

Historion 6.1.9.89 to 6.1.9.94 Release Notes

Historion Support Notice

A reminder to use the Historion testing template to retest and confirm the various interfaces Historion works with in your desktop computing environment.

The Historion testing template (PDF) version is here: PDF UAT Checklist.

A Microsoft Word version (please feel free to add your own testing/checking steps) is available for anyone who needs to add their own internal acceptance testing checks here: MS Word UAT Checklist.

Last Quarter 2021 and 1st Quarter 2022 improvements:

- Update 6.1.9.94 Released 17 March 2022 Miscellaneous Improvements
- Update 6.1.9.93 February- March 2022
 Miscellaneous Improvements
- Update 6.1.9.92 February 2022
 New System Report development
- Update 6.1.9.91 January 2022
 Rebuilt core cache handler
- Update 6.1.9.90 December 2021
 New global exception handling class
- Update 6.1.9.89 November-December 2021 Miscellaneous Improvements



Update 6.1.9.94 released 17 March 2022

Miscellaneous Improvements

6.1.9.94.01

Updated the Test Event Log feature on the Historion System Report screen, improved logic and provided pre and post prompting and more informative error handling.

6.1.9.94.02

Added a new script to **Rebuild Dose Reports List** in response to some data transfer scenarios that we are working through with online data transfer services. This script was already part of the reset cross references script, however, has been added as a separate script option for convenience. The next SQL database update scheduled for mid-2022 will see the need for some of the script options negated.

6.1.9.94.03

Implemented Landauer data transfer settings checks earlier in the data transfer workflow process. The settings details are now immediately checked prior to opening the data transfer page instead of allowing the page to be opened and only failing the settings checks as part of data transfer commencement.

Settings are still rechecked at the start of the transfer however the initial check saves the user time in the event a setting is not right (such as a password not being set for an account) because the advice of the issue is immediate instead of waiting for the service to time out.

6.1.9.94.04

Miscellaneous corrections in response to extensive system and regression testing after the successful implementation of our new exception handling class (see 6.1.9.90.1). System-wide application performance and stability improvements. Previously hidden Null object reference and invalid operation exceptions detected and corrected in:

- Protective Device details
- Sealed Source, Unsealed Sources, Ionising and Non-ionising apparatus inventories
- Custom notification settings (interaction between Campus and Centre)
- The References page used throughout
- Premises Details
- Custom Role details

6.1.9.94.04

Provided the ability to retrospectively go back and attach an external file to a document metadata record, in the event the user had previously cancelled file attaching for a new document.

6.1.9.94.05

Adjusted/improved binding validation for currency fields in some screens where deleting a zero-dollar value was resulting in the user being unable to leave the field having a non-null value.



Update 6.1.9.93 February-March 2022

Miscellaneous Improvements

6.1.9.93.01

Fixed a processing bottleneck and improved performance associated with timing and multithreading in the <u>Centre Report As</u> feature.

6.1.9.93.02

Added the Test Event Log feature to the System Report page. The System Report page is accessible from the Help\About page. For support and diagnostics purposes it is helpful to know whether a Historion user has permission to write to the Windows Event Log on their workstation.

Historion runs under the security context of the currently logged in user, so if they do not have permission to write to the local workstation's Event Log, then Historion doesn't either.

This feature prompts for confirmation then writes a test, information only, entry to the local Event Log on the user's workstation. If the write test fails then error diagnostic details from Windows are shown, which should help in understanding indicating why the test failed. Reasons can vary although the most typical case is that of denied access through IT Department Group Policy restrictions.



6.1.9.93.03

Modified the <u>Wearer Data Import Tool</u> to allow hyphenated names and apostrophes. In previous editions hyphens and apostrophes were incorrectly picked up as validation issues to be corrected.

6.1.9.93.04

Modified the <u>Wearer Data Import Tool</u> to address a logic fault that appeared under some Excel related circumstances and caused the Exclude/Include in ANRDR (National Dose Register) flag to be incorrectly interpreted as True when it should be False.

6.1.9.93.05

Fixed a legacy fault in the <u>Wearer Aliases</u> tab where the number of Aliases present was incorrectly set to a non-zero starting value. (This was a left-over value missed in a past SQL script used to clear the Historion database and reset for new deployments).



6.1.9.93.06

Fixed a bottleneck in the Wearer Merge screen associated with merging dose readings and updating statistics and cross-reference data.

Generally improved the Wearer Merge process further with some performance and stability enhancement associated with engaging the rebuild cache management functions, see **6.1.9.91.1**

6.1.9.93.07

Removed the ability for Admin Users to self-deactivate. Historion Users that have access to the Admin role and can change User access (and are leaving the organisation for example), must be deactivated by another Historion Admin User.

This is to avoid orphaned implementation where IT assistance would be needed to re-establish a founding administrator. Self-deactivation is no longer possible.

6.1.9.93.08

Fixed a setting circumstance-related fault affecting the binding of the Room and Source Custodian fields in the Source Details screen. This was only affecting Commonwealth licence holders.

6.1.9.93.09

Minor improvements to hierarchical interaction and in-context filtering of Campus and Centre selections in the Dose Alert Setting details page.

6.1.9.93.10

Minor improvements to hierarchical interaction and in-context filtering of Sites, Premises and Room selections and refreshing between the Site, Premises and Room details screens.

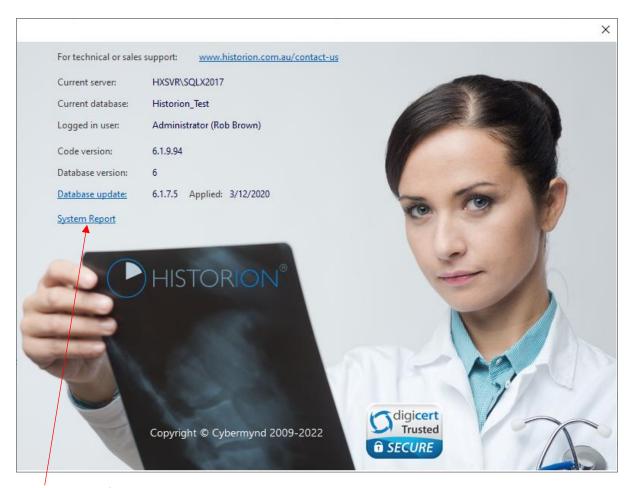


Update 6.1.9.92 February 2022

New System Report development

6.1.9.91.1

The Historion About screen now has a new System Report feature. Shown below:



