

(201) 825-9500 / (800) 631-3826

Captus® 3000 Thyroid Uptake And Well System

The Ultimate... User Friendly... Intuitive

Performing Thyroid Uptake measurements has never been easier. The Captus 3000 combines a totally new software program with the latest PC technology to create a Thyroid Uptake system that is fast, reliable, and extremely easy to use.

The Captus software has been designed to get you up and running in virtually no time at all. The program contains a "Quick-Start" feature that walks the user through all of the initial setup functions. The "Quick-Start" feature also serves as an excellent teaching tool. The Captus 3000 software is a full service program with Thyroid Uptake, Wipe Testing, Bioassay, Schillings, Dicopac®, Blood Volume and RBC Survival functionality built in. The Wipe Test module has been a "New" feature that allows the flexibility of predefined or user defined groupings. The entire program has "Fly Over" control bars to allow quick access to whatever function is necessary.

QA is of course completely automated and now includes ability to measure Minimum Detectable Activity. With the use of the two included reference standards (Cs-137 and Eu-152) the system will move from Calibration to Constancy to Chi-square with limited time and effort.

There is a new and versatile 1024 Multichannel Analyzer (MCA) module that allows measurements of energies up to 2 MeV. The MCA module also has an isotope selection library with over 90 preloaded isotopes and adjustable ROI's for easily reproducible counting parameters.

As always, the entire system comes with Capintec's unsurpassed Quality Construction and Customer Service. From Installation and Training to Applications Support just call 800-631-3826 to speak to a Technical Support Specialist.

Features

- Thyroid Uptake
- Bioassay
- Lab Tests
- 1024 Multichannel Analyzer
- Flexible pre-defined or user-defined Wipe Test groupings
- Improved data storage, archive and reporting functions
- "Quick Start" menu
- Automated QC functions, including energy calibration, constancy, X2 and MDA
- 360° Articulating Spring Arm

Specifications

- Computer: Pentium III processor at 1.6GHZ, 20 GB hard drive, 48X CD-ROM, 15" color monitor, keyboard, trackball and color ink-jet printer.
- MCA interface PC board:
 - 1024 channels.



- Maximum count rate of 100,000 cps.
- ROI's are automatic or manual.
- Differential Linearity: <2% over the top 98% of channels.
- Integral Linearity: <1% over the top 98% of channels.
- Preset live time, real time or total counts.
- Automatic peak-finding.
- Two 2" NaI (TI) detectors:
- Flat field collimated to meet ANSI N44.3-1973.
- Drilled well with 1" lead shielding (optional 2' shielding available) and brass liner.
- Calibration sources: Cs-137 and Eu-152 (calibrated exempt sources provided at no charge).
- Power requirements: (With circuit protection, line filter and isolation transformer)
 - Standard: 115V 90-127V 50-60HZ
 - Optional: 220V 180-250V 50-60HZ
- Approximate Weight: 450lbs.

Captus 3000 Thyroid Uptake System	5430-0076
Captus 3000 Thyroid Uptake & Well System	5430-0077

Optional Accessories

ALERT Software Upgrade	0960-0177
Custom Protocol	0960-0152
Cap-DICOM™ Software	5450-0003
Neck Phantom	5230-0038
Rod Source Holder	7315-1850
Dicom Interface	5450-0003

Captus® 3000 Reports

Auto Calibration For Well

The Autocalibrate module provides high voltage, zero offset and automatic gain adjustment; as well as a linearity correction and constancy test. Also included in QA are automatic chi-square and MDA calculation selections. Finally, the program has the ability to automatically perform efficiency calculation and storage for various isotopes.

Thyroid Uptake Report

In this module multiple TU protocols can be established utilizing I-123, I-131 or Tc-99m. The protocols can use a standard capsule method or allow the system to perform an automatic decay correction to the administered dose. The system will store detailed patient demographics, physician data and administered dose data. There is no limit to the number of uptakes that can be performed and the results will be reported with detailed count information and automatic percentage uptake calculations. Also, there are user defined normal values that will be compared to the uptake results and "flagged" when the results are out of range.

