column. One click will sort in ascending order. A second click will sort in descending order.
- The page will only display data which you have been granted access to.
- Return button – Returns you to the previous page or the page above it in the hierarchy.
- Add New button – Initiates the process of creating a new record for the type of list you are viewing (in most cases this takes you to a detail page where you can add a new record).

Pages with search criteria will include the following:

- Search button – this will initiate the query and return the results to the page.
- Clear button – this will clear the search criteria and previous results.
- Search Criteria – the following types of controls are used for search criteria:
- Dropdown List (see example below)

Organization ID:

provides you a list of allowed values for the criteria. If there is a blank row in the list, then the criteria is optional.

- Link (see example below)

Taxon: [{none}](#)

Click the link to view a full-page list of allowed values. Some lists (like Taxon or Characteristic may include search criteria to find the value you are looking for). If so, enter a partial name and click the Show Values button.

TAXON

Taxon Name (partial)

	Rank	
{none}		
Americorophium salmonis	Species	5/10/2008 3:18:56 AM
Anostomus salmoneus	Species	7/26/2006 10:57:48 AM
Conocara salmoneum	Species	7/26/2006 10:57:48 AM
Ericara salmonea	Species	7/26/2006 10:57:48 AM
Ericara salmoneum	Species	7/26/2006 10:57:48 AM
Prionotus salmonicolor	Species	7/26/2006 10:57:48 AM
Salmonidae	Family	7/26/2006 10:57:48 AM
Salmoniformes	Order	7/26/2006 10:57:48 AM
Salmoninae	Subfamily	7/26/2006 10:57:48 AM
Salmonoidei	Order	7/26/2006 10:57:48 AM
Trachipterus rexsalmonorum	Species	7/26/2006 10:57:48 AM

- Then click the value you are interested in to select it.
- A value of **{none}** indicates the criteria should be ignored
- Date (see example below)

Activity Date Between: 

You may enter a date in the box (with the keyboard), or click on the calendar icon to view a calendar, where you can select a date.

- If there is a date range for criteria
 - entering just a beginning date, will find all values on or after that date
 - entering just an end date will find all values before or on that date
 - entering both dates will find a values between (and including) those dates.
- Text Box (see example below)

Monitoring Location ID:

- Allows you to enter any value you wish, as well as a special wildcard character "%" for partial matching.

For example:

- MS500

will find rows where the value is "MS500"

- MS%

will find rows where the value starts with "MS"

- %500

will find rows that end with "500"

- %S5%

will find rows that contain "S5" anywhere

3.6.3 Detail Page Features

All pages whose purpose is to serve as a form for viewing and editing records will have the following standard features:

- The **Save** button – will validate the data that has changed and then save any changes made to data in the form and then refresh the page. If validation errors are found, the record will be redisplayed (and not saved) and the errors messages will be listed on the page. On exception exists: the Import Configuration Page will save your changes and mark the record invalid if there are validation errors, so you can return and correct them at a later time.
- The **Return** button – will save your changes (if any) and will return you to the previous page, as long as there were no errors while saving.
- The **Cancel** button – will abort any changes made to data on the page since the data was last saved (or since it was retrieved) and then return you to the previous page.
- The **Delete** button – will delete the record displayed on the page. The system will prompt you for confirmation before the record is deleted.
- An **asterisk** at the end of a field label will indicate that the field is always required. However, some fields will be conditionally required based on the existence/non-existence of other values and will not necessarily have an asterisk on their label. The system will notify you of these conditionally required fields when you save the record.

3.6.4 Hybrid Pages

Organization-specific lookup tables are hybrid pages that share most of the features of list pages and detail pages. See section 11 Managing Lookup Tables for more details.

4. Import Configurations

Before proceeding, it is useful to have a basic understanding of the WQX data model. *See Section 3.4 for a simplified model of the data elements that exist in WQX.*

WQX Web provides a way for a user to import data that are commonly stored in spreadsheets or text files and send that data to the WQX System. The way that you tell the system how it should interpret your import file is with an "Import Configuration". Import Configurations allow you to list each column that you have in your import file and map it to data elements that exist in WQX. You can create (and save) an unlimited number of Import Configurations, and you can share them with others, as needed.

Only certain combinations of entities (from the model above) can be imported in an individual import file. For example, Project data must be imported separately from Monitoring Location data. However, Activities, Activity Groups, Results, Result Detection Limit, and Result Lab Sample Preparation data can all be included in a single import file. The following types of imports (and Import Configurations) are supported by the system:

Projects

Monitoring Locations

Monitoring Location Weights

Biological/Habitat Indexes

Activities and Results

This includes: Activities, Activity Groups, Results, Result Detection Limits, and Result Lab Sample Preparation

Activities and Metrics

This includes: Activities, Activity Groups, and Metrics

Activity Groups

There are three methods for creating an Import Configuration:

1. Create a new import configuration from scratch.
2. Copy an existing import configuration
3. Create an import configuration from a saved file

4.1 Creating a New Import Configuration

Click on the "Import Configurations" link on the navigation panel to display the Import Configurations List Page.

ID	Created By	Name	Type	Valid
3120	Ryan Jorgensen	Monitoring Locations	Monitoring Locations	Yes
3684	Ryan Jorgensen	Results Crosstab New	Activities and Results	Yes
3665	Ryan Jorgensen	Results Demo	Activities and Results	Yes
3615	Ryan Jorgensen	Template Results	Activities and Results	Yes
1065	Al Huefner	WLA Monitoring Locations Import	Monitoring Locations	Yes
1064	Al Huefner	WLA Projects Import Configuration	Projects	Yes
1063	Al Huefner	WLA Results Import Configuration	Activities and Results	Yes
2285	Alex Trounov	Copy of USVI	Activities and Results	Yes
2243	Alex Trounov	New Import Configuration	Projects	Yes
2284	Alex Trounov	New Import Configuration	Activities and Results	No
1734	Alex Trounov	NOAA Charles River	Projects	Yes
1736	Alex Trounov	NOAA Charles River	Monitoring Locations	Yes
1763	Alex Trounov	NOAA Charles River Sediment	Activities and Results	Yes

Return Add New  Row 1 - 500 of 1296 First Prev Next Last

Click the “Add New” button.

The New Import Configuration Page will display.

Select which method to use to create a new import configuration.

from scratch

New Import Configuration

Create a new import configuration:

from scratch
 by copying an existing one
 by importing a saved file

Import Configuration Type: Activities and Results ▼

Then select the Import Configuration Type

by copying an existing one

New Import Configuration

Create a new import configuration:

from scratch
 by copying an existing one
 by importing a saved file

Import Configuration Type: Activities and Results ▼

Import Configuration: Ryan Jorgensen ~ 2055 ~ Results Crosstab Example ▼
 Copy Translations

then select the Import Configuration Type and the Import Configuration

If you wish to also copy the translations from that import configuration, select the “Copy Translations” check box.

by importing a saved file

New Import Configuration

Create a new import configuration:

from scratch

by copying an existing one

by importing a saved file

Import Configuration File: *.bin

If you have previously saved an import configuration (as a file), then you can click the Browse button and select an import configuration file

Then click the Continue button to go to the Import Configuration Detail Page, where you can edit and save your new import configuration.

Import Configuration Detail

Type: Activities and Results [Change User Rights](#)
 Owner: Ryan Jorgensen [Change Owner](#) [Show Columns as Numbers](#)
 Name:* [Enable Expert Mode](#)
 Description:
 Column Delimiter:* Comma

Generated Values (not in your import file):

Pick	Entity	Element	Default Value	Format
	Organization	Organization ID	{none}	

Columns (in your import file)

Column	Pick	Entity	Element	Default Value	Format	Translations
Remove A		Activity	Activity ID	<input type="text"/>		0 Add/Edit
Remove B		Activity	Activity Type	{none}		0 Add/Edit
Remove C		Activity	Activity Media Name	{none}		0 Add/Edit
Remove D		Activity	Activity Start Date	<input type="text"/>	<input type="text"/>	0 Add/Edit
Remove E		Activity Project	Project ID	{none}		0 Add/Edit
Remove F		Activity	Monitoring Location ID	{none}		0 Add/Edit
Remove G		Result	Characteristic Name	{none}		0 Add/Edit
Remove H		Result	Method Speciation	{none}		0 Add/Edit
Remove I		Result	Result Sample Fraction	{none}		0 Add/Edit
Remove J		Result	Result Value	<input type="text"/>		0 Add/Edit
Remove K		Result	Result Unit	{none}		0 Add/Edit
Remove L		Result	Result Status ID	{none}		0 Add/Edit
Remove M		Result	Result Analytical Method ID	{none}		0 Add/Edit
Remove N		Result	Result Analytical Method Context	{none}		0 Add/Edit

Column Header (tab delimited to copy into Excel)

Now you can modify the import configuration to match your import file.

Name:

This is the name that will be displayed on all other pages, when you select an import configuration.

Description:

This is optional if you wish to provide more information about the use of this import configuration.

Column Delimiter:

This is the character you will use in your import file to designate the start of each new column. You can choose from a comma, tab, tilde, or pipe character. A tab or comma are most commonly used, since Microsoft Excel can save a spreadsheet as a "tab-delimited (*.txt)" file or a "CSV (*.csv)" file (comma-separated value).

4.1.1 Generated Values (not in your import file)

This section of the page is for managing data elements whose values will be generated by the system. This is useful for an element that is not included in your import file and whose value will be the same for every row of the file.

New import configurations include one generated element by default: "Organization ID". Since only one Organization ID is allowed per file, it's simpler to generate the value for Organization ID (for each record), rather than having to provide the same value on every row of your file.

To Add a Generated Value...

Click the Pick List button  to display a list of data elements.

Entity		Element	
Activity	<input type="checkbox"/>	Activity Bottom Depth/Height Measure	
Activity	<input type="checkbox"/>	Activity Bottom Depth/Height Measure Unit	
Activity	<input checked="" type="checkbox"/>	Activity Comment	
Activity	<input type="checkbox"/>	Activity Depth Altitude Reference Point	
Activity	<input type="checkbox"/>	Activity Depth/Height Measure	
Activity	<input type="checkbox"/>	Activity Depth/Height Unit	
Activity	<input type="checkbox"/>	Activity End Date	
Activity	<input type="checkbox"/>	Activity End Time	
Activity	<input type="checkbox"/>	Activity End Time Zone	

When you check the box next to an element in the list and click the OK button, the system will add that element to the table of Generated Values.

Import Configuration Detail

Type: Activities and Results [Change User Rights](#)

Name:* Bacteria Results [Show Columns as Numbers](#)

Description: [Enable Expert Mode](#)

Column Delimiter:* Comma

Generated Values (not in your import file):

Pick	Entity	Element	Default Value	Format
	Organization	Organization ID	WQXTEST	
	Activity	Activity Comment	<input type="text"/>	
	Activity Project	Project ID	{none}	

Likewise, if you uncheck the box next to an element in the list and click the OK button, then the element will be removed.

Each generated value [row] includes an Entity [name], Element [name], Default Value, and, if appropriate, a Format. The Default Value will be displayed as a link or in a text box:

Link: If the element is constrained by a list of allowed values, then it will be displayed as a link. In the example above, links are displayed for Organization ID and Project ID. Links display "{none}" when no value has been set. When you click the link, a list of allowed values will be displayed. If

the list is large, you may also be presented with criteria to find the value you are interested in. For example: clicking on the link for Project ID will display the following:

PROJECT

Organization

Project ID (partial)

Once you've entered the Organization [ID], and clicked the Show Values button, the list of matching Projects will be displayed:

PROJECT

Organization

Project ID (partial)

	Name	Last Change Date
{none}		
1	Devola	1/25/2013 4:12:16 PM
1024	Miscellaneous ODOT Data Supplied to Ohio EPA	2/14/2013 1:22:06 PM
1032	Reference Data - Resampled	2/14/2013 1:22:06 PM
1050	Invalid Samples	2/13/2013 6:03:43 PM
1085	Walhonding River/Muskingum River Tributaries 2010	2/14/2013 1:22:06 PM

Click the link for the desired Project ID, and that value will now be displayed as the Default Value in your import configuration.

Generated Values (not in your import file):				
Pick	Entity	Element	Default Value	Format
	Organization	Organization ID	WQXTEST	
	Activity	Activity Comment	<input type="text"/>	
	Activity Project	Project ID	1024	

Text Box: If the generated element is not constrained by a list of values, its default value will be displayed in a text box. In this example, Activity Comment's default value is in a text box. The text box allows any value you wish to enter.

Note: Although generated values must have a value when you import a file, it is not mandatory to set their value in your import configuration. You are given another opportunity to set generated values each time you import a file. See *Section 5.2* for more details.

For example, suppose you have a policy of creating data files for each project that you have. You don't want to include the Project ID on every row of your file because it's always the same (within a file), so you set up Project ID as a generated value. Because the value will be different for each import file, you don't set a default value for Project ID in your import configuration. In this case, each time you import a new file you will be asked to provide the Project ID for that import file.

If you had the policy described above, but one particular Project ID was used most of the time, then you might choose to set the Project ID in the import configuration. You will still be allowed to override the default value each time you import a new file.

4.1.2 Columns (in your import file)

This section of the page is used to map the columns in your import file to data elements in WQX.

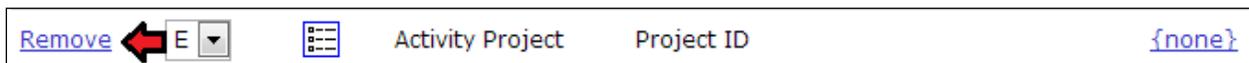
For a new import configuration, you are provided with an initial set of columns and elements that are commonly used.

Columns (in your import file)							
	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	A		Activity	Activity ID	<input type="text"/>		0 Add/Edit
Remove	B		Activity	Activity Type	{none}		0 Add/Edit
Remove	C		Activity	Activity Media Name	{none}		0 Add/Edit
Remove	D		Activity	Activity Start Date	<input type="text"/>	<input type="text"/>	0 Add/Edit
Remove	E		Activity Project	Project ID	{none}		0 Add/Edit
Remove	F		Activity	Monitoring Location ID	{none}		0 Add/Edit
Remove	G		Result	Characteristic Name	{none}		0 Add/Edit
Remove	H		Result	Method Speciation	{none}		0 Add/Edit
Remove	I		Result	Result Sample Fraction	{none}		0 Add/Edit
Remove	J		Result	Result Value	<input type="text"/>		0 Add/Edit
Remove	K		Result	Result Unit	{none}		0 Add/Edit
Remove	L		Result	Result Status ID	{none}		0 Add/Edit
Remove	M		Result	Result Analytical Method ID	{none}		0 Add/Edit
Remove	N		Result	Result Analytical Method Context	{none}		0 Add/Edit

Each row in the table (above) represents a column in your import file and describes how that column maps to one or more elements in WQX.

Each row has the following features.

- **"Remove"** Link: click this link to remove a row (i.e. import column).



- **Column:** this represents the column's position in your import file. Depending on the value in your user preferences, the position will be represented by a number (1, 2, 3...) or a letter (A, B, C...). Likewise, you can temporarily toggle this setting by clicking on the "Show Columns as Numbers" or "Show Column as Letters" link.

Import Configuration Detail

Type: Activities and Results [Change User Rights](#)

Owner: Ryan Jorgensen [Change Owner](#) [Show Columns as Numbers](#)

Name: * [Disable Expert Mode](#)

If you typically view your import file using a tool like Microsoft Excel, then letters may be preferred (to numbers) because Excel uses letters for each column in a spreadsheet.

If you wish to change a column's position, select a new value from the dropdown list.

	Column	Pick	Entity	Element
Remove	A		Activity	Activity Type
Remove	B		Activity	Activity Media Name
Remove	C		Activity	Activity ID
Remove	D		Activity	Activity Start Date
Remove	A		Activity	Monitoring Location ID
Remove	B		Activity	Monitoring Location ID
Remove	C		Result	Characteristic Name
Remove	D		Result	Characteristic Name
Remove	E		Result	Characteristic Name
Remove	F		Result	Characteristic Name

After the new position is selected, the column positions update accordingly (i.e. "Activity Start Date" moves from Column D to Column B, in this example).

	Column	Pick	Entity	Element
Remove	A		Activity	Activity Type
Remove	B		Activity	Activity Start Date
Remove	C		Activity	Activity Media Name
Remove	D		Activity	Activity ID
Remove	E		Activity	Monitoring Location ID
Remove	F		Result	Characteristic Name

- Pick:** Click this button to pick the data element(s) that are mapped to an import column. Click the last button in the table to add a new column to your import configuration (and to map the elements for the new column).

Remove	N		Result	Result Analytical Method Context	{none}

After clicking this button a list of elements will display

Entity		Element	
Activity	<input type="checkbox"/>	Activity Bottom Depth/Height Measure	
Activity	<input type="checkbox"/>	Activity Bottom Depth/Height Measure Unit	
Result	<input checked="" type="checkbox"/>	Result Detection Condition	
Result	<input type="checkbox"/>	Taxonomist Accreditation Authority	
Result	<input type="checkbox"/>	Taxonomist Accreditation Indicator	
Result	<input type="checkbox"/>	Unidentified Species ID	
Result	<input type="checkbox"/>	Upper Confidence Limit	
Result Attachment	<input type="checkbox"/>	Result Attachment File Name	
Result Attachment	<input type="checkbox"/>	Result Attachment Type	
Result Detection Limit	<input checked="" type="checkbox"/>	Result Detection/Quantitation Limit Measure	
Result Detection Limit	<input checked="" type="checkbox"/>	Result Detection/Quantitation Limit Type	
Result Detection Limit	<input checked="" type="checkbox"/>	Result Detection/Quantitation Limit Unit	

Elements are grouped by the entity they belong to. For example, Activity-level elements and Result-level elements are group separately.

Select one or more elements that you wish to add. The order you select them in is not important at this time...

After you click the OK button, the elements will be added to your import configuration.

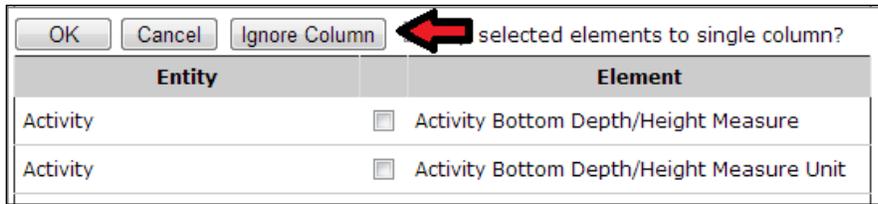
Remove	M		Result	Result Analytical Method ID	{none}	0	Add/Edit
Remove	N		Result	Result Analytical Method Context	{none}	0	Add/Edit
Remove	O		Result	Result Detection Condition	{none}	0	Add/Edit
Remove	P		Result Detection Limit	Result Detection/Quantitation Limit Measure	<input type="text"/>	0	Add/Edit
Remove	Q		Result Detection Limit	Result Detection/Quantitation Limit Type	{none}	0	Add/Edit
Remove	R		Result Detection Limit	Result Detection/Quantitation Limit Unit	{none}	0	Add/Edit

You are allowed to map more than one data element to a single import column. To do this, you need to check the checkbox at the top of the list (titled "Map selected elements to [a] single column").

Entity		Element	
Activity	<input type="checkbox"/>	Activity Bottom Depth/Height Measure	

See Section 4.6 (Advanced Features) for more information.

You are also allowed to have a column mapped to no elements. This tells the system to ignore the column in that position in your import file. A quicker way to do this is to click the "Ignore Column" button on the Elements Pick List



and then the column will be ignored

Remove						
Remove	O		Result	Result Detection Condition	{none}	0 Add/Edit
Remove	P		Result Detection Limit	Result Detection/Quantitation Limit Measure	<input type="text"/>	0 Add/Edit
Remove	Q		Result Detection Limit	Result Detection/Quantitation Limit Type	{none}	0 Add/Edit
Remove	R		Result Detection Limit	Result Detection/Quantitation Limit Unit	{none}	0 Add/Edit
Remove	S		{Ignore Column}			

- Entity:** This shows the name of the entity that an element belongs to. If a column is not mapped to any elements, then "{Ignore Column}" will be displayed (which means this column in your import file will be ignored).
- Element:** This shows the name of the data element(s) that are mapped to a specific import column.
- Default Value:** Set a default value if you wish to have the system fill in a value for this data element when one is not provided in your import file. As mentioned previously, default values are displayed in two different ways: links or text boxes, depending on whether the element is constrained by a list of allowed values. When the default value is a link, and has not been set, it will display "{none}".

Note: default values behave a bit differently when a column is mapped to more than one data element. See Section 4.6 (Advanced Features) for more information.

If you wish to remove the default value when the value is displayed as a link, click the link and select the value titled "{none}" from the list of values.

