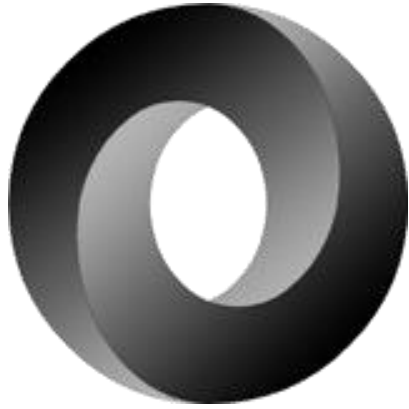


Importance of Digital File Standards

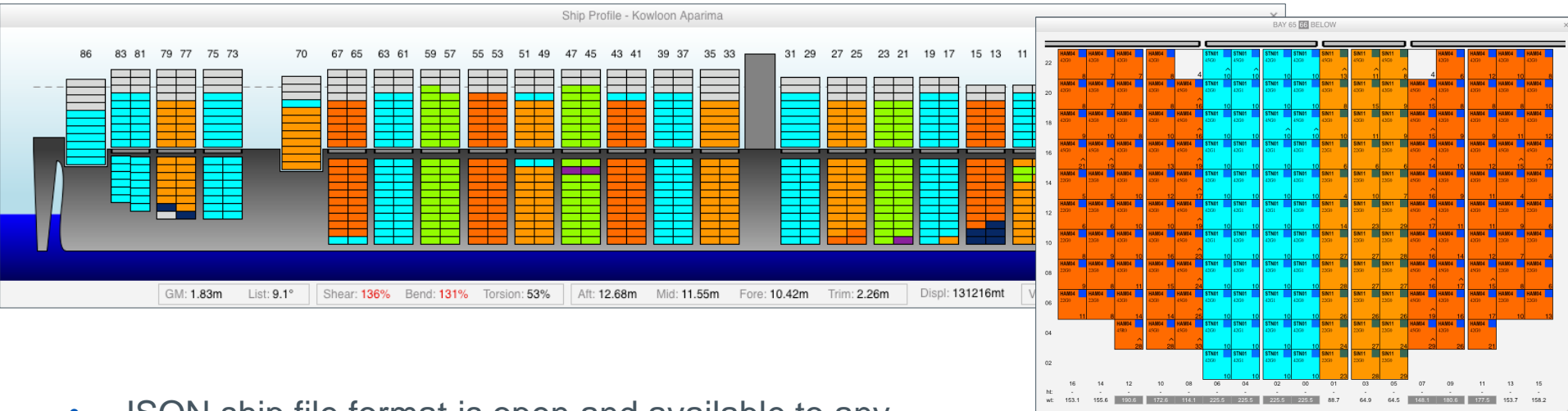
- Open-standard file formats:
 - **Facilitate data sharing** between operational partners by improving interoperability between various solutions
 - **Reduce data exchange errors**, improving data quality & reliability
- Industry standards, such as *Standards for Nautical Port Information* published by IHMA & UKHO (currently being piloted by Port of Rotterdam w/ Pronto / Avanti), can clarify terminology & definitions, BUT...
- Software applications require a **corresponding digital format** to effectively implement these standards and enable related data exchange

JSON Open File Format



- JSON: **J**ava**S**cript **O**bject **N**otation
- Open-standard, text-based data exchange format
- Language-independent / platform-independent
- Human-readable
- API-compatible
- Open-standard

JSON Open Ship File Standard



- JSON ship file format is open and available to any solution provider to encourage industry adoption of the file standard
- Ensures all stakeholders working from identical, validated specifications of ship
- Supports clear communication & collaboration between terminal operators & ocean carriers, regardless of stowage solution vendor or TOS vendor
- Reduces operational data errors and improves operational response times