

"I have used many different navigation systems over the years and have found the **Stryker Navigation System** to be the most superior in three critical elements essential for neuronavigation: reliability, accuracy, and minimization of line-of-sight blackout."

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### Optional Features

#### Microscope Integration

Compatible with microscopes from major manufacturers including:

- Zeiss Pentero and NC-4
- Leica M500N/M520N Dual Imaging

#### Frameless Guiding System (FGS)

- Frameless biopsy made easy with the Frameless Guiding System
- Wireless Smart instrumentation helps make setting trajectory and depth accurate and fast

#### Skull Post Kit

The Skull Mounted Tracker Kit is designed for rigid fixation of a patient tracker to the skull in a minimally invasive way. This eliminates the need for rigid (e.g. Mayfield) patient fixation for navigation procedures.

### Parts List

Part No. Description

**6000-011-000 Long Pointer**



**6000-012-000 Short Pointer**



**6000-005-000 Universal Tracker**



**6000-074-000 Shunt Placement Tool**



**6000-007-000 Tracker to Mayfield Adapter**



**6001-386-000 Autoregistration Mask**



**6001-200-010 Skull Post**



**6001-380-000 Communication Unit**



The information presented in this guide is intended to demonstrate the breadth of Stryker product offerings. Products may not be available in all markets. Please contact your Stryker representative if you have questions about the availability of Stryker products in your area.

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Integrated, Intuitive  
 Software and  
 Hardware Solutions

# iNtelleCt Cranial

# iNtellect Cranial Navigation System

## Delivering Exceptional Results

Stryker Navigation provides the neurosurgeon with a robust, accurate, and easy to use system which brings efficiency to the surgeon's procedures and can enhance patient outcomes.

## Manufacturing Expertise

In-house manufacturing of all software/hardware components with the industry leading digital camera and wireless Smart instruments.

## Commitment to Neurosurgical Market

Stryker has been engaged in neurosurgical navigation since 2000 and continues to change the market through innovative designs including the Autoregistration Mask and Shunt Placement Tool.



## Stryker Technology

The Stryker Navigation system has a digital camera system that is designed and manufactured by Stryker. This accurate and reliable digital camera gives users extraordinary control of the software in the sterile field.

- Digital interface for maximum accuracy and reliability.
- A larger field of view for tracking the patient and instrument visibility.
- More set-up and patient positioning flexibility in the OR.
- Two-way communication between the camera and the instruments.
- High control of design and quality.

## Stryker Smart Instrumentation

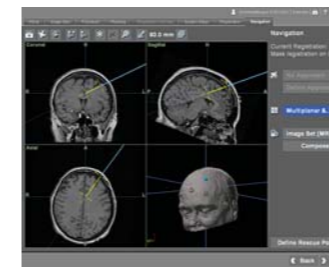
Stryker Navigation's unique two-way communication between the computer and the instruments provides multiple benefits in the OR.



- Instrumentation developed specifically for image guided surgery.
- Active tracking (LED based) for higher accuracy.
- Two-way communication between the instrument and the system enables the surgeon to control the software remotely from the sterile field.
- No additional personnel are needed to run the system.
- No additional peripheral input devices such as touch screens or footswitches.
- Stryker Navigation's instruments are fully autoclavable.

## Stryker Software

The software is the interface that links the surgeon to the navigation system. Stryker Navigation's software engineers have years of experience developing surgical planning software and have created a package that is designed to be versatile and user friendly.



- Windows operating system.
- Familiar, easy to use interface.
- Modular system allow for easy upgrades.
- Easy to maintain and support.
- Available laptop navigation system and separate planning station.
- Unique perspective view to see 3D image of patient anatomy.
- Advanced auto segmentation capabilities.
- Advanced features such as image fusion between multiple CT, MR, CTA, MRA, fMRI and PET images.
- Also included are the Talairach and Schaltenbrand functional atlases.
- Furthermore a Stereotaxy and Functional Stereotaxy planning software is available.

