

12 Birket Engineering, Inc.

Birket Engineering, Inc. is a control system integrator. Founded in 1984 by Glenn Birket, the company has enjoyed building a complex and diverse resume of challenging control system and networked projects. Birket installations are seen worldwide throughout The Walt Disney Company, Universal Studios, Premier Parks and various theater, industrial, and government sites.

Please see www.birket.com for more information.

12.2 EnchantWays™ Staff

Steve Birket, PE MBA

Steve acted as Disney owner representative and manager during the 100 Years of Magic, Disney's California Adventure®, and Epcot® millennium celebration projects and as show manager for Universal Studios' Islands of Adventure Toon LagoonSM development and installation projects.

Steve is an electrical engineering graduate of the University of Central Florida, holds a master's degree in Business Administration from Rollins College, and is a Florida licensed Professional Engineer.

Jason Short, Ph.D.

Jason designed the network and software for the EnchantWays™ system and has consulted extensively on domestic and overseas entertainment projects. Jason has authored, designed and successfully marketed over twenty video game titles and holds three patents for distributed network processes.

Jason holds a doctorate degree in Computer Science from the University of Southern California.

Daniel Birket, BS EMCS

Dan designed the life-safety software systems for Epcot's Illuminations 2000: Reflections of Earth® show, Universal Studios Japan's WaterWorld™, and the control systems for eight conventional and linear induction launched roller coasters for regional parks.

Dan is named on U.S. Patent #5,015,933 for a seat base motion controller and is an engineering graduate of the University of Central Florida.

Marcial Godoy, BSEE

Marcial was Birket Engineering project engineer for Universal Studios Florida's® Jaws® and Earthquake® attractions, Universal's Islands of Adventure'sSM Popeye & Bluto's Bilge Rat Barges® and The Amazing Adventures of SpidermanSM ride control systems, and Universal Studios Japan'sTM Wild Wild Wild West Stunt ShowSM, Universal Monsters Live Rock and Roll ShowTM, Hollywood MagicTM, E.T. Adventure®, WaterWorldTM, and Animal Actors Stage® attractions.

Marcial is a University of New Orleans electrical engineering graduate and Birket Engineering, Inc. Vice President of Projects.

Richard Daniel, PE

Richard designed the software for several large scale client/server database projects automating major business functions for a chain of US financial institutions and wrote the PC control software for the Sea World Nautilus® rigging system and the Palm Beach County Courthouse Security system.

Richard is an electrical engineering graduate of the US Naval Academy and served as a Lieutenant Commander trained in nuclear propulsion and submarine operations. Richard is a Virginia licensed Professional Engineer.

Glenn Birket, PE

Glenn designed the show control system for Epcot's American Adventure®, then the largest and most complex of any Disney control project. He went on to found Birket Engineering, Inc. in 1984, providing controls engineering and installation services to The Walt Disney Company, Universal Studios®, Premier Parks®, and entertainment installations around the world.

Glenn is a cum laude electrical engineering graduate of the University of Central Florida and a Florida licensed Professional Engineer.

12.3 Analogous Birket Engineering, Inc. Projects

Illuminations 2000: Reflections of Earth®

Epcot®

Information courtesy Epcot Brand Management

Birket Engineering designed and installed the control system managing and cueing show equipment spread over more than 70 acres in and around the Epcot® lagoon, including all pyrotechnics, six lagoon barges, eleven nation pavilions, nineteen flame towers, lasers, and eight syncro lights. Data networks used to connect the components of this installation included wired and wireless SMPTE time code signals, active safety-enable signals, shore-side programming

ports, and a lighting control network three times larger than normally employed. Delivered equipment included six barge show control cabinets, six fireworks cabinets, one lighting control cabinet, three show and audio control cabinets for use in the technical director's booth, and numerous enclosures to interface with the lagoon torches, sea wall mortars, nation pavilions, syncro lights, fountain and fire barges, and fireworks launcher.

Palm Beach County Judicial Center Security System

Palm Beach County, FL

Birket Engineering designed and installed the security system to control and monitor the 874,499 sq.ft. complex. The system secures the Central Energy Plant, the State's Attorney/Public Defender building, and the twelve story courthouse with its prisoner holding areas, county offices, 32 courtrooms, 11 hearing rooms, judges' offices, and helipad. The system controls and monitors 287 cameras, 405 card readers, 215 intercom stations, 81 motion detectors, 210 panic buttons, 723 doors, and 62 man-down units, totaling over 2,500 peripheral devices and 13,000 input/output points of information.

E.T. Adventure[®], Goodbye System

Universal Studios Florida[®]

Universal Studios Hollywood[®]

Universal Studios Japan[™]

Birket Engineering developed the original concept for the E.T. goodbye system with Universal Studios Florida[®] project personnel, with Birket having complete responsibility for the design and implementation of the system. With the success of the attraction, Universal Studios[®] again contracted with Birket to provide the system with enhancements for the Hollywood and Osaka E.T projects.

Upon entering the attraction, guests are given a bar-coded passport containing the guest's name. While boarding the ride vehicle, a host/hostess collects the passports from each of the passengers and passes them over a window scanner as the vehicle leaves. Birket's goodbye system identifies the vehicle as it leaves by reading an RF tag mounted to the top of the vehicle. The vehicle now "knows" who is riding the vehicle. As the guests approach the end of the ride, an animated E.T. turns to greet the vehicle and speaks to each guest by name.

Enchantways[™] debuted at IAAPA 2001 "Theme Park In A Box"

Orlando, FL

The EnchantWays system at IAAPA used PCs running Windows 2000 on a 10MB hardwired network with short range key sensors. Game events were controlled by an Allen-Bradley SLC 500. 195 demonstrations were given.

12.4 Other Birket Engineering, Inc. Projects

Universal Studios Florida[®]

Wild Wild Wild West Stunt ShowSM, show control system

Universal Studios Hollywood[®]

Wild Wild Wild West Stunt ShowSM, show control system

WaterWorldTM, show control system

Backdraft[®], show control system

Universal's Islands of AdventureSM

Popeye and Bluto's Bilge Rat BargesSM, ride control system

The Amazing Adventures of SpidermanSM, block zone control system

Universal Studios JapanTM

Universal Monsters Live Rock and Roll ShowTM, show control system

Snoopy's PlaylandTM, show control system

WaterWorldTM, show control system

Wild Wild Wild West Stunt ShowSM, show control system

Animal Actors Stage[®], show control system

Hollywood MagicTM, show control system

The Walt Disney Company

100 Years of Magic, wireless show effect system

Norway Pavilion, ride control system

Superstar Theater, turntable control system

Regional Parks

Enclosed Conventional Steel Coaster, Arlington, TX, ride control system

LIM launched coaster, Las Vegas, NV, ride control system

LIM launched coaster, Nagoya, Japan, ride control system

LIM launched coaster, San Antonio, TX, ride control system

LIM launched coaster, Largo, MD, ride control system

LIM launched coaster, Arlington, TX, ride control system

LIM launched coaster, King's Island, OH, ride control system

LIM launched coaster, Doswell, VA, ride control system