System Report feature

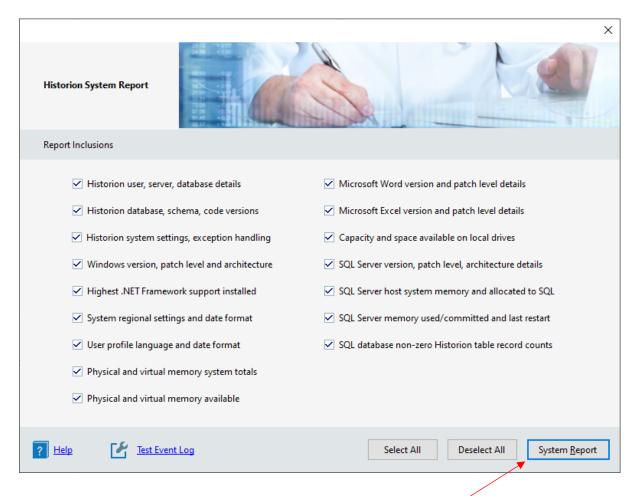
The System Report feature is provided to assist Historion technical support in understanding important local worktation and IT environment resources, settings and operating system details. The System Report page has an option to select or deselect different aspects of the users computing enivonment that may be affecting the operation of the Historion software, in general groups of:

- Database Information, table useage volumes
- SQL Server information, patches and resources
- Operating System, Patches, .NET Framework, Regional date formats
- Available memory resources and management settings
- Microsoft Word and Excel version and patch details (for Office integration)
- Historion system settings, including exception handling options set

Historion is designed to integrate with Microsoft Office and to seemlessly fit within typical desktop operating environments. Sometimes desktop environments have circumstances that affect database software like Historion. The System Report helps us to spot common issues early in support episodes.



The System Report feature is shown below:



After selecting the required System Report component select [System Report] to display the report:



Please refer to your local IT Department if there are any concerns regarding the report content or permission to provide the report to Historion support. We will be happy to assist. An example System Report is available at: Example System Report.



Update 6.1.9.91 January 2022

Rebuilt core cache handler

Caching

Caching in Historion involves loading data that is logically expected to be required by the user, in their next action, via <u>multithreading</u>.

Deliberate combinations of multithreading and anticipatory cache loading are used to speed up the software and to optimise network and database resource use and timing of resource use requests.

Significant performance gains are experienced when data has already been loaded from the server-based database, into the workstation's memory, via a background process, *before* the screen that requires the data requests the data.

6.1.9.91.1

Rebuilt core cache handling routines, including interaction with new global exception handling tools.

6.1.9.91.2

Improved cache coverage and cache reload requirement detection and memory handling.

6.1.9.91.3

Identified and added new cacheable data items and removed redundant or non-optimal cache items. Corrected or removed cache data items identified over time to be problematic.



Update 6.1.9.90 December 2021

New global exception handling class

This section of the Release Notes relates to Error Handling. Further information is available in the Historion online help Appendix 3 – Error Handling, This chapter also covers the Windows Event log.

6.1.9.90.1

Researched and developed new and improved Historion application error handling class. Overhaul of 157 form object error definitions to accommodate new error class.

The benefits of the new exceptional handling class are outlined below, from 6.1.9.90.2 to 6.1.9.90.7:

6.1.9.90.2

Provided optional new Historion.ini file options, shown with their defaults below:

- UseEventLog=True
- UseTextLogs=False
- TextLogPath=""
- UseDatabaseLog=True
- UseWebLog=False (not active yet, this feature is coming).
- UseSMTPLog=False (not active yet, this feature is coming).
- ShowFaultDialogs=False

6.1.9.90.3

UseEventLog=True

The default position of the software is now to write exception messages to the Windows "Application" event log. Historion can now be specifically instructed to *not* write to the event log. This may be required for some IT environments where the use of the *Application* Event Log has been restricted and is not available to Historion users.

6.1.9.90.4

UseTextLogs=False

Historion can now be specifically instructed to write to text-file based event logs when an exception (error) happens. This makes the historical record of the event visible and accessible to the user.

This may be required for some IT environments where the use of the *Application* Event Log has been restricted and is not available to Historion users.

There are two scenarios where Historion users may have difficulty with the Windows Application Event Log; they may be unable to open the Event Log or it is not visible due to Windows network policy restriction or the Historion application itself may be unable to write to the Event Log.

This setting is ignored if a valid TextLogPath (below) is not specified.



6.1.9.90.5

TextLogPath="""

If Historion is instructed to write to text-file based event logs when an exception (error) happens the TextLogPath determines where the new log file for the event will be written.

This may be required for some IT environments where the use of the *Application* Event Log has been restricted and is not available to Historion users.

This setting is ignored if an invalid TextLogPath is specified or the UseTextLogs setting is not set to either True or Yes.

In a shared user environment, such as a Historion implementation run from a network share, text logs will only be produced for users that have write access to the nominated location.

6.1.9.90.6

UseDatabaseLog=True

From Historion 6.1.9.90 onward the application is instructed, by default, to log the details of exception events to the tblSystemLog database table. The tblSystemLog table is a Historion table and not an SQL Server system table. This means the logging to the table can only occur if it is not a database error.

As at version 6.1.9.98 the tblSystemLog table can be exported but does not yet have a user interface.

6.1.9.90.7

ShowFaultDialogs=False

The ShowFaultDialogs setting determines whether Historion will show an error diagnostic message on detecting a system, environment or data fault.

An example of the new options added to the Historion.ini file is provided here:

#instorion.ini - Notepad

File Edit Format View Help

connection=Data Source=HXSVR\SQLX2017; Initial Catalog=Historion_Test; Trusted_Connection=True; Connection Timeout=600

UseTextLogs=True

TextLogPath="C:\TestLogs"

UseEventLog=True

UseTextLogs=False

TextLogPath=""

UseDatabaseLog=True

UseWebLog=False

UseWebLog=False

ShowFaultDialogs=False



Update 6.1.9.89 November-December 2021

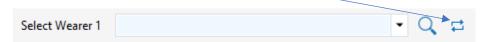
Miscellaneous Improvements

6.1.9.89.01

Improvement to preloading of data for Dose Movements and Wearer Numbers screens and Wearer population logic.

6.1.9.89.02

Dose Movements and Wearer Numbers screens provided ability to switch between new options of [Surname, First Name] and [First Name, Surname] Wearer lookup in the Wearer dropdown for both Select Wearer 1 and Select Wearer 2 controls:



6.1.9.89.03

Dose Movements and Wearer Numbers screens improved Campus and Centre dictionary filtering and management.

6.1.9.89.04

Wearer Number screen, find numbers results list added the following new clarifying output columns:

- LastNoUsed
- Readings
- Campus
- CurrentCentre
- WearerSite
- BusinessUnit
- CanRemove



Historion 6.1.7.6 to 6.1.9.88 Release Notes

Please note that the previous release notes included a summary reference to "minor updates" for Update 61.7.6 and 6.1.7.7. The actual fixes and updates are described at the end of this document.

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Update 6.1.9.88

6.1.9.88.01

Implemented a switch for the Landauer connection that swaps the protocol to TLS 1.2 if the PC is trying to use any lower security protocol, immediately prior to connecting.

