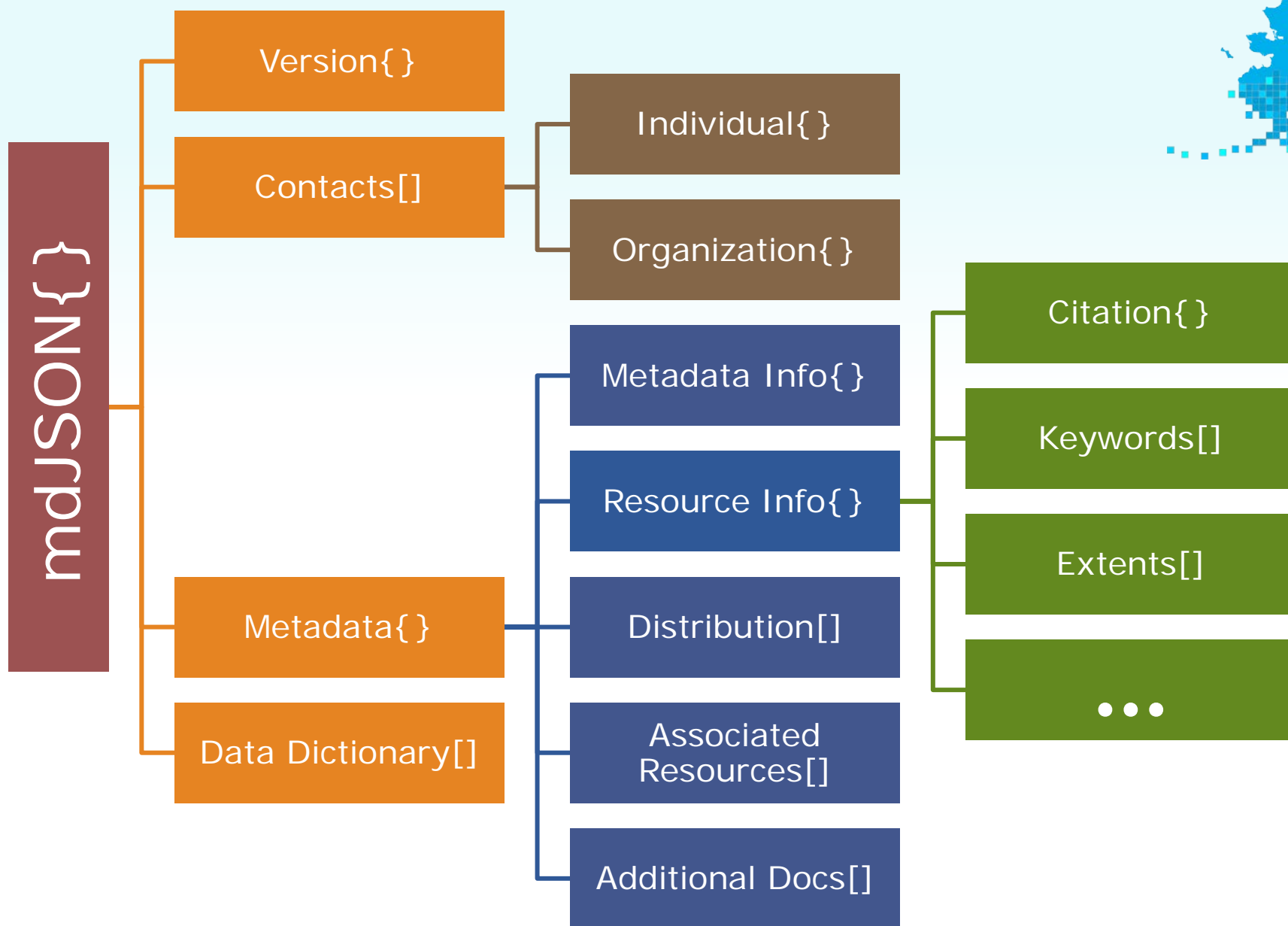


ISO Developer's Toolkit - mdJSON & mdTools

2015 CDI Workshop

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Contacts



```
{
  "version": {
    "name": "mdJson",
    "version": "1.0.0"
  },
  "contact": [
    {
      "contactId": "1",
      "organizationName": "US Geological Survey - Alaska Science Center"
    }
  ],
  "metadata": {
    "resourceInfo": {
      "resourceType": "project",
      "citation": {
        "title": "Real-Time Permafrost and Climate Monitoring Network - Arctic Alaska",
        "date": [
          {
            "date": "2012-12-21",
            "dateType": "revision"
          }
        ]
      }
    }
  },
  "pointOfContact": [
    {
      "contactId": "1",
      "role": "pointOfContact"
    }
  ],
}
```

ing.a-long-term-permafrost.m

Developing with mdJSON



What's needed:

- Understanding of JSON structure and syntax
- Basic knowledge of JSON Schema specification
- Ability to use mdJSON-schemas to validate

```
{
  "id": "schema.json#",
  "$schema": "http://json-schema.org/draft-04/schema#",
  "description": "schema for ADIWg JSON metadata",
  "type": "object",
  "required": ["version", "contact", "metadata"],
  "properties": {
    "version": {
      "name": {
        "type": "string"
      },
      "version": {
        "type": "string",
        "pattern": "[0-9]\\.[0-9]\\.[0-9]"
      }
    },
    "contact": {
      "$ref": "schema/contact.json"
    },
    "metadata": {
      "$ref": "schema/metadata.json"
    }
  },
  "definitions": {
    "url": {
      "type": "string",
      "pattern": "(https?|ftp)://\\w+(-\\w+)?(\\.\\w+\\/?)?(\\w+\\/?)?(\\w+\\/?)?"
    },
    "uri": {
      "type": "string",
      "pattern": "((?:<|>)([A-Za-z][A-Za-z0-9\\+\\-\\.\\_~:/\\\\?#@!%&'\" ]*))"
    },
    "date": {
      "oneOf": [
```

- Complete structural validation of JSON
- Latest IETF draft: version 4
- Validation engines available in many languages, see <http://json-schema.org/>

JSON Schema Keywords: \$ref



- The value of \$ref is a JSON Pointer.
- \$ref is replaced with the value it points to.
- JSON Pointer identifies a specific value within a JSON document.
- Can point to location in another file
- {"\$ref": "doc.json#/location/in/doc"}

<http://spacetelescope.github.io/understanding-json-schema/>

JSON Schema Keywords



- allOf: Must be valid against all of the subschemas
- anyOf: Must be valid against any of the subschemas
- oneOf: Must be valid against exactly one of the subschemas

<http://spacetelescope.github.io/understanding-json-schema/>

mdJSON-schemas



- Can be used independent of mdTranslator for validation
- Include descriptions and pointers to examples
- Mapping to other standards(19115-2, FGDC)

<https://github.com/adiwg/mdjson-schemas>



- An interface for ADIwg metadata tools
- The purpose of these tools is to assist with the production of metadata
- For now, primarily useful for learning and development



d3.js



www.adiwg.org/mdTools