Trinias C12/F12 package
Digital Angiography Systems
Introducing Trinias
The synergy between Trinias and medical care providers committed to providing the highest quality medical treatment and interventions leads to better patient-centered care. Reflecting years of experience, Trinias has been painstakingly developed in conjunction with our customers.

It’s a whole new experience

Crossover Angiography System
Unlimited potential. Expand the possibilities.

Equipped with 12 x 12-inch FPD
Experience the Next Frontier of Intervention

SCORE Imaging

Achieved through Shimadzu’s proprietary ultra-high-speed image processing technology, SCORE imaging provides excellent visibility, a wealth of image guidance functions, real-time performance optimized specifically for the medical treatment, and sophisticated 3D application techniques. This ensures powerful support for advanced interventions that allow timely treatment through on-the-spot decision-making.

SCORE PRO

SCORE PRO is a next-generation image processing engine developed to provide fluoroscopy images on par with radiography, based on the concept of reduced exposure. Multiple sophisticated image processing functions are performed in real time, dramatically improving intervention device visibility during fluoroscopy.

Achieving High-Definition Fluoroscopy

SCORE PRO applies multiple image processing functions to each frame in real time. This achieves high contrast, low residual imaging, and low noise, dramatically improving the visibility of intervention devices.

<table>
<thead>
<tr>
<th>Neuro Imaging</th>
<th>Peripheral Imaging</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cardiac Imaging</td>
<td></td>
</tr>
</tbody>
</table>

Fluoroscopy Image
Radiography Image
**SCORE RSM**

SCORE RSM is an extremely motion-tolerant DSA technique, achieved through Shimadzu’s high-speed digital image processing technology. This application is especially effective for tracking across the entire lower extremities, 3D imaging in combination with C-arm precession and pendulum modes, and examinations on patients who have difficulty holding their breath.

**View images from multiple directions with a single imaging session**

<table>
<thead>
<tr>
<th>Precession mode</th>
<th>Pendulum mode</th>
</tr>
</thead>
</table>

**New Type of DSA Unaffected by Breathing Movements and Intestinal Gas**

Normal DSA  
SCORE RSM

**SCORE StentView**

SCORE StentView is software developed specifically to support PCI procedures based on real-time image processing technology, a specialty of Shimadzu. Stents move with the pulse beat. However, StentView displays stents in a fixed position, not through post-processing, but rather in real time. This is particularly effective for assessing positional relationships between overlapping stents, or when re-expanding a stent using a balloon.

**Real-Time Performance, a Necessity for PCI**

Because SCORE StentView can enhance and fix the displayed position of stents in real time, rather than through post-processing, it is particularly effective for advanced PCI.

<table>
<thead>
<tr>
<th>Without StentView</th>
<th>With StentView</th>
<th>Post balloon</th>
<th>Kissing balloon</th>
<th>Stent fracture</th>
</tr>
</thead>
</table>
**SCORE 3D**

The SCORE 3D application allows rapid display of the 3D reconstructed images automatically after rotational radiography. With a top rotational image acquisition speed of 60 degrees per second, the shorter contrast medium injection time reduces the burden on patients while suppressing the impact of movements on the images and ensuring high image quality. In addition, operability has been dramatically improved thanks to easy GUI customization via the pallet function.

**Pallet Function**
The GUI can be customized by users.

**See-Through Display**
Semi-transparent display of vascular walls.

**Device Display**
Selectively displays only the device.

**SCORE CT**

SCORE CT is an application for observing cross-sectional images of low-contrast regions, primarily tumor stains, during procedures. The application has two modes for use depending on the procedure and radiographic region of interest: a 10-second mode (20 degrees/second rotation) and a 20-second mode (10 degrees/second rotation). Axial, coronal, and sagittal images are displayed automatically after radiography.

**CTAP**
Excellent rendering of low-contrast regions.

**HCC**
Stain and Lipiodol displayed separately by color.

**Biopsy**
Checking the needle position during a biopsy.

* Optional
SMART Design

SMART Design provides the operational functionality required to respond instantly and easily in accordance with the operator’s intent and without impeding the procedure. The flexible C-arm design as well as the overall design optimized for one-touch actions help facilitate advanced interventions.

Wide Coverage Reduces the Burden on Patients

Both the ceiling-mounted C-arm (type C12) and floor-mounted C-arm (type F12) provide a wide range of movement. In particular, with the floor-mounted C-arm, the base has a six-axis triple-pivot construction, which achieves a range of coverage close to that of the ceiling-mounted type.

