

# Release Notes astraia - software for women's health

## 1.24.9 P1

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Status: 1.24.9 P1

astraia 1.24 is a major release which encompasses new reminder and messaging functionality, improved imaging, and a decoupling of risk algorithm and software version. astraia 1.24.9 P1 is a patch release for bug fixing. This document covers all new features and improvements for release 1.24, and the major bug fixes. The issue that was fixed in 1.24.9 P1 are marked with (1.24.9 P1)

1.24.9 P1 is available in English, Italian, Albanian, Polish, Dutch, Portuguese, Spanish, Romanian, French, German, Greek, Czech, Russian, Brazilian, Danish, Swedish and Norwegian.

Thank you to all those who have contributed to this version. We are very appreciative of your support.

**Attention users in Polish language: astraia uses the default for date format for your country, which is yyyy-dd-mm. If you want to enter dates in a different format, e.g. dd/mm/yyyy, astraia can be configured via a property. Please contact your local astraia representative or [support@astraia.com](mailto:support@astraia.com) for help.**

# 1 Important Issues in 1.24.9 P1 - please read carefully before updating astraia

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## 1.1 Relicensing

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With the update to astraia version 1.24.9 P1, the current licenses will not work anymore and will have to be renewed via an automated process on our web site. The necessary information and instructions to do so will be generated and displayed during the updating process. If you have Internet access from your astraia server, you can renew the license immediately by browsing to the site <https://www.astraia.com/relicenser.html>. Otherwise you will need to copy the file "astraia\_info\_Customer\_Id.zip" from your installation folder on a memory stick, or mail it to a computer with Internet access, and browse to the site <https://www.astraia.com/relicenser.html> from there. On the web site, you will be asked to upload "astraia\_info\_Customer\_Id.zip". The file will be processed and immediately a new license will be generated, which you can download and import in your installation. We advise you to perform an update well outside your office hours in case you should encounter difficulties with this process.

### ***Why is this additional step necessary?***

As provider of a registered medical product, astraia has to adhere to strict quality guidelines. As part of these rules it is necessary to store all relevant technical data about your astraia installation in our customer database. We have to provide the health authorities with this data on request, for example in case of a field safety corrective action (FSCA). So far this data was collected manually and only from few customers. The relicensing with version 1.24.9 P1 is the first step to collect and update this data on a regular basis and in an automated fashion. After the update to 1.24.9 P1 or higher, from a version 1.24.8 or lower, your previous license will not work anymore. For a new, valid license please visit <https://www.astraia.com/relicenser.html> and follow the instructions, which will require you to upload the "astraia\_info\_Customer\_Id.zip" file. The website will immediately create a new license free of charge for you to continue using astraia as before. The file contains the proof that you have updated to version 1.24.9 P1 (or higher), and technical information about your installation. This information will be used to update the customer documentation in our systems, and will not be used for other purposes than support and administration inside astraia.

### ***What information will be uploaded to astraia servers?***

After installation of 1.24.9 P1 or higher, astraia creates the file "astraia\_info\_Customer\_Id.zip". It contains the current license file (astraia.lic) and an info file (astraia\_info\_Customer\_Id.txt). The license will be renewed after the upload and will remain valid until you update to the next major version. You can download it and can continue working with astraia as before. The info file with contains technical information about your installation is human readable and can be opened with an editor.

**Related JIRA issues:**

ASTWINST-97, ASTWINST-98, ASTWINST-99, ASTWINST-100 - warning messages for the installer.

AST-4399, AST-4443, AST-4424 - adaptations of warning messages in astraia.

