JSON vs. XML:

Compare the incomparable?

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Looking at publications talking about XML, you may have noticed that the word "modern" and "XML" have not been used together in one sentence for quite some time. So, is this all over? Did we see the end of the modernization show?

We both happily and regretfully must inform you that we haven't. JSON is the way forward and CHAMP's cargoJSON can be your guide.

Let's begin with an analogy. You wouldn't carry your whole warehouse to every delivery. Naturally, a truck is a better suited and more efficient way of transporting goods.

The same applies to XML and JSON. XML, large and bulky like the warehouse, is a valid solution for data storage - but JSON, smaller and moveable like the truck, is a much better way to transport data.

What is XML?
XML is a language that captures information in a machine-readable way. The elements are structured in a hierarchy and all information is included between tags. All tags have to be kept opened and closed in the level they belong to. Therefore, every piece of information is logically categorized and named.

The rules defining how the information is captured is documented in a schema and the schema is the blue-print for every document and allows validation of the content.

What is JSON?
Just like XML, JSON is self-describing, hierarchical and can be parsed.

But unlike XML, JSON doesn't have tags per se. The data is a pair of name and value which makes the same information in JSON much "thinner" than in XML. There is much less overhead.

JSON is the abbreviation for "JavaScript Object Notation" and is a text-based format. It is used for the data exchange between applications. As it is a "child" of JavaScript, the content is a valid script and can be easily parsed by most of the web applications currently in use. JSON is completely independent from its parent programming language JavaScript.

The biggest difference between XML and JSON is that XML has to be parsed with a dedicated parser. JSON can be parsed by a standard JavaScript function, which makes the processing a lot faster.

The way forward
JSON was originally meant to replace XML, however it did not replace it in every case. The need of an implicit validation of a document still makes XML an option to consider. XML is a format that is designed to store and archive documents because of its ability to contain validated transparent data. XML is NOT a thin format to be used to transport data. Its larger and more data-heavy structure decreases the performance of a transmission between applications.

The disadvantages of XML are the main advantages of JSON. The JSON structure concentrates on the data, lowering the overhead. The way JSON self-describes, makes it the best performing data format to transport heterogenic data. Lastly, and perhaps its best argument in favor of it, JSON is much cheaper to integrate.

For more information on using JSON with CHAMP's Traxon cargoHUB, please click here.