

# PATRIOT DIGITIZER

FREE FORM DIGITIZING

## THE AFFORDABLE ANSWER

The PATRIOT™ Digitizer is the most affordable digitizer on the market. The system includes everything you need to start digitizing objects from engineering prototypes to precious artwork.

## FREEDOM TO MOVE

By utilizing proprietary magnetic tracking technology pioneered by Polhemus for advanced military applications, the digitizing stylus can be moved freely: around, under and behind objects big and small.

## Digitize Freely - No Mechanical Arm

Use the PATRIOT Digitizer Stylus and capture data points in hard to reach places easily. Move around the object freely. The Stylus is tracked using Polhemus' magnetic 6 Degree-of-Freedom (6DOF) technology and requires no mechanical arm or optical markers.

## Digitize Large Objects

Digitize a kayak, furniture, a kitchen counter top - no problem! The PATRIOT Digitizer has a range of up to 5 feet for a 10 foot diameter workspace.

## Digitize Cost Effectively

Base system with all the hardware needed to start free-form digitizing is available at a very affordable price. Add the optional TX4 source for greater range, and the foot switch for ease-of-use, and this high-end system is still the most cost effective digitizer on the market.

## Easy to Set-Up

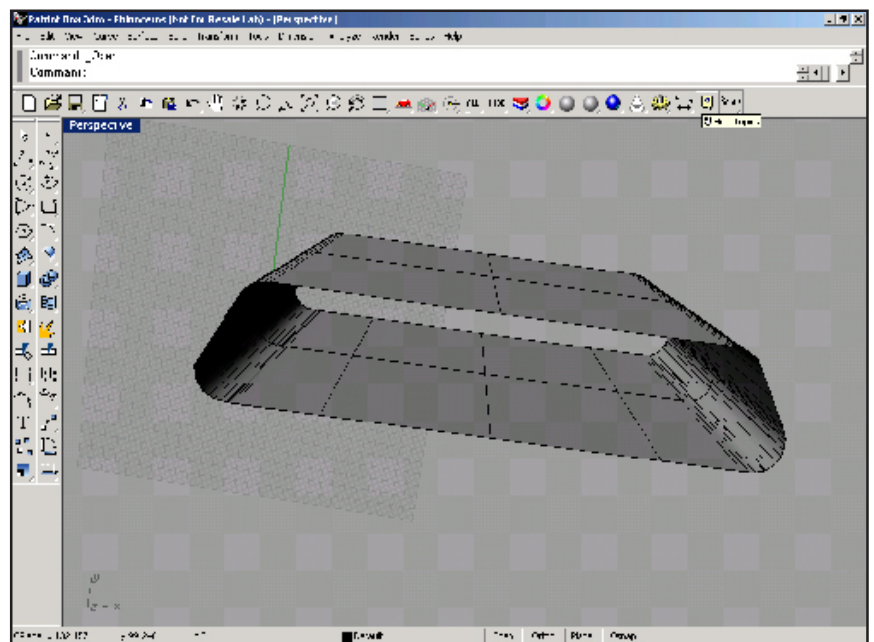
Installs in minutes using a standard PC and either USB or RS-232 port.

## Easy to Use

Launch directly from Rhino® and start clicking!



*Standard PATRIOT Digitizer includes TX2 Source, 8" stylus (shown above) and foot/ band switch (as seen on the back page)*



*PATRIOT electronics box shell digitized within Rhino*

# PATRIOT DIGITIZER



Foot Switch



Hand Switch

## ► ACCESSORIES



TX4 Source



3" Stylus

► ► **POLHEMUS**  
INNOVATION IN MOTION™

The systems are not certified for medical or bio-medical use. Any reference to medical or bio-medical use are examples of what medical companies have done with the systems after obtaining all necessary or appropriate medical certifications. The end user/OEM must comply with all pertinent FDS/CE and all other regulatory requirements.

## ► SPECIFICATIONS

### Range

Up to 6 ft. diameter with TX2 source; up to 10 ft. diameter with TX4 source

### Interface

RS-232 with selectable baud rates up to 115.2 K. USB 2.0 (high speed)

### Software Tools

GUI and SDK included

USB drivers for Microsoft Windows®, XP/Vista/Win7 included (32-bit and 64-bit)

Linux® - open source application available

### Accuracy

Absolute: 0.05 in. (1.3mm); Relative: 0.019 in. (0.48mm)

Relative accuracy was determined by digitizing a bowling ball and calculating the variation in radius over the point cloud surface

### Resolution

0.00046 inches, 0.0038 degrees at 12-inch source-to-stylus separation

### Operating Temperature

10°C to 40°C at a relative humidity of 10% to 95%, noncondensing

### Physical Characteristics

SEU - 6.75 in. L x 6.25 in. W x 1.75 in. H

Power Supply - 3.5 in. L x 2.4 in. W x 1.4 in. H

Source - 2.3 in. L x 2.2 in. W x 2.2 in. H (standard 2 in. )

Stylus - 7 in. L x 0.5 in. W x 0.75 in. H or 3.5 in. L x 0.5 in. W x 0.75 in. H

### Power Requirements

10W, 100-240 VAC, 47-63 Hz

## ► COMPONENTS

### System Electronics Unit

Contains the hardware and software necessary to generate and sense the magnetic fields, compute position and orientation, and interface with the host computer via an RS-232 or USB 2.0 interface

### Source

The source contains electromagnetic coils enclosed in a plastic shell that emit the magnetic fields, the system's reference frame for stylus measurements

### Stylus

The stylus is a free-form digitizing tool (available in both 3-inch and 8-inch sizes), with both single point and continuous line output modes

### Includes:

USB Cable

Hand/Foot Switch for Stylus

Power Supply

CD with Rhino Plug-in (Rhino software not included)

PATRIOT System User Manual

Two Year Warranty

\*Large metallic objects, such as desks or cabinets, located near the source or stylus, may adversely affect the performance of the system

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