Wipe History

The highly versatile wipe test module will allow users to establish as many locations as needed and to arrange the locations into either pre-defined or user-defined groupings. The program will perform an automatic peak and isotope identification of wipe results in order to advise the user of the type contamination encountered. There are pre-set trigger levels loaded or the user can define their own trigger levels, either way the results will flag any wipe that exceeds a trigger. Finally, the system will maintain a history of wipe results that can be printed as a whole or in part.

MCA: Accuspec		
Date / Time: 01/30/2002 17:04		
Step 1	Eu152 Linearity Correction	
Gain: 7.09	Channel	Energy % Difference
Peak Found	(keV)	
	16.6	32.9 0.7
	21.1	40.8 3.6
Step 2		
High Energy Peak Channel: 330.8	64.9	121.8 6.6
Gain: 7.09	176.9	344.3 2.8
	330.8	661.7 0.0
Step 3		
Low Energy Peak Found	388.2	778.7 -0.3
	558.9	1100.9 1.5
	746.2	1408.0 6.0
Step 4		
Iteration : 1	Constancy Test	
Gain Adjust	Counting Rate:	114.6kcpm
High Energy Peak Channel: 331.8	Live Time:	4.9sec
Low Energy Peak Channel: 16.8	Activity Calculated As:	0.387µCi
Gain: 7.08	Activity Measured As:	0.383µCi
Zero Offset Adjust	Deviation:	-0.9%
Low Energy Peak Channel: 16.7		
High Energy Peak Channel: 331.1		
Zero: 1.28%		
Calibration Successful		
Cs137		
High Energy Peak Channel: 330.8		
Low Energy Peak Channel: 16.6		
Gain: 7.08		
Zero: 1.28%		
High Voltage: 1000V		
Threshold: 1.50%		
FWHM		
FWHM: 7.2%		

Patient: Smith , Bob			
Demographic Data		Administered Dosage	
Patient ID: 123456		Isotope: I 123	
DOB: 02/15/1950		Activity: 159.7 µCi	
Age: 51 Sex: Male		Date: 10/17/2001	
Physician: Dr. Dolittle		Time: 10:48	
Protocol: 1123			
Technologist: TL			
Dosage Data		Calibrated Dosage	
Isotope: I 123		Activity: 150.0 µCi	
Lot #: 987654		Date: 10/17/2001	
Count Time: 300 secs		Time: 12:00	
Probe Distance: 25 cm			
	Average	Count 1	Count 2
	cpm	cpm	cpm
Dosage Counted			
Room Background 10/17/2001 10:48	10		
Capsule # 1:		12752	12752
Net Capsule Counts 10/17/2001 10:48	12742		
Uptake At 4 Hours			
Uptake Time: 10/17/2001 14:49			
Patient Background:	1275	1275	
Patient Thyroid:	2550	2550	
Patient Net Counts:	1275		
Current Capsule Counts:	10322		
Uptake = 12.4 %			
Uptake At 23 Hours			
Uptake Time: 10/18/2001 09:49			
Patient Background:	1275	1275	
Patient Thyroid:	2550	2550	
Patient Net Counts:	1275		
Current Capsule Counts:	3812		
Uptake = 33.5 %			