Historion Support Notice:

The TLS protocol switch has been updated to TLS 1.2 in keeping with Microsoft's recommendations.

Whilst the import part of the process remains the same, we have observed that the initial download speed for the Landauer data transfer utility was faster under TLS 1.2. We stress that this may only have been timing related and we have not yet gathered comparison statistics at different times of the day or weekdays verses weekends.

Interestingly, the networks of all Historion clients using the Landauer data download as at late November 2021 have allowed TLS 1.0 protocol transfers so are still catering for the protocol, presumably for backwards compatibility reasons as described in Microsoft's recommendations.

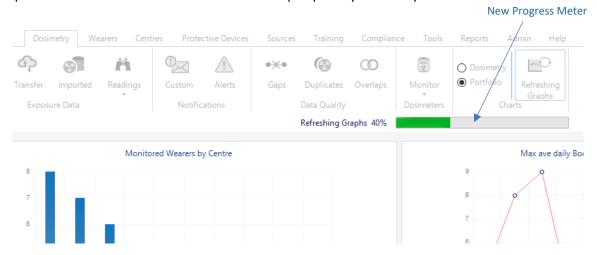


6.1.9.88.02

Implemented a Toolstrip Progress Meter to show the progression of refreshing computed statistics via the Refresh Graphs feature in the dosimetry tab. Note that during the refresh process the ribbon is deactivated and the graphs in the dashboard panels will not respond to mouse clicks.

Historion Support Notice:

The experience in larger implementations with more than 50,000 Dose Readings was that Historion appeared to freeze and become unresponsive during the update. Windows was showing the application as having timed out because it was taking too long. 6.1.8.88.02 has been an intended update on our list for a while and was moved up in priority for this update.



Please note that this feature does not just cosmetically refresh the displayed charts and graphs, it updates tables of computed statistics that Historion uses, instead of dynamically retrieving data for these graphs, which would significantly slow the application down.

The Refresh Graphs feature undertakes statistical updating processes that already occur at the end of the Dose Report import process. The feature is available in the event this process is interrupted at the end of Dose Report importing and for use if Dose Reports are deleted. The refresh:

- Migrates summary data for all Dose Readings to their equivalent view tables
- Reloads the Dose Readings cache in memory and in the Home dashboard:
 - ✓ Refreshes computed statistics for the Centres panel and refreshes its graph
 - ✓ Refreshes computed statistics for the Exposure Charts panel and refreshes its graph
 - ✓ Refreshes computed statistics for the Vital Data panel and refreshes its graph
 - ✓ Refreshes computed statistics for the Reading Quality panel and refreshes its graph
 - ✓ Refreshes computed statistics for the Alert Indicators panel and refreshes its graph
 - ✓ Refreshes computed statistics for the Compliance Indicator panel and refreshes its graph

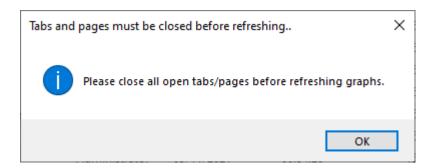
The final step (at the progress meter's 90% marker) is to refresh all computed statistics for all Wearers, that supply data to the graphs shown in Wearer Details. This step will usually take substantially longer.

Parts of the suite of functions undertaken here will be moved to SQL server-side processing in the next SQL server update planned for late 2022. The refresh will be automated and will only appear in the Admin/Scripts area in case client-side processing is needed for any troubleshooting purposes.



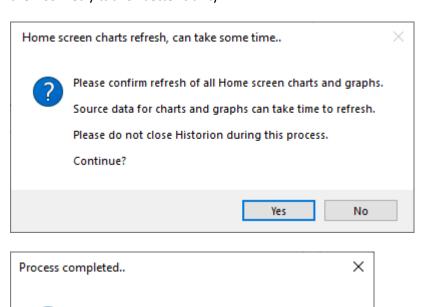
6.1.9.88.03

Added a new "all tabs and pages" check requiring closure of all open forms to the initial checks undertaken by the Refresh Graphs feature. It was possible to run this update with the Wearer Details screen and other screens still open. In such cases graphs were not refreshed until already open forms were reopened, giving the appearance that the process had not run.



6.1.9.88.04

Updated the wording of confirmation and completion prompts for the Refresh feature at the end of the Dosimetry tab for better clarity.

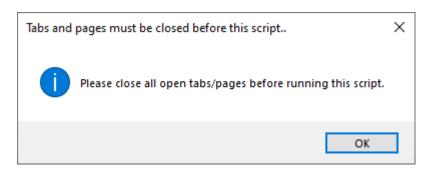


Computed statistics for charts and graphs refreshed.



6.1.9.88.03

Updated script 5 (Reset Cross Referenced Data) which updates all view and cross-linked tables for faster loading and navigation to require closure of *all* forms first instead of only Wearer Details. This script has wide-reaching effects and the tables it updates are applicable to multiple screens.



6.1.9.88.04

Fixed a timing fault in the engagement of the background worker process that executes Script 5 that incorrectly made it appear that the script had executed after prompting to close, originally the Wearers screen, now all open screens.

6.1.9.88.05

Updated the Standard Reports generation screen to avoid potential rare dictionary issues associated with data assumed to be (and which should be) unique, by the function performing the population of each dropdown. The routine now checks for, and steps around issues associated with:

- More than one Campus with the same Code (Campus codes are assumed to be unique)
- More than one instance of the same Centre Status reference code
- More than one instance of the same Wearer Status reference code
- More than one instance of the same Wearer Sex reference code

6.1.9.88.06

Updated the Exit Letter generation routine to handle a problem on some workstations where the Microsoft Word session that is launched loses its process handle, showing a fault message "Process {0} not Found" and not bringing the new Word session to the forefront of the workstation's focus.

6.1.9.88.06

Updated the Source Details screen to address a fault relative to the display of a selected Room or Laboratory after selecting a Site and Premises filter at the time of adding a new Source.

6.1.9.88.07

Updated the default data source for new Wearer Reports in the Custom Report feature, to an optimized version of the Wearer view and fixed the *OrgName column not found* fault caused by an SQL change affecting the original Report data source. Any affected custom reports can be fixed by changed the data source from vwWearers to vwWearersOptimised.



This update introduced new features for manual management of Wearer Numbers and movement of Dose Readings between Wearers. Previously Wearer Numbers were only added when Dose Readings were added or removed when Wearers were removed.

Manual addition, editing or removal of Wearer Numbers was not possible to protect data integrity. The new features remove limitations on Wearer Number changes, for System Admin Users of Historion only.

If there is sufficient demand, we can look at changing this to include Centre Admins having permission to manually administer Wearer Numbers as well. This can be settings controlled for System Admins that don't want to allow this. The preference is to see how things go with Admins only having access to manual Wearer Number changes at first and to understand what support problems this may introduce, before opening this up to include Centre Admins.