- Format:** In order for the system to know how to interpret certain types of data in your import file, a format may need to be selected. The system requires that you indicate the format you plan to use for the following types of data: dates, times, latitude, longitude, and yes/no fields. For example: below we have indicated that our Activity Start Date will be formatted as "MM/DD/YYYY" (e.g. 05/04/2013, 05-04-2013, or 05.04.2013)

	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	D		Activity	Activity Start Date	<input type="text"/>	MM/DD/YYYY	t

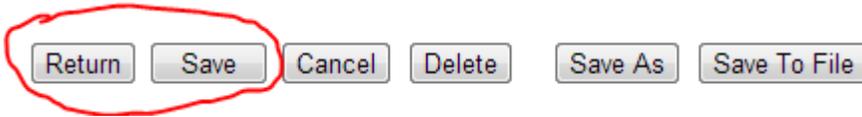
- Translations:** Displays the number of translations that have been created for a specific import column. Also, provides a link to add or edit the list of translations.

Translations

2 [Add/Edit](#)

See the next section for details on managing translations.

Once you have completed the mapping process and filled in defaults and formats, click the Save button (or Return button) to save your changes.



Your import configuration will then be checked to make sure it is valid. If there are any errors, they will be displayed at the top of the page.

Import Configuration Detail

The import configuration has been saved, but is invalid and cannot be used until the warnings are resolved.

* Based on the current elements you have included, the following elements would also be required (once per entity): **Characteristic Name**

* Activity Start Date must have a format.

Type: Activities and Results [Change User Rights](#)

Owner: Ryan Jorgensen [Change Owner](#) [Show Columns as Numbers](#)

Name:* [Enable Expert Mode](#)

Description:

Column Delimiter:*

In the example above, an element (Characteristic Name) needs to be added to the import configuration and the Activity Start Date needs to have its format indicated. While these issues remain, your import configuration will be flagged as invalid and will not be able to be used when importing a file.

Correct the issues described and save your changes again.

If the import configuration is valid, the errors will disappear and a message will state that the import configuration was saved successfully.

4.2 Managing Translations for an Import Column

Translations are used to automatically convert a value in your import file to an alternate value in the dataset that will be sent to EPA. Most often, translations are used to convert a value that is not compatible with WQX into something that is. For example, a translation could be used to convert “DO” in your import file to “Dissolved oxygen (DO)” in your dataset (making the value valid for WQX).

Translations can also be used to convert one value in the import file to multiple values in your dataset. See Section 4.6 (Advanced Features) for more information.

To add or edit translations:

Select the Add/Edit link in the Translations Count column of your import configuration.

Column	Pick	Entity	Element	Default Value	Format	Translations
A		Result	Characteristic Name	{none}		0 Add/Edit

This takes you to the Translations Page for that import column.

Translations	
Del	Translate From: Translate To: Characteristic Name
<input type="checkbox"/>	DO Dissolved oxygen (DO)
<input type="checkbox"/>	HCl Hydrochloric acid
<input type="checkbox"/>	<input type="text"/> {None}

Return Save Cancel Delete

Each translation has at least two parts: the value from the import file (labeled “Translate From”) and the value for the data element(s) in the dataset (labeled “Translate To”). The example above shows a translation for “DO” in the import file that will create a value of “Dissolved oxygen (DO)” for the Characteristic Name element in your dataset.

The bottom row of the table can be used for adding a new translation. Once you’ve entered the appropriate values on the bottom row, clicking the Save button will save your new translation and give you another blank row where you can add an additional translation, if you wish.

To delete a translation:

- Check the Del checkbox next to one or more translations
- Click the Delete button to remove the translations
- Click the Save button (or Return button) to save the changes.

4.3 Viewing/Editing an Import Configuration

Click on the “Import Configurations” link on the navigation panel or click on the “Create or Edit an Import Configuration” link on the Home Page to display the Import Configurations list page.

Import Configurations				
ID	Owner	Name	Type	Valid
2157	Ryan Jorgensen	Import Monitoring Locations	Monitoring Locations	Yes
2158	Ryan Jorgensen	Import Projects	Projects	Yes
2159	Ryan Jorgensen	Import Results	Activities and Results	Yes
2043	Ryan Jorgensen	Monitoring Locations Simple	Monitoring Locations	Yes
1064	Ryan Jorgensen	Projects Full	Projects	Yes
1080	Ryan Jorgensen	Projects Simple	Projects	Yes
1351	Ryan Jorgensen	R10	Activities and Results	No
2160	Ryan Jorgensen	Results Crosstab New	Activities and Results	Yes
2139	Ryan Jorgensen	Results Crosstab Old	Activities and Results	Yes
2155	Ryan Jorgensen	Results Demo	Activities and Results	Yes
1092	Ryan Jorgensen	Results Expanded	Activities and Results	Yes

Return Add New Row 1 - 243

Click on the link for the Import Configuration you wish to view. The Import Configuration Details page will be displayed, where you can view or edit the import configuration.

Note: While you have a dataset in the system that relates to an import configuration, certain types of changes to the import configuration are not allowed (such as changing column positions, data elements that map to them, or deleting the import configuration). The system will display a message at the top of

the Import Configuration Details page for any Import Configuration that has associated datasets. You will have to delete the associated dataset(s) before you will have full access to change the import configuration. *See Section 5 for an explanation of datasets.*

Import Configuration Detail

Certain types of changes to this import configuration have been restricted while there are existing datasets that depend on it. [View Dataset\(s\)](#)

Type: Activities and Results [Change User Rights](#)

Owner: Ryan Jorgensen [Change Owner](#) [Show Columns as Numbers](#)

Name:* [Enable Expert Mode](#)

Description:

Column Delimiter:*

4.4 Deleting an Import Configuration

You can delete an import configuration by clicking the Delete button on the Import Configuration Detail page.

Delete this import configuration?

Type 'Yes' and click 'OK'.

Confirm the deletion by typing "Yes" in the box and clicking the OK button.

The system will return you to the Import Configuration list page after performing the delete.

4.5 Managing Users' Rights on an Import Configuration

Click the "Change User Rights" link on the top-right side of the Import Configuration Detail page...

Import Configuration Detail

Type: Activities and Results [Change User Rights](#) 

Owner: Ryan Jorgensen [Change Owner](#) [Show Columns as Numbers](#)

Name:* [Disable Expert Mode](#)

Description:

Column Delimiter:*

... and the User Rights page will then be displayed.

User Access Rights

Import Configuration: Ryan Jorgensen ~ 1351 ~ R10

	User	Access Type
Delete	Ryan Jorgensen	Edit/Delete
Add		Read Only

To assign a new user rights to this import configuration:

1. Navigate to the last row of the list labeled "Add".
2. Choose the user.
3. Choose the access type you wish the user to have:
 - a. Read Only – User can view the import configuration but can't modify or delete it.
 - b. Edit – User can view and edit the import configuration but can't delete it.
 - c. Edit/Delete – User can view, edit, and delete the import configuration.

To remove a user's rights to an organization:

Click the Delete link for the appropriate row.

Click the Save button to save your changes (and remain on the page). Click the Return button to save and return to the previous page.

4.6 Import Configuration – Advanced Features

Import Configurations can be leveraged in a number of powerful ways. However, that power also comes with some extra complexity. This section will highlight some of the powerful features and provide some specific examples of how to solve some problems that you may be faced with.

One of the features of an import configuration is the ability to map one import column to more than one WQX element.

To do this, click on the Pick List Button

Columns (in your import file)							
	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	A ▾		Activity	Activity ID			0 Add/Edit
		 					

This will open the Elements Pick List. At the top of the page, check the box that says "Map selected elements to a single column". If this is the pick list for an existing import column, rather than a new import column, then this box will be checked automatically.

Map selected elements to a single column

Entity	Element
Activity	<input checked="" type="checkbox"/> Activity Bottom Depth/Height Measure
Activity	<input checked="" type="checkbox"/> Activity Bottom Depth/Height Measure Unit
Activity	<input type="checkbox"/> Activity Comment

Now, all elements that are checked (above) will be mapped to a single column (e.g. Column "B" below).

Columns (in your import file)								
	Column	Pick	Entity	Element	Default Value	Format	Translations	
Remove	A		Activity	Activity ID	<input type="text"/>		0	Add/Edit
Remove	B		Activity	Activity Bottom Depth/Height Measure	<input type="text"/>		0	Add/Edit
			Activity	Activity Bottom Depth/Height Measure Unit	{none}			

The following sections will describe some specific ways that this feature can be used.

4.6.1 Copying one value from your file to more than one element in WQX

One reason to map a column to more than one element is when you actually want to populate both elements with the same value from your import file. Although this is not common, there may be times that it is useful. In this case, you would map the column to the data elements and make sure to not set the default values for any of them and to not create any translations on the column (because defaults and translations will change the behavior).

For example: You want to provide a Top and Bottom Depth on an Activity and do not want to have to provide the Units twice. In the example below, we have mapped the Top Depth Measure[ment] to column A, the Bottom Depth Measure[ment] to column B, and the units for both of them to column C (rather than having to provide the units in columns C and D of our file).

	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	A		Activity	Activity Top Depth/Height Measure	<input type="text"/>		0 Add/Edit
Remove	B		Activity	Activity Bottom Depth/Height Measure	<input type="text"/>		0 Add/Edit
Remove	C		Activity	Activity Bottom Depth/Height Unit	{none}		0 Add/Edit
			Activity	Activity Top Depth/Height Unit	{none}		

Keep in mind that this is only appropriate when you know you would always populate both of these element values together. If it were not true that top and bottom depth are always provided together, it wouldn't be appropriate to always populate their measurement units from the same column in the import file (because the system will log an error whenever there are units without its respective measurement). For example if the import file below was used with this import configuration ...

A	B	C
Top	Bottom	Units
3	6	ft
2		ft
	5	ft

then the WQX Elements would be populated as follows and would cause errors on rows 2 and 3:

Activity				
Activity Top Depth Measure	Activity Top Depth Units	Activity Bottom Depth Measure	Activity Bottom Depth Units	
3	ft	6	ft	
2	ft		ft	Error: Units cannot be provide without a measurement
	ft	5	ft	Error: Units cannot be provide without a measurement

4.6.2 Generating a Value Conditionally

Remember that Generated Values are used to populate an element with a single default value on every row of your file. For example, if you add the element *Activity Start Time Zone* to the Generated Values Section and set its value to "EST" (Eastern Standard Time), then every row of your imported data will get a generated value of "EST" for its *Activity Start Time Zone*. This would be appropriate if you always include a Start Time on every row. However, if there are activities that have a Start Time and some that do not, then a generated value for the Time Zone would not be appropriate.

Suppose you have the following import configuration:

Generated Values (not in your import file):							
Pick	Entity	Element	Default Value	Format			
	Activity	Activity Start Time Zone	EST				
Columns (in your import file)							
	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	A		Activity	Activity Start Date		MM/DD/YYYY	0 Add/Edit
Remove	B		Activity	Activity Start Time		HH:MI:SS PM	0 Add/Edit

and the following (partial) import file:

A	B
Date	Time
09/05/2013	10:35:12 AM
09/06/2013	

then the WQX Elements would be populated as follows, and would cause an error on row 2:

Activity			
Activity Start Date	Activity Start Time	Activity Start Time Zone	
09/05/2013	10:35:12 AM	EST	
09/06/2013		EST	Error: Activity Start Time is required when Activity Start Time Zone is provided

To avoid this error, we want to only generate a value for Time Zone when there is a value for Time in the import file. You can accomplish this by mapping the Time and Time Zone to the same import column and then providing a default value for the Time Zone, as follows:

Generated Values (not in your import file):

Pick	Entity	Element	Default Value	Format

Columns (in your import file)

	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	A		Activity	Activity Start Date		MM/DD/YYYY	0 Add/Edit
Remove	B		Activity	Activity Start Time		HH:MI:SS PM	0 Add/Edit
			Activity	Activity Start Time Zone		EST	

With this import configuration, the same import file...

A	B
Date	Time
09/05/2013	10:35:12 AM
09/06/2013	

will populate the WQX Elements as follows (avoiding the previous error on row 2):

Activity		
Activity Start Date	Activity Start Time	Activity Start Time Zone
09/05/2013	10:35:12 AM	EST
09/06/2013		

There are many other cases where you may wish to generate a value conditionally. Here are a few examples:

- Generate the value for Horizontal Collection Method and Coordinate Reference System Datum on an Activity whenever latitude or longitude is provided on an Activity.
- Generate the value for a Measurement Unit whenever the related Value is provided.

- Generate the value for Activity Group Type whenever an Activity Group ID is provided (this special case is described in more detail in a subsequent section)

It is important to note that there are three distinct behaviors for a Default Value (depending on context).

- When a Default Value exists for an element in the Generated Values section...
 - That element receives the default value 100% of the time.
- When a Default Value exists for an element that is the only element mapped to an import column...
 - That element receives the default value only when there is no value in your import file (in that column position)
 - Otherwise, that element receives the value from the import file
- When a Default Value exists for an element that is one of many elements mapped to an import column...
 - That element receives the default value only when there is a value in your import file (in that column position)
 - and the other elements mapped to that import column that do not have a default will receive the value from the import file

4.6.3 Using Translations to Populate Many Related Elements

One common reason to map one column to more than one element is when the value in your file contains more than one piece of information. Using translations you can break the value into its relevant components. For example: Your lab provides you with a file that includes a parameter code from which you can derive the analyte, sample fraction, units, and analytical method used for a particular result. You could open the file with Microsoft Excel, create four new columns, and manually type in the values for each of these items on every row, or you could map that one import column to the data elements you want to populate and then create translations to document how you want them to be populated. The advantage of this approach is that you only have to do it once in your import configuration and the system will perform the conversion every time you import a file.

For example, if you selected following elements from the Elements Pick List and checked the box to "Map selected elements to a single column" ...

Map selected elements to a single column

Entity	Element
Result	<input checked="" type="checkbox"/> Characteristic Name
Result	<input type="checkbox"/> Confidence Interval
Result	<input type="checkbox"/> Lower Confidence Limit
Result	<input checked="" type="checkbox"/> Method Speciation
Result	<input type="checkbox"/> Precision
Result	<input checked="" type="checkbox"/> Result Analytical Method Context
Result	<input checked="" type="checkbox"/> Result Analytical Method ID
Result	<input type="checkbox"/> Result Comment
Result	<input type="checkbox"/> Laboratory Accreditation Indicator
Result	<input type="checkbox"/> Laboratory Name
Result	<input checked="" type="checkbox"/> Result Sample Fraction
Result	<input type="checkbox"/> Result Sampling Point Name
Result	<input type="checkbox"/> Result Status ID
Result	<input checked="" type="checkbox"/> Result Unit
Result	<input type="checkbox"/> Result Value

Then these elements would all be mapped to a single column (e.g. Column B below):

Columns (in your import file)							
	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	A ▼		Activity	Activity ID	<input type="text"/>		0 Add/Edit
Remove	B ▼		Result	Characteristic Name	{none}		0 Add/Edit
			Result	Method Speciation	{none}		
			Result	Result Analytical Method Context	{none}		
			Result	Result Analytical Method ID	{none}		
			Result	Result Sample Fraction	{none}		
			Result	Result Unit	{none}		
Remove	C ▼		Result	Result Value	<input type="text"/>		0 Add/Edit

Now, click the Add/Edit link for Column B to add translations. The Translations page will open.

Del	Translate From:	Translate To:					
		Characteristic Name	Method Speciation	Result Analytical Method Context	Result Analytical Method ID	Result Sample Fraction	Result Unit
	<input type="text"/>	{None}	{None}	{None}	{None}	{None}	{None}

Notice that there is a text box under "Translate From" where you can place the value that will be in your import file. Under "Translate To" there are six fields (one for each element this import column maps to). These are the values you want to populate in your dataset when the value in "Translate From" shows up in your import file.

Fill in the appropriate values for the translations.

Translate From:	Translate To:					
	Characteristic Name	Method Speciation	Result Analytical Method Context	Result Analytical Method ID	Result Sample Fraction	Result Unit
<input type="text" value="NO3"/>	Nitrate	as NO3	USEPA	353.3	Total	mg/l

Select the Return button to save your translation

Then, if you imported a file like this...

A	B	C
Activity ID	Parameter	Value
M192-2013-05-04F	NO3	.183

then the WQX Elements would be populated as follows:

Activity	Result						
Activity ID	Characteristic Name	Method Speciation	Result Analytical Method Context	Result Analytical Method ID	Result Sample Fraction	Result Unit	Result Value
M192-2013-05-04F	Nitrate	as NO3	USEPA	353.3	Total	mg/l	.183

This is a powerful feature for minimizing unnecessary data in your import file (when values can be derived).

Note: It is important to recognize that when you have a translation on a column that maps to more than one element, you typically need to provide translations for every value that might be used in your import file. If the system does not find a translation to match a value in your import file, it will apply the value from the import file to all elements that are mapped to the column (as described in section 4.5.1).

Note: When you map a column to multiple elements you will typically use defaults or translations (as described in the previous sections). Mixing Default Values and Translations can be done, but is not generally needed and can create more confusing import configurations. If you chose to mix these two methods, be aware of the following rule (when a column maps to more than one data element):

Translations have precedence over default values. When your file is imported, the system will check whether a value in your file matches a translation. If there's a match, it will populate the element values from values in your translation. If there is no match, then it will copy the value from your file into the elements without a default and will populate the rest of the elements with the default values in your import configuration.

4.6.4 Using a Data Element Multiple Times in an Import Configuration

There are places in the Data Model where an element or entity (i.e. set of elements) can have more than one value. Think of this as an element that has more than one value per row in your import file. Here are some examples:

- A Monitoring Location can have multiple Alternate IDs
- An Activity can have multiple...
 - Project IDs
 - Conducting Organizations
- A Metric can have multiple Index IDs
- A Result can have multiple sets of...
 - Frequency Class Information
 - Detection Limit Information
 - Lab Sample Preparation Information
- A Taxon (within a Result) can have multiple...
 - Habits
 - Functional Feeding Groups

To model these scenarios in an import configuration, you should add the repeating elements as many times as needed (each to their own import column). For example: If you know that, in your situation, an Activity can relate to up to two projects, you should add the Project ID twice.

Remove	D ▾	 Activity Project #1	Project ID	{none}	0 Add/Edit
Remove	E ▾	 Activity Project #2	Project ID	{none}	0 Add/Edit

In this case, column D and E of your import file will be used for the Project IDs on an Activity. If an Activity in your import file has only one project, then put the Project ID value in column D or E and leave the other column blank. If it has two projects, then put them in column D and E of your file.

Note, in the image above, that when you include an element more than once in your import configuration, the Entity [Name] includes a #. For example, when you only have one Project ID, the entity is "Activity Project", but when you add a second Project ID, the entities change to "Activity Project #1" and "Activity Project #2" respectively. This highlights the fact that up to two Project references can be made per row of your import file.

There are limitations to which elements can be used more than once, unless you enable "Expert Mode" (described in section 4.7).

A more complex example of repeating elements might be something like Frequency Class Information, which is used to classify a group of taxa that are being counted in a biological survey. Frequency Classes include a descriptor, and for certain types of classes, an upper and lower bound and units. For example: You may be conducting a fish survey and counting the number of fish (of a particular species) and grouping your counts by sex and weight. In this case, sex and weight are each Frequency Class Descriptors and the weight needs a lower/upper bound with a measurement unit. Your import file would need two Frequency Class Descriptors and might contain values, as shown in the table below:

A	B	C	D	E	F
Descriptor 1	Descriptor 2	Lower Bound	Upper Bound	Units	Count
Male	Weight	0	100	g	3
Male	Weight	101	300	g	6
Female	Weight	0	100	g	1
Female	Weight	101	300	g	5

To support this data, your import configuration would look something like the following:

	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	A		Result Frequency Class #1	Frequency Class Descriptor	{none}		0 Add/Edit
Remove	B		Result Frequency Class #2	Frequency Class Descriptor	{none}		0 Add/Edit
Remove	C		Result Frequency Class #2	Frequency Class Lower Bound	<input type="text"/>		0 Add/Edit
Remove	D		Result Frequency Class #2	Frequency Class Upper Bound	<input type="text"/>		0 Add/Edit
Remove	E		Result Frequency Class #2	Frequency Class Unit	{none}		0 Add/Edit
Remove	F		Result	Result Value	<input type="text"/>		0 Add/Edit

This allows a Result, in your import file, to have two sets of Frequency Class Information: the first set (#1) starting at Column A and the second set (#2) starting at Column B. In this example, the first set of Frequency Class Information does not need a Lower/Upper Bound or Units, so they are not included. Otherwise, they could be added (after Column A).

It's useful to understand that, when an import configuration contains an element more than once, the entity # that's assigned is based on the column it is mapped to. Once an element is reused, a new entity # is started, and all elements mapped to subsequent columns will relate to that new entity #.

In the previous example, Column B includes a second Frequency Class Descriptor, which starts "Result Frequency Class #2". All other frequency-class elements (Lower Bound, Upper Bound, and Unit) on Columns C, D, and E, all relate to #2. These entity # assignments are appropriate. However, consider the following example, where that is not the case:

What if we wanted to change our column order in our file like this (with the second "Frequency Class Descriptor" in column E)?