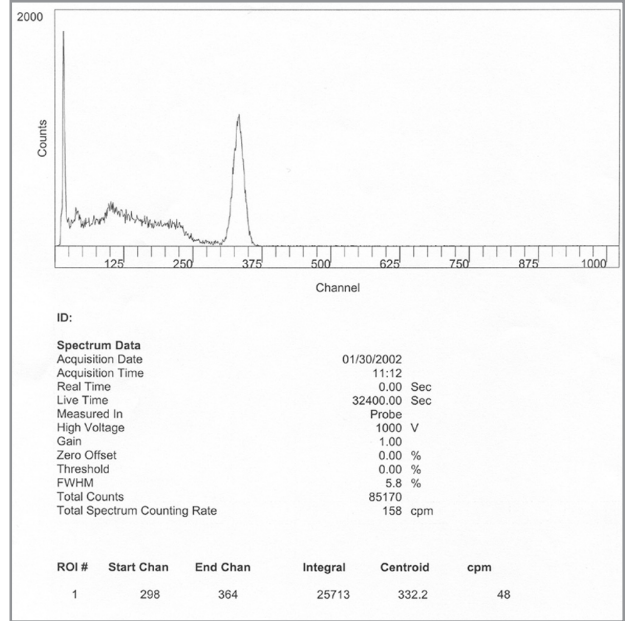
		Net Counting Rate	Net Activity	
AM Package		10/17/2001 11:01	60 sec	Trigger: 200 dpm
	Background	765.0 cpm	795.4 dpm	HIGH
	Full Spectrum	517.0 cpm	1280 dpm	HIGH
	Cs137	149.0 cpm		
PM Package		10/17/2001 11:00	60 sec	Trigger: 200 dpm
	Background	765.0 cpm	795.4 dpm	HIGH
	Full Spectrum	517.0 cpm	1280 dpm	HIGH
	Cs137	149.0 cpm		
Waiting Room		10/17/2001 11:00	60 sec	Trigger: 200 dpm
	Background	765.0 cpm	795.4 dpm	HIGH
	Full Spectrum	517.0 cpm	1280 dpm	HIGH
	Cs137	149.0 cpm		
Bathroom		10/17/2001 11:00	60 sec	Trigger: 200 dpm
	Background	765.0 cpm	795.4 dpm	HIGH
	Full Spectrum	517.0 cpm	1280 dpm	HIGH
	Cs137	149.0 cpm		
Hot Lab		10/17/2001 11:00	60 sec	Trigger: 2000 dpm
	Background	765.0 cpm	795.4 dpm	
	Full Spectrum	517.0 cpm	1280 dpm	
	Cs137	149.0 cpm		

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Captus® 3000 Reports

MCA Spectrum Report

The Multi-Channel Analyzer is very user friendly. ROI's can be selected from a convenient menu of isotopes with predefined regions or the user can define them. Protocols can be defined for real time, live time or acquired counts. Results are reported with full spectrum counts and counts by region of interest. All results can be saved in the database or exported to a spreadsheet.



Schilling Test Report

In vitro lab test protocols are incorporated into the software; the user has access to Schilling, RBC Survival and both Cr51 and I125 blood volume studies. The program will integrate all patient demographic, physician and dose data and will perform automatic result calculations. By utilizing the report functionality all of the test data can be documented in a hardcopy format (Schilling is displayed) for physician review or for documentation in the patients file.

Patient: Fudd , Elmer			
Demographic Data		Dosage Data	
Patient ID: 555666777	DOB: 12/02/1938	Isotope: Co57	Lot #: 333222111
Age: 62	Sex: Male	Physician: Dr. Jay	Technologist: TL
Sample Preparation		Standard Dilution (D): 1 to 100	
Count Time: 60 secs	Total Urine Volume (V): 1253 ml	Aliquot (A): 4 ml	
		Average cpm	Count 1 cpm
Schilling Test			Count 2 cpm
Test Time: 10/17/2001 11:07		212	
Room Background (B):			
Standard (S):		82049	82049
Urine Sample (U):		14368	14368
Excretion = 54.2 % Outside of Normal Range			

Staff Bioassay Report

The bioassay allows for the quick and efficient measurement of the staff thyroid burden for I-123, I-125 or I-131. Measurement results can be reported in CPM's or uCi's. In order to meet regulatory requirements a cumulative history can be maintained on the computer and/or printed out for a hardcopy record.

Bunny , B	ID: aaa111	DOB: 05/22/1945	
	Background	Net Counts	Activity
10/17/2001 10:54			
I 131	12.40 cpm	951.8 cpm	0.516µCi HIGH
I 125	30.80 cpm	-1154 cpm	0.000µCi
I 123	8.400 cpm	380.6 cpm	

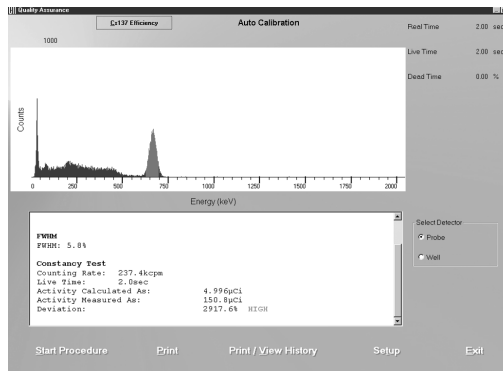
Captus® 3000 Upgrade Package

Improve the versatility and capability of your Captus 500, 600, 1000 or 2000...