SMART Access

Changing the way. Making it possible.

Longitudinal coverage
190 cm*

Transverse coverage
210 cm*

*Stated length (cm) describes total X-ray imaging range added up by C-arm movement, table top movement, and FPD field of view.

Changing the way. Making it possible.

Changing the way. Making it possible.

Changing the way. Making it possible.
**SMART Assist**

The system has been designed for single-action performance to make system control in the examination room and control room as simple as possible. This eliminates the need for troublesome operations during procedures.

**C-Arm Controller**

The lever-type CyberConsole controller allows free and flexible C-arm operation.

**DirectMemory**

Registered clinical angles can be called up intuitively using a graphical controller layout.

**SMART Display**

Changes, plays back, and freezes reference images during fluoroscopy. A thumbnail function enables immediate display of reference images.

**IVR-NEO**

The IVR-NEO controller consolidates in one location the fluoroscopy and radiography functions and the image operations required during procedures.

**Parallel Processing Achieves an Efficient Workflow**

A multiprocessor enables parallel image processing during examinations to help ensure an efficient workflow.

**Dynamic Referencing**

The dynamic reference function enables video playback and stopping during fluoroscopy.

**SMART Design**

Changes, plays back, and freezes reference images during fluoroscopy. A thumbnail function enables immediate display of reference images.

**With the large 56-inch high-resolution color LCD/touch panel, the operator can select the optimal display of image data to suit the procedure and treatment.**
Safety + Comfort = SMILE

**SMILE Concept**

Shimadzu’s SMILE Concept is primarily about concern for patients and operators, particularly in terms of reducing exposure. The concept is intended as a total solution for ensuring safety and peace of mind, which benefits both patients and operators.

**SMILE Dose-eye**

- **Seven Features That Reduce Exposure**
  
  SMILE Dose-eye achieves an excellent system-wide tradeoff balance between lower dosage and higher image quality.

<table>
<thead>
<tr>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 MBH Filter</td>
<td>Effectively eliminates unnecessary soft X-rays.</td>
</tr>
<tr>
<td>2 Pulsed Fluoroscopy</td>
<td>Select from 10 rates depending on the procedure.</td>
</tr>
<tr>
<td>3 Grid Control</td>
<td>Blocks unnecessary soft radiation.</td>
</tr>
<tr>
<td>4 Virtual Collimation</td>
<td>Enables collimation without fluoroscopy.</td>
</tr>
<tr>
<td>5 Image Processing</td>
<td>SCORE PRO ensures lower dose and higher image quality.</td>
</tr>
<tr>
<td>6 Fluoroscopy Video Recording</td>
<td>High-definition fluoroscopy can substitute for radiography.</td>
</tr>
<tr>
<td>7 Area Dosimeter*</td>
<td>The monitor displays the actual dosage in real time.</td>
</tr>
</tbody>
</table>

- **SMILE Recovery**
  
  - **High-Speed Setup**
    
    All functions are available within two minutes after the power is turned ON.

- **Data Mirroring**
  
    Mirroring the image data provides a redundant data architecture.

- **Backup Filament**
  
    If the filament burns out during an examination, it will be replaced automatically so the examination can be continued.

- **Go Green**
  
  - **Environmentally Friendly**
    
    The system standby power has been revised to achieve power savings of up to 30%.*

    *In comparison to other Shimadzu angiography systems (during standby).
Founded in 1875, Shimadzu Corporation, a leader in the development of advanced technologies, has a distinguished history of innovation built on the foundation of contributing to society through science and technology. We maintain a global network of sales, service, technical support and applications centers on six continents, and have established long-term relationships with a host of highly trained distributors located in over 100 countries. For information about Shimadzu, and to contact your local office, please visit our Web site at www.shimadzu.com


Remarks:
• Every value in this catalogue is a standard value, and it may vary a little from the actual at each site.
• The appearances and specifications are subject to change for reasons of improvement without notice.
• Certain configurations may not be available pending regulatory clearance. Contact your Shimadzu representative for information on specific configurations.
• Before operating this system, you should first thoroughly review the instruction Manual.

Shimadzu Corporation
Headquarters
1, Nishinokyo-Kuwabara-cho, Nakagyo-ku, Kyoto 604-8511, Japan
http://www.shimadzu.com

Printed in Japan 6295-04301-30AMF