6.1.9.87.01

Changed the Wearer Details page to allow manual wearer number adding, editing and deleting. See the Feature Introduction, <u>Managing Wearer Numbers</u>.

6.1.9.87.02

Introduced Wearer Number Details page to allow Wearer Number addition and editing. See the Feature Introduction, <u>Managing Wearer Numbers</u>.

6.1.9.87.03

Introduced Manage Wearer Numbers major feature in the top-level Wearers tab. This feature facilitates finding and managing Wearer Numbers that either match a range of search parameters, or fall within one of 15 sets of number scenarios, or both.

See the Feature Introduction, Managing Wearer Numbers.

6.1.9.87.04

Introduced the Move Dose Readings major feature in the top-level Wearers tab. This feature facilitates the movement of one or more Dose Readings from one Wearer to another Wearer. Please note that moving Doses to a target Wearer does not create any new Wearer Numbers for the target Wearer. This is by design, as there are a range of circumstances that can lead to the need to move doses and the resulting Wearer Numbers outcomes between the two Wearers need to be considered carefully.

For this reason the above feature changes allowing adding and removing Wearer Numbers and moving Dose Readings between Wearers have been deliberately released *together*. Please see the Feature Introduction, <u>Moving Dose Readings</u>.

6.1.9.87.05

Updated some internal developer tools and routines with better/faster editions of same to assist with development productivity.



6.1.9.86.01

Commenced progressive introduction of Historion Online Help. The first visible implementation of this is in update 6.1.9.87 (above) where links to Historion Online Help are provided in context for different Dose Movement stages and validation outcomes.

Historion Online Help is being rapidly completed and will feature whole new chapters and sections and updates with each new Historion update.

Update 6.1.9.85

6.1.9.85.01

Rebuilt Expire Wearers feature. This feature was a very old utility first written in 2014. The new utility includes additional filtering options, logging of Wearer expiration and better performance, utilising background worker functions and multithreading in the newer releases of the .NET framework. The feature still finds Wearers to expire based on when their last Dose Readings occurred. The new version should be more flexible and more intuitive to use.

This feature now shows the Wearers that will be expired before the process is confirmed.

6.1.9.85.02

Added an Excel export feature to the Expire Wearer feature. This allows examination of the "to be expired" Wearers with their last Dose Reading information so the RSO can check the Wearers before proceeding and setting the Wearers to Not Monitored status.

Update 6.1.9.84 (Important .NET Framework Update)

6.1.9.84.01 .NET Framework Updated to 4.6.2

Update 6.1.9.84 was implemented after surveying all Historion customers (or their respective IT departments as needed) relative to the maximum .NET Framework their desktop computing environments support. The .NET Framework is like an extension of Windows itself. It allows developed software to utilise a range of tools and to provide functions like file open and save dialogs. It is one of the reasons we can distribute Historion as a single file that is as small as, roughly, 50MB in size.

The <u>.NET Framework 4.6.2</u> is now the required minimum for Historion, after consultation regarding each implementation and extensive testing of all interfaces and some necessitated adjustments.

6.1.9.85.02 ActiveReports Reporting Engine Updated to 14.0

The updated .NET Framework has allowed Historion to also have its reporting engine, <u>ActiveReports</u>, upgraded version 10.1 version 14.0. Version 14.0 is the second from latest ActiveReports version and has numerous performance and stability improvements, bug fixes and some new interface features. The update included progressively upgrading to each report version from 10.1 to 14.0 through iterative update and regression testing cycles.



Update 6.1.9.83 Internal update, not externally circulated

Update 6.1.9.83 was an internal update and was not released to any clients for input either with reviewing or testing features. The update included initial implementation of successive .NET Framework upgrades, landing at the current .NET Framework 4.6.2 minimum, after our client survey as described under 6.1.9.84.01 above.

Update 6.1.9.82

6.1.9.82.01

Resolved an issue where the selection of Wearers for merging (and in some other areas of the software) were hiding Wearer records created as PET Wearers (PET scanner readings from ARPANSA) but the routine ensuring their exclusion was also hiding Peters, Petres and Petas from some lists.

6.1.9.82.02

After resolving the above, throughout, and in response to feedback, changed the Wearer Merge utility to show all selection of any Wearers, regardless of the Wearer type they were detected as or have been manually set as. This utility was previously only showing Wearers classified as *Individuals*.

Update 6.1.9.81

Commencing with update 6.1.9.81 we have started using <u>Microsoft OneDrive</u> as an optional method of providing the Historion.exe file. This appears to be significantly faster for downloads and may provide an additional download option for some clients with restricted web/FTP access. All versions of Historion genre 6.1 are still available at: https://www.historion.com.au/support/downloads/

We can also use **Google Drive** and **Dropbox** if required.

6.1.9.81.01

Included finger and extremity doses previously missed from new Historion graph-based Report 37.

6.1.9.81.02

Changed new Historion graph-based Report 37 to dynamically set its Y axis maximum based on the highest reading in the data set. The previous edition maxed out at 4,500 micro which doesn't work for some extremity readings.

6.1.9.81.03

Added some additional stability and speed improvements for parameterised use of Report 37 and made some minor formatting improvements after further testing of multiple parameter combinations.



6.1.9.80.01 Changed Minor Release Versioning

With the introduction of Update 6.1.9.80 we have started using finer "minor release" version numbers using the convention 0.0.0.00 (we have increased the last version position counter). This also coincides with the introduction of progressive updates to new graph-based reports 37 and 38 and minor updates during their refinement and ultimate completion.

This is to allow us to keep versions, for now, below the 6.2.0.0 series which is already in use by a parallel Historion development stream, being undertaken in a separate project with CSIRO. The 6.2.0.0 series focusing closely on the radiation Source Inventory part of the software and in 2022 first half will include <u>iAuditor integration</u>, QR code/barcode recognition via our mobile app (which is now under development) and source inventory cloud uploading and audit report importing.

The two streams will be merged when the CSIRO project has been completed into a 6.3.0.0 series, which will include the next major SQL update/scripting.

6.1.9.80.02

Introduced the second Report 37 development iteration.

6.1.9.80.03

Introduced the first Report 38 draft/layout example.

Update 6.1.9.8

6.1.9.8.01

Introduced the graph-based Time Series Report 37 first draft for review.

Update 6.1.9.7

6.1.8.7.01

Iterative adjustments to the bulk Wearer Numbers loading tool now at version 3.0.



6.1.9.6.01

Implemented an internally identified performance improvement opportunity associated with updating Dose Reading views in batch mode. The routine involved now includes a switch for instances where updating Dose Reading views is not necessary during batch of updates. Speed, efficiency.

6.1.9.6.02

Turned off no longer required (and less efficient) checking routine for Landauer Wearer numbers that was still executing at the end of importing Landauer Dose Readings online.

