Workshops summary
IQRF Standardization
Certification and Repository

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1. **Workshops** summary
2. IQRF **Standardization**
3. **Certification** and **Repository**

Pretty complicated, huh?
But the foundation of this all is not!

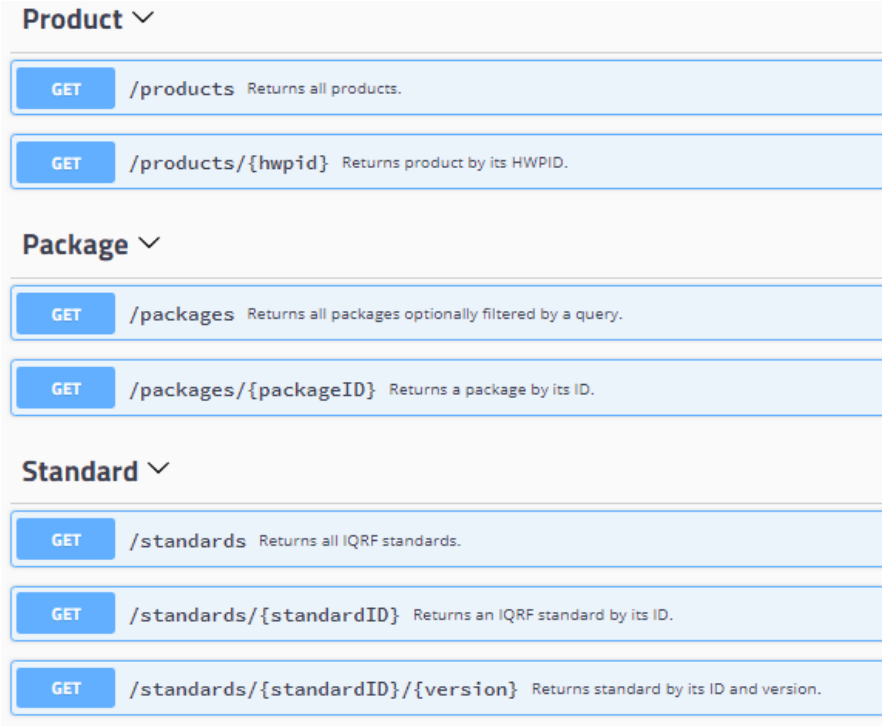
Let’s go from the back…

IQRF Repository

- https://repository.iqrfalliance.org/api
- **RESTful** WEB service
- Provides **objects**
  - Products
  - Manufacturers
  - Packages
  - Standards
  - Drivers
  - …

https://repository.iqrfalliance.org**/doc/api**

swagger



Products

https://repository.iqrfalliance.org/api/**products/0003**

JSON

hwpid : 3

name : NETIO Cobra 1 - 1x power plug

manufacturerID : 3

companyName : NETIO Products a.s.

homePage : http://www.netio-products.com/en/products/all-products

picture : **https://www.iqrf.org/contest/img/zasuvka.png**

Manufacturers

https://repository.iqrfalliance.org/api/**manufacturers/3**

Packages

- https://repository.iqrfalliance.org/api/**packages?hwpid=0003**
- https://repository.iqrfalliance.org/api/**packages/21**

