



CSC

# TRI-MEweb

## SPEEDING THE TRANSFER OF TOXIC RELEASE DATA THROUGH CDX

Managed by EPA's Office of Information Analysis and Access (OIAA), the Toxics Release Inventory (TRI) is a publicly accessible database of information on toxic chemicals that are being manufactured, processed, used, released into the environment or otherwise managed as waste. The TRI regulatory program was established under the Emergency Planning and Community Right-to-Know Act (EPCRA) of 1986 and expanded by the Pollution Prevention Act (PPA) of 1990. Each year, more than 22,000 federal and industrial facilities that handle toxic materials report key data to TRI for use by states and EPA. EPA compiles, processes and makes this data available to the public via the TRI Explorer, Envirofacts and other tools.

### Going Paperless

In 2003, CSC helped EPA develop and implement enhancements to TRI-Made Easy (TRI-ME), a software tool that enables a facility to save its TRI data to a magnetic media diskette and submit it electronically through EPA Central Data Exchange (CDX). With this innovation, EPA eliminated cumbersome, paper-based processes. In 2006, to streamline data submission and processing even more, EPA tasked CSC, the agency's prime CDX support contractor, to create a Web-based version of TRI-ME. EPA piloted the system in Spring 2006 and fully deployed it in June 2007.

By enabling facilities to submit TRI data electronically through EPA's CDX, TRI-MEweb made an efficient process faster and easier, with significant time and cost savings for stakeholders in submitting data and for states and the

*Developed, implemented and continuously improved by CSC, the Web-based Toxics Release Inventory-Made Easy (TRI-MEweb) tool enables more than 22,000 federal and industrial facilities to submit required data more efficiently than ever before while dramatically simplifying data processing tasks for states and EPA. Measurable benefits to EPA and its stakeholders from TRI-MEweb and related automation efforts by CSC have included significant time savings, a more than 10-fold improvement in data quality and a 271 percent return on investment (ROI) for the federal government.*





**Benefits to Facilities**

- Enhances data validation against business rules
- Eliminates transcription errors
- Provides for single submission if state participating
- Affords CROMERR compliance/electronic signature

**Benefits to EPA**

- Improves public access time
- Cuts down on magnetic media diskette receipts
- Reduces notices of significant error
- Provides comprehensive data sooner

EPA in processing it. Every year, CSC meets a critical deadline by updating and enhancing the system to incorporate regulatory changes into the logic of business rules before the next reporting year.

**Extending the CDX Approach**

CSC's development and implementation of TRI-MEweb illustrates our ability to extend the CDX approach to all aspects of a regulatory-based data collection effort to capture the full range of benefits available from the application of Web-based, Service Oriented Architectures (SOAs). Our support includes the core TRI-MEweb application; CDX registration; the CDX NODE that facilitates conversion of publishing data to participating states; various TRI-MEweb service calls; shared infrastructure at Research Triangle Park, NC; and data translation and conversion for submittal to EPA's legacy system databases.

To date, stakeholders have given the CDX approach to TRI-MEweb an overwhelmingly positive response. Approximately 36 percent of the facilities reporting in 2008 for the 2007 reporting year used TRI-MEweb, a 14-percent increase from the first year of availability. For the remaining submissions, 42 percent used the TRI-ME software tool and 19 percent used some other magnetic media. Overall, only 3 percent of reporters submitted paper forms that required labor-intensive data entry, scanning or both.

**Saving Money, Time and Effort**

CSC has worked closely with EPA's Office of Information Collection to measure the benefits of the continued automation and development of the CDX front end for TRI. A study conducted in 2007 found:

**Cost Savings.** The estimated per-form cost of processing a data submission through CDX was only \$0.75, as opposed to paper submission per-form costs of \$24.79 and diskette submission per-form costs of \$1.47.

A major reason for the cost reduction was the significantly reduced processing time when using CDX over previous means of data transfer. The processing time for a TRI paper submission was approximately 35 minutes and for a diskette approximately 8 minutes; however, under CDX, the processing time for a submission was 4 minutes.

**Improvement in Time for Public Access.** EPA received baseline data 2 months earlier this year than last, in part due to TRI-MEweb. In addition, the time to resolve errors and publish a public access file has been cut in half — from 12 months to 6.

**Reduction in Facility Burden.** With TRI-MEweb's electronic signature feature, facilities cannot submit forms without signatures. As a result, there are fewer notices of significant error for facilities to address. This use of CDX saves up to 2 hours of time for facility staff members, with the efficiency being multiplied by the more than 22,000 facilities that submit TRI data.

**Enhanced Data Quality.** Use of CDX in TRI data submissions reduced estimated error rates to 0.6 percent, from previous estimated error rates of 10 percent for paper submission and 2 percent for diskette submission.

**Substantial Return on Investment.** EPA OEI used a standard ROI formula to calculate the estimated monetary benefits of using CDX in the TRI program: ROI = Net Benefit/Cost of Investment. The return on investment of using CDX in submitting TRI data as compared to the continued use of paper and diskette submissions was estimated at 271 percent.

**Delivering Comprehensive User Support**

CSC assists OIAA in providing help desk (888.890.1995) and direct technical support (epacdx@csc.com) to assist TRI-MEweb users with registration, CROMERR compliance and other issues. Working together, CSC and EPA also created seven online tutorials to demonstrate how different facets of TRI-MEweb work using screen shots with audio narration (<http://www.epa.gov/tri/report/software/index.htm#dataset>):

- Section 8 Calculator
- An Overview of TRI-MEweb
- Submitting Data
- Registration
- Certifying Data
- Accessing Your Facility
- Getting Help
- Nominating a Certifying Official

**Recognition**

CSC's EPA client, Ben Smith, for the Toxics Release Inventory Program received a Gold Medal for the TRI modernization effort supported by CDX implementation for the processing and reporting center. In describing CSC's contribution to the success of TRI modernization, our client said, "I wanted to let you know that your time and effort is why the TRI program is receiving this award. Thanks so much, and your dedication to the TRI modernization is appreciated."

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