A	B	C	D	E	F
Descriptor 1	Lower Bound	Upper Bound	Units	Descriptor 2	Count
Male	0	100	g	Weight	3
Male	101	300	g	Weight	6
Female	0	100	g	Weight	1
Female	101	300	g	Weight	5

Our intention is to have the Lower Bound, Upper Bound, and Units (in columns B, C, and D) to be part of the Frequency Class that includes the Descriptor in Column E. However, because of the entity # assignment rule, mentioned previously, that does not happen:

	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	A		Result Frequency Class #1	Frequency Class Descriptor	{none}		0 Add/Edit
Remove	B		Result Frequency Class #1	Frequency Class Lower Bound	<input type="text"/>		0 Add/Edit
Remove	C		Result Frequency Class #1	Frequency Class Upper Bound	<input type="text"/>		0 Add/Edit
Remove	D		Result Frequency Class #1	Frequency Class Unit	{none}		0 Add/Edit
Remove	E		Result Frequency Class #2	Frequency Class Descriptor	{none}		0 Add/Edit
Remove	F		Result	Result Value	<input type="text"/>		0 Add/Edit

Because the Descriptor is the first [Frequency Class] Element to be repeated, that marks the beginning of Frequency Class #2. This highlights the importance of checking the entity # when you repeat elements in your import configuration, to make sure your file will be interpreted the way you intend.

If you were to add a Lower Bound, Upper Bound, and Unit before our first descriptor, then the entity #s are correct again.

	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	A		Result Frequency Class #1	Frequency Class Lower Bound	<input type="text"/>		0 Add/Edit
Remove	B		Result Frequency Class #1	Frequency Class Upper Bound	<input type="text"/>		0 Add/Edit
Remove	C		Result Frequency Class #1	Frequency Class Unit	{none}		0 Add/Edit
Remove	D		Result Frequency Class #1	Frequency Class Descriptor	{none}		0 Add/Edit
Remove	E		Result Frequency Class #2	Frequency Class Lower Bound	<input type="text"/>		0 Add/Edit
Remove	F		Result Frequency Class #2	Frequency Class Upper Bound	<input type="text"/>		0 Add/Edit
Remove	G		Result Frequency Class #2	Frequency Class Unit	{none}		0 Add/Edit
Remove	H		Result Frequency Class #2	Frequency Class Descriptor	{none}		0 Add/Edit

In conclusion: if you create more than one entity in an import configuration, it's safest to include the same elements on each entity. If you chose to eliminate some unnecessary elements from one of the entities, be sure that the first element on the second entity is an element that is common to both entities (as was done on the first Frequency Class example).

4.6.5 Special Case: Activity Groups in a file of Activities and Results

Activity Groups are useful when you have a collection of related Activities that you wish to group together for various purposes which include (Field Sets, Replicates, grouping Samples and Subsamples, and grouping Routine Samples with their related Quality Control Samples). In data-modeling terms, the relationship between Activities and Activity Groups is referred to as "many to many" which means that an Activity can belong to many Activity Groups and an Activity Group can contain many Activities. Addressing this complex relationship in a flat file could be challenging, but with the support of some specific features in WQX Web, there are ways to address this that are fairly simple.

An Activity Group contains the following elements: Activity Group ID, Type, Name (optional), and two or more Activity IDs. WQX Web understands the relationship between Activities and Activity Groups and does not require that you indicate the Activity ID (for the Activity Group), because you've already provided it for the Activity on that row. So, at a minimum, you will need a way to provide the Activity Group ID and Type (and optionally Activity Group Name) on a row of your import file.

One way to address this in your import configuration is to map one column to the Activity Group ID and another column to the Type.

	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	A		Activity Group	Activity Group ID	<input type="text"/>		0 Add/Edit
Remove	B		Activity Group	Activity Group Type	{none}		0 Add/Edit

In this example, if you wanted to include a specific Activity in an Activity Group, you would list the Activity Group's ID in column A and its Type in column B. For example:

A	B	C	D	E
Group ID	Group Type	Activity ID	Parameter	Value
F1	Field Set	M192-2013-05-04F	pH	8.3
		M192-2013-05-04F	DO	10.9
F1	Field Set	M192-2013-05-04B	Fecal Coliform	180
R1	Replicate	M192-2013-05-04C1	Chlorophyll a	4.63
		M192-2013-05-04C1	Escherichia	4.63
R1	Replicate	M192-2013-05-04C2	Chlorophyll a	4.63
		M192-2013-05-04C2	Escherichia	5.12

This would create two Activity Groups with two Activities in each group:

Activity Group		Activity
Activity Group ID	Activity Group Type	Activity ID
F1	Field Set	M192-2013-05-04F
		M192-2013-05-04B
R1	Replicate	M192-2013-05-04C1
		M192-2013-05-04C2

If you wanted to avoid the need to provide the Activity Group Type for every group, you could map the Activity Group ID and Type to the same column and provide a default value for the Type. For example, this import configuration would use Column A for "Field Set" Groups and Column B for "Replicate" Groups:

	Column	Pick	Entity	Element	Default Value	Format	Translations
Remove	A		Activity Group #1	Activity Group ID	<input type="text"/>		0 Add/Edit
			Activity Group #1	Activity Group Type	Field Set		
Remove	B		Activity Group #2	Activity Group ID	<input type="text"/>		0 Add/Edit
			Activity Group #2	Activity Group Type	Replicate		

This would also allow one Activity to belong to two Activity Groups (if needed) because there are now two Activity Groups per row (in your import file):

This import file...

A	B	C	D	E
Field Set Group ID	Replicate Group ID	Activity ID	Parameter	Value
F1		M192-2013-05-04F	pH	8.3
		M192-2013-05-04F	DO	10.9
F1		M192-2013-05-04B	Fecal Coliform	180
F2	R1	M192-2013-05-04C1	Chlorophyll a	4.63
		M192-2013-05-04C1	Escherichia	4.63
F2	R1	M192-2013-05-04C2	Chlorophyll a	4.63
		M192-2013-05-04C2	Escherichia	5.12

would create three Activity Groups with two Activities in each:

Activity Group		Activity
Activity Group ID	Activity Group Type	Activity ID
F1	Field Set	M192-2013-05-04F
		M192-2013-05-04B
F2	Field Set	M192-2013-05-04C1
		M192-2013-05-04C2
R1	Replicate	M192-2013-05-04C1
		M192-2013-05-04C2

4.6.6 Attachments

WQX Web allows you to attach external files (like pictures, documents, etc.) to any Project, Monitoring Location, Activity or Result. There are two parts to doing this:

- Reference the file name and type for each attachment in your import file.
- Include all of the attachment files in a zip file and upload it at the same time as your import file.

To allow you to include the attachment file name and type in your import file, you need to create two columns in your import configuration and map them to these two elements. For example.:

Remove	<input type="text" value="D"/>		Activity Attachment	Activity Attachment File Name	<input type="text"/>	0 Add/Edit
Remove	<input type="text" value="E"/>		Activity Attachment	Activity Attachment Type	<input type="text"/>	0 Add/Edit

Then, if you imported a file like this:

A	B	C	D	E
Activity ID	Parameter	Value	Photo File Name	File Type
M192-2013-05-04F	pH	8.3	P1070346.JPG	JPG
M192-2013-05-04F	DO	10.9		
M192-2013-05-04B	Fecal Coliform	180	P1070347.JPG	JPG
M192-2013-05-04C1	Chlorophyll a	4.63		
M192-2013-05-04C1	Escherichia	4.63		
M192-2013-05-04C2	Chlorophyll a	4.63	P1070348.JPG	JPG
M192-2013-05-04C2	Escherichia	5.12		

You would have three Activities with attachments (photos) related to each one.

If all of your attachments were the same type, you could drop Column E and map the Attachment Type to Column D (with a default value), like this:

Remove	<input type="text" value="D"/>		Activity Attachment	Activity Attachment File Name	<input type="text"/>	0 Add/Edit
			Activity Attachment	Activity Attachment Type	<input type="text" value="JPG"/>	

Then your import file would look like this:

A	B	C	D
Activity ID	Parameter	Value	Photo File Name
M192-2013-05-04F	pH	8.3	P1070346.JPG
M192-2013-05-04F	DO	10.9	
M192-2013-05-04B	Fecal Coliform	180	P1070347.JPG
M192-2013-05-04C1	Chlorophyll a	4.63	
M192-2013-05-04C1	Escherichia	4.63	
M192-2013-05-04C2	Chlorophyll a	4.63	P1070348.JPG
M192-2013-05-04C2	Escherichia	5.12	

4.7 Expert Mode

Several additional features of an import configuration are only made available when "Expert Mode" is enabled. As the name implies, this mode is intended for users that have a very good understanding of an import configuration and the WQX Data Model. It is highly recommended that a user review all of the previous sections (4.0 – 4.5) before reading this section.

One of the primary reasons to enable Expert Mode is for support of crosstab files (*see Section 1 Glossary for more information*). However, some of the additional features may be useful in other contexts as well.

There is a link in the upper right corner of the page to "Enable Expert Mode"

Import Configuration Detail

Type:	Activities and Results	Change User Rights
Owner:	Ryan Jorgensen Change Owner	Show Columns as Numbers
Name:*	<input type="text" value="Crosstab Example"/>	Enable Expert Mode

4.7.1 Header-Row Columns

In Expert Mode, there is a new section of the page called "Header-Row Columns". This section of the page is used to indicate header rows (in your import file) which you want to ignore, or to map specific header rows and columns (in your import file) that contain data that you wish to map to elements in WQX.

The "Header-Row Columns" section looks similar to the "Columns" section on a standard import configuration (*see section 4.1.2 of this document*), but it includes two additional attributes (Row and Entity #):

Header-Row Columns (a single value here applies to each regular row of your import file):							
Row	Column	Pick	Entity	Entity #	Element	Format	Translations

- Row:** This indicates the row number (e.g. 1, 2, 3) for the header row. The Row # can be changed by picking a new value from the drop-down list



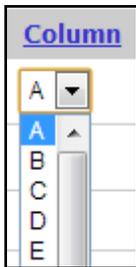
The values in the list are always one more than the current number of rows. For example: if you have created 3 rows so far, then the list will include 1 – 4.

- **Entity #:** This indicates the entity number that a particular element belongs to. If you had multiple Activities, for example, you would be able to tell that a particular element is for the first Activity (i.e. "1") or second Activity (i.e. "2") or even that an element is for the first Result under the second Activity (i.e. Result "2.1"). *This will be covered in more detail later on.*

This attribute is also worth noting:

- **Column:** this represents the column position of an element in a header row of your import file. In conjunction with the Row #, this targets a specific row and column (i.e. cell – in spreadsheet terms). In other words, elements in the header relate to a specific row and column (i.e. cell) in the header.

The column position can be changed by picking a new value from the drop-down list



The values in the list are equal to the number of Regular Columns currently defined in the import configuration. **Because of this, it often preferable to set up your Regular Columns (described in Section 4.7.2) before setting up your Header-Row Columns (here).**

The list of Header-Row Columns can also be sorted by their Row [Position] or Column [Position] by clicking on the links at the top of the list:

Header-Row Columns (a single value here applies to each regular row of your import file):								
Row	Column	Pick	Entity	Entity #	Element	Format	Translations	

In cases where you have many Header-Row Columns it can be useful to sort them one way or the other.

Header-Row Columns have two purposes, detailed in the next two sections:

4.7.1.1 Ignoring a row in your file

When you first enable Expert Mode, the Header-Row Columns section looks like this:

Header-Row Columns (a single value here applies to each regular row of your import file):								
Row	Column	Pick	Entity	Entity #	Element	Format	Translations	
Remove	1		{Ignore Row}					

Notice that Row 1 says "{Ignore Row}". This indicates that the first row of your file will be ignored. This is useful when the first row of your import file has column headings, that you do not want to import.

In Expert Mode, you are allowed to ignore many header rows, if needed.

Click on the Pick List Button at the bottom of the list...

Header-Row Columns (a single value here applies to each regular row of your import file):								
	Row	Column	Pick	Entity	Entity #	Element	Format	Translations
Remove	1			{Ignore Row}				
								

and then click on the "Ignore Row" button on the Elements Pick List that pops up...

<input type="button" value="OK"/>	<input type="button" value="Cancel"/>	<input type="button" value="Ignore Row"/>	
Entity		Element	
Activity	<input type="checkbox"/>	Activity Bottom Depth/Height Measure	
Activity	<input type="checkbox"/>	Activity Bottom Depth/Height Unit	
Activity	<input type="checkbox"/>	Activity Comment	

Now you will have two header rows that are ignored:

Header-Row Columns (a single value here applies to each regular row of your import file):								
	Row	Column	Pick	Entity	Entity #	Element	Format	Translations
Remove	1			{Ignore Row}				
Remove	2			{Ignore Row}				
								

4.7.1.2 Mapping a header row and column to an element

A header row and column can be mapped to an element whose value should be applied to all (regular) rows of your import file. This allows you to avoid creating a column in your import file when the value on every row will be the same. Instead, you can provide the value once at the top of your file.

Suppose we want to relate an entire file of activities and results with up to three projects and also be able to enter a single comment for all of the activities in our file. We might build a file like this (with the first three rows as header rows):

A	B	C	D	E
Project ID (1-3):	MAIN	PUB	VOL-SP	
Activity Comment:	Earth Day Volunteer Sampling			
Date	Activity ID	Location ID	Parameter	Value
05/04/2013	M192-2013-05-04F	M192	pH	8.3
05/04/2013	M192-2013-05-04F	M192	DO	10.9
05/04/2013	M192-2013-05-04F	M192	Temperature	20.6
05/04/2013	M121-2013-05-04F	M121	pH	9.1
05/04/2013	M121-2013-05-04F	M121	DO	13.48
05/04/2013	M121-2013-05-04F	M121	Temperature	19.7

Then, to support these three header rows in our import file, we would make the following changes in the "Header-Row Columns" Section of our import configuration:

Click on the Pick List Button at the bottom of the list...

Header-Row Columns (a single value here applies to each regular row of your import file):

	Row	Column	Pick	Entity	Entity #	Element	Format	Translations
Remove	1			{Ignore Row}				

Then check the box for "Project ID" on the Elements Pick List

Activity Group	<input type="checkbox"/>	Activity Group Name
Activity Group	<input type="checkbox"/>	Activity Group Type
Activity Project	<input checked="" type="checkbox"/>	Project ID
Organization	<input type="checkbox"/>	Organization ID

Click OK.

Now Project ID will be mapped to Row 2, Column A (by default):

Header-Row Columns (a single value here applies to each regular row of your import file):

	Row	Column	Pick	Entity	Entity #	Element	Format	Translations
Remove	1			{Ignore Row}				
Remove	2	A		Activity Project	1.1	Project ID		0 Add/Edit

Change it to Row 1, Column B to match our import file. This will also cause the "Ignore Row" to move to Row 2.

Header-Row Columns (a single value here applies to each regular row of your import file):

	Row	Column	Pick	Entity	Entity #	Element	Format	Translations
Remove	1	B		Activity Project	1.1	Project ID		0 Add/Edit
Remove	2			{Ignore Row}				

Repeat this process to add two more "Project ID" elements and move them to Row 1 Column C and Row 1 Column D:

Header-Row Columns (a single value here applies to each regular row of your import file):

	Row	Column	Pick	Entity	Entity #	Element	Format	Translations
Remove	1	B		Activity Project	1.1	Project ID		0 Add/Edit
Remove	1	C		Activity Project	1.2	Project ID		0 Add/Edit
Remove	1	D		Activity Project	1.3	Project ID		0 Add/Edit
Remove	2			{Ignore Row}				

Now, add an "Activity Comment" element and map it to Row 2 Column B.

See below how our Import Configuration now fully describes the first three header rows of our import file (colored boxes have been added to highlight how the import configuration maps to the import file):

Header-Row Columns (a single value here applies to each regular row of your import file):

	Row	Column	Pick	Entity	Entity #	Element	Format	Translations
Remove	1	B		Activity Project	1.1	Project ID		0 Add/Edit
Remove	1	C		Activity Project	1.2	Project ID		0 Add/Edit
Remove	1	D		Activity Project	1.3	Project ID		0 Add/Edit
Remove	2	B		Activity	1	Activity Comment		0 Add/Edit
Remove	3			{Ignore Row}				

Import File

A	B	C	D	E
Project ID (1-3):	MAIN	PUB	VOL-SP	
Activity Comment:	Earth Day Volunteer Sampling			
Date	Activity ID	Location ID	Parameter	Value
05/04/2013	M192-2013-05-04F	M192	pH	8.3
05/04/2013	M192-2013-05-04F	M192	DO	10.9
05/04/2013	M192-2013-05-04F	M192	Temperature	20.6
05/04/2013	M121-2013-05-04F	M121	pH	9.1
05/04/2013	M121-2013-05-04F	M121	DO	13.48
05/04/2013	M121-2013-05-04F	M121	Temperature	19.7

1B, 1C, and 1D of our file map to a Project ID

2B of our file maps to an Activity Comment

Row 3 is ignored

If we were to complete the Import Configuration, by defining all of the Regular Columns, and then import this file, then the following WQX Elements would be populated. The elements populated from a Header-Row Column are highlighted in red.

Activity				Activity Project			Result	
Date	Activity ID	Location ID	Activity Comment	Project ID	Project ID	Project ID	Parameter	Value
05/04/2013	M192-2013-05-04F	M191	Earth Day Volunteer Sampling	MAIN	PUB	VOL-SP	pH	8.3
							DO	10.9
							Temperature	20.6
05/04/2013	M192-2013-05-04F	M121	Earth Day Volunteer Sampling	MAIN	PUB	VOL-SP	pH	9.1
							DO	13.48
							Temperature	19.7

Before wrapping up our discussion of Header-Row Columns, let's clarify how the new Entity # attributes are assigned (in this example).

Header-Row Columns (a single value here applies to each regular row of your import file):

	Row	Column	Pick	Entity	Entity #	Element	Format	Translations
Remove	1	B		Activity Project	1.1	Project ID		0 Add/Edit
Remove	1	C		Activity Project	1.2	Project ID		0 Add/Edit
Remove	1	D		Activity Project	1.3	Project ID		0 Add/Edit
Remove	2	B		Activity	1	Activity Comment		0 Add/Edit
Remove	3			{Ignore Row}				

In Expert Mode the "Entity #" can be a compound value (e.g. "1.3" or "2.2" or even "2.3.1"). This value holds two pieces of information: which entity number an element belongs to, and, in some cases, which entity is the parent of that entity.

Entities exist in a hierarchy, where one can be the child of another. In our example above, we have an Activity with an Entity # "1", which means it's the first Activity. We also have several "Activity Project" entities with Entity #s "1.1", "1.2", and "1.3", which means that they are the first, second and third "Activity Project" entities under the first Activity. *See the WQX Data Model in Section 3.4 for an overview of this hierarchy – although "Activity Project" is not specifically shown.* Also, these Entity #s will be more useful when we discuss how to support a crosstab-style import file (in Section 4.7.3).

4.7.2 Regular Columns

In Expert Mode, the "Columns" section (described in Section 4.1.2 of this document) is now called "Regular Columns" to distinguish it from the "Header-Row Columns" section which is also on the page. Initially, the label at the top of this section will indicate that the "Regular Columns [are] starting at row 2 of our import file". This is because Row 1 is defined as a header row (by default).

Regular Columns (starting at row 2 of your import file)

	Column	Pick	Entity	Entity #	Element	Default Value	Format	Translations
Remove	A		Activity	1	Activity ID	<input type="text"/>		0 Add/Edit
Remove	B		Activity	1	Activity Type	{none}		0 Add/Edit
Remove	C		Activity	1	Activity Media Name	{none}		0 Add/Edit

In other words, the Header-Row Columns section of the page is used to define the columns in each header row of our import file and the Regular Columns section of the page is used to define the columns that are in every subsequent row of our import file.

If we were to create 3 header rows, like we did previously, then the label on our Regular Columns would indicate that the Regular Columns start on row 4.

Regular Columns also have an "Entity #" attribute.

Regular Columns (starting at row 2 of your import file)									
	Column	Pick	Entity	Entity #	Element	Default Value	Format	Translations	
Remove	A		Activity	1	Activity ID	<input type="text"/>		0	Add/Edit
Remove	B		Activity	1	Activity Type	{none}		0	Add/Edit
Remove	C		Activity	1	Activity Media Name	{none}		0	Add/Edit
Remove	D		Activity	1	Activity Start Date	<input type="text"/>	<input type="text"/>	0	Add/Edit
Remove	E		Activity Project	1.1	Project ID	{none}		0	Add/Edit
Remove	F		Activity	1	Monitoring Location ID	{none}		0	Add/Edit
Remove	G		Activity	1	Sample Collection Method ID	{none}		0	Add/Edit
Remove	H		Activity	1	Sample Collection Equipment Name	{none}		0	Add/Edit
Remove	I		Result	1.1	Result Detection Condition	{none}		0	Add/Edit
Remove	J		Result	1.1	Characteristic Name	{none}		0	Add/Edit

Initially, these will all be 1, 1.1, or even 1.1.1, because there are only one of each entity in a default import configuration.

