

PPMA Show **2011**

27-29 September
NEC, Birmingham, UK



The definitive
showcase for
processing &
packaging
machinery

Introducing the OMAC Packaging Work Group and PackML

Chris Hansford

OMAC Packaging Workgroup Member

PackAdopt Subcommittee Member

B&R Industrial Automation

OMAC

The Organization for Machine
Automation and Control



• Who is OMAC?

- Organization for automation and manufacturing professionals, including end-users, machine builders, and technology providers.
- 500 members from End-Users, OEM's and Technology providers
- 2 Workgroups, Machine Tools and Packaging (OPW).

• Mission

- Dedicated to advancing manufacturing capabilities and efficiencies through identifying common problems, standardization, and improvements to processes that positively impact the way companies do business.

• Objectives

- **Expand the body of knowledge** for effective application of machine automation and control in manufacturing.
- **Promote awareness of the value of OMAC** and the value of automation and innovation in manufacturing.
- **Provide compelling value** which encourages membership and participation.
- **Ensure the long-term viability of OMAC** as an effective advocate for advancing manufacturing capabilities.



The Wild West of Software !



- **Purchase machines from many suppliers around globe and integrate them to create a packing line system**
 - ▶ Problem:
 - No software consistency between machines
 - No software consistency between like machines from same OEM
 - Horizontal and vertical Integration is difficult and time consuming
 - Training challenges for operators and technicians.
 - Hard to troubleshoot
 - ▶ Solution...Embrace & deploy industry software standards
 - ▶ **Why doesn't the manufacturing machine industry have software standards like the military, IT world, financial industries, etc.?**



• Nestlé's vision for packaging automation:



Good Food, Good Life

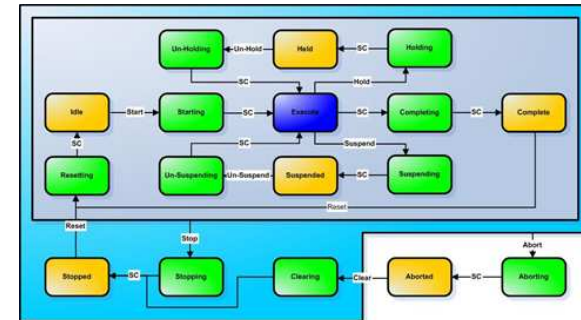
- Support sustainable financial performance through reduced total cost of ownership and increased automation
- Enhance manufacturing competitiveness by improving OEE
- Improve the operational safety of packaging equipment
- Optimize the control of packaging equipment through:
 - Implementation of international standards
 - Realization of horizontal (line) integration
 - Providing links to vertical MES/ERP systems

