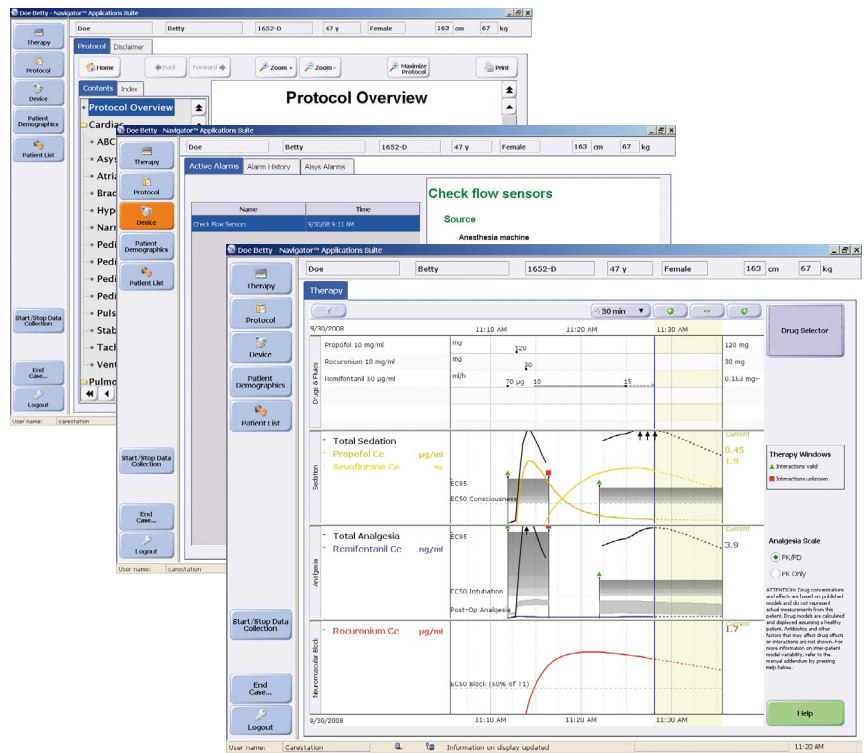


Navigator Applications Suite

Helps to increase clinical decision-making confidence with predictive drug modeling for intravenous and inhaled anesthetic drugs



Navigator Applications Suite defines GE Healthcare Carestation®

The Navigator™ Applications Suite enables clinicians to manage anesthesia in a balanced way with pharmacokinetic/pharmacodynamic modeling, and also provides care protocols and device diagnostics.

Navigator Therapy

- Visualizes pharmacokinetic (PK) and pharmacodynamic (PD) models of select sedation, analgesic and relaxation drugs
- Displays the modeled synergistic effect of inhaled anesthetic drugs with four opioids
- Displays the modeled synergistic effect of propofol with four opioids
- Projects the future modeled effect site concentrations based on pharmacokinetic models, and the future synergistic effect based on pharmacodynamic models
- Connects to a range of infusion pumps to minimize manual drug data entry
- Displays comprehensive trend information on administered drugs

Navigator Protocol

- Configurable to give you immediate access to the specific standard operating procedures of your hospital at the point of care
- Configurable to include emergency treatment protocols, such as resuscitation algorithms, airway management protocols or any other clinically relevant information
- Index search function to locate the information required
- Configurable to display measured hemodynamic and ventilation parameters while viewing care protocols

Navigator Device

- Clear and specific guidance with visual step-by-step instructions on how to resolve a technical alarm with the anesthesia delivery system
- Technical instructions quickly available at the point of care



Technical Data

Navigator Applications Suite, General

- All applications are integrated into a medical grade computer at the point of care
- Optimized for use through touch screen or optional keyboard and mouse
- Navigator Therapy visualizes PK/PD models in the Sedation Graph, Analgesia Graph and Neuromuscular Graph
- Administered drugs displayed in Drugs and Fluids Graph
- Trend and PK/PD time scales available: 30 minutes, 1 hour, 2 hour and 4 hour
- The predictive PK/PD component is 7.5, 15, 30 or 60 minutes depending on the time scale selected
- Configurable drug library for easy drug entry. Support for generic or trade names in various concentrations
- Drug entry method for intravenous drugs: manual or automatic from infusion pump. Inhaled anesthetic drugs are recorded automatically by the system (measured EtAA from Compact Airway Module)
- Customizable care protocols are in an easy-to-navigate HTML format using Oracle Help for Java. Measured hemodynamic and ventilation parameter trends are in trend window associated with the protocols

Networked system features

- Access to hospital Intranet or Internet at point of care with Microsoft Internet Explorer
- GE Datex-Ohmeda Anesthesia Monitors can be connected to continuous centralized monitoring for full data continuity using iCentral
- Up to 16 Navigators per iCentral server

PK/PD Models, General*

- Plot of normalized effect site concentrations (Ce) over time to the drug's EC50
- Pharmacodynamic reference effects shown:
 - Sedation Graph: EC50 consciousness
 - Analgesia Graph: EC50 intubation
 - Neuromuscular Block Graph: EC50 block (50 % of T1)
- Visualization of synergistic pharmacodynamic model includes:
 - Sedation Graph: probability of consciousness, and therapy windows from 50 % to 95 %
 - Analgesia Graph: probability of intubation and, therapy windows for intubation and post-operative analgesia from 50 % to 95 %

- Navigator uses PK/PD models derived from published literature. For detailed information regarding their accuracy and errors in relation to individual patients, refer to Navigator Applications Suite User's Manual.