## 1.2 Known problems

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- Do not update your installation to 1.24.x if you are still using a Sybase 9 database (please check in HELP - About - DB vendor name and version), please contact our support team to migrate your database to a supported version.
- <AST-4198, AST-4417, AST-4418, AST-4421> - For some users, in some cases, the reporter text fields in the Conclusions and Letters screen show erratic behaviour, e.g. if the user tries to add text at the beginning, it does not show up in the field, but if the patient is closed, saved and reopened, the text is there and the user can continue writing. The workaround here is to save and close the patient file, and reopen.
- <AST-4317> - In Pregnancy - Doppler, if nothing else in the screen is filled except data in the "Fetus 1" tab, and a new, empty fetus is selected, the bolding of the screen will disappear and the Doppler data will not be printed for this examination. If that happens, please delete the empty fetus or move the focus back to the filled tab before you print.
- <AST-4481> - Again in Pregnancy - Doppler, the same goes for an empty "Fetus 1"-tab, when there is data in the "Fetus 2" tab. The data will not print. Please delete the empty tab.
- <AST-4320> - When "individual screening options" are enabled, and you calculate the risk newly for a patient, the following will happen: When the risk is calculated with specific options, and you leave the risk calculation screen to come back to it later, the individual screening options will be ticked according to the global options, even if the risk has been calculated earlier with different options. astraia will also ask for a recalculation of the risk. In that case, please check the options again to the settings with which the risk has been calculated before, and save the patient. This happens only when the patient has not been saved, closed and re-opened in the meantime.
- <AST-4239> - When the 1st trimester screen is opened, astraia always asks whether the user wants to save the patient, even when the doctor has not changed anything. In these cases the dialog can be answered with "no" and the patient can be closed.
- <AST-4304> - When the user wants to add a new fetus, and an error message appears for another reason, there will always be a second error message that says "There was an unexpected error selecting the record".
- <AST-4299, AST-4290> - When the doctors dates a pregnancy, and changes the entry used for dating, the warning that the gestational age may have changed, and that the pregnancy should possibly be redated, does not always appear, e.g. when the dating is based on a calculated field.
- <AST-4275> - Operator, Supervisor and Counselor codes do not work properly when the code is longer than 8 digits .
- <AST-4313, AST-4485> - The chart titles for Biometric Charts for twins are not translated in Portuguese or French.

- <AST-4014> - When trying to open an image, under certain error conditions, it can occur that the Image Viewer might remain unresponsive (the user sees the "loading image" icon) until a timeout occurs. In these cases, just close the Image viewer window and reopen.
- <AST-3828> - After updating to 1.24.5 or a later version, it can happen that images in a printout preview taken from the Audit trail appear pink. The printout itself is correct, though.
- <AST-4328> - In the Dutch version, the following terms are untranslated: "BP left 1", "BP left 2", "BP right 1", "BP right 2", "donor embryo", all on the 1st Trimester tabs. The term "Age of donor at egg collection" is translated "Leeftijd eiceldonor", not explicitly containing "at egg collection".
- Please note that the options to deactivate the Audit Trail in Options - Administrator are still described at several places in the English manual, although they have been removed for 1.24.8 (see below).

## 1.3 Important changes

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<AST-4130> - It is not possible to deactivate the Audit Trail anymore. All Audit Trail specific options have been removed from Options -> Administrator. (1.24.8)

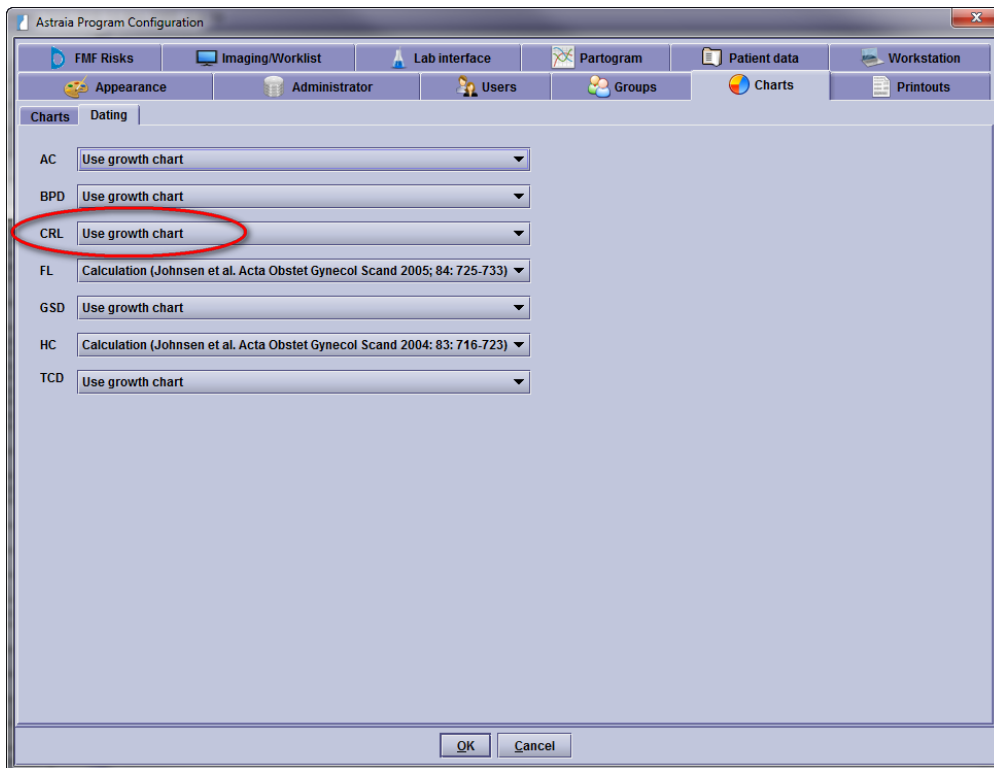
*Measurements:* This release contains many changes and enhancements regarding measurements. Details can be seen in the sections of this document titled "Image Viewer". This resulted in changes in the measurement format. Old measurements are therefore converted during the updating process. Should measurement conversion fail for some images, the user will be warned with an error message after the conversion process. The exact images for which the conversion has failed can then be looked up in the log files. This can be the case for corrupt measurements, and a specific implementation of the area tool. These measurements cannot be converted.