The Solution : PackML

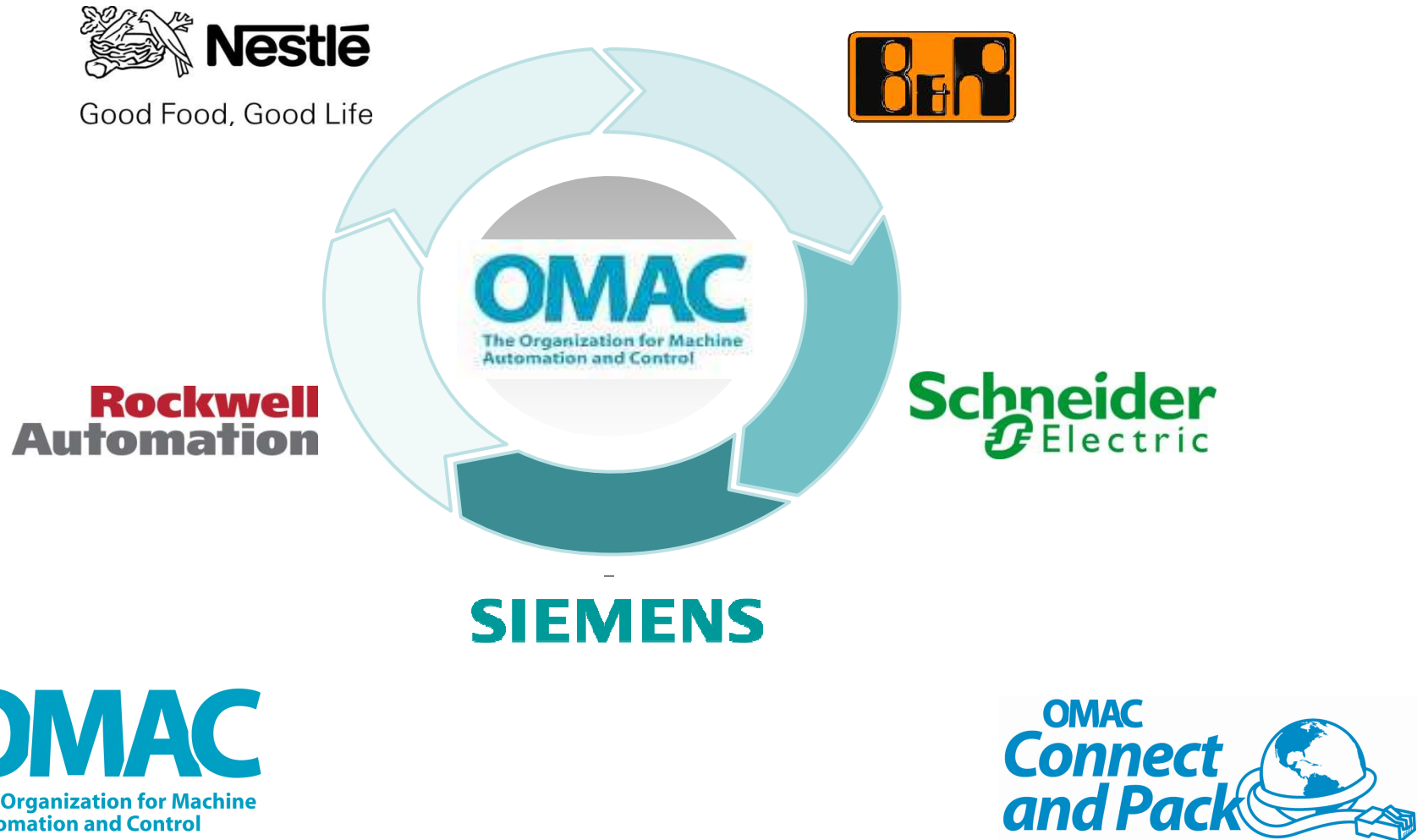


• What is PackML? (Packaging Machine Language)

- Industry standard (ISA TR88.00.02)
- Software design methodology that leads to:
 - Common operational look and feel between equipment
 - Defines operational state of a machine
 - Provides for operational modes
 - Standard information to-from machines (PackTags)
 - Modular coding for re-application libraries and diagnostics
- Applicable to other types of machine systems
- Supported by PMMI, Nestle, Pepsico, Mars, General Mills, SAB Miller



- Nestlé's strategy for next generation packaging systems:



Benefits of PackML for end users

- **Benefits of implementing a standard**
 - PackML & PackTags are part of an international standard
 - Easier line integration and startup
- **Enhanced operations**
 - A consistent state model enables common engineering platform for all machines within a packaging line
 - Common look and feel for HMI requires less training
 - Standardized interface and predefined PackTags enables easy integration with factory standard HMI/MES
- **Business benefits**
 - Promotes best-in-class solutions focused on innovation
 - Reduced total cost of ownership (TCO)



Benefits of PackML for OEMs

- **Improved development cycle**
 - Control platform independent
 - Greater reapplication of software code
 - Less customized code to test
- **Improved customer delivery**
 - Reusability of proven software reduces time-to-market
 - Easy integration and startup at customer site
 - Simplified post-sale support
- **Business implications**
 - Allows for greater focus on innovation & machine capability
 - Intellectual Property still maintained



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Introducing the 'reinvigorated' OMAC Packaging Work Group

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**Connect
and Pack** 

Update: OMAC Packaging Workgroup

- New chair: Bryan Griffen, Nestlé
- PMMI's role in revitalizing OMAC
- Meeting: PACK EXPO Las Vegas, Tuesday, September 27
- Teleconferences will be held monthly for the foreseeable future
- Face-to-face meetings will be held 3 times a year:
 - ARC Forum
 - PACK EXPO
 - One additional during a major industry event in Europe

The PACK EXPO logo, featuring the words "PACK EXPO" in a bold, black, sans-serif font, enclosed within a red and blue square border.