Added system logging context groups and definitions for upcoming system log improvements.

6.1.9.6.03

Added improved error catching and handling in the Dose Alert processor for Scan All Alerts routine.

Update 6.1.9.5

6.1.9.5.01

Introduced new purpose-built Microsoft Excel session (and artefacts) handling class for improved efficiency, memory management and clean-up of used objects. This improves speed and stability of Microsoft Excel related loading and exporting tasks and should address some intermittent instances of MS Excel freezing, especially during data exports.

A similar upgrade is in progress for Microsoft Word interop handling, to improve Word integration.

6.1.9.5.02

Introduced new reference management class for more flexibility in management of reference values (dropdown list contents) and to help reduce the frequency and volume of SQL scripts for updates.

6.1.9.5.03

Introduced new "Wearer Number Override Disposition" that allows session-based removal of Wearer Numbers from the Numbers sub tab of the Dosimetry tab in the Wearer Details screen. A specific setting value being required to switch on Wearer Number removal for the current session only.

Historion Support Notice:

The setting described in 6.1.9.5.03 becomes moot in Update 6.1.9.87 and is removed in 6.1.9.88.



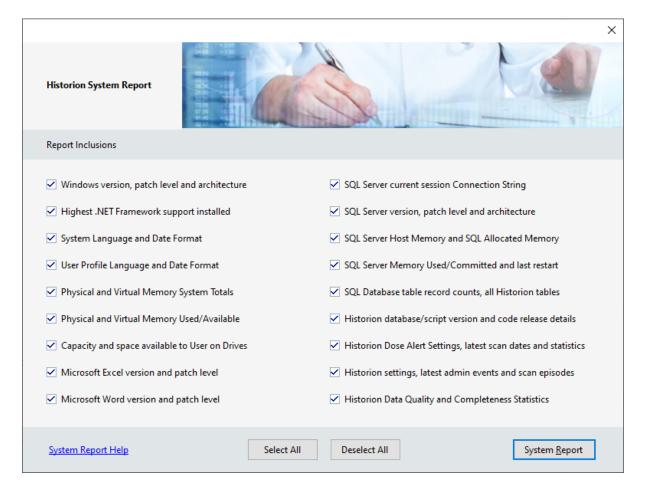
6.1.9.4.01

Implemented optional Data Update 6.1.9.4 for the addition of suffixed Landauer Wearer numbers in response to Landauer number and account changes. See <u>6.1.9.4 update documentation</u>.

6.1.9.4.02

Commenced introduction of new class and associated routines for the upcoming System Report which is being designed to provide Historion Support important diagnostic information for implementation.

This page will be extended in the next SQL update to allow automation the reporting (will require System Admin agreement) and related, automatic emailing of fault diagnostics to Historion Support:



Upcoming System Report page for providing Historion Support diagnostic details.

This feature will be optionally automated and cyclically, invisibly emailed to Historion Support for System Admins agreeing to participate and send this data.

Settings options will also include fault diagnostics.



Historion 6.1.9.3 was an interim update to experimentally force on a switch for the connecting security protocol used in Landauer data transfers.

This was based on a theory that a combination of Microsoft Windows updates on a specific workstation was causing the network protocol it used to connect to Landauer's data service to be of an older version, the theory being that as a result Landauer's server was rejecting it.

The theory was correct.

Technical Information, for Interest:

We since confirmed that the Landauer portal does not support secure sockets layer SSL version 3.0 or lower/older protocols and the minimum network protocol is TSL 1.0. (This is good, secure.)

This was resolved with the assistance of a helpful online utility at: https://www.ssllabs.com/ssltest

Historion Support Notice re update 6.1.9.3:

We have since implemented a switch for the Landauer connection that swaps the protocol to TLS 1.2 if the PC is trying to use SSL 3.0 or lower, immediately prior to connecting.

As covered in Historion <u>Update 6.1.9.88</u>.

Update 6.1.9.2

6.1.9.2.01

Changed the cycling of Wearer Numbers in Wearer Numbers bulk import utility from Excel row iterations to internal data table rows, after initial loading, for significant speed improvements for Wearers over 500 in number.

6.1.9.2.02

Further final tuning and updates to the Wearer Numbers bulk import utility after feedback.



6.1.9.1.01

Adjusted the "duplicates already appearing" part to consider all elements, including prefix and suffix of the Wearer Number provided in the Excel template.

6.1.9.1.02

Adjusted the "duplicates already appearing" code segment to only check between Wearers, not between Wearer Numbers for the same wearer.

6.1.9.1.03

Changed identification of existing Wearer Numbers in the utility to be based on any wearer number in the list of Wearer Numbers for each Wearer, not just their primary number.

Update 6.1.9.0

6.1.9.0.01

Adjustments centred on the Landauer provider wearer numbers change situation at hand.

6.1.9.0.02

Historion Support Notice re update 6.1.9.0 onward:

In version 6.1.9.0 onward Landauer Wearers must be matched on existing Wearer Number + CASSID (suffix) combinations. This means all Landauer clients who use Historion 6.1.9.0 onwards must change Participant No's to include the new suffixes.



6.1.8.9.01

In this update the determination of whether a Wearer exists in Historion is based on checking the Old Wearer Number against existing Primary Wearer Numbers, not against all existing additional fallback numbers that have been associated with the Wearer in the past. (This is changed in 6.1.9.1)

6.1.8.9.02

Updated rules for the excel based Wearer Numbers bulk import utility such that; Historion will not allow the addition of a new number for a Wearer if the Provider of the Wearer Number has already used that Wearer Number for a Wearer in the past in *any* context, Primary or otherwise. If they send a number that has been used previously, at all, they will have to send a replacement.

6.1.8.9.03

Fixed a small bug that wasn't showing the prompt/explanation for one validation scenario in the utility where the User would have seen highlighted cells but had no indication as the why. This was detecting existing wearer number x provider duplication in Historion for an indicated new wearer number combination, correctly, but not properly indicating why the result was highlighted.

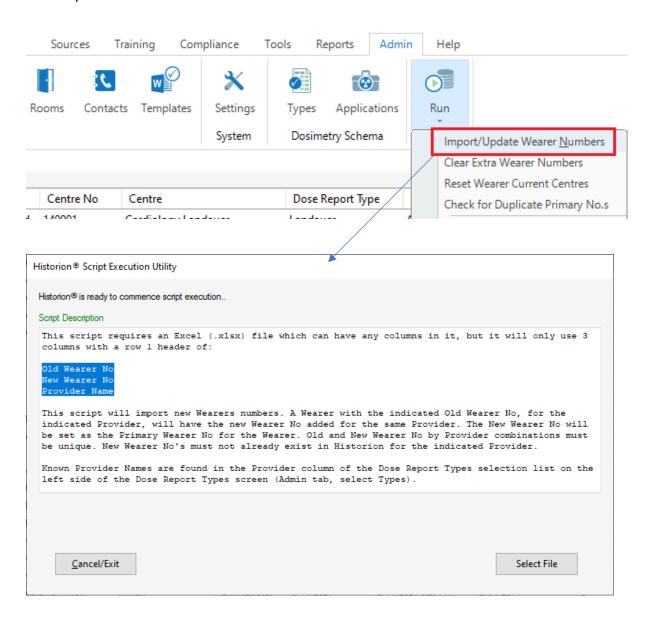


6.1.8.8.01

Fist iteration of the new Excel based Bulk Wearer Number updating utility competed. Provided to a limited group of testers/development partners for review.

