

JUL - 2 2002

K021966

## 510(k) Summary of Safety and Effectiveness

This summary of safety and effectiveness is provided as part of the Premarket Notification in compliance with 21CFR. Part 807, Subpart E, Section 807.92

### 1) Submitter's name, address, telephone number, contact person

Lynn Harmer, Manager, Regulatory Submissions  
ATL Ultrasound (d/b/a Philips Ultrasound) a Philips Medical System Company  
22100 Bothell Everett Highway  
Bothell, WA 98021-8431  
Telephone: (425) 487-7312  
Facsimile: (425) 487-8666  
E-mail: [Lynn.Harmer@Philips.com](mailto:Lynn.Harmer@Philips.com)

### 2) Name of the device, including the trade or proprietary name if applicable, the common or usual name, and the classification name, if known:

Common/Usual Name: Picture Archiving and Communications Systems Workstation  
Proprietary Name: Q LAB software  
Classification Name: Picture Archiving and Communications System, Class II

### 3) Device Description

The Q LAB software provides a means of opening and displaying image files. The Q LAB software provides a means of creating AVI and BMP files from the image data displayed by the software. The Q LAB software provides a means of quantifying the image data using a plugin module designed to operate with the core engine of the software. The Q LAB software provides a means for performing an automatic distance measurement of the intima media thickness of an artery represented in the image file data. The Q LAB software provides a means for creating region of interest figures overlaid on the image data displayed by the software. The Q LAB software provides a means of analyzing the content of the image data contained within the ROI figure. The Q LAB software provides a means of presenting the ROI data in an XY graphic format. The Q LAB software provides a means to perform a curve fit operation on a data set generated by the ROI analysis software. The Q LAB software provides a means of exporting the data generated by the plugin modules in a form accessible to the end user.

### 4) Performance Standards

No performance standards for PACS systems or components have been issued under the authority of Section 514. The Q LAB software has been designed to comply with the following voluntary standards:

MSDN - Microsoft Developer's Network October 2001  
ISO Joint Photographic Experts Group (JPEG) Image Compression Standard

**5) General Safety and Effectiveness Concerns**

The device labeling contains operating instructions for the safe and effective use of the Q LAB software.

**6) Substantially Equivalent Devices**

ATL believes that the image viewing capabilities of the Q LAB software makes it substantially equivalent to other image display products commercially available, specifically the MedLink Workstation.

ATL believes that the Region of Interest quantification capabilities of the Q LAB software makes it substantially equivalent to other commercially available products, specifically the Hewlett Packard Acoustic Densitometry Option.

**7) Software**

Software development for the Q LAB software follows documented processes for software design, verification and validation testing. A risk assessment has been completed to identify potential design hazards that could cause an error or injury based on the use of the quantification results. Appropriate steps have been taken to control all identified risks for this type of image display and quantification product.

**8) Conclusions**

The Q LAB software is designed and manufactured to meet United States and international standards for the display and quantification of images acquired on Phillips Ultrasound devices. The system is designed to incorporate components common to all image viewing systems for the display, manipulation and quantification tasks within a clinical setting. The Q LAB software incorporates features of predicate devices cleared through premarket notification and no new issues of safety or effectiveness are raised.



Food and Drug Administration  
9200 Corporate Boulevard  
Rockville MD 20850

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Advanced Technology  
Laboratories, Inc.  
% Mr. Mark Job  
Responsible Third Party Official  
TÜV Product Services  
1775 Old Highway 8 NW, Suite 104  
NEW BRIGHTON MN 55112-1891

Re: K021966  
Trade/Device Name: Q LAB Quantification Software  
Regulation Number: 21 CFR 892.2050  
Regulation Name: Picture archiving and  
communications system  
Regulatory Class: II  
Product Code: 90 LLZ  
Dated: June 14, 2001  
Received: June 17, 2002

Dear Mr. Job:

We have reviewed your Section 510(k) premarket notification of intent to market the device referenced above and have determined the device is substantially equivalent (for the indications for use stated in the enclosure) to legally marketed predicate devices marketed in interstate commerce prior to May 28, 1976, the enactment date of the Medical Device Amendments, or to devices that have been reclassified in accordance with the provisions of the Federal Food, Drug, and Cosmetic Act (Act) that do not require approval of a premarket approval application (PMA). You may, therefore, market the device, subject to the general controls provisions of the Act. The general controls provisions of the Act include requirements for annual registration, listing of devices, good manufacturing practice, labeling, and prohibitions against misbranding and adulteration.

If your device is classified (see above) into either class II (Special Controls) or class III (PMA), it may be subject to additional controls. Existing major regulations affecting your device can be found in the Code of Federal Regulations, Title 21, Parts 800 to 898. In addition, FDA may publish further announcements concerning your device in the Federal Register.

Please be advised that FDA's issuance of a substantial equivalence determination does not mean that FDA has made a determination that your device complies with other requirements of the Act or any Federal statutes and regulations administered by other Federal agencies. You must comply with all the Act's requirements, including, but not limited to: registration and listing (21 CFR Part 807); labeling (21 CFR Part 801); good manufacturing practice requirements as set forth in the quality systems (QS) regulation (21 CFR Part 820); and if applicable, the electronic product radiation control provisions (sections 531-542 of the Act); 21 CFR 1000-1050.

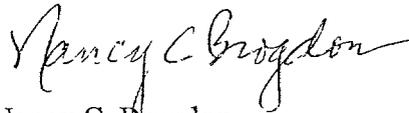
This letter will allow you to begin marketing your device as described in your 510(k) premarket notification. The FDA finding of substantial equivalence of your device to a legally marketed predicate device results in a classification for your device and thus, permits your device to proceed to the market.

If you desire specific advice for your device on our labeling regulation (21 CFR Part 801), please contact the Office of Compliance at one of the following numbers, based on the regulation number at the top of this letter:

8xx.1xxx	(301) 594-4591
876.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4616
884.2xxx, 3xxx, 4xxx, 5xxx, 6xxx	(301) 594-4616
892.2xxx, 3xxx, 4xxx, 5xxx	(301) 594-4654
Other	(301) 594-4692

Additionally, for questions on the promotion and advertising of your device, please contact the Office of Compliance at (301) 594-4639. Also, please note the regulation entitled, "Misbranding by reference to premarket notification" (21 CFR Part 807.97). Other general information on your responsibilities under the Act may be obtained from the Division of Small Manufacturers, International and Consumer Assistance at its toll-free number (800) 638-2041 or (301) 443-6597 or at its Internet address <http://www.fda.gov/cdrh/dsma/dsmamain.html>.

Sincerely yours,



Nancy C. Brogdon  
Director, Division of Reproductive,  
Abdominal, and Radiological Devices  
Office of Device Evaluation  
Center for Devices and Radiological Health

Enclosure