When the user tries to open an image with old or corrupt measurements in the image viewer, a warning is displayed that measurements of an unsupported format are present that cannot be displayed. Should the user want to make new measurements, a warning is displayed that if he continues, the old measurements will be deleted. Before deletion, the measurements will be backed up in a database table called ImageBackup for further reference and retrieval. (1.24.4)

<AST-2315, AST-3436> - The 2nd Trimester risk assessment is available again. The 2nd trimester soft marker assessment has been adjusted according to Agathokleous M, Chaveeva P, Poon LCY, Kosinski P, Nicolaides KH. Meta-analysis of second-trimester markers for trisomy 21. Ultrasound Obstet Gynecol 2013; 41: 247-261. (1.24.4)

<AST-3377, AST-3462> - Printing reports with very many images has been known to use up too much memory and cause problems for some time in astraia. Therefore, limitations to the number of images to be added have been introduced. The limit is 100 images for a configuration with 512 MB memory or lower, and 200 images for configurations with 1024 MB. (1.24.5)

<AST-3388, AST-3065> - The new dating methods in Options --> Charts --> Dating may not work from the same GA as dating with Charts. When dating does not work as it used to be in older astraia versions, please check whether "Use Growth Chart" is selected for the relevant entry. (1.24.4)



## 2 Highlights - Reminder System

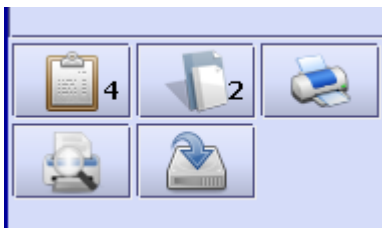
### <AST-1315>

This feature is designed to record patient-linked tasks.

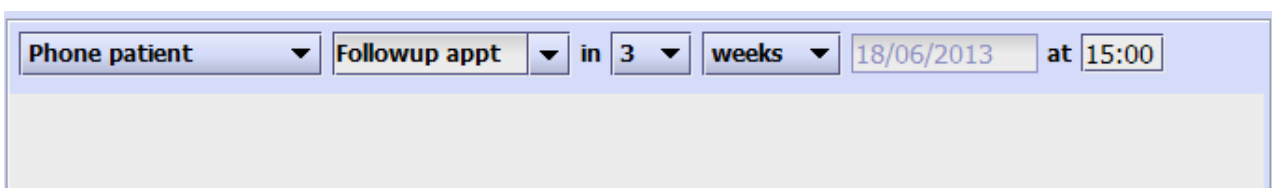
- When associated with a specific date, astraia will remind the user about the task: On and after the due date, the reminder will appear in the **Outstanding Reminders** view.
- If a **Reminder** has no date, then it can be seen in the **List** view. This can be used, e.g., as reminders for weekly conferences, or as a reference to rare cases.
- The attributes of a reminder (including whether or not it has an action date) are determined by the **Action** type; Actions are configurable.
- All **Reminders** can be set to *completed*, meaning either that the reminder action has been performed, or that the patient no longer needs to be kept on the list.

### 2.1 Reminders in action

The patient record must be open. Reminders are accessed via the Action Panel at the bottom left of the patient record window (first icon):



This patient has four open reminders. Clicking on the Reminders icon shows the Reminders dialog, which displays any open reminders and contains the controls for adding a new reminder.



The first list selects the action type. Depending on the action selected, other fields are then shown. These are:

- Description. This is a 'memory list' - if instead of selecting from the list you enter a new description, it will be added to the list the next time you select the same action.
- number of time units (1-30)
- time unit (days / weeks / months)
- the action date (calculated by adding the selected time units to today's date)
- the action time



Date and time are shown only if they are appropriate for the selected action. Any action which involved e-mail will only be visible if the patient's e-mail address has been entered in Demographics. If astraia is not configured to send e-mails, the system's e-mail client will open, populated with the e-mail address, subject and body filled in earlier in the reminder system.  
<AST-2474>

Users should be encouraged to pick descriptions from the list, if possible, rather than typing endless variations.