6.1.8.8.02

Provided basic numbers template for the new Excel based Bulk Wearer Number updating utility. Note that the template, used by the Import/Update Wearer Numbers script only contains "Old Wearer No", "New Wearer No" and "Provider Name" columns, as shown below, and can easily be manually created:

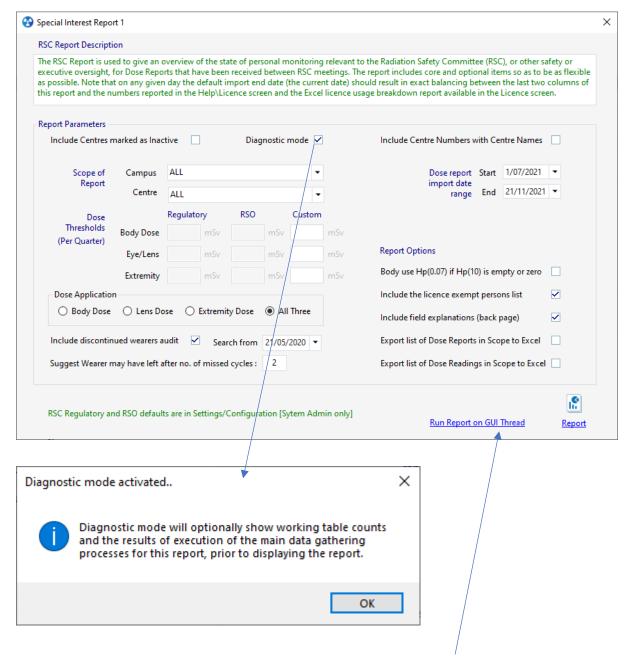




Updates 6.1.8.1 to 6.1.8.7

The seven Historion updates from 6.1.8.1 to 6.1.8.7 inclusive were related the Radiation Safety Committee (RSC) Report and troubleshooting two complex problems associated with the record sources in the report and Wearer Number duplication, now fixed.

The development cycles and troubleshooting involved led to the introduction of a Diagnostic Mode for the RSC report (which is effectively 6 reports rolled into one):



The inclusion of the <u>Run Report on GUI Thread</u> optional link allows the report to still be run (more slowly) without causing any fault diagnostics to be hidden, as can occur during multithreading. This option only appears in Diagnostic Mode.



6.1.8.0.01

This edition is compiled with a new update of the WinLicense packaging software that was released by Oreans Technology. This version of WinLicense addressed the subscription expiry problems we had in update 6.1.7.9 that lead to the use of a numbers of days countdown instead of an expiry date, for some clients, and caused problems with the licence reports from the licence page under the Help tab.

6.1.8.0.02

Fixed a function involving Users undertaking an addition to the base set of Industry Qualifications. This was a data/circumstance-based fault appearing under limited circumstances.

Update 6.1.7.9

6.1.7.9.01

Refactored, cleaned and streamlined the National Dose Register submission generation utility, introduced background worker processing (multithreading) to accelerate the submission file creation task. Introduced more sophisticated error trapping and error handling.

6.1.7.9.02

Added System Log data extraction option to the Extract Data dialog to allow all internal system logs to be checked/exposed assisting Historion Support and System Admin collaboration on fault diagnosis.

6.1.7.9.03

Added Wearer Numbers data extraction option to the Extract Data dialog for all internal system logs to be checked/exposed for admin use.

6.1.7.9.04

Introduced compilation using version 3.0 of the WinLicense software from Oreans Technology.



6.1.7.8.01

Replaced corrupted background image on Historion About page causing a display fault on some older PCs. Limited reporting of this issue was received, now addressed.

6.1.7.8.02

Formatting and display improvements to Sealed Source and Ionising Source operator and centralised Source Specifications reference lists and selected values lists.

6.1.7.8.03

Changed sort order of Licence Summary Report (from Help/About/Licence page link) to order by Centre to better coincide with detailed version of same for comparing percentages etc. On request.

6.1.7.8.04

Fixed a fault in Sealed/Unsealed Source attachments/documentation where documents intended to be added to the source were attaching only to associated Operator Wearer records.

6.1.7.8.05

Added admin script 6 to regenerate/rebuild Wearer fast search data. As explained in the script:

This script recalculates the concatenated search field data Historion stores for Wearers. The stored search data includes the contents of all Wearer name fields, including Wearer alias records. This data ensures partial Wearer name searching is optimized; as fast and as flexible as possible.

The effects of this script should already be present as a result of normal data operations in Historion. This script may be needed as a once-off in some older installations where Wearers have been added manually, migrated or merged.

6.1.7.8.06

Added admin script 7 to reclassify Laser sources as Non-ionising sources in keeping with ARPANSA's source classification scheme. As explained in the script:

This script moves historical Laser device records to the category of Non-ionising Sources, in keeping with ARPANSA's classification system (Codes and standards applicable to sources). See:

<applicable URL is being updated, to be advised in next update>

6.1.7.8.07

Implemented addition of the "Alias" name to a Wearers list of Alias names in instances where a user manually edits/changes the Wearer's name. The old name is added as an alias for the Wearer and the old name as an alias is also associated with the wearer in the wearer's concatenated name-search data for the Wearer Search screen.



Please note that the previous release notes included a summary reference to "minor updates" for Update 61.7.6 and 6.1.7.7. The actual fixes and updates are described fully below.

6.1.7.7.01

Added support for separating multiple SMTP email address recipients by semi colon characters as well as existing commas. Addressees in all email out locations.

6.1.7.7.02

Fixed a bug in Admin's User management list where Historion user's profile retained custom report settings and disallowed User removal from the list.

6.1.7.7.03

Fixed a bug in Admin's User management list where Historion user's profile retained custom report parameters and disallowed User removal from the list.

6.1.7.7.04

Fixed a document attachment fault reported in the Wearer Details screen associated with cancelling new Wearer File Note associated attachment and separately attaching a new file-only attachment to the same Wearer record. Circumstance related bug not previously detected.

Minor resequencing and overlapping routines adjusted.



6.1.7.6.01

Implemented a fix for the Wearer Licence Expiring utility, related to interchanging organisation legal name with organisation trading name, soon to been removed by ASIC. Replaced in error SQL Stored Procedure with interim .net code-based alternative.