**PACKAGING.
PROCESSING.
ONE
POWERFUL
SHOW.**

September 26-28, 2011
Las Vegas Convention Center
Las Vegas, Nevada USA



ARC Advisory Group report



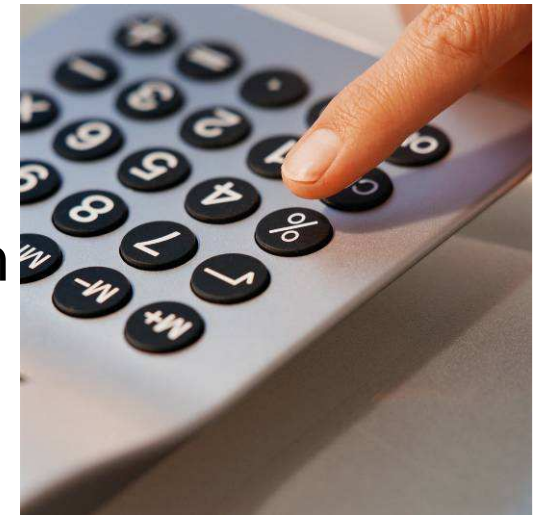
Thought Leaders
for Manufacturing
and Supply Chain

- “Without standards, high-volume and high-throughput CPG manufacturers’ packaging operations will become increasingly difficult to maintain or improve.
- “The reinvigorated OMAC Packaging Work Group, headed by Bryan Griffen of Nestlé, represents a major step forward toward development and adoption of global packaging machine standards.”



PackML

- Chair: Murugan Govindasamy, Pfizer
- Harmonize PackML 3.0 with ISA TR 88.00.02
- Include MES definitions in this work
- Coordinate additional PackML workshops with PMMI events
- Encourage technology providers to publish implementation guides
- OEE cost savings calculator for PackML



PackConnect

- Chair: Thibaud Kosicki, Nestlé
- ODVA has contacted OPW, wants to participate
- Coordinate activities with ODVA
- Outreach to other network standards organizations
- Investigate recent network initiatives
 - Wireless Ethernet
 - Network security (ISA 99)
 - Applicability of *MTConnect*



PackSafe

- Chair: Fabrice Bertin, Nestlé
- Investigate IEC compliant open safety protocol
- Coordinate with PMMI safety resources

<http://www.pmmi.org/Resources/SafetyNewsList.cfm>



PackSoft

- Chair TBA
- Outreach to PLCopen
- Outreach to OPC Foundation
- Investigate emerging technologies
 - UML (Unified Modeling Language)
 - Simulation
 - Automatic code generation



PackAdvantage

- Chair: Tom Doney, Nestlé
- Coordinate PackML World Tour
 - OEMs offering PackML visit end users
 - Present *business* benefits of PackML
- Promote OEE/PackML cost savings calculator



PackAdopt

- Chair: Christian Chatel, Schneider Electric
- Subcommittee of *PackAdvantage*
- Assure OPW initiatives are adopted worldwide
- Dialogue initiated with packaging global associations

France -- SCIPAG-EMBALCO

Germany -- VDMA

Italy -- UCIMA

United Kingdom -- PPMA



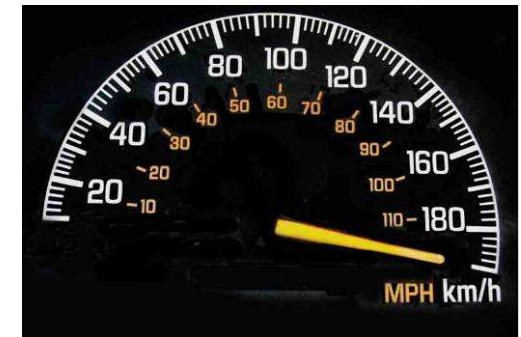
PackSpec

- Chairs: Tom Jensen, B&R & Carl Bostrom, Bosch Rexroth
- Simplify adoption of OMAC Packaging Guidelines
- Develop unified, vendor-neutral functional specification
- Based on international standards
- Assure comparability, interoperability
- Links to international electrical codes & wiring specifications



PackAbility

- Chair: John White, Eaton
- Promote sustainability and energy efficiency in packaging machinery, operations
- Investigate upcoming standards with PMMI
ISO 50001
MachineryStar
- Assure comprehensive, practical measurement of total packaging system carbon footprint



PackLearn

- Chair: Paul Redwood, Church & Dwight
- Education and training for effective packaging operations
- Outreach to university mechatronics curricula
- Coordinate with PMMI Education & Workforce Development Committee



For More Information

- Share your thoughts today
- Visit OPW website
<http://www.omac.org/content/packaging-workgroup>
- Become a corporate OMAC member
- Volunteer for a role on transition team
- Join a committee



Thank You

