Quality Content Work Group Update

OAGi Spring Plenary April 12, 2016

Scott Nieman, Land O’Lakes
Evan Wallace, NIST
Frank Riddick, NIST
Agenda

• Participants
• Origin
• Release 10.3
• 10.4 and Beyond
Core Team – Participants

• Bob Phare, Command Alkon
• (late) Frank Heinrich, iBaseT
• Keith Unger, Independent Consultant/ISA-95 Chair
• *Scott Nieman, Land O’Lakes
• *Frank Riddick, NIST
• *Evan Wallace, NIST
• *David Connelly, OAGi Staff
• Mike Rowell, Oracle / OAGi Staff
• Jim Wilson, OAGi Staff / AgGateway
• Lakshmi Alapakam, Infor
What problems have we solved?

• Address gaps in the OAGIS standard to support Quality Management
• Address increased cross-industry focus on quality and transparency
• Support Master Data management and Operational needs
Quality Content Work Group Deliverables

<table>
<thead>
<tr>
<th>Infor Submission</th>
<th>OAGIS Noun</th>
<th>UML Models</th>
<th>Noun XSD</th>
<th>Scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>QualityTestMaster</td>
<td>TestMethod</td>
<td>Complete</td>
<td>Released 10.2.1</td>
<td></td>
</tr>
<tr>
<td>QualitySpecification</td>
<td>TestSpecification</td>
<td>Complete</td>
<td>Released 10.2.1</td>
<td></td>
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<tr>
<td>InspectionOrder</td>
<td>InspectionOrder</td>
<td>Complete</td>
<td>Released 10.2.1</td>
<td>SamplingProtocol targeted for 10.4</td>
</tr>
<tr>
<td>QualityTestResults</td>
<td>TestResults</td>
<td>Complete</td>
<td>Released 10.2.1</td>
<td>Changed in 10.3</td>
</tr>
<tr>
<td>CorrectiveActionRequest</td>
<td>CorrectiveActionRequest</td>
<td>Complete</td>
<td>Released in 10.3</td>
<td></td>
</tr>
<tr>
<td>CorrectionActionPlan</td>
<td>CorrectiveActionPlan</td>
<td>Complete</td>
<td>Released in 10.3</td>
<td></td>
</tr>
<tr>
<td>CorrectiveAction</td>
<td>CorrectiveAction</td>
<td>Complete</td>
<td>Released in 10.3</td>
<td></td>
</tr>
<tr>
<td>DefectiveMaterialNotice</td>
<td>ItemNonconformance</td>
<td>No QCWG work needed</td>
<td>Released in 10.0</td>
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<tr>
<td>EquipmentCalibrationRecord</td>
<td></td>
<td>Not Started</td>
<td>Target 10.5</td>
<td>MRO, systemic bias,</td>
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<tr>
<td>SamplingPlan</td>
<td></td>
<td>Rework needed; Noun completion requires vetting with statistical experts</td>
<td>Target 10.5</td>
<td></td>
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New in 10.3

- Completed Corrective Action nouns
  - CorrectiveActionRequest
  - CorrectiveActionPlan
  - CorrectiveAction

- Scenario showing full lifecycle of corrective actions

- Modifications to InspectionOrder and TestResults
Correction Action - Business Context

• ISO 9000 calls out Corrective Action (since 1987)
• FSMA and other regulations call for Correction Action capability
• B2B: Integration with Suppliers and Customer’s Quality Management System (QMS), related to escalation process
• A2A: Internal manufacturing quality incidents and deviation alerts based on SPC rules (out of control indicators and +/- 3 standard deviations)
High Level Value Chain of Business Process

1. Repeated Non-conformance (History)
2. Escalate to Corrective Action Request
3. Receive / Agree upon Corrective Action Plan
4. Implement Corrective Action
5. Verification / Measure Effectiveness
## Definition of New Nouns

<table>
<thead>
<tr>
<th>Noun</th>
<th>Definitions</th>
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</thead>
<tbody>
<tr>
<td>CorrectiveActionRequest</td>
<td>A request to initiate a process to eliminate a reoccurrence of a nonconformity or deviation. The process will analyze data associated with the identified problem, identify causes, plan corrective action(s), implement corrective action(s), and verify that the action(s) have addressed the problem.</td>
</tr>
</tbody>
</table>

**AcknowledgeCorrectiveActionRequest** acknowledges that the problem exists or not.

| CorrectiveActionPlan        | A formal description of the problem and the plan (including schedule) for eliminating its recurrence. This is typically offered to the party(ies) affected by the problem for approval prior to the plan’s implementation. |

**AcknowledgeCorrectiveActionPlan** acknowledges an agreement of proposed plan or not.

| CorrectiveAction            | Action(s) taken to eliminate the cause of a detected non-conformity or other undesirable situation (see Note 2 below).                                                                                     |

**AcknowledgeCorrectiveAction** acknowledges that the actions were verified and effective, or not.

Note 2 – Corrective action is taken to prevent recurrence … (from ISO 9000:2005 as quoted by the FDA)
Scenario 72
UML Sequence Diagram

- Completed UML Sequence Diagram for B2B scenario; e.g., incoming inspection of supplier shipment
- Determined multiple nouns would be a better option
Corrective Action BPMN related to Incoming Inspection

Frank Riddick, NIST
Corrective Action Request

- Request
- Interim Actions
- Incident
- History

This is a conceptual representation of the quantity of material associated with the incident which also implies the ways it may need to be described/identified.
Corrective Action Plan

- Plan
- Composed of Actions
Corrective Action

- Base
- Planned
- Actual
- Related

Evan Wallace, NIST
OAGIS-enabled Quality Management Business Capabilities
InspectionOrder changes for 10.3

- GLN support in Location
- Many location area **identification references** to existing Identification schemes including PLSS Cadastral, Metes and Bounds, Plat, Lots, Blocks, Common Land Units, etc.
- **GeoJSON support** using LocationArea and LocationSubdivisionArea; polygons, multi-polygons, lineString, and multi-linestring support by mapping the GeoJSON object type (e.g., JSON arrays) into a string
- Physical **location area** measure capability
- Fix to ValueRangeBaseType to allow **UOM override**
- New **Party types**, including SamplePreparer, Advisor, Broker, and Retailer
- Party at InspectionOrder level
- **ShipmentTrackingReference** added for simplified FedEx, UPS tracking with estimated arrival time
- **TestPackage** was missing
- **ItemInstance** at InspectionOrder level
- **WorkOrderReference** added; soil and tissue sampling
- **SalesOrderReference** added; finished goods
- **Bugs from 10.2.1** -- bug list from Git repository related to Quality Content
Farmer <- Farm <- Field Hierarchy

LocationArea
Farm
LocationSubdivisionArea
Field
TestResults changes for 10.3

• TestEquipmentClass added; existing in Master Data but not tests results
Plan for 10.4

• **SamplingProtocol** - The sampling protocol is the procedure used to select (gather) units from the study population to be measured. The goal of the sampling protocol is to select units that are representative of the study population with respect to the attribute(s) of interest.

• **Focus on Grain Inspection**

• **Any maintenance items**
THANK YOU!