6.1.7.6.02

Implemented finer extra error trapping for an intermittent bug found with retrieving updated cached business unit details. Error not seen again as at 6.1.9.87 onward and believed to be fixed.

6.1.7.6.03

Implemented improvements to optional hiding of not required Equipment (source inventory) screen tabs. Permanently removed provisional Victorian "permit" tab not in use.

6.1.7.6.04

Introduced caching of Room data after CSIRO's inventory data migration project imported 850 room and laboratory details in the Site/Premises/Room(Lab) data constellation.

6.1.7.6.05

Introduced minor speed improvements in packing and unpacking cached reference data.

6.1.7.6.06

Fixed a bug in Premises Contact details associated with displaying a Premises Contact who does not having a phone number, mobile or email (contact media data records) to display.

6.1.7.6.07

Fixed a bug in Room Contact details associated with displaying a Room Contact who does not having a phone number, mobile or email (contact media data records) to display.

6.1.7.6.08

Readjusted "Wearer is Licence Holder" checkbox on Wearer Details screen behaviour back to previous setting, on request. Pre 6.1.7.6.08 Locking and setting adjustments agreed to be sub optimal.



Release Notes

Historion® 6.1.7.5 Major Update. Minor Updates 6.1.7.6 and 6.1.7.7

This set of release Notes spans Historion 6.1.7.2 through to 6.1.7.7. Note that not all incremental updates to Historion are made publicly available. From time to time, we work with individual clients to resolve matters to the benefit of the wider user community.

A gap in the version minor and medium sequence for your implementation does not mean that an important update has been missed.

A reminder: Historion checks its own database schema as the software starts up. If the latest SQL update has not been used, Historion will display this to the user and not allow further use.

If you are running Historion 6.1.7.7 (all sites should be as of February 2021) then required SQL scripts are now already in place.

To confirm current Historion code and database update versions, select the *Help* tab and then the *About* icon. At the top left corner two version indicators should be showing and match as shown:

Current server:	HXSVR\SQLX2017
Current database:	Historion_Test
Logged in user:	Administrator (Rob Brown)
Code version:	6.1.7.7
Database version:	6
Database update:	6.1.7.5 Applied: 3/12/2020

Code version and database update

Significant changes have been included in release 6.1.7.5 in the areas of Sources (formerly Equipment), Wearer Data Merging and Splitting and Submission File Generation for the National Dose Register.

We have used the quiet period during COVID lockdown to rationalise some tired, superseded or recently deprecated aspects of the Historion database schema.

Final notes:

- 1) We have upgraded the Historion package to use stronger digital signing. We are now using SHA-256 with DigiCert for code signing.
- 2) Historion 6.1.7.5 onward now uses the more secure .<u>NET Framework 4.5</u> throughout. This was a mandatory requirement for 6.1.7.5 to be compatible with the Landauer data transfer portal.



Historion Release 6.1.7.5 (Release Date 31 December 2020)

6.1.7.5 saw significant updates, to the Historion schema and new features.

6.1.7.5.01

An Excel-based Licence Summary report has been added to the licence screen. This is a simple report showing the breakdown by centre of numbers of Wearers that have been active in the last 12 months, which the Historion subscription fee is based on.

The report is accessible by selecting the Help tab and then the Licence icon. This new report can be used by RSOs to distribute subscription costs between centres. Includes a Wearer numbers and percentages breakdown by Centre and shows highest readings and similar data.

6.1.7.5.02

An issue detected with the Role Assignment screen in User admin was addressed. This was related to a specific remoting technology and user profiles for people working from home during COVID lockdown. Historion security is integrated with the running network environment and the mix of remoting technologies in use during this time raised some new challenges we needed to work around.

6.1.7.5.03

Implemented .NET Framework 4.5 Upgrade, assembly adjustments and retested across all interfaces. This was required due to a security update on the Landauer portal. Note that this has necessarily resulted in the temporary decommissioning of graph-based reports in Historion due to incompatibility with the ActiveReports control suite we use for these reports. This will be addressed toward mid-2021.

6.1.7.5.04

Major item: Rebuilt all National Dose Register Registration validation routines in line with revised internal schema and new ARPANSA requirements.

6.1.7.5.05

Rebuilt National Dose Register Wearer Data Readiness checks to support results export to CSV for convenience and easier management of data.

6.1.7.5.06

Major item: Rebuilt National Dose Register submission file export routine to match ARPANSA's revised data submission specifications; now includes Dosimetry Provider for readings and ANRDR Number for Wearers.

6.1.7.5.07

Custom built and implemented new checkbox control that switches better, between view and edit mode and now includes edit mode background colour within checked box.

6.1.7.5.08

Implemented better list view control, initially in contacts, sites, premises and rooms screens. To be wider implemented. Also employed in new Wearer merge and Split utility screens.



6.1.7.5.09

Major item: fully redeveloped the Wearer Merge Utility. Significant improvements in merging.

6.1.7.5.10

Major item: fully redeveloped the Wearer Split Utility. Significant improvements in splitting.



6.1.7.5.11

Major item: implemented new Source details and Source Search screens as well as the full suite of ARPANSA Source classifications. Equipment in Historion has been relabelled to Sources.

6.1.7.5.12

Removed Facility feature in Historion pending further development. The Facility screens were using the same tables as Equipment. Over time it has become clear Facilities need more work and separation from the Equipment (now Sources) satellite of the data model.

6.1.7.5.13

Major item: rationalised some older or incomplete data modelling work in the areas of Addressing and Contact details for Business Units, Sites, Premises, Rooms in preparation of introduction of a new sister product for Historion: DoseAutomation. More will follow on this in the first half of 2021.

6.1.7.5.14

Major item: implemented longitude and latitude-based integration with Google Maps and Bing Maps to allow launching Site, Premises and Room GPS pinpointing down to Google Street View from the Site, Premises and Room screens. This is to further support upcoming source tracking features.

6.1.7.5.15

Implemented SPROC speed improvements for core items. This item is ongoing.

6.1.7.5.16

Researched and implemented new record pump (multithreading) in some screens. This concept places the task of loading data and displaying the screen that will house the data onto different CPU threads.

This means that only the visible screen loads on the GUI thread and the data is obtained from SQL on a separate CPU thread so by the time the screen loads data is ready to present. This will introduce significant performance improvements. This is ongoing and will be further implemented progressively.

6.1.7.5.17

Currently the classification of dose readings occurs at the client/front end of the software. New code preparations for SQL server-side functions for classifications of dose readings at the end of the dose report import cycle have commenced. This will significantly speed up dose report import processing when ready.

6.1.7.5.18

Major item; added Organisation selection to the Excel Analysis tool parameters. This allows exporting of Dose Readings for third party organisations for Wearers employed by Organisations other than the default for the implementation.



