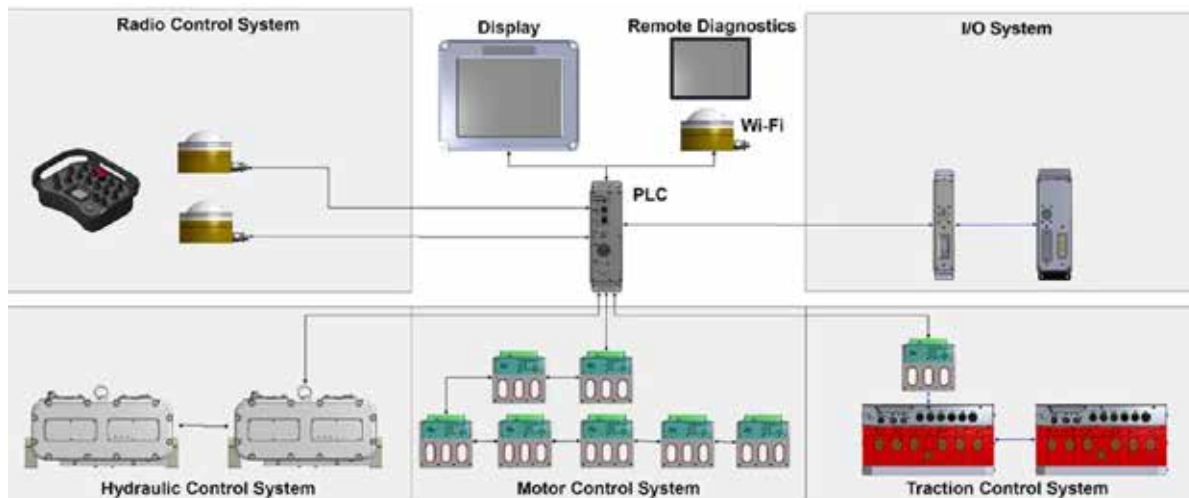# OBELIX Control System Upgrade
OBELIX2

Available now from Pempek is the Obelix2 Control System Upgrade.

Upgrade immediately – without any machine wiring changes – any Obelix machine control system.

Simply replace the existing Obelix PLC processor with a drop-in compatible Obelix2 processor module.

Obelix2 upgrades your Obelix machine with some of the features from the newest generation, industry-leading ObelixPLUS platform.

Obelix2 has increased the dependability, safety, compliance and security of your Pempek Control system!

Obelix2 Features include:

- Remote Diagnostics – From mine surface or anywhere in the world using secure Edison Gateway PC Software
- Automatic Field Device Configuration
- New Device Configuration Page on machine-mounted graphics display. At a glance, operators see confirmation that all field devices are connected and configured properly
- Screen Mirroring: See control system diagnostic pages (including the Device Configuration Page) remotely using the Edison Screen Mirror PC software
- Telemetry: Built in data collection, buffering and streaming
- Remote Software and Parameter Management

Obelix2 Benefits:

- Quick and simple upgrade from Obelix. Because the automation software remains the same (only Obelix2 extensions are added)
- No longer the need for a programming cable or professional expert at site to load device configuration
- Remotely monitor your machine
- Remotely upgrade software and parameters
- Collect and store machine data (Telemetry)

Processor Module Upgrade

The only hardware needed to be changed to convert any Obelix control system to Obelix2 is the installation of a processor module. New processor modules are available in both fibre CAN bus and non-fibre bus models. Processors are footprint and wiring compatible. Simple open the box and replace the processor. It is that easy!

Processor Upgrade

Pempek Obelix PLC Processor (standard)

Pempek Obelix2 PLC Processor (standard)
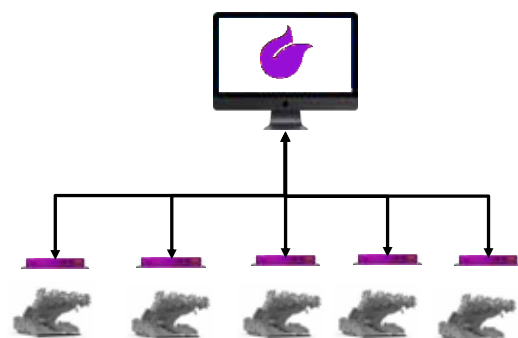
Processor Upgrade

Pempek Obelix PLC Processor (Fibre CAN bus Model)

Pempek Obelix2 PLC Processor (Fibre CAN bus Model)

Secure Remote Access to Any Obelix2 Machine in the Mine

Using an encrypted USB security dongle and Edison Gateway software – securely access and manage any machine on the mining network from a remote location (i.e. mine surface).