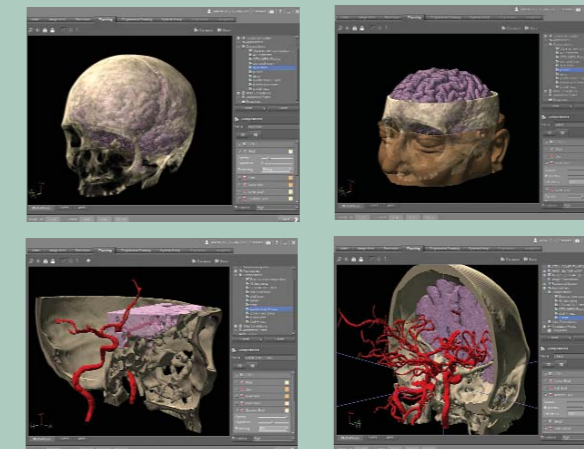
## Planning

iNtellect Cranial offers many advance features to increase the ease of use and functionality of the software. A full surgical software suite is available for preparation, planning and navigation for each individual patient. This system can import multiple image sets, including CT, CTA, MR, MRA, fMRI & PET scans, and automatically correlate each together to enhance visualization. Anatomic structures can be easily segmented to highlight specific areas of interest through an automatic workflow. These segmentations can be stored in a composition and viewed during navigation to highlight these areas. Specific targets and approaches can be planned prior to surgery with the software and used during surgery for guidance to a particular area. Functional Atlas correlation is also available using the Talairach and Schaltenbrand functional atlases.

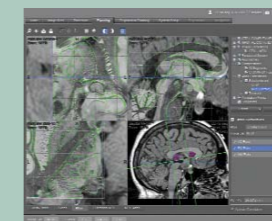
### Automatic Image Fusion



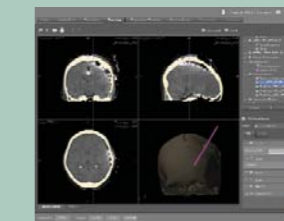
### Automatic Segmentation



### Functional Atlas



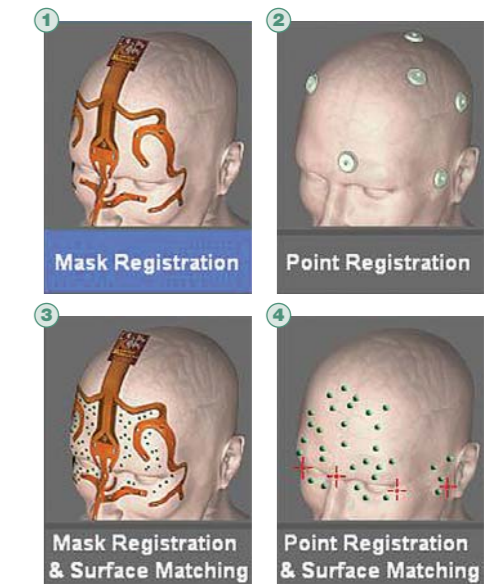
### Target Planning



## Registration

The Stryker Navigation System is designed to simplify the registration process by offering two fiducial-less registration options including an autoregistration Mask and traditional point to point registration with a surface matching feature.

- All registration functions are accomplished using the pointer which provides full software control from within the sterile field.
- You choose the registration scheme:
  - ① Mask Registration (fiducial-less: no image add ons)
  - ② Point Registration (using fiducials or anatomic landmarks)
  - ③ Mask Registration & Surface Matching (fiducial-less: no image add ons)
  - ④ Point Registration & Surface Matching (using fiducials or anatomic landmarks)



## Navigation

The surgeon can control the advanced navigation features and views from the sterile field using the Pointer or Shunt Placement Tool. Stryker Navigation is committed to delivering the most accurate navigation system to our customers. Every aspect of design and manufacture is meticulously monitored to ensure that you get the most accurate and reliable navigation system available.

## Review

Retain surgical information for postoperative review and analysis.

- "Snapshot" capability allows surgeons to take screenshots of specific highlights during a case.
- These images are available for surgeon review and archiving postoperatively.