It is possible to associate an action with one or more user groups. If this is the case, the action will not be visible to users who are not members of the listed group(s).

## 2.2 The Reminder Window

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In the Reminder window (on the desktop) a list of reminders is displayed. The contents are determined by the view (see below). For any reminder, the left-most button opens the corresponding patient record and the right-most button opens a completion dialog. All views can be sorted by clicking on column headers.

The **View** list selects from three views:

- Outstanding reminders. This is a list of all dated open reminders which are due on or before the current date.
- Lists. This is a list of all un-dated open reminders for a specified list.
- Closed reminders. This displays all completed records.

On clicking the **Complete** button for a reminder a dialog is shown. Additional text can be entered in Comments, and if the OK button is pressed the reminder is closed and removed from the current view.

The Options button in the top right of the Reminder window is available to admin users only. The **Options** dialog lists the pre-programmed actions.

By clicking on the 'Edit action' button, the action properties can be set. For a new action (click on 'New action'), the action name must also be entered.

## 3 Highlights - Imaging <AST-2093>

The imaging functionality has been greatly improved and redesigned to allow for asynchronous operation.

- Image loading is now asynchronous <AST-2382>. The user does not have to wait until all images are transferred until he can work with the patient form.
- If the user closes the patient window while it is loading images, astraia will deal with aborting the connection to the PACS correctly.

### 3.1 Image Browser

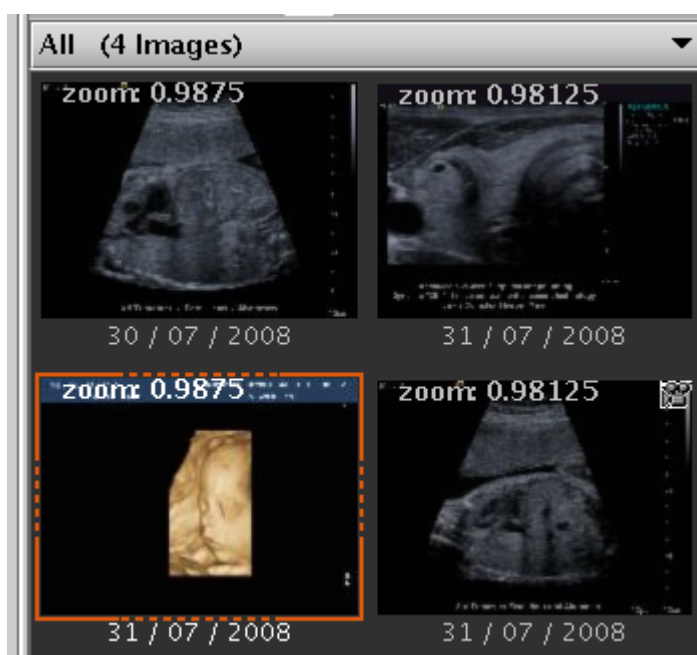
<AST-2311> - The layout of the Image Browser is now customizable. The number of columns is adjustable by making the image browser panel wider. The images grow up to the point where a new column can fit in.

<AST-2391> - Multiple images can be selected and de-selected via Ctrl and Shift keyboard modifiers.

<AST-2440> -The layout of images in the Image Browser and Image Viewer has been improved.

<AST-2442> - When hovering the mouse over a thumbnail image in the Image Browser, a bigger preview of the image will be shown if the image has been already loaded from the server. (1.24.2)

<AST-2443 > - Image selection in the browser is now more visible and obvious. Selected images are highlighted and the border is framed.



## 3.2 Image Viewer

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<AST-1113> - Images post processed by the user can now be saved as a copy of the original image. I.e., all annotations, changes in contrasts, measurements etc. can be saved together with the image.

<AST-2065> - A new tool has been implemented in the image viewer: The "select" or "default" tool. It is selected by default if no other tool is selected. The tool allows to move annotations like measurements, texts and labels around in the image, and can be used to change the focus of the zoom.

<AST-2178> - Using the select tool, users can now edit measurements and other annotations. A right click on the element to be edited opens a context menu that allows to edit, use or delete the element.

<AST-2360> - Annotations have now properties like colour that can be edited.

