

Diverse Industries have Welding Data in Common

Problem or Opportunity?

Goal

- **Develop welding data standards and leverage them across several industries. A standard format for welding design, process and inspection data will:**
 - Help the industries use the data NOW, and
 - Allow welding industry planners and fabricators to deal with one data format for all user industries.

Approach

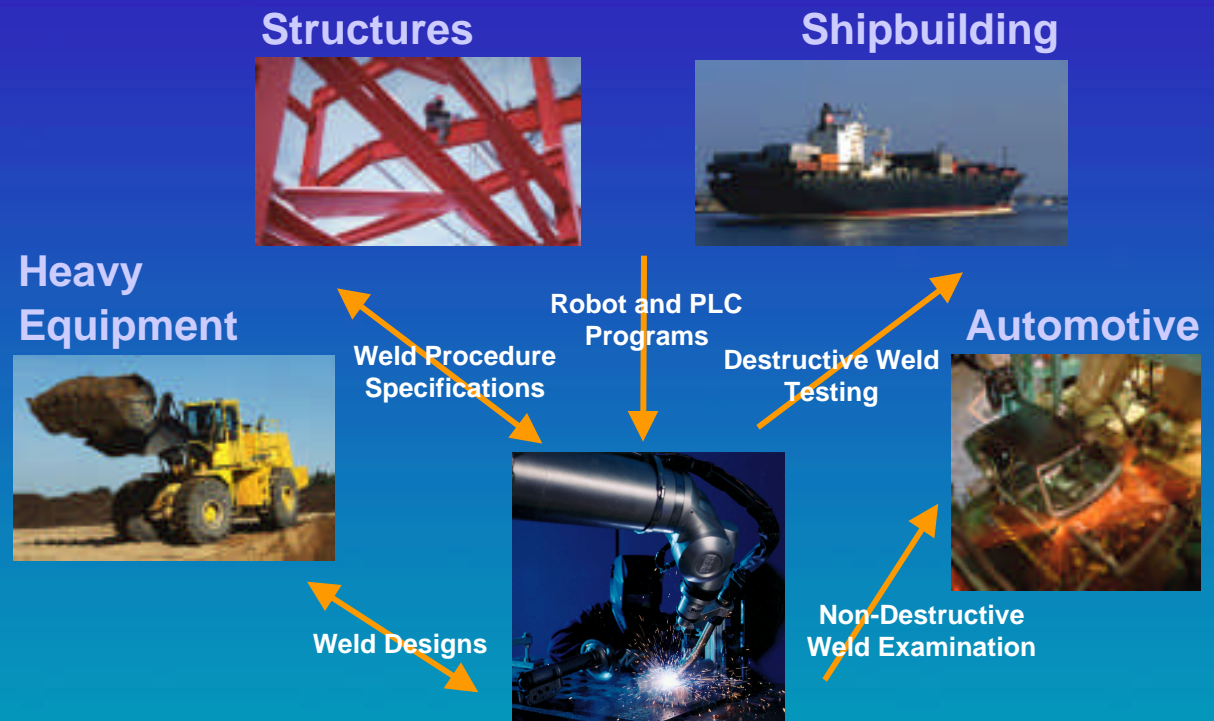
- Develop a high level data dictionary, then encode data using e.g. XML, STEP.
- The American Welding Society (AWS) is a good candidate for developing the high level specification.

Industries That Generate Welding Data

Several industries that produce digital data use welding as one of their joining processes.

Their data includes:

- F Product design
- F Process Plans
- F Automation Programs
- F Inspection and Quality Control



Welding databases store **welding knowledge** about designs and procedures that can be queried by higher level planning processes. Welding fabrication consumes **process plans, and programs** for specific welding facilities (automated or manual). Standard **tests of weld quality** provide feedback to manufacturing quality control and monitoring processes.