However, if we were to add any element more than once, this would no longer be true.

For example, if we add a second Project ID, and move it to column F, its Entity # will be 1.2 (meaning it's the second Project under the first Activity):

Regular Columns (starting at row 2 of your import file)									
	Column	Pick	Entity	Entity #	Element	Default Value	Format	Translations	
Remove	A		Activity	1	Activity ID	<input type="text"/>		0	Add/Edit
Remove	B		Activity	1	Activity Type	{none}		0	Add/Edit
Remove	C		Activity	1	Activity Media Name	{none}		0	Add/Edit
Remove	D		Activity	1	Activity Start Date	<input type="text"/>	<input type="text"/>	0	Add/Edit
Remove	E		Activity Project	1.1	Project ID	{none}		0	Add/Edit
Remove	F		Activity Project	1.2	Project ID	{none}		0	Add/Edit
Remove	G		Activity	1	Monitoring Location ID	{none}		0	Add/Edit
Remove	H		Activity	1	Sample Collection Method ID	{none}		0	Add/Edit
Remove	I		Activity	1	Sample Collection Equipment Name	{none}		0	Add/Edit
Remove	J		Result	1.1	Result Detection Condition	{none}		0	Add/Edit
Remove	K		Result	1.1	Characteristic Name	{none}		0	Add/Edit

The assignment of Entity #s is straightforward for simple entities, like an Activity Project, with only one element (Project ID). However entities, like an Activity or Result, are more complex and merit additional clarification.

The following rule dictates how WQX Web assigns an Entity #:

When a duplicate element is added to an import configuration, a new entity instance is created at that column position and a new Entity # is assigned. All other elements that belong to that same entity, and are in a higher column position, will also be assigned that Entity #.

The following example will help demonstrate this rule:

Suppose we add a second Activity ID element to our import configuration and move it to Column D:

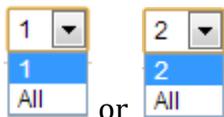
Regular Columns (starting at row 2 of your import file)									
	Column	Pick	Entity	Entity #	Element	Default Value	Format	Translations	
Remove	A		Activity	1	Activity ID	<input type="text"/>		0	Add/Edit
Remove	B		Activity	1	Activity Type	{none}		0	Add/Edit
Remove	C		Activity	1	Activity Media Name	{none}		0	Add/Edit
Remove	D		Activity	2	Activity ID	<input type="text"/>		0	Add/Edit
Remove	E		Activity	2	Activity Start Date	<input type="text"/>		0	Add/Edit
Remove	F		Activity Project	2.1	Project ID	{none}		0	Add/Edit
Remove	G		Activity Project	2.2	Project ID	{none}		0	Add/Edit
Remove	H		Activity	2	Monitoring Location ID	{none}		0	Add/Edit
Remove	I		Activity	2	Sample Collection Method ID	{none}		0	Add/Edit
Remove	J		Activity	2	Sample Collection Equipment Name	{none}		0	Add/Edit
Remove	K		Result	2.1	Result Detection Condition	{none}		0	Add/Edit
Remove	L		Result	2.1	Characteristic Name	{none}		0	Add/Edit

Previously all Activity elements had an Entity # of "1". Now, Column D, is mapped to a second "Activity ID". Two Activity IDs can't exist on the same Activity, so a new Activity is started (i.e. Entity # "2") on column D.

Also, notice that every subsequent Activity element (on columns E, H, I, and J) also has an Entity # of "2". Once a new entity is created, all subsequent elements (in higher column positions) relate to that same Entity #. Likewise, the Activity Project entities on columns F and G, and the Result entities on columns K and L have changed from 1.1 to 2.1, indicating that they now relate to the second Activity, because the second Activity starts at column D.

In addition to the Entity #s changing, notice that some of the Entity # values are in a drop-down list (e.g. columns B, C, E, H, I, J).

When there are more than one of a particular entity instance (e.g. Activity - in this example), but a particular element, on that entity instance, exists only once, then that element gets a drop-down list. There are only two values in the drop-down list: the default entity # assigned by the system, and "All".



If you were to select "All" from the drop-down list for "Activity Media Name" on Column C, for example, then you are saying that you want Column C (of your import file) to be used as the Activity Media Name for all Activities (on a particular row of the import file), not just for Activity #1.

Regular Columns (starting at row 2 of your import file)									
	Column	Pick	Entity	Entity #	Element	Default Value	Format	Translations	
Remove	A		Activity	1	Activity ID	<input type="text"/>		0	Add/Edit
Remove	B		Activity	1	Activity Type	{none}		0	Add/Edit
Remove	C		Activity	All	Activity Media Name	{none}		0	Add/Edit
Remove	D		Activity	2	Activity ID	<input type="text"/>		0	Add/Edit
Remove	E		Activity	2	Activity Start Date	<input type="text"/>		0	Add/Edit

If we were to add a second "Activity Media Name" element and move it to column D, then the drop-down list on Activity Media Name would go away, and the first one will be assigned to Activity #1 and the second one will be assigned to Activity #2.

Regular Columns (starting at row 2 of your import file)								
Column	Pick	Entity	Entity #	Element	Default Value	Format	Translations	
Remove	A		Activity	1	Activity ID	<input type="text"/>		0 Add/Edit
Remove	B		Activity	1	Activity Type	{none}		0 Add/Edit
Remove	C		Activity	1	Activity Media Name	{none}		0 Add/Edit
Remove	D		Activity	2	Activity Media Name	{none}		0 Add/Edit
Remove	E		Activity	2	Activity ID	<input type="text"/>		0 Add/Edit
Remove	F		Activity	2	Activity Start Date	<input type="text"/>	<input type="text"/>	0 Add/Edit

This behavior will be leveraged in our crosstab example in the next section.

4.7.3 Creating an Import Configuration to Support a Crosstab-style Import File

A crosstab file is a special type of spreadsheet or flat file format where column headers contain data that relates to all the rows of the file, and, in some cases, row headers relate to all the columns on a particular row. A crosstab file is more concise than a standard file, because it avoids some of the repetition that occurs in a standard file and typically includes more than one of the same type of entity on a single row of the file. For example you could include many results on a single row (rather than just one).

Here is an example of a crosstab file that has one Activity and three Results (for Temperature, DO, and pH) per row:

A	B	C	D	E	F	G	H
				Characteristic ->	Temperature	DO	pH
				Units ->	Deg C	mg/l	none
Activity ID	Date	Location ID	Result Depth (m)	Fraction ->		Dissolved	
A-1	5/4/2013	ML-1	1		-0.1	2.5	8.1
A-1	5/4/2013	ML-1	3			2.4	8.34
A-2	5/5/2013	ML-2	1		9.8	8.8	8.8
A-2	5/5/2013	ML-2	3		7	9.2	8.5
A-3	5/6/2013	ML-3	1		2.3	2.9	9.1
A-3	5/6/2013	ML-3	3		2.9	1.9	8.55

Now, let's build an import configuration to support this file.

As mentioned previously, it's recommended that you create the regular columns in your import configuration before the header-row columns (because a regular column must exist in a specific position before a header-row column can be placed in that position).

Start by mapping Column A to Activity ID, B to Activity Start Date, and C to Monitoring Location ID:

Regular Columns (starting at row 2 of your import file)								
	Column	Pick	Entity	Entity #	Element	Default Value	Format	Translations
Remove	A		Activity	1	Activity ID	<input type="text"/>		0 Add/Edit
Remove	B		Activity	1	Activity Start Date	<input type="text"/>	DD/MM/YYYY	0 Add/Edit
Remove	C		Activity	1	Monitoring Location ID	{none}		0 Add/Edit

Column D is for our Result Depth (in meters), so map Result Depth Measure and Result Depth Unit to Column D and then set the default value for the Units to "m".

Remove	D		Result	1.1	Result Depth/Height Measure	<input type="text"/>		0 Add/Edit
			Result	1.1	Result Depth/Height Unit		m	

Column E of our file doesn't contain data, so we want to ignore it.

Remove	E		{Ignore Column}					
------------------------	---	--	-----------------	--	--	--	--	--

Columns F, G, and H will hold our three Result Values (for Temperature, DO, and pH):

Remove	F		Result	1.1	Result Value	<input type="text"/>		0 Add/Edit
Remove	G		Result	1.2	Result Value	<input type="text"/>		0 Add/Edit
Remove	H		Result	1.3	Result Value	<input type="text"/>		0 Add/Edit

Now that we have three Results in our import configuration, but only one Result Depth and Units, the Entity # for them has changed to a drop-down list. Let's change the value to "All" because Column D of our import file contains the Depth for all three Results on each row.

Remove	D		Result	All	Result Depth/Height Measure	<input type="text"/>		0 Add/Edit
			Result	All	Result Depth/Height Unit		m	

See below how our Import Configuration now describes the regular rows of our import file (colored boxes have been added to highlight how the import configuration maps to the import file):

Regular Columns (starting at row 2 of your import file)

	Column	Pick	Entity	Entity #	Element	Default Value	Format	Translations	
Remove	A		Activity	1	Activity ID	<input type="text"/>		0 Add/Edit	
Remove	B		Activity	1	Activity Start Date	<input type="text"/>	DD/MM/YYYY	0 Add/Edit	
Remove	C		Activity	1	Monitoring Location ID	{none}		0 Add/Edit	
Remove	D		Result	All	Result Depth/Height Measure	<input type="text"/>		0 Add/Edit	
			Result	All	Result Depth/Height Unit	m			
Remove	E		{Ignore Column}						
Remove	F		Result	1.1	Result Value	<input type="text"/>		0 Add/Edit	
Remove	G		Result	1.2	Result Value	<input type="text"/>		0 Add/Edit	
Remove	H		Result	1.3	Result Value	<input type="text"/>		0 Add/Edit	

Import File

A	B	C	D	E	F	G	H
				Characteristic ->	Temperature	DO	pH
				Units ->	Deg C	mg/l	none
Activity ID	Date	Location ID	Result Depth (m)	Fraction ->		Dissolved	
A-1	5/4/2013	ML-1	1		-0.1	2.5	8.1
A-1	5/4/2013	ML-1	3			2.4	8.34
A-2	5/5/2013	ML-2	1		9.8	8.8	8.8
A-2	5/5/2013	ML-2	3		7	9.2	8.5
A-3	5/6/2013	ML-3	1		2.3	2.9	9.1
A-3	5/6/2013	ML-3	3		2.9	1.9	8.55

Now let's create our Header-Row Columns:

Add three "Characteristic Name" elements to header row 1 and columns F, G, and H.

Header-Row Columns (a single value here applies to each regular row of your import file):

	Row	Column	Pick	Entity	Entity #	Element	Format	Translations
Remove	1	F		Result	1.1	Characteristic Name		0 Add/Edit
Remove	1	G		Result	1.2	Characteristic Name		0 Add/Edit
Remove	1	H		Result	1.3	Characteristic Name		0 Add/Edit

Now, add three "Result Unit" elements to header row 2 and columns F, G, and H.

Remove	2	F		Result	1.1	Result Unit		0 Add/Edit
Remove	2	G		Result	1.2	Result Unit		0 Add/Edit
Remove	2	H		Result	1.3	Result Unit		0 Add/Edit

and add three "Result Sample Fraction" elements to row 3 and columns F, G, and H.

Remove	3	F		Result	1.1	Result Sample Fraction	0 Add/Edit
Remove	3	G		Result	1.2	Result Sample Fraction	0 Add/Edit
Remove	3	H		Result	1.3	Result Sample Fraction	0 Add/Edit

We have now completed mapping all of our header-row columns. As a final check to make sure our mapping is correct, click on the link at the top of the Column list to sort the Header-Row Columns by their column position. Note that Header-Row Column F and Regular Column F both map to Result #1.1. Likewise, Column G in both lists maps to Result #1.2 and Column H to Result #1.3.

Header-Row Columns (a single value here applies to each regular row of your import file):

	Row	Column	Pick	Entity	Entity #	Element	Format	Translations
Remove	1	F		Result	1.1	Characteristic Name		0 Add/Edit
Remove	2	F		Result	1.1	Result Unit		0 Add/Edit
Remove	3	F		Result	1.1	Result Sample Fraction		0 Add/Edit
Remove	1	G		Result	1.2	Characteristic Name		0 Add/Edit
Remove	2	G		Result	1.2	Result Unit		0 Add/Edit
Remove	3	G		Result	1.2	Result Sample Fraction		0 Add/Edit
Remove	1	H		Result	1.3	Characteristic Name		0 Add/Edit
Remove	2	H		Result	1.3	Result Unit		0 Add/Edit
Remove	3	H		Result	1.3	Result Sample Fraction		0 Add/Edit

Regular Columns (starting at row 4 of your import file)

	Column	Pick	Entity	Entity #	Element	Default Value	Format	Translations
Remove	F		Result	1.1	Result Value	<input type="text"/>		0 Add/Edit
Remove	G		Result	1.2	Result Value	<input type="text"/>		0 Add/Edit
Remove	H		Result	1.3	Result Value	<input type="text"/>		0 Add/Edit

See below how our Import Configuration now fully describes the Header-Rows Columns of our import file (colored boxes have been added to highlight how the import configuration maps to the import file):

Header-Row Columns (a single value here applies to each regular row of your import file):

	Row	Column	Pick	Entity	Entity #	Element	Format	Translations
Remove	1	F		Result	1.1	Characteristic Name		0 Add/Edit
Remove	2	F		Result	1.1	Result Unit		0 Add/Edit
Remove	3	F		Result	1.1	Result Sample Fraction		0 Add/Edit
Remove	1	G		Result	1.2	Characteristic Name		0 Add/Edit
Remove	2	G		Result	1.2	Result Unit		0 Add/Edit
Remove	3	G		Result	1.2	Result Sample Fraction		0 Add/Edit
Remove	1	H		Result	1.3	Characteristic Name		0 Add/Edit
Remove	2	H		Result	1.3	Result Unit		0 Add/Edit
Remove	3	H		Result	1.3	Result Sample Fraction		0 Add/Edit

Import File

A	B	C	D	E	F	G	H
				Characteristic ->	Temperature	DO	pH
				Units ->	Deg C	mg/l	none
Activity ID	Date	Location ID	Result Depth (m)	Fraction ->		Dissolved	
A-1	5/4/2013	ML-1	1		-0.1	2.5	8.1
A-1	5/4/2013	ML-1	3			2.4	8.34
A-2	5/5/2013	ML-2	1		9.8	8.8	8.8
A-2	5/5/2013	ML-2	3		7	9.2	8.5
A-3	5/6/2013	ML-3	1		2.3	2.9	9.1
A-3	5/6/2013	ML-3	3		2.9	1.9	8.55

As a final step, create Generated Values for elements that are not included in our import file, such as the following example:

Generated Values (not in your import file):

Pick	Entity	Entity #	Element	Default Value	Format
	Organization	All	Organization ID	WQXTEST	
	Result	All	Result Status ID	Final	
	Result	All	Result Value Type	Actual	
	Activity	All	Activity Media Name	Water	
	Activity	All	Activity Type	Field Msr/Obs	
	Activity Project	All	Project ID	1	

Our import configuration is now complete. If our file was imported, the following entities and elements would be populated in WQX.

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Activity					Activity Project	Result							
Activity ID	Activity Start Date	Monitoring Location ID	Activity Media Name	Activity Type	Project ID	Result Depth / Height Measure	Result Depth / Height Unit	Characteristic Name	Result Unit	Result Sample Fraction	Result Value	Result Status	
A-1	5/4/2013	ML-1	Water	Field Msr/Obs	1	1	m	Temperature	Deg C		-0.1	Final	
						1	m	DO	mg/l	Dissolved	2.5	Final	
						1	m	pH	none		8.1	Final	
						3	m	DO	mg/l	Dissolved	2.4	Final	
						3	m	pH	none		8.34	Final	
A-2	5/5/2013	ML-2	Water	Field Msr/Obs	1	1	m	Temperature	Deg C		9.8	Final	
						1	m	DO	mg/l	Dissolved	8.8	Final	
						1	m	pH	none		8.8	Final	
						3	m	Temperature	Deg C		7	Final	
						3	m	DO	mg/l	Dissolved	9.2	Final	
						3	m	pH	none		8.5	Final	
A-3	5/6/2013	ML-3	Water	Field Msr/Obs	1	1	m	Temperature	Deg C		2.3	Final	
						1	m	DO	mg/l	Dissolved	2.9	Final	
						1	m	pH	none		9.1	Final	
						3	m	Temperature	Deg C		2.9	Final	
						3	m	DO	mg/l	Dissolved	1.9	Final	
						3	m	pH	none		8.55	Final	

5. Datasets

Datasets are the source for the submission file that's created by WQX Web (and sent to CDX). It represents the outcome of importing your data file, applying defaults and translations from your import configuration, and resolving any validation issues that the system identifies (many of which can be corrected within the system).

Datasets are temporary and do not represent data that is in WQX. Importing, correcting, deleting datasets has no effect on the data that is in WQX (the official repository of ambient water quality data at the EPA).

The data in a dataset only becomes permanent once a submission file has been exported, submitted to CDX and processed successfully by the WQX System (which is separate from WQX Web).

You can work with a dataset in WQX Web for a maximum number of days at which time it will be automatically purged from this system to keep the system from being overloaded with temporary data. Currently the system allows about two weeks for you to work with your dataset.

Once you have submitted your dataset to CDX and it has loaded successfully, you are encouraged to delete your dataset from WQX Web (since it is no longer needed).

5.1 Dataset Purpose and Type

Dataset Purpose

A dataset can be created for the purpose of either Adding & Updating data or for Deleting data in the WQX System. Add/Update datasets contain a full set of data and will update records in WQX where the ID for the record matches an existing value. If no match is found then the data will be added to WQX. Delete datasets include just one column which contains the unique ID of the record(s) you wish to delete from the WQX System.

Once a dataset is created in WQX Web, it will be available to anyone with rights to the organization referenced in the import file. Other users will not see it.

Dataset Types

The types of datasets supported by WQX Web are as follows:

- Projects
- Monitoring Locations
- Monitoring Location Weights
- Biological or Habitat Indices
- Activities and Results
- Activities and Metrics
- Activity Groups
- Delete Projects
- Delete Monitoring Locations
- Delete Activities
- Delete Activity Groups

Delete Biological or Habitat Indices

5.2 Creating a New Dataset

Click the "Create New Dataset" link on the navigation panel.

On the Create New Dataset page, select the method and type of dataset you wish to create (e.g. Import a File of Projects).

You are here: [Home](#) >> Create New Dataset

Create New Dataset

To Insert or Update Data:

- [Import a File of Projects](#)
- [Import a File of Monitoring Locations](#)
- [Import a File of Monitoring Location Weights](#)
- [Import a File of Biological or Habitat Indices](#)
- [Import a File of Activities and Results](#)
- [Import a File of Activities and Metrics](#)
- [Import a File of Activity Groups](#)

To Delete Data:

- [Import a File of Project Identifiers to be deleted](#)
- [Import a File of Monitoring Location Identifiers to be deleted](#)
- [Import a File of Activity Identifiers to be deleted](#)
- [Import a File of Activity Group Identifiers to be deleted](#)
- [Import a File of Index Identifiers to be deleted](#)

The system will display the Import File page.

You are here: [Home](#) >> [Create New Dataset](#) >> Import File

Import File

Import Configuration:

Type: Activities and Results

Import File: *.txt, *.csv, *.zip

Attachments File: *.zip

Delimiter:

Ignore First Row of Import File?

Note: If you selected to create one of the "Delete" datasets on the previous page, then the following fields/sections will not be displayed:

- Import Configuration dropdown list,
- Attachments Zip File,
- Delimiter dropdown list,

Default Values section.

Select an import configuration from the dropdown list. Note: The list will be filtered to only show Import Configurations that match the type you clicked on the previous page.

You are here: [Home](#) >> [Create New Dataset](#) >> Import File

Import File

Import Configuration: ▼

Type: Activities and Results

Import File: *.txt, *.csv, *.zip

Attachments File: *.zip

Delimiter: ▼

Ignore First Row of Import File?

WQX Element	Default Value	Format
Activity Start Time Zone	MST	
Organization ID	GOLDRYAN	

Use the Browse button on the Import File field to browse and find the file to be imported. You can also type the path and name of the file in the field if you know it.

The file you select must have an extension of TXT, CSV or ZIP. If it is a zip file, it must contain a TXT or CSV file inside it.

If you have attachments referenced in your import file, then use the Browse button on the Attachments File field to browse and find the zip file that holds all of the attachments. The file must be a ZIP file.

If necessary, change the delimiter to match that of your import file. It will default to the delimiter specified in the selected import configuration.

If the first row of your import file has column headings, select the “Ignore First Row of Import File?” check box, so that the first row will not be interpreted as data.

