The FAIR Digital Object Lab is an extendable and adjustable software stack for generic FAIR Digital Object (FAIR DO) tasks. It consists of a set of interacting components with services and tools for creation, validation, discovery, curation, and more.

The creation and maintenance of FAIR DOs is not trivial, as their PIDs contain typed record information. They are meant to be machine-actionable, not human-readable. Easing the creation and maintenance of FAIR DOs, as well as making FAIR DOs searchable and human-accessible, are functions of the FAIR DO Lab. While it started as the “FAIR DO Testbed”, development now focuses on production-readiness and user interfaces.

The Lab is ready for deployment using docker (or manual setup), allowing for customizations like different configurations and possible integration into existing infrastructures.

FAIR DO Tools offer user interfaces for everyday, human-centric use. They communicate with FAIR DO services to solve their tasks. They might be directly paired with a FAIR DO service.

FAIR DO services are similar to tools in that they solve common FAIR DO tasks. But they are different in that they do not offer user interfaces but focus on automation. They use the background services to do so.

Background services lay the foundation of the Lab. They offer basic functionalities like message exchange for FAIR DO services or storage for files, JSON or XML schemas or documents, or search indices.