





# 2015 Pack Expo Las Vegas

## Mitsubishi Electric PackML Solutions

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## Mitsubishi Electric – PackML Solution

iQ Works Implementation  
- PLC & GOT templates conforming to OMAC PackML Implementation Guide



Sample PLC, GOT, OPC programs

Complete set of Users Guide.  
Training materials

- PackML Implementation PLC and HMI Templates and a set of detailed OEM Implementation guides.
  - Conform to OMAC PackML standard and “OMAC PackML Implementation Guide”
  - Implement the full set of PackTags as an integral part of the overall implementation
  - Including a Kepware OPC server file that is pre-configured to make all PackTags available to any system using an OPC client
- Conforming to the latest revised PackML Standard
  - Full PackML implementation
  - Minimum Set of PackML Requirements
  - Can be scaled down to PLCs

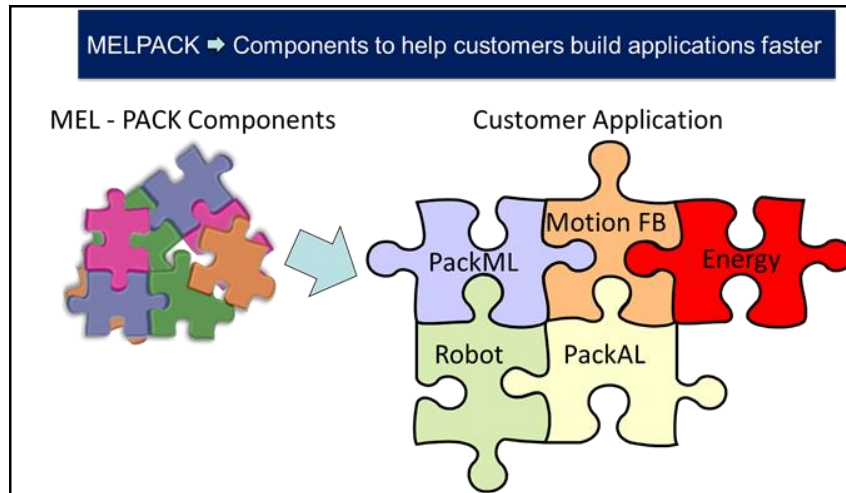
# Mitsubishi Electric – PackML Solution

PackML Workshop Agenda		
Topics	Time	Target Audience
Part 1 – PackML Overview	45 Minutes	People who are interested in learning what PackML is, at an overview level
Part 2 – Overview of Mitsubishi PackML Implementation • OMAC Implementation Guideline • Mitsubishi PackML OEM Implementation Package • PackML Program Structure • PackML Structure	45 Minutes	People who are interested in learning how MEAU CIC has implemented the PackML, at an overview level
Part 3 – Implementation of PackML Standard • PackML State and Mode Manager • PackML Timers • PackML Implementation	1 Hour	People who are interested in learning the details of PackML implementation in the Mitsubishi PackML OEM Implementation template software
Part 4 – Implementation of Event Handling • Event Handling Function Blocks	1 Hour	People who are interested in learning the details of event handling capability in the Mitsubishi PackML OEM Implementation template software
Part 5 – Tailoring the Mitsubishi PackML Package • Procedure to Modify the software modules • Example: Filling Machine Application Solution	1.5 Hours	People who are interested in learning the details of how to modify the Mitsubishi template system to work with an actual application



- Documentation
  - A full set of OEM PackML Implementation Templates Users Guide is available as a part of the Template release
  - Seven parts describing details of all aspect of PackML implementation
- Training
  - A full day PackML Workshop is available to train OEMs in implementing an actual system using the Mitsubishi PackML template solution
  - An implementation of Mitsubishi PackML templates on a Filling System Application Solution is available as an example

# Mitsubishi Electric – MEL-Pack Solution



- Enable OEMs to efficiently create various packaging machinery and systems.
  - Reduce the amount of software development and work required for OEMs
  - Provide Application specific function blocks to create value for Packaging Machinery OEMs
  - Incorporate utilities to further reduce the OEM work required to implement an actual machine