<AST-2437> - Measurements, arrows, annotations etc. can now be tagged by the user. The tag can be moved along the annotation with the mouse to be placed in the least interfering spot. When measurements were used in astraia, a tag is automatically generated that is stuck to the measurement. However, it can be edited in the same way as any other tag.

<AST-1835> - Images can now be exported from the Image Viewer directly. Thus, also images that have been opened from the image query in Statistics can be exported.

<AST-2529> - It is now possible to have more than one Image Viewer open at the same time (e.g. the images of several patients and/or several image search result windows).

<AST-2205> - The angle tool starts drawing from the centre now instead from the end of one of the legs.

<AST-2431> - The new parallel line tool makes it possible to measure distances between parallel lines.

<AST-2348> - Zooming works now continuously and smoothly instead of in fixed steps.

<AST-1836> - When adding notes to an image, the user may want to add the same note to several images in a row. It took an unnecessary amount of time to do that because the tree structure collapsed back to its original state when changing from one image to another. This has been improved, so that the tree structure now remains the same when changing from one image to another. (1.24.5)

## 4 Highlights - Messages

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<AST-1585> - A message for another user can now be created by using the menu 'File - Message to users'. When messages are available, a flashing button appears in the right corner of the menu bar. Click it to view messages, tick 'mark as read' to dismiss them.

## 5 Highlights - Usability

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<AST-815> - The summary screen is now configurable, this can be done via Edit --> Configuration. Go to the screen where you want additional fields to show up in the summary screen. In the section "Summary Screen", click on the "+", then click on the field you want to add. Last save changes.

<AST-1480> - All functionality that is available through the icons on the application background is now also available through the menu Tools.

<AST-1550> - List fields that have already been filled can now easily be emptied again. The user can either select the blank field from the pull-down menu, or perform right click --> Delete, or press "Del" when the field is selected.

<AST-2223> - Diagnosis/procedure code lists can now be sorted by drag and drop. In earlier versions, the diagnoses could only be dragged to a different parent node in the hierarchy. Now, the lists can be sorted within the hierarchy too.

<AST-2345> - The search functionality for diagnosis and procedure lists has been improved. It is now possible to search for substrings as well as for procedure codes.

<AST-3455> - When opening the examination screen, the default focus is on the "Exam date" field. For users that fear this could cause them to change the examination date by accident, there is now the possibility to set the default focus to any other field by setting the property System.AltFocus to the desired component name (e.g. Exam.Department). Please contact the astraia support ([support@astraia.com](mailto:support@astraia.com)) if you want to customize this setting. (1.24.5)

<AST-4006> - Searching in Lookup tables has been greatly improved. It is now possible to search in each column of the table. The result is a filtered table containing the search strings for each column. (1.24.8)

## 6 Other New Features & Improvements

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### 6.1 Pregnancy

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<AST-463> - In the History screen, there is now an option "The patient wants to know the fetal sex". If this is set to "no", a reminder pops up every time the patient is opened.

<AST-1965> - Microarray results for karyotyping of mother and fetus have been added in the 'Investigations' screen. (1.24.2)

<AST-1967> - In the Danish language version, the abdominal circumference of the baby and the birthweight z-score have been added in the Outcome screen.

<AST-2176> - In pregnancies with multiples, fetuses and children in outcome are now linked.

<AST-2284> - Aberrant right subclavian artery (ARSA) has been added to the list of heart anomalies in Ultrasound --> Biometry/Anatomy --> Detailed Anatomy --> tab Heart.

<AST-2285> - A new screen for non-invasive prenatal testing (NIPT) allows the documentation of results obtained from cf DNA testing.

<AST-2743> - Any performed treatments related to cervical assessment can be entered in a new section on the screen 'Cervical assessment'.

<AST-2541> - In sex-specific charts such as birth weight, only values of children of the respective sex will be shown, even in pregnancies with different-sex multiples. E.g. if a male child's birth weight chart is opened, a second female child's value will not be shown in the chart, but a third male child's value will be.

<AST-2898> - Pregnancy duration can now be configured between 280 days and 282 days via astraia -> Options -> Patient Data -> Pregnancy Duration.