Patient demographic range:

height	150-190 cm / 59.1-74.8 in
weight	40-140 kg / 88.2-308.6 lb
age	18-90 years

*) The drug concentrations and effects shown are based on published models and do not represent actual measurements from the patient.

PK/PD Models, Drugs

Inhaled anesthetic drugs	desflurane, enflurane, halothane, isoflurane, sevoflurane, nitrous oxide
Anesthetic drugs	midazolam, propofol, thiopental
Analgesic drugs	alfentanil, fentanyl, remifentanil, sufentanil
Muscle relaxants	mivacurium, pancuronium, rocuronium, vecuronium

PK/PD Models, Multidrug Models **

- Interactions between inhaled anesthetic drugs (desflurane, enflurane, isoflurane, halothane, sevoflurane and N₂O) and any combination of alfentanil, fentanyl, sufentanil and remifentanil
- Interactions between propofol and any combination of alfentanil, fentanyl, sufentanil or remifentanil

** Interactions between propofol and inhaled anesthetic drugs are not available

System Compatibility ***

Anesthesia delivery systems	Aisys, ADU, Avance
Patient monitoring	Anesthesia Monitor, software L-ANE(A)03 or newer
Gas measurement module	M/E-CAi(OV) in GE Datex-Ohmeda Anesthesia Monitor or in supported Anesthesia delivery system
Device Interfacing Solution	iDIS, N-DISVENT version 2, M1079844, with Aisys and Avance
Centralized monitoring	iCentral L-NET03 or newer
Virus scanner	Symantec Norton AntiVirus

Infusion Pumps

Automatic data collection via serial cable from up to three infusion pumps.

Compatible with infusion pumps:***

Cardinal Health	Alaris Asena series (GH, GS, CC and TIVA) ****
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Fresenius Kabi	Orchestra Module DPS, DPS+ or DPS Visio with Orchestra BaseA Data Concentrator ****
Baxter	Baxter AS50
BBraun	Perfusor Compact S, Perfusor Compact, and Perfusor Space (with combination of SpaceStation and SpaceCom)

The range of supported infusion pumps is continually expanding, please contact your GE Healthcare representative for the up to date list of compatible pumps.

*** Refer to Navigator Applications Suite Technical Reference Manual for complete compatibility information

**** TCI operation mode is not supported

Navigator Applications Suite, Safety Standards

Certifications	CE marking, IEC 60601-1, IEC60601-1-1:2000, IEC60601-1-2:2001, IEC 60601-1-4:1996+ Amendment 1:1999
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Point of Care Computer

Computer	Medical Grade Panel PC, GE branded
Dimensions (WxHxD)	437 x 377 x 131 mm/ 17.20 x 14.84 x 5.15 in
Weight	12 kg/26.5 lb
Display type	17" TFT LCD
Display resolution	1280 x 1024
Touchscreen type	Analog resistive
Memory	2 GB DDR RAM
Operating system	Windows® XP Professional, Service Pack 2
CPU	Intel® Pentium® 4 Mobile 2.2 GHz
FDD	1.44 Mb
HDD	Min 80 GB Hard Drive
CD ROM	CD-RW/DVD-ROM
Speakers	2 x 1 W
I/O Ports	3 optically isolated serial ports 2 external USB ports 1 PS-2 mouse / keyboard interface
Network (LAN)	2 x 10 / 100 Base-T Ethernet
Input voltage	100-240 Vac, 4A max @ 50-60 Hz
Input power	180 W
Temperature	0-40°C
Relative humidity	10-95 % @ 40°C, non-condensing
Certifications	CE, FCC, VCCI, BSMI approved, UL60950, UL60601-1, EN60950, EN60601-1 approved, ROHS compatible

Ordering information

Description	Order code
Navigator System	M1084386
Navigator Computer, C-NAV-00	M1055062
Advantech Power Cord	
EUR	M1065167
UK	M1059191
US	M1059192
Medical Grade Keyboard	
Danish	M1059185
English, UK	M1056189
English, US	M1084191
Finnish/Swedish	M1059182
French	M1059184
German	M1084187
Italian	M1084193
Norwegian	M1059187
Spanish	M1059186
Medical Grade Mouse	M1059189
Navigator Software, L-NAV02-00	M1158235
Navigator SW Localization, N-NAV02	
Danish	M1158253
Dutch	M1158253
English	M1158251
Finnish	M1158254
French	M1158336
German	M1158340
Italian	M1158345
Norwegian	M1158342
Spanish	M1158343
Swedish	M1158344
User instructions and documentation available also in Bulgarian, Chinese, Czech, Greek, Hungarian and Turkish.	
S/5 Device Interfacing Solution for Datex-Ohmeda Carestations, N-DISVENT-02	M1079844
Mounting Arm for Aisys, Avance and ADU	M1059325
Mounting Kit for Avance	M1059326
Mounting Kit for ADU	M1059327

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Healthcare Re-imagined

GE is dedicated to helping you transform healthcare delivery by driving critical breakthroughs in biology and technology. Our expertise in medical imaging and information technologies, medical diagnostics, patient monitoring systems, drug discovery, and biopharmaceutical manufacturing technologies is enabling healthcare professionals around the world discover new ways to predict, diagnose and treat disease earlier. We call this model of care "Early Health." The goal: to help clinicians detect disease earlier, access more information and intervene earlier with more targeted treatments, so they can help their patients live their lives to the fullest. Re-think, Re-discover, Re-invent, Re-imagine.

GE Healthcare
P.O. Box 900, FIN-00031 GE, Finland
Tel. +358 10 394 11 • Fax +358 9 146 3310

www.gehealthcare.com



GE imagination at work