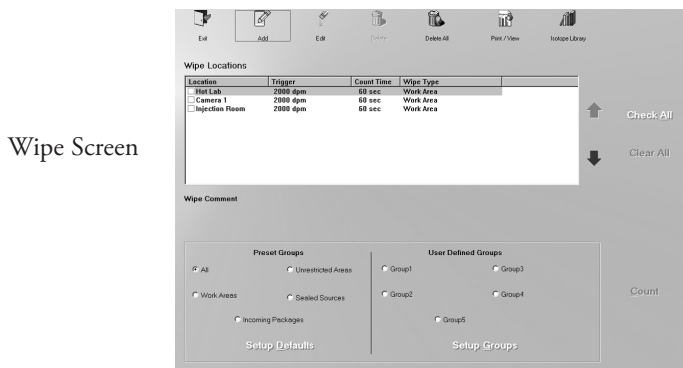
Capintec has integrated the latest software and hardware to produce our most accurate and efficient Thyroid Uptake and Well Counting system yet, the Captus 3000. If you currently have a Captus 600 or 2000 it can be easily upgraded to a new Captus 3000 and give you all of the exceptional functionality that goes along with it.

The Captus 3000 has a completely redesigned software package, with Quality Assurance, Thyroid Uptakes, Wipe Testing, Bioassay, Multi-Channel Analyzer and Lab Tests (Schilling, RBC Survival, I125 & Cr51 Blood Volumes). All of the functions are easily accessed through "Flyer Over" control bars (no searching for drop-down menus).

The modifications needed and the cost involved in upgrading an older Captus system will vary. Please contact your Capintec sales representative for the specific requirements to upgrade your system.



Auto Calibration Screen



Wipe Screen

Captus Upgrade W/ New MCA Card5430-0118
 Captus Upgrade W/ out New MCA Card5430-0119

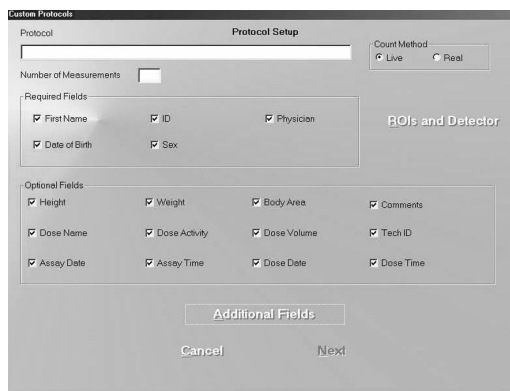
Captus® 3000 Custom Protocol

Capintec is very excited to introduce our new Custom Protocol Software for the Captus® 3000. The Custom Protocol works in conjunction with your existing Captus® 3000 to turn any user into a programmer.

As Nuclear Medicine moves forward, new and exciting diagnostic studies will be developed. With the Custom Protocol Software, it is remarkably easy to design and execute your own protocol to keep pace with cutting-edge research.

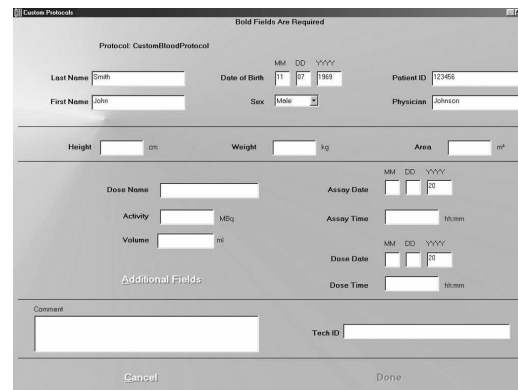
- Perfect for facilities that need to perform repeated protocols that are not widely adopted
- Gives you the flexibility needed to collect almost any type of data required for the study
- Perform simple or complex data analysis
- Create standard reports
- Available for use with all existing and new Captus® 3000 Systems
- Analysis and report generation is performed in Microsoft Excel
- Integration with Excel allows analysis of data and reporting to be at any level of complexity...it is completely user defined

Custom Protocol0960-0152



Captus® 3000 Custom Protocol User Defined and Optional Field

Captus® 3000 Sample Custom Protocol



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Captus® 3000 System Configurations

The Captus 3000 is a highly versatile system that can be configured to meet any Nuclear Medicine department's needs. The standard configuration comes with the mobile stand, the thyroid uptake probe and the drilled crystal well. Optional systems can be equipped with a thyroid probe only, drilled well only, a full tabletop arrangement with well and probe, a modified tabletop with probe or well, or a tabletop system with a wall mounted thyroid probe.

