

N4 Extend (5 days curriculum)

Day 1 – Big Data Day

- Security
 - Station security - passphrase / passwords
 - Security service
- Smart tagging
 - Tag rules / auto-tagging.
 - Tagging new and existing stations
 - nHaystack module and RESTful API
 - Haystack 4
 - Smart NEQL search
- Useful hierarchies
 - Smart menus
- Grouping data in right hierarchies
 - Granting access to relevant information only
- BQL
 - Syntax
 - How to use queries, BQL tools and tables effectively
- Program service
 - Advanced examples of use



Day 2 – Smart Graphics Day

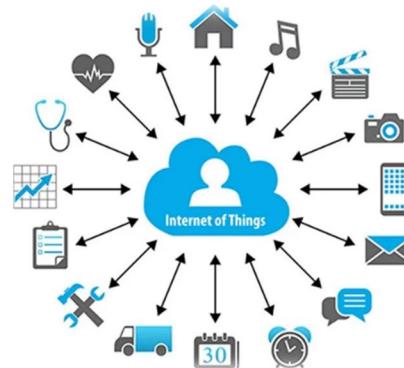
- Graphics deep dive
 - How to design user friendly graphics
 - BFORMAT explained.
 - Useful BFORMAT examples
 - Graphics relativisation
 - Advanced Px include.
 - Tabbed panes
 - Dashboards
 - Tag based graphics.



- SVG

Day 3 – Integration Day

- Module signing
 - Example of code signing SSL certificate creation
 - Module signing
 - Program signing
- Integration workshop
 - IOT protocols
 - SNMP
 - MQTT – in & out
 - JSON – in & out
 - OPC – in & out
 - HTTP Driver API – in & out
 - SQL + Archive History Provider
 - Node-Red integration



Day 4 – Data Access Day

- Templates
 - Creating and deploying a fully integrated template
 - Bulk deployment from Excel
- Brick Schema
 - Setting up dictionary
 - Hierarchies and relations
 - API output
- Reports
 - Manual reports
 - Auto-reports generation
- History
 - User friendly history navigation
 - Use of metadata
- Alarms



- Correct alarm management and display
- Real example of e-mail alarm service set up.
- Niagara diagnostics
 - Event service
 - SPY feature
 - Monitoring main system parameters

Day 5 – Practice Day

- Test project
 - Small project built by yourself.

