ADaPT

The ADaPT software program was developed on a Microsoft ACCESS 2000/2002/2003/2007 platform as tools to support technical staff in the evaluation of analytical chemistry data using an expedited and cost effective automated process. The electronic data deliverables (EDD) provides a standardized format, allowing laboratories to streamline the data deliverable process. ADaPT processing allows the data end user to efficiently evaluate large data sets for key indicators and ultimately determine the usability of the data.

The application is designed to perform compliance screening of the EDD and routine data quality accuracy and precision checks traditionally performed through a manual data review. The EDD is checked for standard value errors, incorrect formatting, and missing information from required fields through the Contract Compliance Screening module (CCS). The CCS software verifies the EDD immediately for completeness and compliance against project specific criteria. The Automated Data Review module (ADR) performs an automated data review equivalent to an EPA Level 2 evaluation and provides the user with discrete data qualification. Data qualifiers are appended to each result in the EDD. After ADaPT processing, the qualified data are then ready to be exported into a database.

ADaPT Frequently Asked Questions

What is ADaPT?

Florida DEP ADaPT is a Microsoft Access 2000/2002/XP application that measures integrity and quality of laboratory electronic data deliverables (EDDs) relative to project requirements. It processes two types of EDDs defined by Florida DEP. These include the Laboratory Results Deliverable and the Laboratory Receipt Deliverable. ADaPT is packaged as two versions, a laboratory version and a consultant version. The laboratory version performs an error check on both types of deliverables and a technical consistency check among related results reported in the Laboratory Results Deliverable. The consultant version has the same functions as the lab version but also performs an automated data review of the Laboratory Results Deliverable.

What is an EDD?

An EDD is an electronic data deliverable based on elements needed for data validation and assessment. These include the Laboratory Results Deliverable and the Laboratory Receipt Deliverable. The Laboratory Data deliverable contains sample result information and also includes all associated quality control. The Laboratory Receipt Deliverable contains sample information contained in the chain-of–custody. Please see **additional information** on the data elements that are required in both EDDs.

What is automated data review?

Automated data review is the assessment of the data within the FDEP ADaPT EDD to measure the quality of all analytical results. ADaPT compares all lab quality control accuracy and precision information reported in the EDD against the criteria established in a project library. ADaPT also considers holding times and blank contamination. If problems (outliers) exist ADaPT will qualify associated sample result depending on the magnitude of the outlier.

What benefits does ADaPT offer to providers?

ADaPT measures the completeness and integrity of an EDD relative to project requirements. It makes sure that laboratory analytical results and associated information such as method and analyte names reported in an EDD adhere to a set of standards defined by a particular project or agency. ADaPT also measures the quality (automated data review) of analytical results by assessing associated quality control information and other parameters reported in the EDD. ADaPT provides a consistent measure of quality in an expedited manner.

Is ADaPT compatible with LIMS systems?

ADaPT requires a comma delimited text or Excel.csv file in a specified format using a set of standards as defined by FDEP. Standard values for method and analytes compiled for ADaPT rely on nationally recognized methods, chemical abstract numbers, and analytical names. Every laboratory identifies methods and analytes differently; therefore, every LIMS will require some transcribing. A tool called the Florida ADaPT LIMS Wizard will automatically update lab values for methods and analytes to the FDEP standard values.

Do I need a LIMS to use ADaPT?

No, a LIMS is not necessary to use ADaPT but a LIMS expedites the creation of lab EDDs. Again, the use of Florida ADaPT LIMS Wizard can help expedite the creation of the EDD.

What are ADaPT Project Libraries and how do I use them?

Project libraries function as the reference for assessing lab EDDs, both in error checking and automated data review. Project libraries are essentially an electronic quality assurance plan for a project (e-QAPP). ADaPT libraries hold all requirements for method and analyte name standard values, reporting limits, analytes to be reported for each method and matrix, and accuracy and precision limits for spikes and surrogates for a particular project. There can be more than one project library to reflect different project requirements. In this way, ADaPT has flexibility to customize EDD assessment based on individual project requirements. The user selects the appropriate project library from a drop down list before executing error checking or automated data review.

How do ADaPT standard values work with ADaPT Libraries?

Project libraries hold values for methods, analyte names, and the unique analyte identifier (the ClientAnalyteID). These values must exist as standard values for these items in the ADaPT standard values tables before they can be entered in a project library. Florida DEP controls the standard values for these items. ADaPT is pre-packaged with the Florida DEP standard values for method, analyte name, and ClientAnalyteID. These SVLs will be required to meet the DEP's goal to standardize nomenclature. Please see the **list of current standard values** (MS Excel, 373 kB).

How are CAS, NELAC, and FLA DEP identification numbers assigned in ADaPT?

ADaPT uses unique identifiers called the Client Analyte ID to recognize analytes. A particular analyte may have more than one name but it has only one Client Analyte ID. The Chemical Abstract System (CAS) number is usually used as the Client Analyte ID. If a CAS number does not exist for a particular analyte, (e.g. Kjeldahl nitrogen), a NELAC code is used. If a NELAC code doesn't exist then a unique Florida identifier is assigned to that analyte. Only Florida DEP can assign a Client Analyte ID for an analyte. These values remain fixed as Client Analyte ID standard values within ADaPT. Laboratories must report analytes in an EDD with the unique Client Analyte ID assigned to that analyte. A mechanism for requesting a unique Client Analyte ID from the DEP is being developed. These requests are NOT intended to create multiple IDs for the

same parameter. The request will only be considered if a valid "equivalent" Client Analyte ID is not currently in the SVLs.

How are ADaPT Libraries created?

The DEP Master ADaPT libraries are managed and distributed by the Florida DEP. Project specific libraries are created by the data user prior to project initiation. The FDEP Master ADaPT library will be available in the near future from the DEP website and updates can be downloaded as required.

How are ADaPT Libraries distributed?

ADaPT project libraries are e-mailed to laboratories and consultants (if applicable). ADaPT has a utility for importing ADaPT project libraries.

Why can't I modify ADaPT Libraries and some standard values?

Florida DEP decided to control standard values for methods, matrix, and analytes; therefore, ADaPT does not allow addition, modification, or deletion of these standard values and libraries. One of the purposes of ADaPT is to ensure standardization of information reported in EDDs.

How can I request a method or analyte be added to the standard value lists (SVLs)?

Changes and additions to the SVLs must be **requested**. Most methods and analytes already exist in the ADaPT SVLs and Master Library. Please check to be sure you have the current Florida Master Library before submitting a request. Once a method or analyte has been added to the SVL, through the Master Library, laboratory staff and/or project managers may then use that value to create new method/analyte combinations in a project specific library.

How exact does the time of analysis need to be?

The time of analysis, along with the time of collection in the field, are needed to assess holding times for each sample. Automated data review compares this information to holding time requirements in the project library, which are based on EPA and DEP rules. The more exact the time, the better. For example, automated methods should stamp the exact time of analysis. Manual methods can have the exact time written by the analyst or the end time of the analytical run as the time of analysis for all samples. If a specific sample will expire during the run (start at 1 PM and go to 3 PM with one sample expiring at 3:00 PM), then one should put the exact time of analysis for that sample or it will be flagged as out of holding time.

What is the archive field QC utility used for?

This feature allows the data reviewer to archive particular Field QC results from an EDD. Sample results reported in subsequent EDDs can then be assessed against this archived field QC, if necessary.