Radcal, Monrovia, CA (626)357-7921 Accu-Gold6user interface. Version 1.8.1 For use with Radcal Accu-Gold, Accu-Gold+, Rapid-Gold, Rapid-Gold+ and AccuDose+ digitizers..

Release Notes:

V1.8.1 Minor bug fixes

V1.8.0 changes include: Allows addition of additional calibrations Updated IC trigger levels

V1.7.1 changes include: Bug fixes.

V1.6.3.0 Changes include:

Drag & Drop to Excel -

In the Measure window you may now click on a data value and drag it directly to an open Excel sheet. • Hide individual waveforms in Wave View -

You can now selectively hide any wave by clicking on the wave name

• AGMS DM+, D+, M+ will display dose information when filter is out of range -

Previous versions of Accu-Gold did not display multi-sensor dose information when kV data could not be obtained when the reported filtration was out of range. This information is now available for all Accu-Gold+ multi-sensors.

• Dynamic Stop Trigger On/Off added.

See "Accu-Gold Software ver. 1.6.3 Release Note.pdf" for a more complete description of the changes. (This file will be found in the Documentation folder when a full install is done, or may be downloaded from the FTP site.)

This update extends the capabilities of Accu-Gold software, provides improved performance and incorporates routine bug fixes.

This version is backward compatible with session files produced with all previous versions of Accu-Gold.

V1.5.3.0 Changes include:

• Sensor waves can now be toggled on or off in wave view. Click on the cursor value box for toggling.

• Added link to download page regardless if new update. (Requires digitizer to be plugged and

measurement to be made if there is no license file.)

Bug fixes:

Measurement used to get stop trigger too early with AGMS-M and IC.

Now able to make Pulsed Measurements with max. Measurement Time.

With this release it is possible again for older versions to open sessions that were saved by more recent versions.

V1.5.2.0 Changes include:

Bug and performance fixes:

• Fixed: Crash on AG start up because of auto export

• Fixed: Crash because export path can't be found (from Thibault)

- Speed up AG start
- · Show wait message when loading large sessions

• Enlarge quick navigation user interface elements, make click area of notes handle bigger, enlarge window adjust bars, enlarge click area for ROI close button.

A video shows the new features.

V1.4.11.0 Changes include:

- · Provide Interchangeability for old and new AG sensors and digitizers
- IonChamber in Free Run calculates wrong pulses
- · Corrections on some auto profiles
- Revert ratios back to decimal display do not display percentage
- Show error message when ion chamber is trigger and dose is negative

- Display sensor channel overloads when not within 99% Full Scale
- · Enable Excel compatible raw data recording
- Display AGMS kV out of range when Average kV is not within range
- Crash fix: InvalidOperationException in BackupAutoSaver
- · Switching to "Free Run" does not close connection
- Show update notification to non-admin users (was only admin users before)
- Fix: "Wave Purity" "Horns" Pulsed waveform has spikes differs from AG-Excel
- Fix: Menus are cut off on smaller screens
- Fix: Window resize handle disappears
- Include agHost Version 2.0.63
- · Auto log to csv
- When AG starts it creates a new log file here:

C:\Users\USERNAME\AppData\Local\Temp\Accu-Gold\Measurement

Log\Auto_Exported_Measurements.csv

V1.3.3.1 Changes include:

New features/enhancements: (see "AG 1.3.3.1 Features & Enhancements.pdf" for details)

Waveform filtering

- Region-of-Interest enhancements
- Enhancements for long exposures
- Adjustable end-of-exposure delay

Additional fixes:

- All new measurements made with ion chambers now display temperature and pressure units (°C & Pa).
- All new measurements using an mA sensor will display Dose/mAs with proper units.
- Dose ratios when using multiple dose sensors are now correctly displayed

• To prevent inadvertent unintended use, a warning message is now provided when pre-pulse is selected from settings.

• Ion chamber dose rate and exposure time are continuously displayed during exposures when free run is selected.

- · Pulse counting accuracy has been improved
- Pulse frequency is calculated when more than 5 pulses are detected.
- · Crashes for several unique conditions have been eliminated.

V1.2.4.1 Changes include:

- Correction licenses
- Show ion chamber time and rate for long measurements and free run, when IC is trigger and wave off
- Implement Rapid-Gold AGMS sensor restrictions
- · Allow loading and saving of sessions with very long waves
- · Suppress light sensor results when connected
- Change AveragePeak Algorithm (for Dose) to ignore noise
- Fixed 3 instances that could produce crashes
- Update agHost.dll to version 0.1.0.4647
- Included new standard driver package that is compatible with Windows 8

V1.1.1 Major changes include:

- 1. Added auto-profiling
- 2. Added custom profiles and profile management
- 3. Added audio feedback
- 4. Added provision for Dose, kV and HVL correction licenses
- 5. Reduced Pre-Pulse detection threshold
- 6. Improved stability and other bug fixes.