If one of these variations of the Captus 3000 doesn't meet your needs let us know and we will work with you in creating the most user-friendly and cost effective system for your department.



Captus® 3000 Table Top System with well



Captus® 3000 Well Counting System

CAPTUS-3000 Thyroid Uptake System Stand.....	5430-0076
CAPTUS-3000 Thyroid Uptake System Mobile Stand	5430-2130
CAPTUS-3000 Thyroid Uptake & Well Detector	5430-0077
CAPTUS-3000 Table Top Thyroid Uptake System	5430-0103
CAPTUS-3000 Table Top Thyroid Uptake System & Well Detector	5430-0087
CAPTUS-3000 Wall Mounted Thyroid Uptake System	5430-0106
CAPTUS-3000 Wall Mounted Thyroid Uptake System & Well Detector	5430-0107



Captus® 3000 Wall Mount

DICOM™ Compatibility for the Capintec Captus 3000

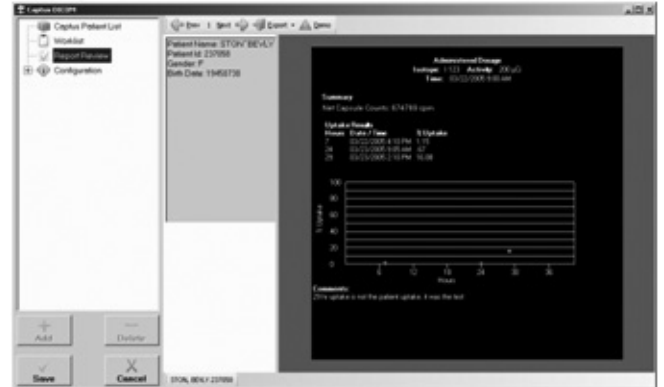
With Cap-DICOM™, the Capintec Captus® 3000 gains the advantage of DICOM connectivity.

Cap-DICOM™ adds DICOM modality worklist and DICOM export to the Captus® 3000. This solution allows patient information and demographics to be pulled from the Radiology Information System (RIS) or Hospital Information System (HIS), thus, reducing errors and time associated with the manual input of patient information.

Cap-DICOM™ creates a DICOM secondary capture image from information generated during the uptake procedure. The software exports the DICOM image files to a destination DICOM C-Store provider specified by the user. This destination may be a nuclear medicine workstation or PACS.

Features

- Configurable options integrate nuclear medicine into the RIS and PACS environment
- Ability to query the worklist provider by accession number, patient ID, patient name or date
- Intuitive, easy to read user interface to quickly sort and search the worklist
- Ability to correct patient information before exporting
- Ability to review final reports before exporting to a nuclear medicine workstation or PACS



Report View

ID	Last Name	First Name	Birth Date	Accession Number	Scheduled Date	Physician	Modality
18AA4210	PLATTEN	BEVERLY	1965011	03482	10/11/2004		NM
18AA4217	PAUBLE	BONNE	1967138	03487	10/11/2004		NM
18AA4218	DEAGLE	JANITA	1969049	03510	10/11/2004		NM
18AA4219	SCOTT	STEPH	1967008	03510	10/11/2004		NM
18AA4227	HILLS	BEVERLY	1929124	03520	10/11/2004		NM
18AA4247	GANG	JAMES	1978038	03581	10/11/2004		NM

User Interface

Specifications

- Integrates the Captus® 3000 into a Dicom Radiology Information system and PACS environment
- Supports multiple vendors for nuclear medicine workstations, RIS and PACS systems
- Increases department efficiency and workflow
- Reduces errors associated with the manual input of patient information
- Increases accuracy of patient information in the PACS environment
- Merged uptake reports with thyroid scans can be displayed as a DICOM image
- Improved physician efficiency in interpretation and clinical review of the combined thyroid uptake report and imaging procedure

Cap-DICOM™ Software5450-0003