Review the table showing the generated values that will be used when importing this file. The Default Values are from the selected import configuration and can be overridden here for this file (without affecting the values in the import configuration). Change any values as needed.

Click the Continue button.

The system will begin importing the file(s) and validating the imported data. Validation will check for the following types of errors:

- Values that exceed the maximum allowed length
- Values that do not match a related lookup table value
- Values that are not in the correct format
- Values that are missing but are required in WQX.

- Other data rules as defined in the WQX Flow Configuration Document. This is new to WQX Web version 2.00.

The system will display the Dataset Summary page. The Dataset Summary page provides information regarding the status of a dataset, including the percent complete and a count of any warnings or errors logged so far. An animated image will spin to remind you that an active process is running on the server.

Dataset Summary

This page will refresh every 10 seconds. You can also navigate to another page or close the browser and then return later to check on the status.

Type:	Activities and Results
Import Configuration:	Ryan Demo
Status:	<input type="radio"/> Importing (88.00%)

Datasets are Temporary

Datasets are temporary and must be submitted to CDX to become permanent.

To keep this system clean, please delete datasets that have been processed successfully at CDX or are no longer needed. The system will automatically delete this dataset in 15 days.

Error/Warning/Message:	22 / 0 / 3 View Log
Start Time:	11-05-2010 08:34:38 PM
End Time:	11-05-2010 08:34:52 PM (estimated)

During the import process the status will be one of the following:

Waiting to Import – The dataset has been queued for importing but has not yet started. Generally a dataset only has this status for a fraction of a second. In many cases you will not even see this status. However, in some cases when the server is heavily loaded, a dataset may remain in this state for an extended period of time waiting for other datasets to finish processing.

Importing – The dataset is being imported. Percent Complete and a count of Errors & Warnings will be displayed. If you wish to review the errors while the file is being processed, you can click the "View Log" link.

This page will refresh automatically and update the status, percent complete, and provide an estimated end time for the import process. If it appears that it will take more than a few minutes to complete you can choose to navigate elsewhere in the system and perform other tasks or leave the system entirely and come back at a later time. The process will continue on its own and you can check back at any time by following the instructions in the next section. When the import process completes it will have one of the following statuses:

Imported – The dataset has been imported and validation errors, if any, may be reviewed and resolved. Record counts are displayed.

Import Failed – Either the import was cancelled or there were serious errors that prevented the file from being imported. If you did not cancel the import, then you should click the "View Log" link to investigate what happened. One common cause of failure is when your import configuration doesn't match your import file. If you believe the error that was logged is a bug in the system, you should report it to the STORET help desk.

At this point, the Dataset Summary Page will display additional information about your dataset. See the next section for more information about the Dataset Summary Page.

5.3 Continuing with an Existing Dataset

Select the “Datasets” link on the Navigation Panel. This will navigate to the Datasets List Page. The page displays a list of datasets that you have created (or were created by other users in your organization).

You are here: [Home](#) >> Datasets

Datasets

ID	File Name	Type	Status	Created	Created By
1461	Ryan - Demo250.txt	Activities and Results	Imported	12-16-2008 03:36 AM	Ryan Jorgensen
1399	ExportResults11122008.txt	Activities and Results	Imported	12-08-2008 12:57 PM	Kristen Gunthardt
1396	ExportResults11122008.txt	Activities and Results	Completed at CDX	12-08-2008 10:17 AM	Kristen Gunthardt
1371	Level2_WQXWeb_Results.txt	Activities and Results	Failed at CDX	12-04-2008 08:46 AM	Kristen Gunthardt
1367	ExportMonitoringLocations11122008.txt	Monitoring Locations	Completed at CDX	11-26-2008 07:39 AM	Kristen Gunthardt
1366	ExportProjects11122008.txt	Projects	Completed at CDX	11-26-2008 07:35 AM	Kristen Gunthardt
1105	Level2_WQXWeb_Results.txt	Activities and Results	Imported	10-30-2008 09:59 AM	Dwane Young
1084	Level1_WQXWeb_Project.txt	Projects	Completed at CDX	10-30-2008 09:13 AM	Dwane Young
1056	Level1_WQXWeb_Project.txt	Projects	Completed at CDX	10-30-2008 08:25 AM	Kristen Gunthardt
1054	Level1_WQXWeb_Project.txt	Projects	Completed at CDX	10-30-2008 08:24 AM	Kristen Gunthardt

[Return](#) [Add New](#)

Click the link on the ID of the dataset you wish to work with. The system will display the Dataset Summary page.

Dataset Summary

Type: Activities and Results
 Import Configuration: [Ryan Demo](#)
 Status: Imported

Datasets are Temporary

Datasets are temporary and must be submitted to CDX to become permanent.

To keep this system clean, please delete datasets that have been processed successfully at CDX or are no longer needed. The system will automatically delete this dataset in 15 days.

Import

Error/Warning/Message: 47 / 0 / 7 [View Log](#) (1)

Start Time: 11-06-2010 01:32:22 PM

End Time: 11-06-2010 01:32:33 PM

File/Transaction ID: Ryan - Demo2.txt (3)

Record Counts	Valid	Invalid	Validation Errors	Original	Remaining
Activity Group	2	0	Max Length Exceeded	1	1
Activity	0	9	Invalid Domain Value	5	5
Result	0	16	Required Value Missing	1	1
			Invalid Format	2	2
			Other	21	21

[Return](#) [Delete](#) [Export/Submit File\(s\)](#)

When the system processes an import file, it records three key items (annotated above), which are summarized on this page:

As errors and warnings are identified, they are logged to an event log. This page summarizes the number of errors and warnings (as well the number of informational messages). *See Section 5.5 for more information.*

Each error is categorized. The Validation Errors Table summarizes the number of each type of error. If no categorized errors were found, this table will not display. *See Section 5.4 for more information.*

The record that is being processed is flagged as "Invalid" (if errors occurred) or "Valid" otherwise. The Valid/Invalid Table summarizes the type of record (e.g. Project, Activity, Result, ...) and the number that are valid or invalid.

5.4 Resolving Validation Errors in a Dataset

As mentioned previously, the import process performs validation checks on the data in your import file. A summary of the findings are displayed in a "Validation Errors" table on the Dataset Summary Page.

Validation Errors	Original	Remaining
Max Length Exceeded	1	1
Invalid Domain Value	5	5
Required Value Missing	1	1
Invalid Format	2	2
Other	21	21

There are two main approaches to resolving errors that occurred while processing your import file.

1. Use "Resolution Pages" in WQX Web designed to fix specific types of errors. Currently not all errors can be corrected in WQX Web, so there are limitations to this approach.
 - If none of the errors listed in the Validation Errors Table are "Other" errors, then there is a good chance of being able to resolve all of your errors in WQX Web.
 - Otherwise, it's recommended that you use approach #2 below
2. Review the Event Log, correct your import file and then re-import it. *See Section 5.5 for more information.*

Even if you plan to re-import a corrected file, you may still consider addressing any "Invalid Domain Values" listed in the Validation Errors Table in order to create some translations for values you plan to continue to use that are not compatible with WQX. *See Section 5.5.1 for more information.*

3. You could consider using a hybrid approach to correcting errors.
 - Correct only the "other" errors and then re-import you file.
 - Then use the Resolution Pages to correct the remaining errors.

The main advantage to this approach is that most Resolution Pages can fix a batch of issues with one change. For example, if an invalid domain value was used 100 times in your file, you can make a single correction and all 100 occurrences will be corrected. However, the hybrid approach is not convenient right now, because the Event Log does not provide a way to distinguish between "other" errors and correctable errors. This is something that may be addressed in a future version of WQX Web.

Each type of error listed in the Validation Errors Table has a link to another page. Generally, these are Resolution Pages to allow you to correct the error (without having to re-import your data)

There are four types of validation errors that can be corrected in the system:

1. Invalid Domain Value – A value in the import file didn't match any of the allowed values in the lookup table for the corresponding data element. *See Section 5.5.1*
2. Invalid Format – The format of a value in the import file didn't match the format you specified in your import configuration for the corresponding data element. *See Section 5.5.2*
3. Maximum Length Exceeded – The length of a value in the import file exceeded the maximum allowable length of the corresponding data element. *See Section 5.5.3*
4. Required Value Missing – The import file was missing a value that is required to create a valid WQX Submission File. *See Section 5.5.4*

The following types of validation errors cannot be corrected in WQX Web:

5. Invalid Translation – this is a rare error to occur, but it indicates that a value in your import file did not match a translation in the import configuration and the import column is mapped to more than one WQX data element. If you have at least one translation on this column and no defaults (in the import configuration) then a translation is required for every value in that column position in your import file. *See Section 4.6.3 for more information.*
6. Other – starting in WQX Web version 2.00, all the data rules defined in the WQX Flow Configuration Document (FCD) are now validated on an import file. At this point, WQX Web validates the exact same rules as WQX. Errors relating to these rules are all categorized as "Other" in the Validation Errors Table. Currently there is no way to corrected them (without re-importing your file).

5.5 View Event Log Messages:

To review the list of errors, warnings and messages logged while your import file was processed, click the "View Log" link on the Dataset Summary Page. This will display the Event Log Messages Page.

You are here: [Home](#) >> [Event Log](#) >> Event Log Messages

Event Log Messages

Details
 Summary
 Errors Only

ID	Type	Message	Context
277323	Error	Value has exceeded its maximum length: 'A234567890123456789012345678901234567890'	Row 2
277324	Error	Invalid value '0010(BT)' for Result Analytical Method ID	Row 2
277325	Error	Invalid value '00-04' for Result Analytical Method ID	Row 3
277326	Error	Value does not match its required format: '6/32/1999'	Row 5
277327	Error	Invalid value '00-04' for Result Analytical Method ID	Row 5
277328	Error	Value does not match its required format: '8/8//1999'	Row 8
277329	Error	Value has exceeded its maximum length: 'A234567890123456789012345678901234567890'	Row 8
277330	Error	Invalid value '0010(BT)' for Result Analytical Method ID	Row 8
277331	Error	Invalid value '0010(BT)' for Result Analytical Method ID	Row 10
277332	Error	Invalid value '00-04' for Result Analytical Method ID	Row 11
277333	Error	Invalid value '00-04' for Result Analytical Method ID	Row 13
277334	Error	Invalid value '0010(BT)' for Result Analytical Method ID	Row 16

You can select the "Summary" radio button at the top of the page to get a summary of each error or warning (and the number of times it occurred). This is a quick way to assess the specific issues that need to be resolved.

You are here: [Home](#) >> [Event Log](#) >> Event Log Messages

Event Log Messages

Details
 Summary
 Errors Only

Type	Message	Count
Error	Invalid value '00-04' for Result Analytical Method ID	63
Error	Invalid value '0010(BT)' for Result Analytical Method ID	63
Error	Value does not match its required format: '6/32/1999'	16
Error	Value does not match its required format: '8/8//1999'	16
Error	Value has exceeded its maximum length: 'A234567890123456789012345678901234567890'	32

Check the "Errors Only" checkbox if you want to hide warnings and informational messages. Select the Return button to navigate back to the Dataset Summary page.

5.5.1 Resolving Invalid Domain Values

To resolve domain value errors, click the “Invalid Domain Value” link on the Dataset Summary page. The system will display the Domain Resolution page.

You are here: [Home](#) >> [Datasets](#) >> [Dataset Summary](#) >> Domain Resolution

Domain Resolution

This page lists values from your import file that do not match a valid domain value. To correct a value, click its link and select a valid value from the list. Then change the resolution for each row (as needed) and save your changes.

Show:

Count	Element	Value	Resolution
3	Characteristic Name	Potassium	Add a translation to the Import Configuration
4	Result Analytical Method ID	00-01	Modify value manually
1	Sample Collection Equipment Name	Plastic Bag	Add a translation to the Import Configuration

This page allows you to resolve errors where the value in your import file did not match an allowed value for that data element.

- **Count** – This column displays the number of times the error occurred (in a particular import column position).
- **Element** – This column displays the name of the data element that was used for validation.
- **Value** – This column displays the current value for the data element. Before the value is corrected, this displays the value from your import file. After it's been corrected, it displays the corrected value.
- **Resolution** – This column displays a dropdown list allowing you to select the method of resolving the validation error:
 - *Add a translation to the Import Configuration*: selecting this will create a translation in your Import Configuration so that any future file having the same value (in the same column) will be corrected automatically.
 - *Modify value manually*: selecting this will update the value(s) in this dataset, but will not create a translation in your Import Configuration.

Note: there is a preference on the User Preference Page where you can set the default value for the Resolution dropdown list so that you only have to change the selection when it doesn't match your standard choice for Resolution.

Repeat the following three steps on each row on the page (to correct all domain value errors):

1. Click the link in the Value column. A list of allowed values for that element will be displayed.

ACTIVITY MEDIA	
<input type="button" value="Cancel"/>	
	Last Change Date
{none}	
Air	7/26/2006 10:57:46 AM
Biological	6/12/2007 4:07:36 PM
Habitat	8/1/2008 7:49:59 AM
Other	7/26/2006 10:57:46 AM
Sediment	7/26/2006 10:57:46 AM
Soil	7/26/2006 10:57:46 AM
Tissue	4/1/2008 4:14:41 PM
Water	7/26/2006 10:57:46 AM

2. Click the value you wish to select. The new value will now be displayed on the Resolution Page.
 - a. Note that although "{none}" is a standard choice in all lists of values, the resolution page will not allow it.
3. Change the "Resolution" value, if needed.

Click the Save button to save your changes and refresh the page (showing the remaining unresolved rows). This is particularly useful if there is more than one page of errors. Otherwise you can click the Return button to save your changes and return to the Dataset Summary page.

The dataset summary page will update the counts in the Validation Error Table to account for the records you corrected. However, the counts in the Valid/Invalid Table will not change. In order for that table to be updated, you must click the "Revalidate Changes" button that will now be visible on the Dataset Summary Page. This is a manual step, because it can take a fair amount of time on large datasets. It is only required that you click this button once before you export your data (so that all changed data will be rechecked before exporting – because only valid records are exported).

5.5.2 Resolving Invalid Formats

To resolve format errors, click the "Invalid Format" link on the Dataset Summary page. The system will display the Format Resolution page.

You are here: [Home](#) >> [Datasets](#) >> [Dataset Summary](#) >> Format Resolution

Format Resolution

This page lists values from your import file that did not match the format specified in the import configuration. Edit each value to match the format and then save your changes.

Show:

Count	Element	Value	Format
1	Activity Latitude	<input type="text" value="129.99"/>	-DD.DDDDDDDDDD
1	Activity Longitude	<input type="text" value="-180.99"/>	-DDD.DDDDDDDDDD
1	Activity Start Date	<input type="text" value="6/32/1999"/>	MM/DD/YYYY
1	Activity Start Date	<input type="text" value="8/8//1999"/>	MM/DD/YYYY
1	Activity Start Time	<input type="text" value="16:99"/>	HH24:MI
1	Laboratory Accreditation Indicator	<input type="text" value="0"/>	Yes/No
1	Laboratory Accreditation Indicator	<input type="text" value="1"/>	Yes/No
1	Laboratory Accreditation Indicator	<input type="text" value="FALSE"/>	Yes/No
1	Laboratory Accreditation Indicator	<input type="text" value="TRUE"/>	Yes/No

This page allows you to resolve errors where the value in your import file did not match the format you specified in your import configuration.

- **Count** – This column displays the number of times the error occurred (in a particular import column position).
- **Element** – This column displays the name of the data element that was used for validation.
- **Value** – This column displays the current value for the data element. Before the value is corrected, this displays the value from your import file. After it's been corrected, it displays the corrected value.
- **Format** – This column displays the format (from your import configuration) that the value must match.

Update the Value column on each row to an appropriate value that matches the required format.

Click the Save button to save your changes and refresh the page (showing the remaining unresolved rows). This is particularly useful if there is more than one page of errors. Otherwise you can click the Return button to save your changes and return to the Dataset Summary page.

The dataset summary page will update the counts in the Validation Error Table to account for the records you corrected. However, the counts in the Valid/Invalid Table will not change. In order for that table to be updated, you must click the "Revalidate Changes" button that will now be visible on the Dataset Summary Page. This is a manual step, because it can take a fair amount of time on large datasets. It is only required that you click this button once before you export your data (so that all changed data will be rechecked before exporting – because only valid records are exported).

5.5.3 Resolving Values that Exceed Maximum Length

To resolve maximum length errors, click the “Max Length Exceeded” link on the Dataset Summary page. The system will display the Maximum Length Resolution page.

You are here: [Home](#) >> [Datasets](#) >> [Dataset Summary](#) >> Maximum Length Resolution

Maximum Length Resolution

This page lists values from your import file that exceed that maximum length allowed. To correct a value, edit the value to reduce its length or choose “Truncate” (to have the system truncate for you). Then save your changes.

Show:

Count	Element	Max Length	Value	Resolution
2	Monitoring Location ID	35	A234567890123456789012345678901234567890	<input type="button" value="Modify value manually"/>

This page allows you to resolve errors where the value in your import file exceeded the maximum length allowed for a data element.

- **Count** – This column displays the number of times the error occurred (in a particular import column position).
- **Element** – This column displays the name of the data element that was used for validation.
- **Max Length** – This column displays the maximum length for the data element
- **Value** – This column displays the current value for the data element. Before the value is corrected, this displays the value from your import file. After it's been corrected, it displays the corrected value.
- **Resolution** – This column displays a dropdown list allowing you to select the method of resolving the validation error:
 - *Truncate value to fit*: selecting this will tell the system to automatically trim off any excess characters from the value so that it will fit within the allowed size. No change to the value is needed. If you change the value manually to fit within the allowed size, this instruction will be ignored and your new value will be used.
 - *Modify value manually*: selecting this will tell the system that you have updated the value manually to something that fits within its allowed size.

Note: there is a preference on the User Preference Page where you can set the default value for the Resolution dropdown list, so that you only have to change the selection when it doesn't match your standard choice for Resolution.

Change the "Resolution" value, as needed, on each row.

Update any rows where the resolution selected is "Modify value manually". Otherwise, you can leave the values unchanged.

Click the Save button to save your changes and refresh the page (showing the remaining unresolved rows). This is particularly useful if there is more than one page of errors. Otherwise you can click the Return button to save your changes and return to the Dataset Summary page.

The dataset summary page will update the counts in the Validation Error Table to account for the records you corrected. However, the counts in the Valid/Invalid Table will not change. In order for that table to be updated, you must click the "Revalidate Changes" button that will now be visible on the Dataset Summary Page. This is a manual step, because it can take a fair amount of time on large datasets. It is only required that you click this button once before you export your data (so that all changed data will be rechecked before exporting – because only valid records are exported).

5.5.4 Resolving Required Values that are Missing

To resolve required value errors, click the “Required Value Missing” link on the Dataset Summary page. The system will display the Required Resolution page.

You are here: [Home](#) >> [Datasets](#) >> [Dataset Summary](#) >> Required Resolution

Required Resolution

This page lists required values that were not provided in your import file. Provide a value for each one and then save your changes.