V1.0.16.3 Changes include:

- 1. Implement Dental Pre-pulse in settings
- 2. Improve comment handling during export
- 3. Minor bug fixes

V1.0.15.4. The features include:

1. Improved responsiveness for wave rendering and when selecting regions of interest.

2. Non-destructive, user selectable bandpass filtering of waveforms - especially useful for low level radiation signals.

- 3. User selectable time units (seconds, minutes, hours).
- 4. Improved comments editing
- 5. Audio feedback for initialization and measurement readiness
- 6. Measurement navigation with up/dn arrow keys
- 7. Software update notification when connected to the internet
- 8. Numerous bug fixes

V1.0.12.0

Bug: Filtration for mammo is not out of range, but AG thinks it is Show complete AG version number in info dialog AG assembly version matches file version

V1.0.12.2

Updated agHost.dll to version D13-4554 (fix for TC issue) and fixed bug preventing short exposure data (<50 ms) from being displayed when using the AGMS.

------V1.0.11.7 - Key Changes:

Simple Comments:

User can now enter a comment in comments pane

Comments can optionally be carried over to next measurement

Copy, Cut and Paste commands in comments pane

Comments are shown in list view's list

User gets a visual cue in slid in comments pane that a comment was entered for this measurement

Comments get saved with measurement and session

User can slide in or out comment pane in all views User can resize comments area by dragging

Matrix View: Add option to be topmost window

Make units (R or Gy) selection persistent following close of session

Show error on filtration exceeding limits, suppress all AGMS values in this case

Bug Fix: Ion chamber pulse counting for low rates -improved results

V1.0.8.1 - Corrected mA/mAs measurement

V1.0.8 - Bug fixes: Pulse counting can be off up to two pulses for AGMS; Pulse count is not updated real time; Dose per pulse is not calculated

V1.0.7 - Enhanced user messages for trigger selection, trigger levels and ion chamber wave display
Faster rendering of waveforms and region-of-interest calculations
Minor bug fixes

V1.0.1 - Turned off auto version check

V1.0.0 - Initial release Excel Export with Templates ROI with delta values with draggable boundaries x/y zoom and pan Export wave to clipboard with sample time Provide copy ROI details to clipboard Additional Profiles Provide sizable companion "Matrix" Window showing profile data only Mammo exposure includes scout exposure Auto check for software update Provide trigger source and level selection Improve ion chamber zeroing and triggering Opens sessions by double clicking

Fix ion chamber recognition errors when using the 10X5 to 10X6 chamber adapter

Fix zero-out of range for 90M10 non-invasive mA sensor

Please feel free to comment on this software and report any bugs that you may find. Please save session files since they would be most useful. A license/calibration file is required for the AGMS multi-sensor. Please contact customer support if you do not have one for your multi-sensor. The AGMS+ multi-sensors have built in calibration but a license file is required to access program updates.

Installation Notes:

- 1. **Install Accu-Gold software prior to connecting the Accu-Gold or Rapid-Gold Digitizer Module.** Uninstalling old versions is not necessary.
- 3. Download manuals separately.
- 4. Administrator privileges are required for installation.

Installation Procedure:

1. To begin installation, open the zip file and launch the file "setup.exe".

2. The setup.exe file will begin a dialog to install the software.

The first screen displays "Welcome to the Accu-Gold Setup Wizard". Click on "Next" to continue. dotNET Framework Client, version 4.0 or greater is required. If you do not have it installed, the software will attempt to download it and install it for you before continuing with the rest of the software. An internet connection is required for this step.

3. The next dialog box sets the installation directory for software. The default is Program Files\Radcal\Accu-Gold. Click "Next" to continue.

3. The next dialog box asks if additional content is to be installed. Note: The documentation needs to be downloaded separately.

4. Click "Next" to begin installation at the next dialog box. At its conclusion the USB drivers, which allow Microsoft Windows to recognize the Accu-Gold digitizer, will be installed silently when the Accu-Gold digitizer is first plugged into a USB port.

5. Click "Close" to exit the installation process.

7. Refer to the "Radcal_Accu-Gold_Quick_Start.pdf" to get started.

Uninstall Procedure:

1. To uninstall Radcal Accu-Gold go to Add/Remove Programs in Control Panel and select this name. Then click on Remove and answer Yes to the prompts. You may also run the setup program again to uninstall it.

For more in-depth information or troubleshooting, Contact: Customer Support -(626) 357-7921 x123 Cust_Sup@radcal.com