# Mitsubishi Electric – MEL-Pack Solution



- PackML Framework
  - Handling PackML compliance requirements
  - Pre-defined PLC structure programs and HMI sample screens
    - Mode and state transitions are pre-programmed.
    - Locations in the PLC program structure where OEM machine specific programs are required for certain Unit Machine mode and state are clearly identified.
- Integration of Utility Libraries
  - Additional libraries, PLCopen Motion Library, Robot interfaces, Ethernet communication, to handle common system level functions
- Integration of Application Libraries
  - PackAL, OEE Display, Energy Monitoring

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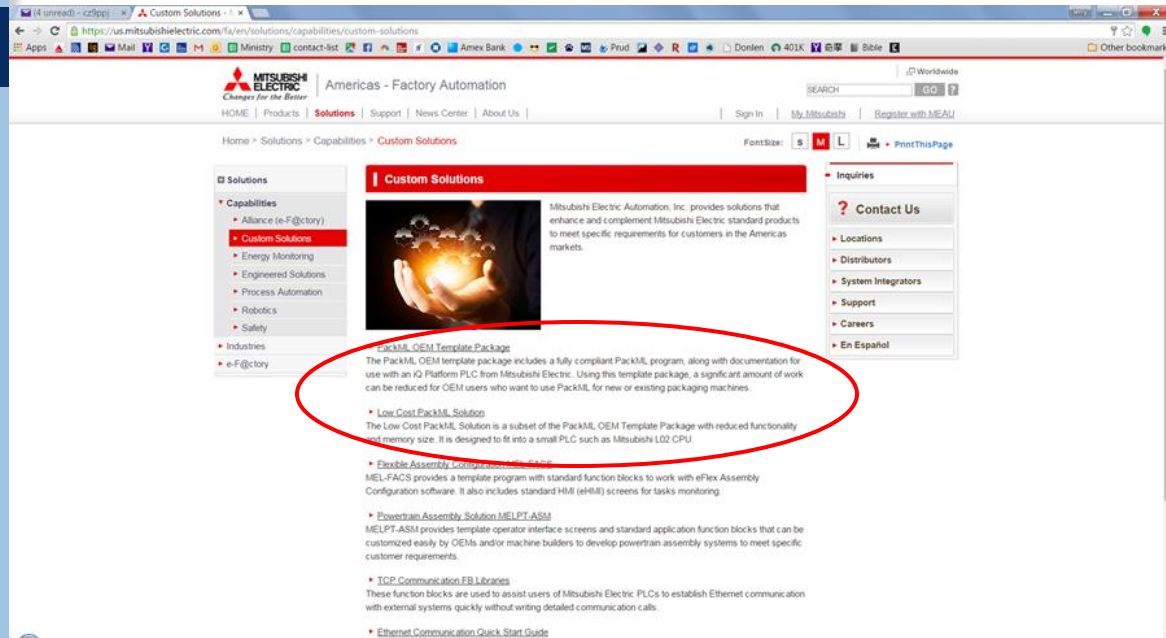
## Contact Information

Download the PackML Template  
Solutions

<https://us.mitsubishielectric.com/fa/en/solutions/capabilities/custom-solutions>

Contact:

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The screenshot shows a web browser displaying the Mitsubishi Electric website. The page is titled "Custom Solutions" and is part of the "Americas - Factory Automation" section. The navigation menu includes "HOME", "Products", "Solutions", "Support", "News Center", and "About Us". The main content area features a sidebar with "Solutions" and "Capabilities" (Alliance, Custom Solutions, Energy Monitoring, Engineered Solutions, Process Automation, Robotics, Safety) and "Industries" (e-F@ctory). The main content area has a red header "Custom Solutions" and a sub-header "PackML OEM Template Package". Below this, there is a description of the PackML OEM Template Package, which includes a fully compliant PackML program and documentation for use with an iQ Platform PLC. A red circle highlights the "PackML OEM Template Package" section. Other sections include "Low Cost PackML Solution", "Flexible Assembly Solution MEL-FACTS", and "Powertrain Assembly Solution MEL-PT-ASM". The right sidebar contains "Inquiries" and "Contact Us" links, along with "Locations", "Distributors", "System Integrators", "Support", "Careers", and "En Español".