Show:

Row	Element	Value	Activity ID	Activity Type	Activity Media Name	Activity Media Subdivision Name	Activity Start Date	Activity Start Time	Project ID	Project ID	Monitoring Location ID	Result Analytical Method ID	Result Analytical Method Context	Characteristic Name	Result Measure	Result Unit	Result Value Type
7	Activity Longitude (-DDD.DDDDDDDDDDD)	<input type="text"/>	A3	Field Msr/Obs	Water	Surface Water	1999-07-07	14:32:00	Project 2	Project 1	Monitoring Location 3	377.1	USEPA	Potassium bisulfate	1	ml	Actual
7	Sample Collection Equipment Name	{None}	A3	Field Msr/Obs	Water	Surface Water	1999-07-07	14:32:00	Project 2	Project 1	Monitoring Location 3	377.1	USEPA	Potassium bisulfate	1	ml	Actual
8	Activity Longitude (-DDD.DDDDDDDDDDD)	<input type="text"/>	A4	Sample-Routine	Water	Stormwater	8/8//1999	14:32:00	My Main Project		help	AM1	WQXTEST	Dissolved oxygen (DO)	223	in3	Calculated
8	Activity Latitude (-DD.DDDDDDDDDDD)	<input type="text"/>	A4	Sample-Routine	Water	Stormwater	8/8//1999	14:32:00	My Main Project		help	AM1	WQXTEST	Dissolved oxygen (DO)	223	in3	Calculated
12	Activity Longitude (-DDD.DDDDDDDDDDD)	<input type="text"/>	A5	Sample-Routine	Water	Groundwater	1999-09-09	16:49:00	My Main Project		Monitoring Location 2	377.1	USEPA	Potassium bisulfate	1.232	ml	Actual
12	Activity Latitude (-DD.DDDDDDDDDDD)	<input type="text"/>	A5	Sample-Routine	Water	Groundwater	1999-09-09	16:49:00	My Main Project		Monitoring Location 2	377.1	USEPA	Potassium bisulfate	1.232	ml	Actual
14	Activity Latitude (-DD.DDDDDDDDDDD)	<input type="text"/>	A6	Field Msr/Obs	Water	Surface Water	1999-10-10	20:00:00	Project 1	Project 2	Monitoring Location 3	377.1	USEPA	5-Nitrovanillin	45	in3	Estimated
14	Activity Longitude (-DDD.DDDDDDDDDDD)	<input type="text"/>	A6	Field Msr/Obs	Water	Surface Water	1999-10-10	20:00:00	Project 1	Project 2	Monitoring Location 3	377.1	USEPA	5-Nitrovanillin	45	in3	Estimated
15	Activity Longitude (-DDD.DDDDDDDDDDD)	<input type="text"/>	A7	Field Msr/Obs	Water	Stormwater	1999-11-11	21:03:00	Project 1	Project 2	Monitoring Location 3	377.1	USEPA	Potassium bisulfate	1	ml	Actual
15	Activity Latitude (-DD.DDDDDDDDDDD)	<input type="text"/>	A7	Field Msr/Obs	Water	Stormwater	1999-11-11	21:03:00	Project 1	Project 2	Monitoring Location 3	377.1	USEPA	Potassium bisulfate	1	ml	Actual
16	Activity Longitude (-DDD.DDDDDDDDDDD)	<input type="text"/>	A8	Sample-Routine	Water	Groundwater	1999-12-12	22:52:00	My Main Project	Project 2	Monitoring Location 2	AM1	WQXTEST	Pyrazon	223	in3	Calculated
16	Activity Latitude (-DD.DDDDDDDDDDD)	<input type="text"/>	A8	Sample-Routine	Water	Groundwater	1999-12-12	22:52:00	My Main Project	Project 2	Monitoring Location 2	AM1	WQXTEST	Pyrazon	223	in3	Calculated

This page allows you to provide a value for a data element that was not provided in the import file but is required by WQX. Unlike the other resolution pages that group related changes together to save you time, this page requires that you address each missing value individually.

- Row – This column displays the row where the missing value originated.
- Element – This column displays the name of the data element that is missing a required value.
- Value – This column displays the current value for the data element. Before the value is corrected, this will display {none} or an empty text box. After it's been corrected, it displays the corrected value.

- Other element value columns – The rest of the columns are there to provide you with sufficient context information so that you can assess what the missing value should be. These columns display the current values for data elements that came from the same row of the import file.

Fill in a value (in the Value column) on each row. If the value is constrained by a list of values, click the {none} link to display and select the desired value.

Click the Save button to save your changes and refresh the page (showing the remaining unresolved rows). This is particularly useful if there is more than one page of errors. Otherwise you can click the Return button to save your changes and return to the Dataset Summary page.

The dataset summary page will update the counts in the Validation Error Table to account for the records you corrected. However, the counts in the Valid/Invalid Table will not change. In order for that table to be updated, you must click the "Revalidate Changes" button that will now be visible on the Dataset Summary Page. This is a manual step, because it can take a fair amount of time on large datasets. It is only required that you click this button once before you export your data (so that all changed data will be rechecked before exporting – because only valid records are exported).

5.6 Exporting / Submitting a Dataset to CDX

Before a dataset becomes final it must be submitted to CDX where it will be processed by the WQX System and loaded into the WQX Database.

Click the "Export/Submit File(s)" button on the Dataset Summary Page.

If you have made changes to your data (using the Resolution Pages) and have not yet clicked the "Revalidate Changes" button, you will be prompted to do so. The system must revalidate any changed data before exporting to determine if there are any invalid records (which will not be exported).

The system will now display the Export Page.

You are here: [Home](#) >> [Datasets](#) >> [Dataset Summary](#) >> Export

Export

WQX XML File:

Export Only

Export and Submit to CDX

Additional File (optional):

Apply the following stylesheet: Activity and Results Flat File ▾

Header Information:

Author:

Organization:

Contact Info:

Comment:

You have two choices when exporting. If you do not wish to submit to CDX (because you have your own node, or you have already submitted this dataset), then choose "Export Only". Otherwise, leave the default choice of "Export and Submit to CDX"

If the dataset is one of the following three types you also have the option of applying a stylesheet to convert your WQX XML file to a flat file.

Monitoring Locations

Activities and Results

Activities and Metrics

The flat file version of your export file can be useful if you wish to review or archive your export data in a more user-friendly format. Remember that if you've already submitted your dataset to CDX and just want to create a flat file this time, choose the "Export Only" option (as described in the previous step).

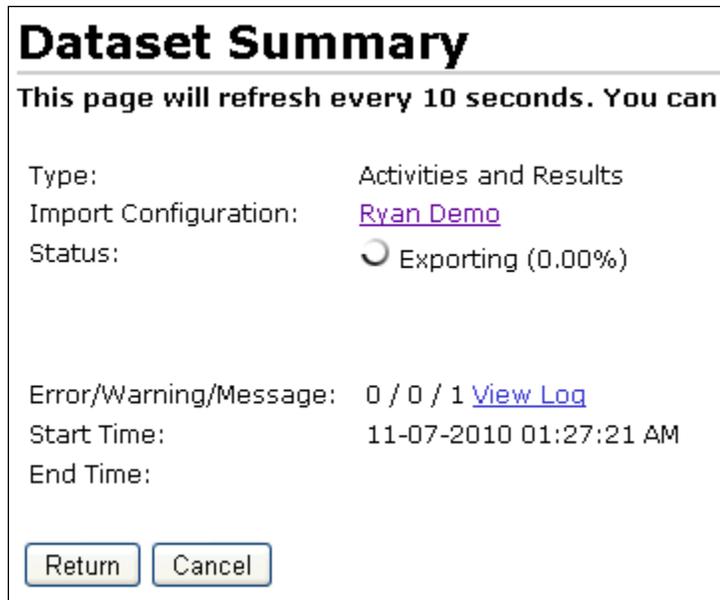
If you check the box to apply a stylesheet to your XML File, the export process will create two files (described later).

The Header Information is used to populate the header that is part of every Exchange Network Submission File. This section is automatically populated from the data from your User Detail Page. Correct any of the header information as necessary. It helps identify who submitted the file and allows

you to add any comments that might be helpful (mostly for your own use) in understanding what this dataset includes.

Click the Continue button to begin the export.

The system will display the Dataset Summary page. When datasets are being imported or exported the Dataset Summary Page has a simplified layout (as seen below). The page provides information regarding the status of a dataset, including the percent complete and a count of any warnings or errors logged so far. An animated image will spin to remind you that an active process is running on the server.



The status of the dataset is displayed. During the export process the status will be one of the following:

Waiting to Export – The dataset has been queued for exporting but has not yet started. Generally a dataset only has this status for a fraction of a second. In many cases you will not even see this status. However, in some cases when the server is heavily loaded, a dataset may remain in this state for an extended period of time waiting for other datasets to finish processing.

Waiting to Export and Submit – Same as previous status, but only used when submitting to CDX

Exporting – The dataset is being exported.

This page will refresh automatically and update the status, percent complete, and provide an estimated end time for the export process. If it appears that it will take more than a few minutes to complete you can choose to navigate elsewhere in the system and perform other tasks or leave the system entirely and come back at a later time. The process will continue on its own and you can check back at any time by following the instructions in the next section.

When the export process completes the dataset will have one of the following statuses:

Exported – The dataset has been exported. This is only used when you are not submitting to CDX. When submitting to CDX this status is skipped.

Processing at CDX – The submission file has been submitted to CDX and is being processed there. Keep in mind that the percent complete and estimated end time will remain fixed at this point (until the file is completed at CDX), because WQX Web doesn't know about incremental progress at CDX.

At this point, the Dataset Summary Page will display an additional table with links to files that you can download.

Documents (available for download)
SubmissionFile-1465.zip
FlatFile-1465.txt

One or two documents will be available after the export has completed.

- SubmissionFile-9999.zip – This is your WQX Submission File (zipped up). The numeric portion of the name will be different each time.
- FlatFile-9999.txt – If you chose to apply a stylesheet to create a flat file version of your dataset, you will also have this file available for download.

For further explanation of these files see the section titled "Downloading Files" below.

When the processing at CDX is completed, the dataset will have one of the following statuses:

Failed at CDX – At least one error was logged while processing the file in the WQX System at CDX.

Completed at CDX – No errors were found while processing the file in the WQX System at CDX. All of your data successfully loaded.

At this point, the list of Documents will include all of the documents created during the processing at CDX (in addition to the ones mentioned previously).

You are here: [Home](#) >> [Datasets](#) >> Dataset Summary

Dataset Summary

Type: Activities and Results
 Import Configuration: [Ryan Debug Results - Expanded](#)
 Status: Failed at CDX

	Import	Export
Errors & Warnings:	31 / 0 View Log	0 / 0
Start Time:	12-16-2008 05:35:31 PM	12-16-2008 10:49:00 PM
End Time:	12-16-2008 05:35:35 PM	12-16-2008 10:49:01 PM
File/Transaction ID:	Ryan - Debug Results - Expanded.txt	_d5b613cb-4175-4580-aa0f-deda2f4b8fb2

Record Counts	Valid	Invalid	Validation Errors	Original	Remaining
Result	16	0	Invalid Domain Value	8	0
Activity	8	0	Invalid Format	9	0
Activity Group	4	0	Max Length Exceeded	2	0
			Required Value Missing	12	0

Documents (available for download)

- [SubmissionFile-1465.zip](#)
- [FlatFile-1465.txt](#)
- [ValidationResults.xml](#)
- [Notify.xml](#)
- [ProcessingReport.zip - View in Browser](#)

The documents available for download are as follows (in the order they are created in the export/submit process):

- **SubmissionFile-9999.zip** – This is your WQX Submission File that was created in the export process. The numeric portion of the name will be different for each dataset. This is an XML document contained inside a Zip File.
 - Even if you submitted this file directly to CDX, you are encouraged to download a copy of this for your own records (so that you have a backup copy of each file sent to EPA).
- **FlatFile-9999.txt** – If you chose to apply a stylesheet to create a flat file version of your dataset during the export process, you will also have this file available for download. The numeric portion of the name will be different for each dataset. This is a tab-delimited text file that contains the same information in it that was contained in your XML submission file. This file can be a useful way to review the data that was sent in your submission file, because it can be easily opened with tools like Microsoft Excel. Keep in mind that this is a one-size-fits-all file that contains columns for every data element available in an import configuration (whether you use them or not), so you may have a large number of columns without any data in them. It will also create several columns for elements that are allowed to repeat multiple times in WQX (such as a Project ID for an Activity).

- ValidationResults.xml – This is a report produced by CDX when it compares your submission file against the WQX XML Schema document (which is a document that describes the format that every WQX Submission File must follow). Typically you will not need to view this document because it will just say that the document was valid. If, for some reason, you never receive the next two documents mentioned below, you should view this document to see if it describes a problem with your file. If it does, you should follow up with EPA because this may suggest a bug in the system that needs to be resolved.
- Notify.xml – This is copy of the final response that the WQX System sent to CDX when it was done processing your submission file. Typically you will not need to view this document because it will just state the final status of your submission (which you already have on this page) and remind you to view the Processing Report (next) to view the outcome of your submission. Once again, if, for some reason, you never receive the next document mentioned below, you should view this document to see if it describes a problem that occurred in the WQX System. If it does, you should follow up with EPA because this may suggest an issue in the WQX System that needs to be resolved.
- ProcessingReport.zip – This is a report of everything that was logged in the WQX System while processing your submission file. It's not critical to look at this file if your dataset status is "Completed at CDX" because all of your data loaded successfully and there is nothing more you need to do. It still may be useful to download and save this file for your records because it contains information that could be useful to you or EPA at some future time. If your final dataset status is "Failed at CDX" (which should be rare), this file is critical for you to look at, because it contains information about errors while processing your submission file.

A few details to note when downloading documents from the Dataset Summary Page:

Certain types of documents will often load in your browser window. Typically this is true for .txt and .xml files.

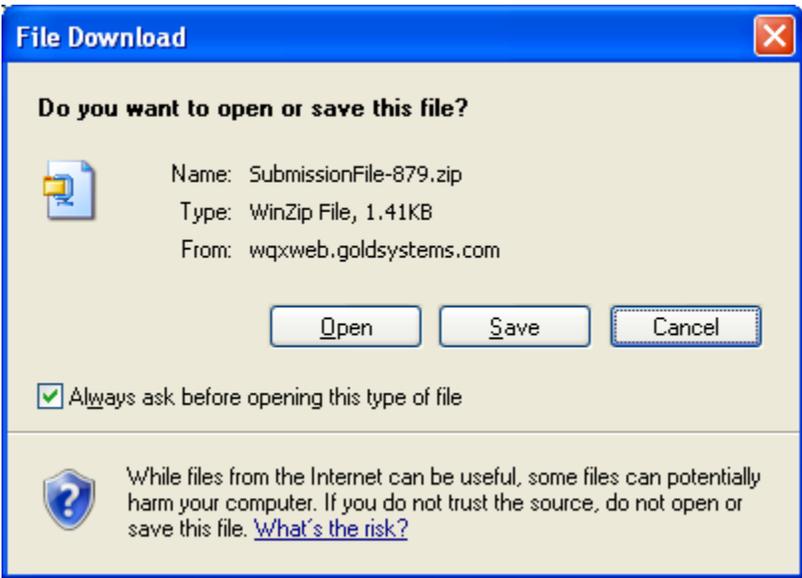
For example, if you click on the FlatFile-9999.txt link you will typically see the file in a separate browser window.

OrganizationIdentifier	OrganizationFormalName	OrganizationDescriptionText	TribalCode	ActivityIdentifier	
WQXTEST	WQX	Test Organization	001	DWNT01F20020801	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20020801	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20020801	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20020801	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20020801	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20020801	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20020801	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20010910	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20010910	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20010910	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20010910	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20010910	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20010910	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20011003	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20011003	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20011003	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20011003	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01F20011003	Field Msr/Obs
WQXTEST	WQX	Test Organization	001	DWNT01S20010910	Sample-Routine
WQXTEST	WQX	Test Organization	001	DWNT01S20010910	Sample-Routine
WQXTEST	WQX	Test Organization	001	DWNT01S20010910	Sample-Routine
WQXTEST	WQX	Test Organization	001	DWNT01S20020801	Sample-Routine
WQXTEST	WQX	Test Organization	001	DWNT01S20020801	Sample-Routine
WQXTEST	WQX	Test Organization	001	DWNT01S20020801	Sample-Routine
WQXTEST	WQX	Test Organization	001	DWNT01S20020801	Sample-Routine
WQXTEST	WQX	Test Organization	001	DWNT01S20011003	Sample-Routine
WQXTEST	WQX	Test Organization	001	DWNT01S20011003	Sample-Routine
WQXTEST	WQX	Test Organization	001	DWNT01S20011003	Sample-Routine
WQXTEST	WQX	Test Organization	001	DWNT01S20011003	Sample-Routine
WQXTEST	WQX	Test Organization	001	DWNT01S20011003	Sample-Routine

If the file does not open, you may need to tell your pop-up blocker to allow pop-ups on this site.

If you want to download and save a local copy of the file, you can right click on the FlatFile-9999.txt link (in Internet Explorer 7) and chose the "Save Target As..." menu. This will open a file window where you can specify the location that you want to save the file.

Zip files will download by default, so you can click their links and you will be given the opportunity to specify the location that you want to save the file.



Unzip the file locally and then open the XML File found inside (ProcessingReport.xml). The Processing Report also has a "View in Browser" link. If you click this link it will be converted to a web-based report using a stylesheet created by EPA. This provides a more user-friendly format (see below).

Here's an example of what the log portion of the processing report looks like when viewed in the browser:

Processing Log

*This table shows unique errors. For line-specific errors, view the source XML file by viewing the Page Source in the Browser	
Message	Parse and Load started at 12/16/2008 11:00:58 PM
Error	Project Identifier "My Main Project" is invalid
Error	Analytical Method Identifier Context (WQXTEST) is invalid. The value must match a value from the domain list or be the same as your Organization Identifier if it's your own private method).
Error	Sample Fraction Name is required when Characteristic Name = "Pyrazon"
Error	Characteristic Name and Result Status Identifier are required when Result Measure is reported
Error	Characteristic Name must be "Count" when Biological Intent Name is "Frequency Class"
Error	Sample Fraction Name is required when Characteristic Name = "Potassium bisulfate"
Error	Monitoring Location Identifier "Monitoring Location 2" is invalid
Error	Project Identifier "Project 2" is invalid
Error	Project Identifier "Project 1" is invalid
Error	Sample Fraction Name is required when Characteristic Name = "5-Nitrovanillin"
Error	Characteristic Name must be "Count" or "Total Sample Weight" when Biological Intent Name is "Population Census"
Error	Monitoring Location Identifier "Monitoring Location 3" is invalid
Error	Sample Collection Method is required when Activity Type Code contains the word "Sample"
Error	Activity Identifier "A1" is invalid
Error	Activity Identifier "A2" is invalid
Message	Parse and Load completed at 12/16/2008 11:01:04 PM

5.7 Deleting a Dataset

Datasets in WQX Web are temporary and only become final after they have been submitted to CDX and loaded successfully in the WQX System. You are encouraged to delete your datasets once they have received a status of "Completed at CDX". Deleting a dataset will have no effect on data that has been submitted to CDX. You are only deleting the temporary data that was used to create the submission file that sent to CDX.

To keep the system clean, datasets that reach a certain age will be automatically removed from the system. The dataset summary page will tell you how many days are remaining before the dataset will be automatically deleted.

You are here: [Home](#) >> [Datasets](#) >> Dataset Summary

Dataset Summary

Type: Activities and Results
 Import Configuration: [Ryan Debug Results - Expanded](#)
 Status: Failed at CDX

Datasets are Temporary

Datasets in WQX Web are temporary and must be submitted to CDX to become permanent.
 To keep this system clean, please delete datasets that have been processed successfully at CDX or are no longer needed. The system will automatically delete this dataset in 15 days.

<p>Import</p> <p>Errors & Warnings: 31 / 0 View Log Start Time: 12-16-2008 05:35:31 PM End Time: 12-16-2008 05:35:35 PM File/Transaction ID: Ryan - Debug Results - Expanded.txt</p>	<p>Export</p> <p>0 / 0 12-16-2008 11:00:21 PM 12-16-2008 11:00:26 PM _68999e74-889f-4a8c-a83b-b9210fe46aff</p>
--	--

Record Counts	Valid	Invalid	Validation Errors	Original	Remaining
Result	16	0	Invalid Domain Value	8	0
Activity	8	0	Invalid Format	9	0
Activity Group	4	0	Max Length Exceeded	2	0
			Required Value Missing	12	0

Documents (available for download)

[SubmissionFile-1465.zip](#)

[FlatFile-1465.txt](#)

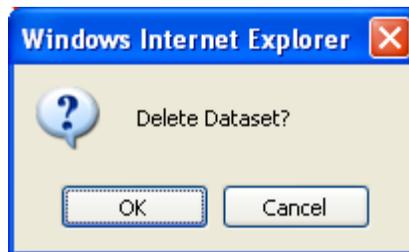
[ValidationResults.xml](#)

[Notify.xml](#)

[ProcessingReport.zip](#)

To delete a dataset manually, click the Delete button on the Dataset Summary Page.

You will be asked to confirm before the dataset is actually deleted.



You will then be returned to the Datasets list page.

6. Viewing the Event Log

Click on the "Event Log" link on the navigation panel to view the Event Log.

You are here: [Home](#) >> Event Log

Event Log

Show Events Created By: ▼

ID	Start Time	Type	Messages
7900	12-16-2008 11:45:20 PM	Application Error	1 View
7899	12-16-2008 11:45:20 PM	Application Error	1 View
7898	12-16-2008 11:00:21 PM	Export	0
7897	12-16-2008 10:59:04 PM	Export	0
7896	12-16-2008 10:49:00 PM	Export	0
7895	12-16-2008 10:47:59 PM	Export	0
7894	12-16-2008 10:46:13 PM	Export	0
7893	12-16-2008 10:45:52 PM	Application Error	1 View
7891	12-16-2008 05:35:31 PM	Import	31 View
7837	12-16-2008 11:32:05 AM	Import	139 View
7836	12-16-2008 11:27:23 AM	Import	276 View
7832	12-16-2008 11:21:27 AM	Import	139 View

Page 1 of 70

The filter for the event log will automatically be set to show events for the current user.

Pick a different user from the dropdown list titled "Show Events Created By:" to change the filter to another user. The dropdown list only includes users that belong to the same organizations that you belong to. If you are a system administrator you can also view system events by picking "System" from the dropdown list.

To view individual event log messages use the following steps:

Click the "View" link in the Message column. This will display the Event Log Messages page.

