

DoseControl v2.0 improvements:

1. Technology updates – in plain speak, GEX has upgraded the technology in DoseControl to meet current security expectations and extend the lifespan of the software.

- a. DoseControl version 2.0 will leverage all the security and enhancements of the latest .Net Framework, 4.8. (GEX is following Microsoft's guidance pertaining to framework and associated runtime updates: <https://support.microsoft.com/en-us/topic/-net-framework-4-5-2-4-6-4-6-1-end-of-support-faq-72b7d8ca-3057-4f0c-8404-67305d40cc04>)
- b. All third-party software packages that DoseControl relies on will be upgraded to the latest versions.
- c. Upgrading encryption from 128 bit to 256 or greater.
- d. DC 2.0 uses a secure code signing process that meets the recommendations of CA Security Council. When the user installs DC 2.0 software, GEX is the identified and verified software publisher, confirmed by a publicly trusted certification authority.

2. Evolution Spectro PV Module improvement – the P.V. Module has been re-designed and has expanded functionality and flexibility.

- a. DC 2.0 will allow multiple Standards Kits to be active in DoseControl - Some users have multiple locations of instruments within their facility, multiple facilities, etc. Running a single standards kit around for a PV test is either impractical or impossible for them.
- b. Expand photometric testing capabilities –
 - DoseControl will allow multiple PV Methods to be configured and made active by the App Admin.
 - There are 2 different PV Method types that can be configured.
 - Daily PV Test: PV test using one photometric testing wavelength.
 - Daily PV Test Bracket Wavelength of Use: PV test using two different photometric testing wavelengths to bracket the wavelength of use.
- c. Reduce errors in PV test Method configuration test parameters:
 - DoseControl will automatically calculate the test parameters for the photometric accuracy based on the information provided by the App Admin.
 - The PV Method configurations screen will display an “Overview” of the PV test details for photometric and wavelength accuracy, the test parameters, and the



Standards Kit information. This provides the App Admin a way to quickly review the PV Method configuration.

- d. DC 2.0 has a P.V. module global ON/OFF switch controlled by App Admin. Activation or deactivation of the PV Module requires a comment to be entered by the admin, and the event is recorded in the audit trail.
- e. Improved current workflow so that if User 1 fails a PV test, a second User (any other user) must login and repeat the PV test, and then a third user must login and repeat the test as a verification of the passing results. (Improvement allows ANY user and no longer requires that the original User 1 must repeat the test to verify the results).

3. Dosimeter measurement results improvement – DoseControl now handles dose results consistently across all outputs (screen display, reports, export tables).

- a. Any dose that is outside the Calibration dose range will be labelled as out of range. This removes confusion if a dose value is valid or not. All valid doses (within the calibration range) are numbers; all invalid doses are labelled “out of range”.
- b. Measurement screen header area now displays the Calibration start date, end date, calibration dose range min/max values.

4. Expanded Process Report and Printing Reports capabilities – App Admin can control when and what type of reports are output from the system.

- a. Report Type Configuration new functionality – the App Admin will be able to control when a user can print a report and what file type (Excel/PDF) can be printed:
 - Turn ON/OFF ability to print an unprocessed report that is unprocessed.
 - Turn ON/OFF PDF report printing and/or Excel report printing (icons will not appear for user).
 - Turn ON/OFF the ability to print a report (at all) – the process button is a trigger to create a PDF report that is saved to a configured network storage location. System Admin can configure the report storage location.
 - Turn ON/OFF specialized PDF filename options: The PDF report name (filename) can a suffix after the Report ID to indicate a pass or fail (readings pass or fail within process specification) – feature specific to SAP integration.
- b. Report Summary screen cleaned up to make it easier to read. The Dose Summary Statistics (section below the Dosimeter Measurement list) will now display information for all dosimeters in the Report:
 - Average Measured Dose (also in previous version)



- Measured Dose Std Dev (also in previous version)
- Measured Dose C.V. % (also in previous version)
- Minimum Measured Dose
- Maximum Measured Dose
- Min Spec calculated dose (only visible in reports that have special value fields Min/Max Dose Spec and Ref:Min/Max Ratio)
- Max Spec calculated dose (only visible in reports that have special value fields Min/Max Dose Spec and Ref:Min/Max Ratio)

5. Audit Trail - improvements

- a. Filtered results easier to read in banded rows.
- b. Dosimeter deletion from a report, or dosimeter ID change in a report will appear as “Reports” audit filter result
- c. Expanded dosimeter measurement refined search capability – filter by Dosimeter ID, rereads, and which user is measuring or rereading