EPA United States
Environmental Protection
Agency

**Office of Superfund Remediation
& Technology Innovation**

EXES

Fact Sheet

Electronic Data Exchange & Evaluation System (EXES)

EXES is a web-based data assessment and management tool that efficiently evaluates analytical laboratory data regardless of the format (XML, CSV, Excel, etc.). EXES provides users with advanced customization capabilities to add, edit, and review evaluation parameters, tests, Method Quality Objectives (MQOs) and Quality Assurance Project Plan (QAPP) requirements. For each specified analytical method, users can specify the automated tests and the level/type of assessment to be performed on the incoming electronic data deliverable. In addition, users can specify the assessment reports and spreadsheets they would like to receive after EXES has completed the review/validation of the laboratory EDD. EXES can generate multiple output formats (Scribe, EQuIS, Universal, etc.) depending on the end user's need. Its flexibility and scalability allows it to support any monitoring program that involves laboratory analysis of samples – environmental, clinical, food, agricultural, or forensic. EXES supports federal, state, and commercial laboratory data assessment needs.

Key Features

Data Assessment

EXES provides the ability to evaluate a virtually unlimited number of analytical methodologies, technologies, and data exchange formats.

- Fully customizable automated method compliance and data validation checks are executed in accordance with client specified criteria.

- Modular approach to test design and creation dramatically reduces time and cost associated with supporting dynamic requirements.

- Self-Inspection feature allows for preliminary review and correction of data deficiencies prior to official data submission.

Report Generation

EXES generates a variety of routine reports including Data Summary, Data Compliance, and Data Validation reports within minutes of a compliant electronic data deliverable submission by the laboratory.

- Merges analytical and field data into a standardized spreadsheet that can be further customized to suit each client's unique data validation and reporting process (Scribe, EQuIS, Universal, etc.).

- Notifies authorized users when reports and deliverables are available for viewing and retrieval in the web-based EXES Data Manager (EDM).

- EDM provides users with the ability to customize, edit, and regenerate spreadsheet reports containing data validation results.

Data Storage

The EXES Data Manager application (EDM) provides a centralized data repository to view and retrieve generated reports, spreadsheets, and other data deliverables as defined by the client.

- Data deliverables are available for web-based viewing and retrieval to authorized users 24 hours a day.

- User management controls restrict what data can be accessed, and by whom, according to client specifications.

- Historical data is routinely archived to optimize system performance and retained for future retrieval.
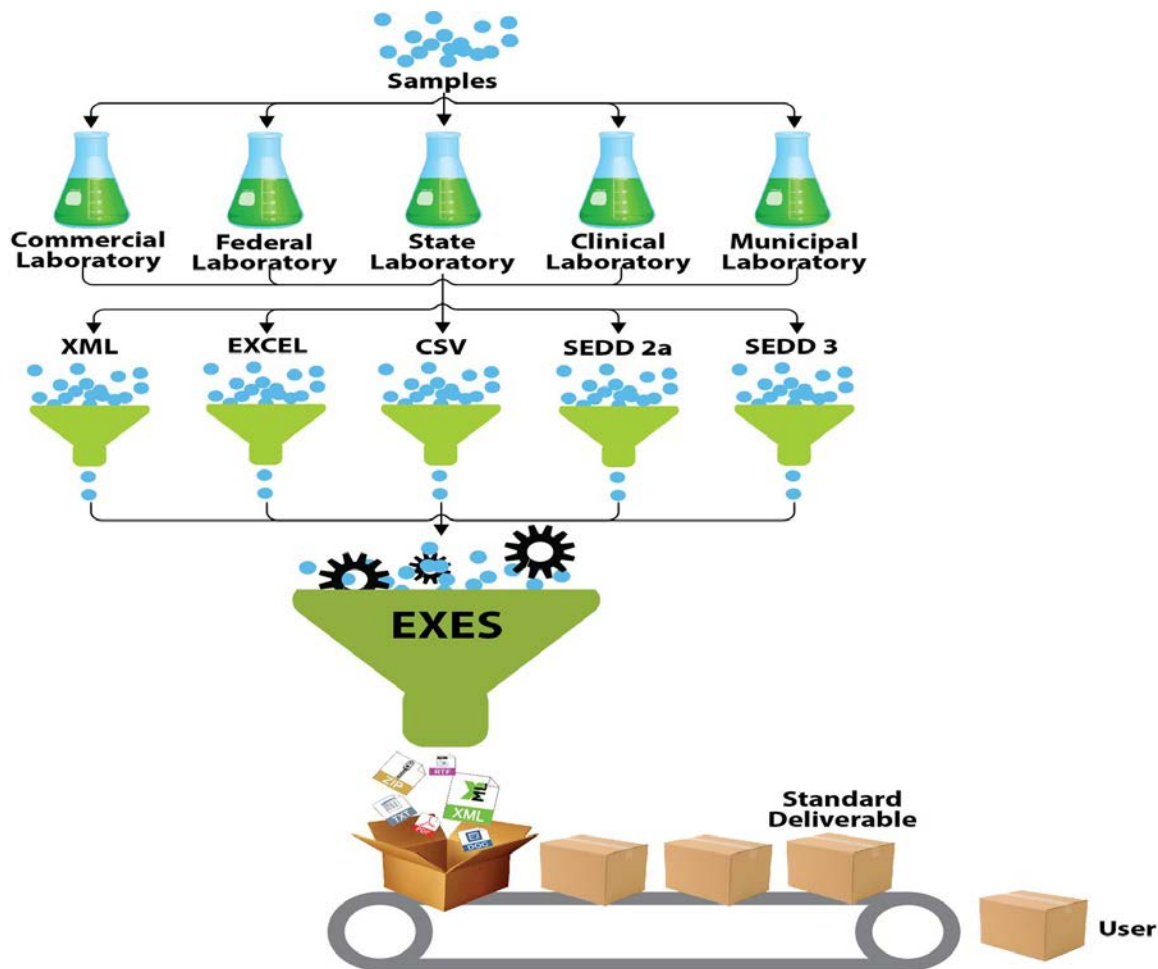

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EXES Data Management Process

The Electronic Data Exchange & Evaluation System (EXES) was developed to assist with the rapid processing, assessment, and distribution of analytical data submitted to EPA's Contract Laboratory Program (CLP). EXES provides a centralized system that enables data submissions, electronically assesses data to customizable specifications, and provides users with EXES generated reports for use in down-stream external processes and systems.

Benefits and Highlights

- **Robust Evaluation Capabilities:** Each electronic data deliverable (EDD) is subjected to Quality Assurance (QA) and Quality Control (QC) checks to ensure contractual and technical completeness and compliance. The EXES design allows for extensive client customization to meet different needs and assess data delivered in a variety of formats.

- **Proven Performance:** EXES is comprised of **a dynamic test creation core** working in tandem with an expandable reference data set that is not limited to specific analytical processes and procedures. EXES provides highly comprehensive electronic data assessment reports to EPA Regions within 24 to 48 hours at a 99.9% accuracy level.

- **Flexible Design:** Modular approach to system design allows for scalability in response to evolving requirements and new processes. User interfaces allow for dynamic test rule creation, management, and implementation without the need for extensive IT system upgrades or modifications.

- **Cost Savings:** EXES has produced documented savings of 80% over manual data validation.

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