You are here: [Home](#) >> [Event Log](#) >> Event Log Messages

Event Log Messages

Details
 Summary
 Errors Only

ID	Type	Message	Context
277323	Error	Value has exceeded its maximum length: 'A234567890123456789012345678901234567890'	Row 2
277324	Error	Invalid value '0010(BT)' for Result Analytical Method ID	Row 2
277325	Error	Invalid value '00-04' for Result Analytical Method ID	Row 3
277326	Error	Value does not match its required format: '6/32/1999'	Row 5
277327	Error	Invalid value '00-04' for Result Analytical Method ID	Row 5
277328	Error	Value does not match its required format: '8/8//1999'	Row 8
277329	Error	Value has exceeded its maximum length: 'A234567890123456789012345678901234567890'	Row 8
277330	Error	Invalid value '0010(BT)' for Result Analytical Method ID	Row 8
277331	Error	Invalid value '0010(BT)' for Result Analytical Method ID	Row 10
277332	Error	Invalid value '00-04' for Result Analytical Method ID	Row 11
277333	Error	Invalid value '00-04' for Result Analytical Method ID	Row 13
277334	Error	Invalid value '0010(BT)' for Result Analytical Method ID	Row 16

You can select the Summary radio button at the top of the page to get a summary of each error or warning (and the number of times it occurred).

You are here: [Home](#) >> [Event Log](#) >> Event Log Messages

Event Log Messages

Details
 Summary
 Errors Only

Type	Message	Count
Error	Invalid value '00-04' for Result Analytical Method ID	63
Error	Invalid value '0010(BT)' for Result Analytical Method ID	63
Error	Value does not match its required format: '6/32/1999'	16
Error	Value does not match its required format: '8/8//1999'	16
Error	Value has exceeded its maximum length: 'A234567890123456789012345678901234567890'	32

Check the "Errors Only" checkbox if you want to only view errors (and hide warnings and messages)

7. Reviewing Data in WQX

Once your submission file has loaded successfully into the WQX System, you can query WQX and review your data. This is a new feature in WQX Web version 2.0. There are a series of search/list pages that allow you to enter basic search criteria and view a list of records in WQX that match the criteria.

7.1 Projects List Page

Please review Section 3.6.2 "List Page Features" for an explanation of features common to all list pages.

Click the "Projects" link in the Navigation Panel to open the Projects List Page. This page allows you to enter search criteria and then query WQX for matching project records.

Projects

Organization ID: Project ID:

Project ID	Project Name	Sampling Design Type	Description	Last Changed On	Last Changed By
AEPP-129-08-AIS	2008 AIS Awareness/Prevention, Early Detection (Aquatic Invasives Monitoring)		2008 AIS Awareness/Prevention, Early Detection (Aquatic Invasives Monitoring)	09-19-2008 04:59 PM	
AEPP-129-08-CBCW	2008 AIS Awareness/Prevention, Early Detection (Clean Boats)		2008 AIS Awareness/Prevention, Early Detection (Clean Boats)	09-19-2008 04:58 PM	
AEPP-077-07	AIS Awareness, Prevention & Early Detection		Grantee is TOWN OF SAINT GERMAIN The Town of St. Germain is sponsoring an Aquatic Invasive Species ...	09-19-2008 04:58 PM	
AEPP-081-07	AIS Community Awareness		Grantee is TOWN OF WINCHESTER The Town of Winchester is sponsoring an Aquatic Invasive Species Educ...	09-19-2008 04:58 PM	
AEPP-080-07	AIS Control for Evasion of		Grantee is VILLAGE OF SOLON SPRINGS The	09-19-2008	

Row 1 - 500 of 3796

The "Project ID" search criteria supports partial matching by using a special wildcard character "%" to represent "any value"

Clicking on the links in the Project ID column in the table will navigate to the Activities List Page and filter the list to display the activities for the selected project.

7.2 Monitoring Locations List Page

Please review Section 3.6.2 "List Page Features" for an explanation of features common to all list pages.

Click the "Monitoring Locations" link in the Navigation Panel to open the Monitoring Locations List Page. This page allows you to enter search criteria and then query WQX for matching monitoring location records.

Monitoring Locations

Organization ID: Monitoring Location ID: Name:

Monitoring Location ID	Monitoring Location Name	Monitoring Location Type	Latitude	Longitude	Last Changed On	Last Changed By	
MS1028	Abiaca Creek	River/Stream	33.338333	-90.157972	09-17-2010 07:37 PM	Mark M. LeBaron	
MS161	Abiaca Creek	River/Stream	33.340556	-90.150722	09-17-2010 07:37 PM	Mark M. LeBaron	
MS348	Alamuchee Creek	River/Stream	32.366222	-88.415444	09-17-2010 07:37 PM	Mark M. LeBaron	
MS234	Apookta Creek	River/Stream	33.113222	-89.764278	09-17-2010 07:37 PM	Mark M. LeBaron	
MS738	Arkabutla Creek	River/Stream	34.523361	-90.024056	09-17-2010 07:38 PM	Mark M. LeBaron	
MS17	Arkabutla Creek	River/Stream	34.650528	-90.066194	09-17-2010 07:37 PM	Mark M. LeBaron	

Row 1 - 500 of 678

The "Monitoring Location ID" and "Name" search criteria support partial matching by using a special wildcard character "%" to represent "any value"

Clicking on the links in the Monitoring Location ID column in the table will navigate to the Activities List Page and filter the list to display the activities for the selected monitoring location.

7.3 Activities List Page

Please review Section 3.6.2 "List Page Features" for an explanation of features common to all list pages.

Click the "Activities" link in the Navigation Panel to open the Activities List Page. This page allows you to enter search criteria and then query WQX for matching activity records.

Activities

Organization ID: Activity ID: Activity Type:
 Project ID: Monitoring Location ID:
 Activity Date Between: And

Activity ID	Date	Activity Type	Monitoring Location ID	Monitoring Location Name	Last Changed On	Last Changed By
DLT_208_C-927	01-22-2002	Sample-Routine	MSDLT_208	White River	04-03-2009 07:19 PM	
DLT_306_C-931	02-05-2002	Sample-Routine	MSDLT_306	Old Little Tallahatchie Rv.	04-03-2009 07:19 PM	
DLT_306_C-976	07-16-2002	Sample-Routine	MSDLT_306	Old Little Tallahatchie Rv.	04-03-2009 07:19 PM	
DLT_311_C-539	07-24-2002	Sample-Routine	MSDLT_311	U.T. to Darr Bayou	04-03-2009 07:19 PM	

Row 1 - 500 of 1127

The "Activity ID", "Project ID" and "Monitoring Location ID" search criteria support partial matching by using a special wildcard character "%" to represent "any value"

Clicking on the links in the Activity ID column in the table will navigate to the Results List Page and filter the list to display the results for the selected activity.

7.4 Activity Groups List Page

Please review Section 3.6.2 "List Page Features" for an explanation of features common to all list pages.

Click the "Activity Groups" link in the Navigation Panel to open the Activity Groups List Page. This page allows you to enter search criteria and then query WQX for matching activity group records.

Activity Groups

Organization ID: Group ID: Type:
 Activity Dates Between: And

Group ID	Type	Name	First Date	Last Date	Activity Count	Last Changed On	Last Changed By
0407009-006-FMO-FD	Replicate	0407009-006-FMO-FD Field Duplicate Event	07-20-2004	07-20-2004	4	11-25-2008 05:33 PM	
0407009-006-SPM-002-FD	Replicate	0407009-006-SPM-002-FD Field Duplicate Event	07-20-2004	07-20-2004	2	11-25-2008 05:33 PM	
0407009-006-SPM-003-FD	Replicate	0407009-006-SPM-003-FD Field Duplicate Event	07-20-2004	07-20-2004	2	11-25-2008 05:33 PM	
0407009-006-SPM-005-FD	Replicate	0407009-006-SPM-005-FD Field Duplicate Event	07-20-2004	07-20-2004	2	11-25-2008 05:33 PM	
0407009-007-SPM-001-TB	QC Sample	0407009-007-SPM-001-TB-Trip Blank	07-20-2004	07-20-2004	3	11-25-2008 05:33 PM	
0407009-007-SPM-002-TB	QC Sample	0407009-007-SPM-002-TB-Trip Blank	07-20-2004	07-20-2004	7	11-25-2008 05:33 PM	

Row 1 - 11 of 11

The "Activity Group ID" search criteria supports partial matching by using a special wildcard character "%" to represent "any value"

7.5 Results List Page

Please review Section 3.6.2 "List Page Features" for an explanation of features common to all list pages.

Click the "Results" link in the Navigation Panel to open the Results List Page. This page allows you to enter search criteria and then query WQX for matching result records.

Results

Organization ID: Activity ID: Activity Type: Search

Project ID: Monitoring Location ID: Clear

Activity Date Between: And Characteristic: Taxon: Unit of Measure: Sample Fraction:

Activity Date	Activity Type	Monitoring Location ID	Characteristic	Value	UoM	Fraction	Detection Condition	Taxon Name	Last Changed On	Last Changed By
12-03-1993	Field Msr/Obs	005	Dissolved oxygen (DO)	8	mg/l				09-29-2008 04:45 PM	
12-03-1993	Field Msr/Obs	006	Dissolved oxygen (DO)	8.5	mg/l				09-29-2008 04:45 PM	
12-03-1993	Field Msr/Obs	011	Dissolved oxygen (DO)	8.5	mg/l				09-29-2008 04:45 PM	
01-20-1994	Field Msr/Obs	011	Dissolved oxygen (DO)	12.9	mg/l				09-29-2008 04:45 PM	
03-03-1994	Field Msr/Obs	004	Dissolved oxygen	12	mg/l				09-29-2008	

Row 1 - 500 of 5129

The "Activity ID", "Project ID" and "Monitoring Location ID" search criteria support partial matching by using a special wildcard character "%" to represent "any value"

7.6 Bio/Habitat Indices List Page

Please review Section 3.6.2 "List Page Features" for an explanation of features common to all list pages.

Click the "Bio/Habitat Indices" link in the Navigation Panel to open the Biological/Habitat Indices List Page. This page allows you to enter search criteria and then query WQX for matching index records.

Bio/Habitat Indices

Organization ID: Index ID: Search Clear

Monitoring Location ID: Date Between: And

Index ID	Index Type ID	Score	Calculated Date	Monitoring Location ID	Last Changed On	Last Changed By
1001_1277MBISQ_EAST	MSIBI-EAST	74		MS1001	09-16-2010 02:34 PM	Mark M. LeBaron
1002_1278MBISQ_EAST	MSIBI-EAST	68		MS1002	09-16-2010 02:34 PM	Mark M. LeBaron
1003_1279MBISQ_EAST	MSIBI-EAST	79		MS1003	09-16-2010 02:34 PM	Mark M. LeBaron
1009_1280MBISQ_EAST	MSIBI-EAST	72		MS1009	09-16-2010 02:34 PM	Mark M. LeBaron
1011_1281MBISQ_EAST	MSIBI-EAST	29		MS1011	09-16-2010 02:34 PM	Mark M. LeBaron
1012_1282MBISQ_EAST	MSIBI-EAST	37		MS1012	09-16-2010 02:34 PM	Mark M. LeBaron

Row 1 - 500 of 509

The "Monitoring Location ID" search criteria supports partial matching by using a special wildcard character "%" to represent "any value"

8. Setting User Preferences

Click on the “Preferences” link in the Navigation Panel to open the Preferences Page. Use this page to customize the way you want the system to behave.

Preferences

Organization
 Default:

Import Configuration Page
 Column Delimiter:

Import File Page
 Ignore First Row of Import Files

Max. Length Resolution Page
 Resolution:

Domain Value Resolution Page
 Resolution:

List Pages
 Number of Results Per Page:
 Monitoring Location Sort Order:

The preferences currently available are:

- **Organization Default:** Indicates the default Organization ID to select as criteria on the list pages
- **Import Configuration Page, Column Delimiter:** This sets the default value for the Column Delimiter field on a new import configuration. It can be overridden each time you create an import configuration.
- **Import File Page, Ignore First Row of Import Files:** This sets the default value for this check box on the Import File Page and can be overridden each time you import a file
- **Max Length Resolution Page, Resolution:** This sets the default value for this field on the Max Length Resolution Page. See the Max Length Resolution Page for more information.
- **Domain Value Resolution Page, Resolution:** This sets the default value for this field on the Domain Value Resolution Page. See the Domain Value Resolution Page for more information.
- **List Pages, Number of Results Per Page:** Indicates the number of rows to display on each page of a list page. A high number will result in fewer pages to page through, but will also make each page return a bit slower.
- **List Pages, Monitoring Location Sort Order:** The default sort order for the Monitoring Locations List Page.

9. Changing Your User Information

The User Detail Page allows you to change your contact information (Name, Address, Email, etc). The information on this page is also used on the Export Page. Each time you create a WQX Submission file you are given an opportunity to include contact information in your file. That page will be filled out with the information you provide on this page. See the Export Page for more information.

Click the "User Information" link on the navigation panel to open the User Detail Page. *Depending on the role of the user, this link will behave differently (see the next section for details).*

User Detail

Status:	Enabled
Login Name:*	<input type="text" value="rjorgensen"/>
Password:*	<input type="password" value="•"/>
Full Name:*	<input type="text" value="Ryan Jorgensen"/>
Role:*	<input type="text" value="Administrator"/> ▼
WQX/NAAS ID:*	<input type="text" value="ryanj@goldsystems.com"/>
Affiliation:	<input type="text" value="Gold Systems"/>
Address:	<input type="text" value="3330 South 700 East"/>
City:	<input type="text" value="SLC"/>
State:	<input type="text" value="UT"/>
Zip:	<input type="text" value="84016"/>
Country:	<input type="text" value="USA"/>
Phone #:	<input type="text" value="801-456-6105"/>
Email:	<input type="text" value="ryanj@goldsystems.com"/>

[View User Access Rights](#)

10. Administration

This section describes features available to administrators, support, and standard users.

10.1 Roles

Each user is assigned a role in WQX Web. It's useful to have an understanding of the various roles and their rights as you read through the rest of this section.

Roles determine a user's rights to certain pages or features within the system. Roles are not, for the most part, used to assign rights to data. Rights to data is managed separately. The following roles (and related rights) exist in WQX Web:

Administrator

- Can add, edit, enable, and disable users

- Can add organizations

- Can manage any user's rights on any organization or import configuration

An administrator does not have rights to all data in the system by default. Instead an administrator grants himself/herself whatever rights are needed or wanted. It is typical to grant at least read-only rights to all organizations and all import configurations so that he/she can view everything in the system.

- Can add/edit/delete values in all lookup tables except organization-specific lookup values (whose rights are assigned via organization rights, rather than roles)

- Can view event logs for all users including system events.

- Can access all pages within the system

Support User

- Can view all users and edit their information (except for their Login Name, Role, or WQX/NAAS ID)

- Cannot add, enable or disable users

- Can view all users' rights on organizations

- Can manage all users' rights on import configurations

- Can view values in all lookup tables except organization-specific lookup values (whose rights are assigned via organization rights, rather than roles)

- Can view event logs for all users including system events.

- Can access all pages within the system

Standard User

- Can view his/her own user account and edit his/her own contact information, but cannot edit certain fields that are limited to administrators (such as Login Name, Role, or WQX/NAAS ID).
 - Cannot view the Users List Page

Training User

This role is only to be used on training accounts for WQX Web. To work correctly, a training user must be assigned only one organization (with Administrator rights on that organization). This role will provide a user with all the same rights as a Standard User, in addition to the following:

- Can click a Reset Button on the Home Page which will delete all datasets and import configurations created by the user, and then restore a standard set of import configurations that are used for training purposes.

10.2 Managing Users

To edit a user's information, click on the "User Information" link on the navigation panel.

Note: the User Information link behaves differently for administrator and support users than it does for standard users. For administrators and support users, rather than going directly to the User Detail Page (for your own user account), this link will take you to the Users List Page where you can select the specific user account you wish to edit.

You are here: [Home](#) >> [Users](#)

Users

Show Inactive Users

Login Name	Full Name	Affiliation	Active?
jschimek	Jenn Schimek	RTI	Yes
jwellman	Jennifer Wellman	Pueblo of Santa Ana, New Mexico	Yes
jbisese	Jimmy Bisese	RTI	Yes
jfreise	John Freise	Cherokee Nation, Oklahoma	Yes
jwright	Julia Wright	Osage Tribe, Oklahoma	Yes
kcs	Kevin Christian	US EPA	Yes
gkb	Kristen Gunthardt	US EPA	Yes
mlebaron	Mark M. LeBaron	Gold Systems, Inc.	Yes
nbove	Nathan Bove	Gold Systems	Yes
pdz	Paul Andrews	RTI	Yes
rcooke	Rick Cooke	Gold Systems	Yes
rjorgensen	Ryan Jorgensen	Gold Systems	Yes

[Return](#) [Add New](#) Row 1 - 105 of 105

From the Users list page, you can view/edit an existing user by clicking the appropriate link in the "Full Name" column of the list. To add a new user, click the "Add New" button.

The User Detail page will be displayed.

User Detail

Status:	Enabled
Login Name:*	<input type="text" value="rjorgensen"/>
Password:*	<input type="password" value="•"/>
Full Name:*	<input type="text" value="Ryan Jorgensen"/>
Role:*	<input type="text" value="Administrator"/> ▼
WQX/NAAS ID:*	<input type="text" value="ryanj@goldsystems.com"/>
Affiliation:	<input type="text" value="Gold Systems"/>
Address:	<input type="text" value="3330 South 700 East"/>
City:	<input type="text" value="SLC"/>
State:	<input type="text" value="UT"/>
Zip:	<input type="text" value="84016"/>
Country:	<input type="text" value="USA"/>
Phone #:	<input type="text" value="801-456-6105"/>
Email:	<input type="text" value="ryanj@goldsystems.com"/>

[View User Access Rights](#)

Fill in the user information, as appropriate.

Login Name:

This is the user’s CDX-Web account name. Note: A user must have a valid CDX-Web account and be granted rights to the WQX: WQX Web application before they will have access to this application.

WQX/NAAS ID:

This is the account name used when submitting a WQX Submission File to CDX. This should match the account name created for this user in the WQX System. If a user has an Exchange Network NAAS Account, use it. Otherwise, it’s recommended that you fill in the user’s email address here (and use their email address as their account name in the WQX System).

Role:

Places the user into a group with certain rights in the system. See the section above for a full explanation on the roles available.

10.2.1 Enabling/Disabling a User Account

Before a user is allowed access to the system, their user account must be enabled. Click the “Enable User” button on the User Details page to enable a new user (or previously disabled user).

To prevent a user from accessing the system, you can disable their account. Click the "Disable User" button on the User Details page to disable a user.

10.3 Managing User Rights to Organizations and Import Configurations

A user's rights to organizations and import configurations are managed on the "User Rights" Page. This page can be accessed from several different pages within the system and has a different layout depending on the page from which it is accessed. An administrator can also change this context-specific layout by changing the value in the [Show] "Rights For" drop-down list at the top of the page.



There are three values in this dropdown list (that control the page layout):

User

The page shows a tabbed form where rights on organizations and import configurations can be assigned to a specific user.

Organization

The page shows users and their rights on a specific organization.

Import Configuration

The page shows users and their rights on a specific import configuration.

10.3.1 Viewing and Changing Rights for a User

When a user accesses the User Rights Page from the User Detail Page or when an administrator changes the "Rights For" dropdown list to "User", then this page will have a layout appropriate for viewing all the rights for a specific user

The page has two tabs: one for the user's rights on organizations and one for the rights on import configurations.

Organization (tab):

Rights For:

User:

Organization

	Organization	Access Type
Delete	21KAN001_WQX ~ Kansas Dept. of Health & Environment	<input type="text" value="Administrator"/>
Delete	GOLDMARK ~ Gold Systems - Mark	<input type="text" value="Administrator"/>
Delete	GOLDRYAN ~ Gold Systems - Ryan	<input type="text" value="Administrator"/>
Delete	GOLDSHARED ~ Gold Systems - Shared	<input type="text" value="Administrator"/>
Delete	KATTEST ~ Katrina Test	<input type="text" value="Administrator"/>
Delete	TESTORG1 ~ Test Organization 1	<input type="text" value="Read Only"/>
Delete	WQXTEST ~ WQX Test Organization	<input type="text" value="Administrator"/>
Add	<input type="text"/>	<input type="text" value="Read Only"/>

Note: Standard Users and Support Users have read-only access on this tab.

To assign rights on a new organization:

Navigate to the last row of the list labeled "Add".

In the "Add" row, choose the organization for which you wish to grant rights.

There is also a special value of "*All Organizations" which can be used to grant rights on all organizations. A user's rights on a specific organization will override his/her rights to "All Organizations".

Choose the Access Type you wish the user to have:

Administrator: allows a user to view/manage an organization's data, imported datasets and organization-specific lookup values in the following tables: Analytical Method, Citation, Index Type, Metric Type, Lab Sample Prep. Method, Sample Collection Method, and Sample Preparation Method.

Read Only: allows a user to view an organization's data, imported datasets and lookup table values.

To remove a user's rights on an organization:

Click the Delete link for the appropriate row.