Orchid Data Collector

Pempek's Intelligent Collector Protects Against Data Loss.

Data disconnection? No data was lost with the Pempek Orchid unit.

Provides a point of collection from a number of sources.

Securely connect to the machine from anywhere.

A secure gateway between machine local network and mine network.

Collect machine data continuously.

Buffer data during mine network outage up to 4 days depending on telemetry loading

Buffered data recovered automatically with Pempek Royce Telemetry & Analytics system. Once reconnected, the collector will feed stored and live data simultaneously.

L11KØ1Ø1   L11KØ2Ø1   L11KØ3Ø1   L11KØ4Ø1

Machine display "remote screen mirroring" (with independent page navigation).

EIP functionality setup.

A diagnostic helpful tool to validate system setup and health checks.

Two isolated network adapters.

Processor T30 or iMX6.

Software Windows CE or Linux.

Polymer or Aluminum Shell Enclosure.

- Provides a point of collection from a number of sources
- Securely connect to the machine from anywhere
- Secure gateway between machine local network and mine network
- Collect machine data continuously
- Buffer data during mine network outage up to 4 days depending on telemetry loading
- Buffered data recovered automatically with Pempek Royce Telemetry & Analytics system. Once reconnected, collector will feed stored and live data simultaneously
- Machine display "remote screen mirroring" (with independent page navigation)
- EIP functionality setup
- Diagnostic tool useful to validate system setup and health checks
- Two isolated network adapters
- Processor T30
- Software Windows CE
- Plate Mounting
- Polymer Shell Enclosure

Live Device Configuration Status Reporting

Available on the machine and via the
secure remote network connection.

Motor Controller Error History Analysis

View motor controller error history and status to fully understand root cause.

Feature comparison Obelix vs Obelix2 Chart

Feature	Obelix Standard	Obelix2
Real-time Machine Control	√	√
Secure Remote Network Connection (Edison Gateway software with security dongle)		√
Remote Diagnostics (including motor drive shutdown logs)		√
Remote PLC Software Loading (via secure network connection)		√
Screen Mirroring at Mine Surface (with remote page navigation)		√
Integrated Telemetry Data Collector		√
Integrated Telemetry Data Buffering (up to 5 days data buffered)		√
Integrated Telemetry Data Feed (dedicated Ethernet port)		√
Device Configuration Status Page		√
Machine Parameter Reporting/Auditing (via secure network connection)		√
Machine Parameter Configuration (via secure network connection)		√

Obelix PLC Families Feature Comparison Chart

Feature	Obelix Standard	Obelix2	ObelixPLUS
Real-time Machine Control	√	√	√
Automation Software Code Base	C++	C++	Codesys
Real-time Data Trace Debugging / Charting (also supported over remote network connection)			√
Source Code Debugger (also supported over remote network connection)			√
End User Machine Software Source Code Licensing Available			√
CAN Bus Interfaces	4	4	4
RS-422 Interfaces	2/3	2/3	2/3
Modbus TCP Master			√
Modbus TCP Slave (monitoring data only not control)			√
License Manager		√	√
Secure Remote Network Connection (Edison Gateway software with security dongle)		√	√
Remote Diagnostics (including motor drive shutdown logs)		√	√
Remote PLC Software Loading (via secure network connection)		√	√
Screen Mirroring at Mine Surface (with remote page navigation)		√	√
Telemetry Data Collector		√	√
Telemetry Data Buffering (up to 5 days data buffered)		√	√
Integrated Telemetry Data Feed (dedicated Ethernet port)		√	√
Automatic Device DCF Configuration Loading		√	√
Device Configuration Status Page		√	√
Machine Parameter Reporting / Auditing (via secure network connection)		√	√
Machine Parameter Configuration (via secure network connection)		√	√
Custom Error Message Editing by end user (without the need to recompile/recommission) software)			√
"Lesson Learned" Custom Long Text Message editing by end user (without the need to recompile/recommission)			√
Mobile Device App for remote monitoring over Wi-Fi (Edison Pocket Android / iOS)			√
Operator Login Manager (via secure network connection)			√
Tele Remote Control			√
Black Box Data Logging			√

pempek
made for mining

Obelix2 is available for your legacy Obelix control system immediately.

Please contact custcare@pempek.com.au for more information and to schedule your Obelix2 upgrade.

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