<AST-3124> - In the Norwegian version, additional indications have been added: 'Maternal age' (check box) in the screen 'Maternal Assessment' and 'Child with serious malformations' (helper list) in History --> Previous Pregnancy. (1.24.2)

<AST-3144> - The Combs method to calculate the estimated fetal weight has been added:  $EFW = (0.23718 * AC^2 * FL) + (0.03312 * HC^3)$ ; EFW in g, all others in cm. (**Combs et al.:** *Sonographic estimation of fetal weight based on a model of fetal volume.* Obstet Gynecol. 1993; 82(3): 365-70) (1.24.2)

<AST-3270> - In Conclusions, alternative screen Pregnancy conclusions (+mat. Diag. + Proc.), two more lines have been added for procedures (1.24.3)

<AST-3227> - The 2nd trimester risk screen had to be removed due to certification issues. It is greyed out for all patients except those where data has previously been entered. This data can still be retrieved via the screen. (1.24.3) Please note: The screen has been reactivated in 1.24.4; see <AST-3436>.

<AST-3280> - New fields for PIGF, sFlt-1, and the ratio between the two have been added to the screen Maternal Assessment --> Maternal Blood --> Serum Biochemistry. These can be used to track these markers throughout the pregnancy as diagnostic tool for preeclampsia. (1.24.8)

<AST-3880> - The fields 'EDD by scan' and 'EDD by dates' ('DPA par écho' and 'DPA par DDR') were not shown when astraia's language was set to 'French (France)' but they are required in Luxembourg for legal reasons. A new alternative screen for the Ultrasound screen called 'Ultrasound header (with EDD for Luxembourg)' is available which will display these fields even when French is selected. (1.24.6)

<AST-3990> - The field TAD has been added to First Trimester --> Ultrasound, as well as a calculated field for the ratio of BPD/TAD. This ratio is a soft marker for spina bifida in the 1st trimester. according to Simon EG, Arthuis CJ, Haddad G, Betrand P, Perrotin, F: Biparietal/transverse abdominal diameter ratio $\leq$ 1: potential marker for open spina bifida at 11–13-week scan. Ultrasound Obstet Gynecol 2015; 45(3): 267-272. (1.24.8)

<AST-3997> - The possibility to calculate the Estimated Fetal weight with the Hadlock formulas (Hadlock (BPD-HC-AC-FL), Hadlock(FL-AC), Hadlock(HC,AC,FL)) has been extended to GA 112 - 294 days. (1.24.6)

<AST-4075> - The work flow for the risk assessment of Maternal Structures --> adnexal masses has been improved. For the simple rules, all fields have to be filled now before the risk can be assessed. If papillary projections are present, "Irregular internal cyst walls" is set to "yes" as those are then irregular per definition. (1.24.8)

<AST-4171> - The screen Fetal Assessment --> Biophysical Profile has been improved. The individual scores for each list selection are displayed in addition to the total score. The Manning BPP score has been adjusted to a newer publication: S11-S19 in Liston R; Sawchuck D; Young D: Fetal health surveillance: antepartum and intrapartum consensus guideline. JOGC 2007; 29(9 Suppl 4): S3-S56. (1.24.8)

## 6.2 Image Viewer

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<AST-1616> - A warning message is now shown when a user tries to import a DICOM image from a not supported modality. Supported Modalities are "US", "EC", "CD", "DD".

<AST-1784> - New DICOM commands have been implemented that return only the number of images specific for the query instead of the number of all images eligible for the query. The implementation supports Modalities in Study (0008,0061), Number of Study Related Series (0020,1206), Number of Study Related Instances (0020,1208), Number of Series Related Instances (0020,1209), Number of Patient Related Studies (0020,1200).

<AST-1834> - Browsing through images in the image viewer with the arrow buttons changes the selected image in the image browser consistently now.

<AST-1863> - The image calibration dialog works more intuitively now - first the user measures the distance, and then adds the corresponding value.

<AST-1923> - The UID astraia generates when composing new DICOM objects has been improved. The new UID allows to discriminate between images from different studies on the same day, and assign images correctly.

<AST-1947> - The Image Viewer is now disabled for users of a group that can not view examination data.

<AST-2038> - Clicking on the background of the Image Viewer de-selects all selected images.

<AST-2063> - Once an image is opened, it is now possible to browse through the images in the image browser with the page up / page down keys. (1.24.2)

<AST-2105> - Thumbnails are of a much higher resolution now once the image has been opened at least once.

<AST-2167> - A new memory manager handles memory used for images and videos much more efficiently and also prevents unnecessary image downloads from PACS. (1.24.2)

<AST-2208> - It is now possible to measure obtuse angles. Click on the centre button of the mouse before clicking for the end point of the second leg of the angle.

<AST-2303> - The size of arrows in image annotations can now be changed with the mouse wheel during drawing.

<AST-2304> - When a mask is applied to an image, the masking tool is greyed out. To draw a new mask, the old one should be deleted first.