Click the Save button to save your changes (and remain on the page). Click the Return button to save and return to the previous page.

Import Configuration (tab):

Rights For: User

User: Ryan Jorgensen

Organization Import Configuration

	Creator	Import Configuration	Access Type
Delete	Ryan Jorgensen	1064 ~ Ryan - Projects Full	Edit/Delete
Delete	Ryan Jorgensen	1065 ~ Ryan - Results Demo	Edit/Delete
Delete	Mark M. LeBaron	1070 ~ MarksMonitoringLocationConfig	Edit
Delete	Ryan Jorgensen	1080 ~ Ryan - Projects Simple	Edit/Delete
Delete	Ryan Jorgensen	1092 ~ Ryan - Results Expanded	Edit/Delete
Delete	Mark M. LeBaron	1261 ~ MarkActivityOnlyBottomUpTest	Edit/Delete
Delete	Ryan Jorgensen	1351 ~ R10	Edit/Delete
Delete	Ryan Jorgensen	2043 ~ Ryan - Monitoring Locations Simple	Edit/Delete
Delete	Ryan Jorgensen	2139 ~ Ryan - Results Crosstab	Edit/Delete
Delete	Ryan Jorgensen	2142 ~ Copy of TRAINING IMPORT RESULTS	Edit/Delete
Add			Edit

Return Save Cancel

Note: Standard Users have read-only access on this tab. Support Users have full access.

To assign rights on a new import configuration:

Navigate to the last row of the list labeled "Add".

In the "Add" row, choose the creator of the import configuration you are interested in (this will act as a filter on the Import Configuration list in the next column).

If you assigning rights on all import configurations (see below), then the "Creator" may be left blank.

Choose the Import Configuration

There is also a special value of "*All Import Configurations" which can be used to grant rights on all import configurations. A user's rights on a specific import configuration will override his/her rights on "All Import Configurations".

Choose the Access Type you wish the user to have:

Read Only – User can view and use the import configuration.

Edit – User can make modifications to (and use) the import configuration.

Edit/Delete – User can make modifications to and delete (and use) the import configuration.

To remove a user’s rights on an organization:

1. Click the Delete link for the appropriate row.

Click the Save button to save your changes (and remain on the page). Click the Return button to save and return to the previous page.

10.3.2 Viewing and Changing Rights on an Organization

When a user accesses the User Rights Page from the Organization Detail Page or when an administrator changes the "Rights For" dropdown list to "Organization", then this page will have the following layout (appropriate for viewing the users and their rights on a specific organization)

Rights For:

Organization:

	User	Access Type
Delete	Andy Van den Akker	Administrator
Delete	Dave Wilcox	Administrator
Delete	Deepti Puri	Administrator
Delete	Default System Administrator	Administrator
Delete	Dwane Young	Administrator
Delete	Ehren Weerheim	Read Only
Delete	Eric Wilson	Administrator
Delete	Jeff Willard	Administrator
Delete	Kevin Christian	Administrator
Delete	Rick Cooke	Administrator
Delete	Ryan Jorgensen	Administrator
Delete	Test Ryan	Read Only
Delete	Test Standard User	Administrator
Add	<input type="text"/>	Read Only

Note: Standard Users and Support Users have read-only access in this mode.

To assign users and their rights to an organization:

1. Choose the organization for which you wish to manage rights from the organization dropdown list. A list of users already associated with the organization will be displayed.
2. Navigate to the last row of the list labeled "Add".
3. In the "Add" row, choose the User for whom you wish to grant rights to the organization.
4. Choose the Access Type you wish the user to have:
 - a. Administrator: allows a user to view/manage an organization's data, imported datasets and organization-specific lookup values in the following tables: Analytical Method, Citation, Index Type, Metric Type, Lab Sample Prep. Method, Sample Collection Method, and Sample Preparation Method.
 - b. Read Only: allows a user to view an organization's data, imported datasets and lookup table values.

To remove a user's rights to an organization:

Click the Delete link for the appropriate row.

Click the Save button to save your changes (and remain on the page). Click the Return button to save and return to the previous page.

10.3.3 Viewing and Changing Rights on an Import Configuration

When a user accesses the User Rights Page from the Import Configuration Detail Page or when an administrator changes the "Rights For" dropdown list to "Import Configuration", then this page will have the following layout (appropriate for viewing the users and their rights on a specific import configuration)

Rights For:	Import Configuration	
Import Configuration:	Mark M. LeBaron ~ MarkActivityOnlyBottomUpTest	
User		Access Type
Delete	Mark M. LeBaron	Edit/Delete
Delete	Ryan Jorgensen	Edit/Delete
Add		Edit
<input type="button" value="Return"/>	<input type="button" value="Save"/>	<input type="button" value="Cancel"/>

Note: Standard Users have read-only access in this mode. Support Users have full access.

To assign a user rights to an import configuration:

4. Choose the import configuration to manage rights for
5. Navigate to the last row of the list labeled "Add".
6. In the "Add" row, choose the user.
7. Choose the access type you wish the user to have:
 - a. Read Only – User can view the import configuration but can't modify or delete it.
 - b. Edit – User can view and edit the import configuration but can't delete it.
 - c. Edit/Delete – User can view, edit, and delete the import configuration.

To remove a user's rights to an organization:

Click the Delete link for the appropriate row.

Click the Save button to save your changes (and remain on the page). Click the Return button to save and return to the previous page.

10.4 Managing Organizations

1. Click on the Organizations link on the navigation panel to open the Organizations list page.

You are here: [Home](#) >> Organizations

Organizations

ID	Name
SANDIA	Pueblo of Sandia
WQXTEST	WQX Test Organization
SANCLR	Santa Clara Pueblo
SANANA	Pueblo of Santa Ana
TCEQMAIN	Texas Commission on Environmental Quality
MA_DEP	Massachusetts Department of Environmental Protection
OREGONDEQ	Oregon Department of Environmental Quality
WIDNR_WQX	Wisconsin Department of Natural Resources
21KAN001_WQX	Kansas Dept. of Health & Environment
HUALAPAI	Hualapai Tribe
DEMOTEST	The Commission for a Good Clean Chesapeake Bay
GOLDMARK	Gold Systems - Mark

[Return](#)
[Add New](#)
 Row 1 - 500 of 764
 [First](#)
[Prev](#)
[Next](#)
[Last](#)

- To create a new organization, click the Add New button. Otherwise click the link for a specific organization that you wish to view/edit. The Organization Details page will be displayed.

You are here: [Home](#) >> [Organizations](#) >> Organization Detail

Organization Detail

ID:*

Name:*

Description:

Tribe:

Address: (Limit: 3) [Add](#)

Type*	Address*	Supplemental Address	City/Locality	Country	State	Postal Code	County
Location	3330 South 700 East	Ste C		US ~ United States	UT ~ Utah		Salt Lake

Phone: [Add](#)

Type*	Phone Number*	Extension
Fax	802-443-7449	
Office	800-876-9878	9786

Email/Web Address: [Add](#)

Type*	Address*
Email	acme@whatever.com
Internet	www.acme.com
Intranet	http://localhost/acme/index.html

[View User Access Rights](#)

[Return](#)
[Save](#)
[Cancel](#)
[Delete](#)

- Fill in the Organization information
 - Use the Add link to add up to 3 Organization Addresses.
 - Use the Add link to add Organization Phone Numbers.

- c. Use the Add link to add Organization Email/Web Addresses.
4. Click the Save button or the Return button to save the new organization
5. Click the View User Access Rights to manage the rights for the new organization.

To remove an address, phone number etc, click the Remove link on the row you wish to remove. Click the Save or the Return button to save the changes.

11. Managing Lookup Tables

Lookup tables are a list of allowed values for a given data element. The lists can be used as a reference for the allowable values for an element. Most lookup tables are controlled by EPA and are read-only. A few lookup tables are also editable.

11.1 Viewing the values in a lookup table

Click on the “Lookup Tables” link in the Navigation Panel to view the list of lookup tables.

Lookup Tables

- [Download](#) [ACTIVITY GROUP TYPE](#)
- [Download](#) [ACTIVITY MEDIA](#)
- [Download](#) [ACTIVITY MEDIA SUBDIVISION](#)
- [Download](#) [ACTIVITY TYPE](#)
- [Download](#) [ADDRESS TYPE](#)
- [Edit](#) [Download](#) [ANALYTICAL METHOD](#)
- [Download](#) [ANALYTICAL METHOD CONTEXT](#)
- [Download](#) [ASSEMBLAGE](#)
- [Download](#) [BIOLOGICAL INTENT](#)
- [Download](#) [CELL FORM](#)
- [Download](#) [CELL SHAPE](#)
- [Download](#) [CHARACTERISTIC](#)
- [Download](#) [CHARACTERISTIC PICK LIST VALUE](#)
- [Download](#) [CHARACTERISTICS WITH PICK LIST](#)
- [Edit](#) [Download](#) [CITATION](#)
- [Download](#) [CONTAINER COLOR](#)
- [Download](#) [CONTAINER TYPE](#)
- [Download](#) [COUNTRY](#)
- [Download](#) [COUNTY](#)
- [Download](#) [DETECTION/QUANTITATION LIMIT TYPE](#)
- [Download](#) [ELECTRONIC ADDRESS TYPE](#)

Select the link for the table you wish to view (for example, select the Characteristic link).

CHARACTERISTIC
Characteristic Name (partial)

Type in a partial characteristic name such as “sil”.

CHARACTERISTIC
Characteristic Name (partial)

Click the Show Values button. The system will display any matches it finds in the table.

CHARACTERISTIC
Characteristic Name (partial)

Name	SRS ID	Sample Fraction Required
2,4,5-T + Silvex	966754	Y
Cryptomonas pusilla	1852383	N
Decamethylcyclopentasiloxane	52019	N
Fluorotrimethylsilane	45112	Y
Hexamethylcyclotrisiloxane	52027	Y
Octamethylcyclotetrasiloxane	53975	N
RBP Substrate - Silt 0.004-0.06 mm	1645134	N
RBP2, Habitat type, sand-silt-mud-muck (%)	1644988	N
RBP2, Substrate, Inorganic, Silt, 0.004-0.06 mm	1645134	N
Silica	151977	N
Silicate	962233	N
Silicate/dissolved inorganic nitrogen ratio	17328048	N
Silicon	149831	N
Silicon as SiO2		Y
Silt	52456985	N
Silver	149849	Y
Silver-110	776666	N
Silvex	15057	N
Silvex isoocetyl ester	262402	N
Substrate - silt	1645142	N
Substrate - silt, coarse	1645159	N
Substrate - silt, fine	1645167	N
Substrate - silt, medium	1645175	N
Substrate - silt, very fine	1645183	N
Substrate - silt/clay mix	1645191	N

Click the Cancel button to return to the Lookup Tables page.

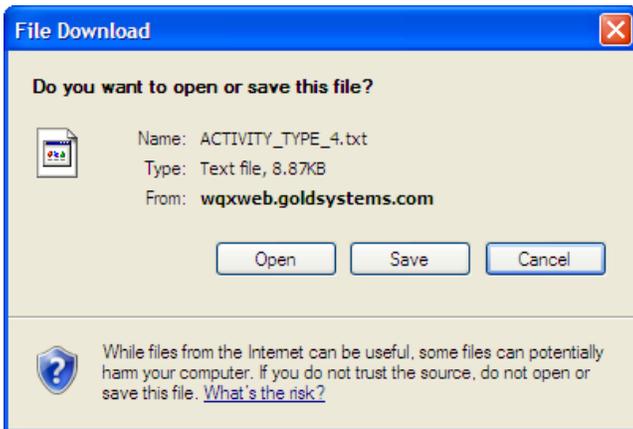
11.2 Downloading the values in a lookup table

Click on the "Lookup Tables" link in the Navigation Panel to view the list of lookup tables.

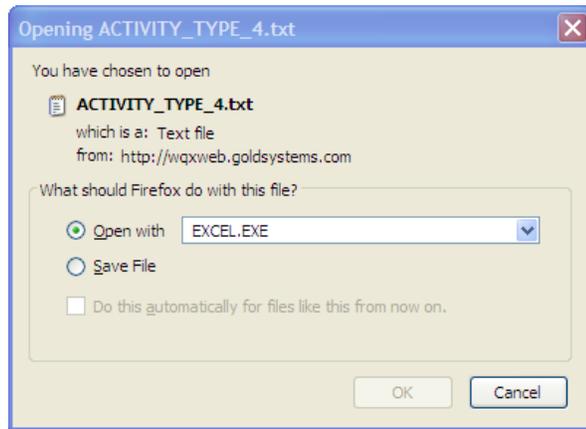


Select the "Download" link for the table you wish to download (for example, select the Download link next to "Activity Type").

Each type of browser behaves slightly different at this point. Internet Explorer and Firefox will pop-up a dialog window and ask if you want to Open or Save the file.

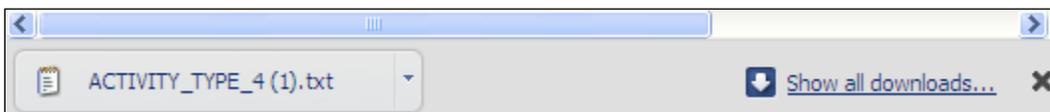


Internet Explorer



Firefox

Google Chrome will download the file and provide a button at the bottom left corner of the window to open it.



Unless the browser (e.g. Firefox) asks you what program to use to open the file, it will open with whatever program is assigned to the ".TXT" file extension (e.g. Notepad, Excel, etc).

UID Code	Description	Analytical Method Required	Monitoring Location Required	Last Change Date	
1	Field Msr/Obs	MEASUREMENTS involve something measured in its environmental setting usually using some type of equipment. OBSERVATIONS are made by people, usually without the use of equipment, and are frequently qualitative.	N	Y	7/26/2006 10:57
3	Field Msr/Obs-Habitat Assessment	A field activity conducted to evaluate a habitat, according to an organization's pre-defined habitat assessment scheme.	N	Y	7/26/2006 10:57
2	Field Msr/Obs-Portable Data Logger	Measurements made in the field by an automated data logging device, running unattended and producing a suite of data values at repeating intervals set by its owner/operator.	N	Y	7/26/2006 10:57
19	Quality Control Field Calibration Check	The test is performed to calibrate the instrument for assuring the quality. Calibration checks are recommended at the beginning of the tests and every four hours.	N	N	7/26/2006 10:57
15	Quality Control Field Replicate Habitat Assessment	Many habitat parameters are measured.	N	Y	7/26/2006 10:57
16	Quality Control Field Replicate Msr/Obs	Multiple field measurements or observations are taken at the same location and time.	N	Y	7/26/2006 10:57
17	Quality Control Field Replicate Portable Data Logger	The portable device is used to collect data at repeating intervals set by its owner/operator.	N	Y	7/26/2006 10:57
18	Quality Control Field Sample Equipment Rinsate Blank	A sample of analyte is collected in the field using the equipment to be used for the sample.	N	Y	7/26/2006 10:57
33	Quality Control Sample-Blind Duplicate	The duplicate samples are collected in the field using the same equipment and method as the original sample.	N	Y	7/26/2006 10:57
28	Quality Control Sample-Equipment Blank	If the equipments are used to analyze a sample, a blank sample is collected in the field using the same equipment and method as the original sample.	N	Y	7/26/2006 10:57
23	Quality Control Sample-Field Ambient Conditions Blank	The analyte free samples are collected in the field using the same equipment and method as the original sample.	N	Y	7/26/2006 10:57
21	Quality Control Sample-Field Blank	Field Blanks are prepared by exposing the sample container to the field environment for a period of time before use.	N	Y	7/26/2006 10:57
22	Quality Control Sample-Field Replicate	Multiple samples taken within each field measurement or observation.	N	Y	7/26/2006 10:57
20	Quality Control Sample-Field Spike	A known mass of target analyte added to the sample in the field.	N	Y	7/26/2006 10:57
25	Quality Control Sample-Field Surrogate Spike	A pure substance with properties similar to the target analyte added to the sample in the field.	N	Y	7/26/2006 10:57
34	Quality Control Sample-Inter-lab Split	Split samples are obtained by dividing a sample into two or more portions for analysis by different laboratories.	N	Y	7/26/2006 10:57
41	Quality Control Sample-Lab Blank	A sample of analyte is collected in the laboratory using the same equipment and method as the original sample.	N	Y	7/26/2006 10:57
24	Quality Control Sample-Lab Duplicate	One of two samples taken from the same sample in the laboratory.	N	Y	7/26/2006 10:57
44	Quality Control Sample-Lab Matrix Spike	A known mass of target analyte added to the sample in the laboratory.	N	Y	7/26/2006 10:57
43	Quality Control Sample-Lab Re-Analysis	A sample is re-analyzed in the laboratory to verify the results.	N	Y	7/26/2006 10:57
40	Quality Control Sample-Lab Spike	A known mass of target analyte added to the sample in the laboratory.	N	Y	7/26/2006 10:57
42	Quality Control Sample-Lab Split	Split samples are obtained by dividing a sample into two or more portions for analysis by different laboratories.	N	Y	7/26/2006 10:57

The file consists of a number of columns delimited by a tab character.

If the file does not open in Microsoft Excel, you can copy and paste the contents of the file into Excel which will format the table into rows and columns (which may easier to read).

UID	Code	Description	Analytical Method Required	Monitoring Location Required	Last Change Date
1	Field Msr/Obs	MEASUREMENTS involve something measured in its environmental setting usually using some type of equipment. OBSERVATIONS are made by people, usually without the use of equipment, and are frequently qualitative.	N	Y	7/26/2006 10:57
3	Field Msr/Obs-Habitat Assessment	A field activity conducted to evaluate a habitat, according to an organization's pre-defined habitat assessment scheme.	N	Y	7/26/2006 10:57
2	Field Msr/Obs-Portable Data Logger	Measurements made in the field by an automated data logging device, running unattended and producing a suite of data values at repeating intervals set by its owner/operator.	N	Y	7/26/2006 10:57
19	Quality Control Field Calibration Check	The test is performed to calibrate the instrument for assuring the quality. Calibration checks are recommended at the beginning of the tests and every four hours.	N	N	7/26/2006 10:57

11.3 Managing Organization-Specific Lookup Tables

Click on the "Lookup Tables" link in the Navigation Panel to view the list of lookup tables.

Lookup Tables

- [Download](#) [ACTIVITY GROUP TYPE](#)
- [Download](#) [ACTIVITY MEDIA](#)
- [Download](#) [ACTIVITY MEDIA SUBDIVISION](#)
- [Download](#) [ACTIVITY TYPE](#)
- [Download](#) [ADDRESS TYPE](#)
- [Edit](#) [Download](#) [ANALYTICAL METHOD](#)
- [Download](#) [ANALYTICAL METHOD CONTEXT](#)

Lookup tables that contain organization-specific values will have an “Edit” link next to them. Only users that have been granted the "Admin" right on an organization can edit that organization's set of lookup values.

Select the “Edit” link next to the table name in the list. For example, select the Edit link next to “ANALYTICAL METHOD”. The system will display the edit page for the lookup table.

All of the editable lookup tables are filtered by Context or Organization.

Select a context from the dropdown list at the top of the page. The list will be filtered to display only values for the context chosen. Some lookup tables (e.g. Analytical Method and Metric Type) have certain contexts that are read-only and certain contexts that belong to specific organizations. If you select a context for an organization that you have been granted "Admin" rights on, then the list is editable. Otherwise, the list will be read-only.

Lookup Table - Analytical Method					
Context: <input type="text" value="WQXTEST"/>					
	ID*	Name*	Description	Qualifier Type	Last Change Date
Delete	<input type="text" value="1050(A)-MDEQ-WQ"/>	<input type="text" value="Anion - Cation Balance"/>	<input type="text"/>	<input type="text"/>	7/22/2010 1:45:48 PM
Delete	<input type="text" value="Colilert-18"/>	<input type="text" value="Coliform/E. coli Enzyme substrate test; ONPG-MUG test"/>	<input type="text"/>	<input type="text"/>	12/14/2007 9:50:50 AM
Delete	<input type="text" value="EPA/620/R-01/003-SD"/>	<input type="text" value="EPA/620/R-01/003 Secchi Depth"/>	<input type="text" value="The Secchi disk with calibrated tether is used to give a measurement of the transparency of"/>	<input type="text"/>	12/17/2008 11:43:46 AM
Delete	<input type="text" value="check111"/>	<input type="text" value="test 1"/>	<input type="text" value="test"/>	<input type="text" value="none"/>	2/12/2009 10:35:44 AM
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	

Row 1 - 19 of 19

Changing a Value in a Lookup Table

Make the changes to any row as necessary.

Click the “Save” button to save the changes

Adding a New Value

Add the new Analytical Method into the empty text boxes provided at the bottom of the list.

Click the “Save” button to save the new row. The row will be added and a new blank row will be displayed, where you can add another analytical method, if necessary.

Deleting a Value from a Lookup Table

To delete a row from a lookup table, simply click the Delete link next to the row you wish to delete.