1. HWPID
2. Sensor
3. Binary Output
4. Light

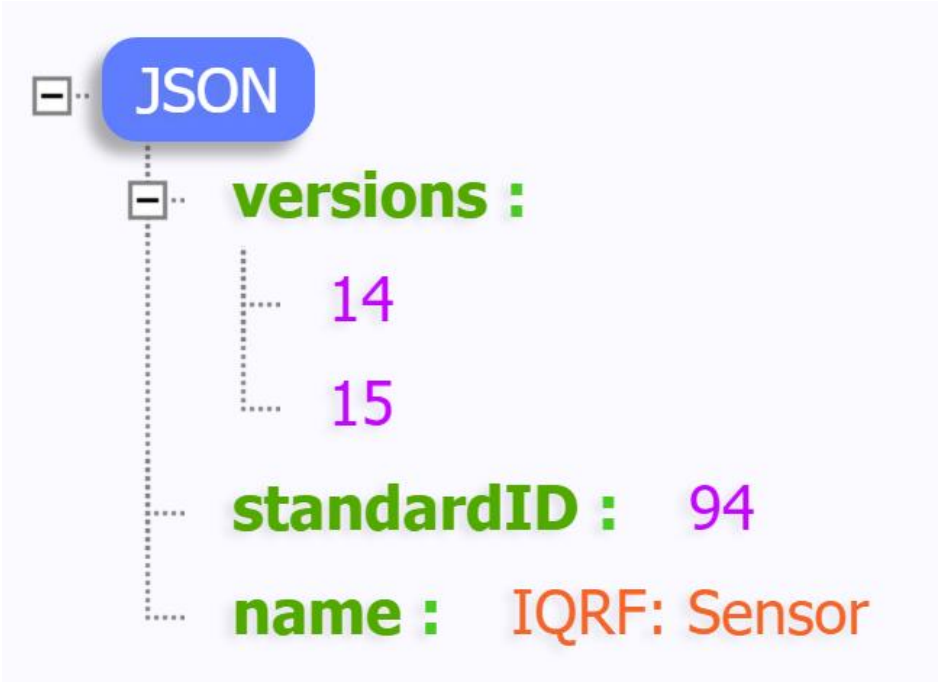
- Design principles kept intact

  Simplicity, Scalability, Exception free, Diversity aware, Common patterns

- Organic growth from 8 to 27 standard sensor quantities

  Temperature, CO_2, VOC, Extra-low Voltage, Earth's Magnetic Field, Low Voltage, Current, Power, Mains Frequency, TimeSpan, Illuminance, NO_2, SO_2, CO, O_3, Atmospheric Pressure, Color Temperature, $PM_{2.5}$ Dust, Relative Humidity, Binary Data7, Power Factor, UV Index, Binary Data30, Consumption, Datetime, TimeSpanLong, Data Block

https://repository.iqrfalliance.org/api/**standards/94**



https://repository.iqrfalliance.org/api/**standards/94/15**

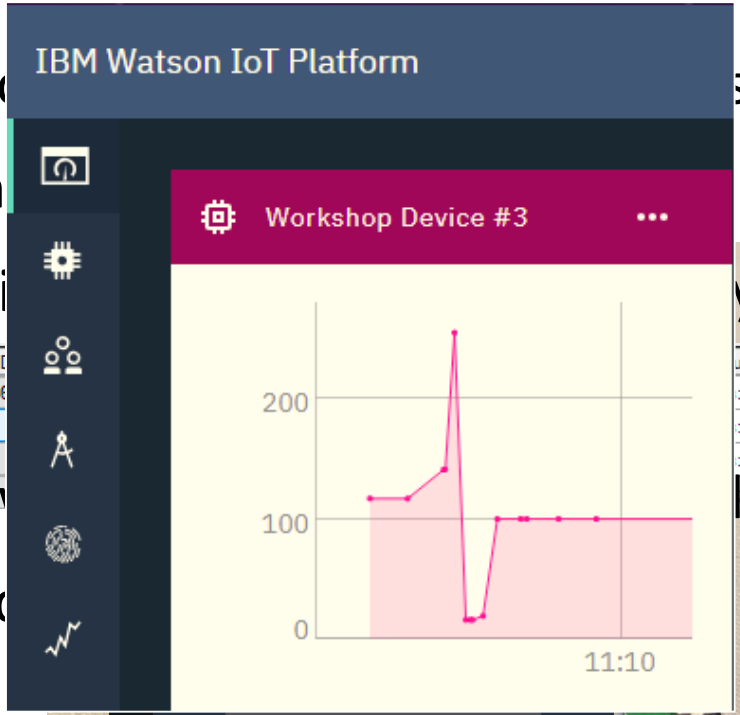
```
485  iqrf.sensor.ReadSensorsWithTypes_Response = function ( response )
486  {
487    var responseData = iqrf.CheckResponsePnumPcmdDlen( response, iqrf.sensor.PNUM, '81' );
488
489    var result = [];
490    var responseData_length = responseData.length;
491    for ( var index = 0; index < responseData_length; )
492    {
493      var sensorType = responseData[index++];
494      var sensorObj = iqrf.sensor.SensorTypes[sensorType];
495      if ( sensorObj === undefined )
496        throw new Error( 'iqrf.sensor.ReadSensorsWithTypes_Response: Unknown sensor type ' + sensorType );
497
498      var sensorValue;
499
500      switch ( sensorType )
501      {
502        default:
503          throw new Error( 'iqrf.sensor.ReadSensorsWithTypes_Response: Unimplemented sensor type value ' + sensorType );
504
505        // 2 bytes
506        // ----------------
507        case iqrf.sensor.STD_SENSOR_TYPE_TEMPERATURE:
508        case iqrf.sensor.STD_SENSOR_TYPE_LOW_VOLTAGE:
509          sensorValue = responseData[index] + ( responseData[index + 1] << 8 );
510          sensorValue = sensorValue === 0x8000 ? NaN : iqrf.UInt16toInt16( sensorValue ) / 16.0;
511          break;
512
513        case iqrf.sensor.STD_SENSOR_TYPE_ATMOSPHERIC_PRESSURE:
514          sensorValue = responseData[index] + ( responseData[index + 1] << 8 );
515          sensorValue = sensorValue === 0xFfFf ? NaN : sensorValue / 16.0;
516          break;
```

What is a certified product?

- Complies with **IQRF Standards**
- **Recognized** by IQRF Alliance
- **Certified** by IQRF Alliance
- Promoted at **Marketplace**

What was the workshop like?

- We develo…s
- IQRF Stan…
- Products i…y
- IQRF Sma…
- Products …k…
- Controlle…



ManufacturerID	Company (Man&Com ID	…ure	Rights	HWPID
65		…://www.iqrfa…	0	1555
		…://www.iqrfa…	0	2555
		…://www.iqrfa…	0	3555
		…www.iqrfa…	0	4555

Let me finish with the yesterday’s slide

Things to remember

- IQRF ecosystem is **maturing**
- Based on industry and own **standards**
- IQRF **Smart Connect**
- IQRF **GW Daemon**
- IQRF **Repository**
- **Simple** integration and maintenance

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