Historion Release 6.1.7.6 (Interim Release 20th January 2021, limited distribution)

Minor adjustments as detected, with only a small number of sites updated.

6.1.7.6.01

Fix minor anomaly in schema version check on start-up, missed in 6.1.7.5

6.1.7.6.02

Wearer is licensed switched to semi-manual control to identify Wearer supposed to be licensed.

6.1.7.6.03

Wearer Licence expiring list remove binary content column that was auto added and was causing display issues in this screen in some instances.

Historion Release 6.1.7.7 (Release Date 2nd February 2020)

Updates 6.1.7.6 and 6.1.7.7 address some teething issues picked up during January 2021 by our busier NSW Health users. Many thanks all, for time and patience in testing and reporting.

6.1.7.7.01

Fixed SMTP email duel addressing issue with semicolons not working as address separators.

6.1.7.7.02

Renamed Wearers button in Wearer ribbon tab to Wearer Search for better clarity.

6.1.7.7.03

Changed sort order of licence summary report to alphabetical sort on centre name.

6.1.7.7.03

Added new Admin script entry to Regenerate Wearer Speed Search Data.

6.1.7.7.04

Alias name searching was failing in Wearer details screen after adding an alias. Addressed.

6.1.7.7.05

Changed display of About screen picture to a resource object instead of an imbedded image to resolve an image rendering fault experienced on some older operating systems.

6.1.7.7.06

Addressed an issue in older implementations where admins were unable to remove Users due to a failing to delete legacy entry for dbo.tblReportAdminUser and tblReportParameterUser.

6.1.7.7.07

Licence tabbing fault after adding a licence file for a Wearer, select file notes then address, was causing a minor fault in trying to render unused column selector. Fixed.

6.1.7.7.08



Wearer is licensed switched back to manual only control to identify Wearer supposed to be licensed and allow this to be un-ticked in instances where use licenses have been relinquished.

6.1.7.7.09

Added new Admin script to reclassify Laser Sources as Non-ionising Sources in accordance with ARPANSA's classification scheme.



Historion 6.1.7.2 Release Notes

Major Update

Note that a new settings option is now available that switches on our new Void Dose Reading Value feature. This feature is only usable by an Administrator and hides selected Dose Reading values from all reports, whilst still making them visible in data exports and in locations where dose readings appear on-screen. Exports and screen views of readings that include Voided Values have such values highlighted and formatted with a strikethrough line to boldly indicate that the value is voided.

A feature introduction document will be sent detailing the Voiding Reading Values addition.

6.1.7.1.01

A new option "Year to Date Total" has been added to the Dose Alert Settings page. This instructs the Alert Scanner to search for aggregate exposures breaching the specified limit for the last 12 months back from the current date. The current date is the date the scan is executed. Alerts detected show the name of the alert detected per the alert setting with [Year to Date as at: <Date scanned> added.

6.1.7.1.02

A new option [Exclude From Scan ALL Alerts Page Option] has been added to the Dose Alerts Setting page. If selected this allows so flagged Dose Alert Settings to be excluded from the option to scan across all Dose Alert Settings recorded. This is to allows some experimental or lower priority types of Alert Settings to be retained without creating unwanted alerts detected entries in the Detected Dose Alerts list. This setting can be changed even if alerts have already been detected for the setting.

6.1.7.1.03

The ability to associate attachments (this imports the selected files such as word documents and pdf files into the Historion database as binary objects) with specific records, as required, has been added to the Pregnancy Details page, Custom Notification Details Page and the Dose Alert Setting Page.

6.1.7.1.04

A new feature "Room" has been added.

6.1.7.1.05

The Site, Premises and new Room page have all been integrated in a descending hierarchy respectively with each showing the list of equipment and protective devises present at their respective levels.

6.1.7.1.06

A GPS Locate feature has been added to each of the Site, Premises and Room pages to allow jumping to either Google Maps or Bing maps and pinpointing the location of the subject based on their recorded coordinates. Google street view can be initiated one level above the target, requiring one more mouse click.

6.1.7.1.07

A new feature "References" has been added to the Historion Help tab. This allows Administrator Users, only, to add links to external web pages, documents, or other important information sources, that are accessible via a single mouse click after selecting the references feature.



Scenario-specific reference selection tabs now also available in each of: Custom Notification Settings, Dose Alert Settings, Dose Report Types listing, Equipment Details, File Notes, Licence or Permit Details, Pregnancy, Site, Premises, Protective Devices and Room pages.

A feature Introduction document will be sent detailing the Historion References addition.



6.1.7.1.08

A new [Sources] tab has been added to the Equipment page, covering fields required by Australia's Commonwealth licence holders, regulated by ARPANSA. This page is integral to the production of the quarterly source inventory workbook feature planned for the next major update. Required table and field schema for this coming addition are already included in the 6.1.7.1 update script provided. There are over 40 new reference type lists for ARPANSA licence codes and device type descriptions.

6.1.7.1.09

The Licence/Permit screen has been extended to include selection options for Commonwealth licence holders which allows for selecting each of the ARPANSA categories and subcategories of licences.

6.1.7.1.10

A new Feature Option in the system settings tab has been added to allow any customer to turn on the new Commonwealth licence holders features in the Equipment tab. The main inclusion not otherwise visible is the search sources screen which is optimised for the ARPANSA categories. Non ARPANSA licence holders (state-based users and others) can switch this option on for testing/review purpose if required. A restart of Historion is required after turning this option on.

6.1.7.1.11

A bug in the Report Inspect feature was fixed, relating to date US formats for extracted data.

6.1.7.1.12

A bug in the Landauer Dose Search screen affecting Wearer Name searching was fixed. Note that the mechanisms behind the dose reading search screens are still different to the Wearer Search screen. The dose search screens still use an autocomplete as you type scenario, followed by selecting the wearer from the auto dropdown list and clicking search. This will be improved in a future edition.

6.1.7.1.13

Multiple new checking and speed enhancing adjustments have been added to the Run Script selection under system admin "Reset Cross-Referenced Data" option.

6.1.7.1.14

The Refresh Graphs option on the main menu has been improved and resolves an issue with Wearer Graphs not being generated after merging wearers together.

6.1.7.1.15

Fixes have been applied to the Wearer Data Merge and Split Utility. This is a large and complex screen and re-examination of this feature is continuing.

6.1.7.1.16

Multiple display, refreshing and navigation improvements have been made across Historion screens.

6.1.7.2.01

An Excel-based Licence Summary report has been added to the licence screen. This is a simple report showing the breakdown by centre of numbers of Wearers that have been active in the last 12 months, which the Historion subscription fee is based on.

6.1.7.2.02



An issue detected with the Role Assignment screen in User admin was addressed. This related to a specific remoting technology and user profiles for people working from home.

Final note: we have upgraded the Historion package to use stronger digital signing. We are now using SHA-256 with DigiCert for all code signing.