<AST-2313> - To prevent accidental tool switches the imaging toolbar is now disabled while the user is doing a measurement.

<AST-2331> - When several images of different sizes are opened in the image viewer, the zoom level is now adapted dynamically depending on the size of the image. E.g., when zooming out of an image, the old behaviour would have shrunk the smaller image by the same proportion than the larger, whereas now smaller images shrink not necessarily proportional to the bigger image.

<AST-2434, AST-2310> - Images that have been previously calibrated with astraia can now be recalibrated. In case of recalibration, all previous measurements are deleted.

<AST-2436> - It is now possible to play several videos at the same time in the same instance of the image viewer.

<AST-2439> - When several images are opened in the image viewer at once, the user can now change the layout via View --> Columns.

<AST-2444> - The optimal zoom chosen by the Image Viewer as the minimum zoom that can fit all the images in the screen has been improved.

<AST-2524> - It is now possible to select and open multiple images from the image finder, in the same way as with the image browser.



<AST-2614> - When the port which astraia is configured to use for DICOM connections is in use, a warning message appears explaining that a connection cannot be established.

<AST-2182> - The circumference of an ellipse is now calculated more accurately, using the Ramanujan 2 approximation.

<AST-2312> - Thumbnails now keep their aspect ratio when resizing.

<AST-2318> - More than one image can now be selected from the Image Viewer. The Image Viewer keeps a history of previous views and lets you navigate through them with the arrow buttons.

<AST-2430> - DICOM studies with the same study date can be shown separately in the Image Browser.

<AST-2418, AST-2676> - The display of errors and loading progress for images and clips in the Image Viewer has been improved to be more informative.

<AST-2564> - The number of threads doing a C-MOVE concurrently can be configured. This is useful on PACS systems where the number of channels is limited to prevent astraia from occupying all available channels. (1.24.2)

<AST-2575> - If DCM images are imported whose patient name or patient ID is different from the patient's name/ID in astraia, a warning message appears. If several images are imported at once, it is now possible to click on 'Yes to all' which will cause astraia to import all images where the problem is the same.

<AST-3078> - If there is not enough Java Heap Memory free to play a video, an error message is displayed directly on the image representing the video in the image browser. (1.24.2)

<AST-3300> - When updating from 1.23 versions or older, measurements are converted to the new format. The old measurements are now copied into a separate backup table for easier retrieval in case they are needed. (1.24.4)

<AST-3337> - When opening a patient file with images, the newest images are now loaded first. (1.24.4)

<AST-3426> - While an image is loading in the ImageViewer, there is an animation displayed indicating that the currently displayed image is a scaled version of the thumbnail, not yet the actual high-resolution image. (1.24.4)

<AST-2468> - The colour that was used for callipers and other measurement tools in the Image Viewer was black which was hard to see on US images. This has been changed to light green during editing and to white when the measurement is finished. (1.24.5)

<AST-2732> - Early 1.24 versions had a problem with images and thumbnails being discoloured when processed during an update from an earlier version. They appeared red. This has been fixed. (1.24.5)

## 6.3 Image Browser

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<AST-3240> - When the user selects images from Image Browser (e.g., for printing), the number of images selected is now shown. (1.24.5)

<AST-3407> - In older astraia versions, clips could be selected for printing, resulting in the first frame to be printed. Now a message warns the user that he has selected a video clip for printing which will be removed from the selection if he continues. (1.24.5)

<AST-3240> - When the user selects images from Image Browser (e.g., for printing), the number of images selected is now shown. (1.24.5)

## 6.4 Reminders

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<AST-3145> - In Reminders - Options - Edit actions, it is now possible to delete actions. (1.24.3)

<AST-3146> - When a reminder with a due date and time is created, the time field can now be set to the current time with a double click. (1.24.3)

## 6.5 Diary

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<AST-669> - Similarly to the Audit Trail, changes in the Diary (such as adding appointments or booking patients) are now tracked in a separate Diary Audit Trail. It can be accessed via a button in the Diary control panel.

<AST-1232> - Create appointment in x months for Gynaecology cases: In astraia menu select Data --> Appointment; a popup will appear which allows you to create an appointment in the future where the default date is 12 months in the future.

<AST-1470> - In appointment creation, it is now possible to copy and paste values containing spaces into the fields "Name", "Other names" and "Town". A scrollbar has been added for the address and the notes field.

<AST-1481> - The E-mail button in the diary's appointment dialog is now disabled when SMTP is not configured.

