Burny® Multiverse Technology

Burny® Multiverse Controller (MVC) is the latest generation of world class motion and process controls from ITT Corporation. Process support is virtually unlimited. Industry applications include routing, laser, glass and stone cutting, dispensing and other automation tasks.

Burny® MVC's new motion algorithms provide dynamic high speed motion while maintaining tool or process stability and accuracy. This improves quality and cycle-times when compared to competitive controls running at the same speeds. Mechanical longevity is also increased due to disturbance free position, velocity and acceleration profiles.
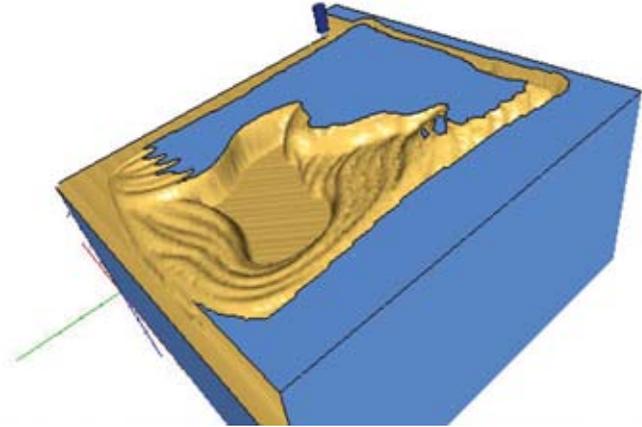
Additionally, Burny® Visual Machine Designer (VMD) enables machine builders to differentiate from competitors by providing easy-to-use drag-and-drop HMI creation tools that allow for unlimited customization and seamless interfacing functionality with the Burny® MVC.

BURNY® MULTIVERSE TECHNOLOGY

Burny® MultiVerse=Multi-Process

The Burny® MVC was specifically designed with process flexibility in mind. Many automation challenges are easily resolved by allowing all axes to be configurable. Axis motion can be coordinated, copied, mirrored, or independent. Multi-axis systems can easily be scaled from 4, 8, 12, up to 16-axis configurations. With 32 I/O points standard you have the flexibility to handle a wide variety of complex logic. (Additional 32 I/O points are optionally available for a total of 64 I/O points)[1]

0.09 Arc Seconds of Motion Accuracy

Burny® MVC's state-of-the-art motion algorithms are capable of 0.09 arc seconds of motion accuracy versus competitors who are often above 5.0 arc seconds. (Burny® MVC motion accuracy has been independently validated by a third party)

Mechanical Transforms Built-in

Burny® MVC allows mechanical transforms to be easily configured by the machine builder allowing for efficient characterization of joint relationships and limits without requiring software updates should future system design modifications occur. Applications include robotics, bevel-head systems, multi-axis rotary motion, and more.

Multiple Layers of Noise Immunity

The standard enclosure is constructed of lightweight stainless steel designed to suppress electrical noise and radiated emissions. The printed circuit board utilizes a Faraday Cage principle to protect I/O and motion signals from airborne noise as well as noise passing through conductors. Stable noise immunity equates to increased product reliability.

(1) 2D or 3D graphics make it easy to monitor job progress on simple or complex part programs.

Burny MultiVerse Means Multi-Process.

BURNY® MULTIVERSE TECHNOLOGY

Burny® Multiverse Technology

Integrated Tuning Utilities

Simplify the tuning process by monitoring drive reference signals and following error signals with accurate onboard Oscilloscope tools. Tuning excessive inertia mismatches out of a system is a snap. Use the Burny® Visual Machine Designer's drag-and-drop feature to easily configure your tuning utility windows to customize your machine's look and feel.[2]
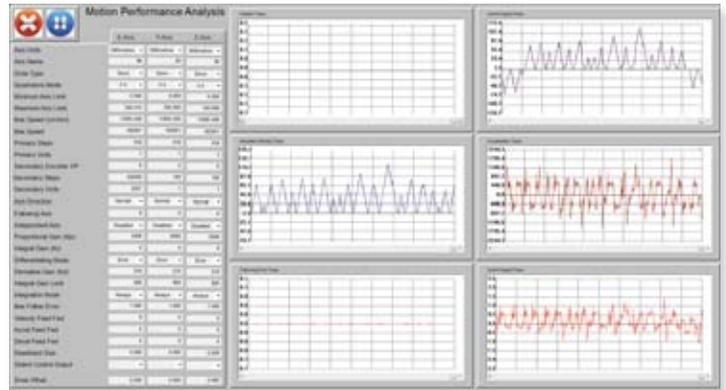
(2) Tuning Utilities

Visual Machine Designer Software

Create attractive human machine interface (HMI) without in-depth coding know-how. The Burny® Visual Machine Designer (VMD) works with the Burny® Multiverse Controller allowing machine builders to customize the HMI to suit their unique needs. Burny® VMD utilizes a function-based drag-and-drop interface that makes front end design fast and easy. Drag-and-drop system components like feedrate, axis position, jog buttons, and graphics onto the panel design and they are instantly functional and ready to use. Graphic design and customization of components is virtually unlimited.[3]

(3) VMD (Visual Machine Designer)

Android-based Wireless Pendant App.

The future is now with Burny MVC's Android-based wireless pendant application. The Burny® VMD can configure any android-based device to function as a wireless pendant or HMI device. The phone's on-board accelerometer detects hand motion thereby controlling machine movement. Other functions include job setup and standard command functions such as cycle-start and stop.[4][5]

(4)(5)Customizable Android-based Wireless Pendant

Burny® Multiverse Technology

Specifications

Function	Specification
Processor	PMC Sierra MSP8510, 600MHz, 100MHz Bus
Memory	256MB RAM
Motion	4-Axis Servo or Stepper Configurable Base Model 8, 12, or 16 Axis Models Available Axes are fully configurable for coordinated, copy, mirror, or independent action. Servo Loop Update Rate: 100kHz (10μs) Servo Axis Command Reference: +/-10VDC Analog Servo Axis Encoder Input: +5VDC at 40MHz Maximum Stepper Output: 10MHz Maximum Output
I/O	(32) I/O Points Standard (16) Inputs (4-35VDC) (16) Outputs; 24VDC Sourcing (3A Maximum Shared) Use of External 24VDC Supply Boosts Outputs to 500mA each All I/O Configurable through Burny® Visual Machine Designer (VMD) (1) Analog Output for Auxiliary Functions (1) External Relay Contactor
Connectivity	(2) RS232 Ports (2) Ethernet Ports Burny® VMD is required for each system. Burny® VMD connects to the controller through RS232 or Ethernet from an external PC (not included). Connection is configurable through Burny® VMD.
Power	24VDC (90W)
Size and Weight	11.5" (292mm) W X 9.5" (241mm) H X 5.5" (140mm) D – Standard Enclosure 7 lbs (3.18kg)
Warranty	2 Years