

Data or Term Search (DOTS) Project Summary

Data or Term Search (DOTS) is the latest development in a long history of efforts to document data resources at WSDOT. The need for a systematic inventory of data has existed for as long as the agency has stored data. Some of the early mainframe systems were documented with business definitions for the data they contained. By the mid-1990s, however, the computing environment had become so diverse that there was no consistent approach to data documentation across all the various forms of data.

In 2002, a proof-of-concept was completed, specifications were detailed and a consultant was selected to build the new system. By June 2003 the first version of the WSDOT Data Catalog was released. In December of that year our Data Catalog Administrator, Andy Everett, was hired. Andy expanded the agency's data stewardship program and worked to populate the Catalog's inventory of databases and data definitions. Over the next seven years, the Data Catalog was refined and modified to improve its capabilities.

The DOTS/Data Catalog was meant to solve:

Pain Points:

- Do not know what we have.
- Do not have single definitions for departmental data.
- Data in many disparate systems.
- Data being recreated not reused.

The DOTS/Data Catalog is meant to:

- Reveal data as a departmental asset.
- Create a unifying logical structure for all WSDOT metadata as a framework for building a comprehensive inventory of data elements;
- Create a single access point for finding all metadata, including making the best use of existing metadata stores by downloading from them or linking to them;
- Use Data Catalog to classify Data by its Security Level (Public, Sensitive Confidential, Confidential with Special Handling)
- Be a tool to manage definitions of agency business terms through a stewardship program

User should be able to know:

- Physical Database Inventory (What data do we have?)
- Discover the actual meaning of data. (What is it?)
- Discover the data that is available for a subject. (Where is it?)
- Discover who the data steward is for the data (Who is responsible?)

It was apparent as we progressed with the application that there was a usability problem. The system was not able to provide easy means to find terms and descriptions of the data. The navigation was cumbersome and search didn't return relevant results. In 2012, ITD and data stewards agreed to undertake a major retrofit of the Data Catalog as a WSDOT-built product. ITD's Enterprise Applications group provided a contract developer to write the code. As part of the development effort, we engaged the services of the WSDOT Communications Office Usability Expert to conduct a Usability Study. We conducted a study on the current application which resulted in a System Usability Scale (SUS) Score of 43.38. After completion of the development project, we conducted another study that resulted in a System Usability Scale (SUS) Score of 73, a jump of almost 30 in the score.

As part of the redesign the application's name was changed to better reflect the nature of the application and reduce confusion - to Data or Term Search. The DOTS application was substantially complete by February 2014. ITD and data

stewards are now working to complete the inventory of all managed databases in the agency and to record all the principle business terms used to describe agency data. The new DOTS application is a big improvement over the original Data Catalog. In DOTS we have a far better system for managing the data-definition process—many of the lessons learned over the first ten years of the data catalog have been effectively addressed.