<AST-2010> - When deleting an appointment, the patient name and time of appointment is shown in the confirmation dialog to make sure the user does not accidentally delete the wrong appointment without noticing it.

<AST-2973> - In network installations, the Diary status was not refreshed immediately in all clients, only after a user action. Now, when a patient is marked as 'arrived', 'seen' or 'missed' in an open client, these changes take immediate effect in other open clients. (1.24.2)

## 6.6 Database Queries

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<AST-1158> - A category can now be added to each query to make sorting and filtering queries thematically easier.

<AST-1830> - In queries, a checkbox has been added whether to include hidden entries in the query or not.

<AST-2102> - Users are now able to put notes to queries to explain more in detail why or how the query was created.

## 6.7 Lab Interfaces

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<AST-1361> - It is now possible to send a request to BRAHMS Kryptor without the hospital number.

<AST-2503> - A lab interface for AutoDELFIA by PerkinElmer has been added.

<AST-2026> - The DELFIA Xpress interface can now be configured to accept patient information in Cyrillic, Czech, Greek, Pinyin, and Polish characters.

<AST-3667> - When the SSI lab interface is used, it was necessary to put a \$ sign into the sample number field so that the interface retrieves the lab results using the hospital number rather than the sample number. This is not always the desired behaviour and has been made configurable using a property. Please contact [support@astraia.com](mailto:support@astraia.com) for further instructions.  
(1.24.9)

<AST-3872> - PIGF values can now be transmitted via the Brahms KRYPTOR lab interface.  
(1.24.8)

## 6.8 Audit

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<AST-1379> - In the audit, the pulldown menu could be cluttered with many inactive operators. To prevent this, only current FMF operators show up in the audit now.

<AST-2353> - The first trimester audit can now be performed per department. Selecting a department in the startup dialog will include only operators from that department in the statistics. Department = all shows statistics for all operators.

## 6.9 Patient Data

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<AST-1906> - The Hungarian social security numbers (TAJ szam) are now checked for correctness.

## 6.10 User Interface

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<AST-1412> - When in screen configuration the indication screen is set to obliged, it is now nevertheless possible to enter the patient's demographic data and closing the patient without "Error - Screen indication must be filled" popping up. Now, this pop-up only enforces filling the indication screen when an examination has been created.

<AST-1573> - It is now possible to create a new case for a patient while having an old case for this patient open. In the screen Patient Details, Open the menu Data --> Change case --> New case.

<AST-1615> - The content of the Overview window (F5) can now be printed.

<AST-1651> - All diagnoses are now shown in the summary screen. If the list is too long, the full text is shown as a tool tip.

<AST-1769> - It is now possible to search for a patient record by the name of the referring doctor. In astraia Options --> Patient Data checkboxes "Search by doctor" and "Ref. Doctor". In the Patient Lookup screen, a field "Doctor" is then added. Search there by the surname of the referring doctor.

<AST-1954> - When a user tries to delete a user defined field that contains data, a warning message is now shown.

<AST-1966> - When adding a new diagnosis, multiple entries of the diagnosis tree can now be selected via Ctrl - left click.

<AST-2506> - In the modules Pregnancy, Gynaecology and Colposcopy, it is now possible to add an "operator code" field to the ultrasound screen, maximum is 15 digits (select alternative screen Ultrasound header incl. code; e.g., for the Belgian INAMI/RIVIZ codes).

<AST-2515> - When checkboxes are greyed out because a filled block is opened, the text associated to these checkboxes stays now black and is thus easier to read.

<AST-2555> - Setting the Patient demographics screen to the Netherlands-specific version now allows town names with a leading special character to be entered. This makes it possible to enter town names such as 's-Gravenhage correctly.

<AST-2827> - The Examination screen can now be configured to contain RIS-style Patient Visit Information.

<AST-3021> - The Biometry / Anatomy and Growth Scan screens can now be configured not to calculate the deepest pocket in the amniotic fluid.

<AST-3182> - The category of the doctor is now shown in the 'Referring Doctor(s)' field of the Examination header. (1.24.2)

<AST-3200> - The patient list search performs now better which is especially relevant when conducted over a slow network connection. (1.24.3)

<AST-3262> - When searching in the referring doctors list or any other table, in 1.23 versions the search started in the column that is used for sorting, by default the first column. In 1.24, the search covers all columns and also searches for substrings, not only starting strings. Users that do not like this behaviour can set the new property `System.LookupAllColumns` to false. (1.24.5)

<AST-3451> - When new charts are added in astraia for fields that did not have charts before, they will now automatically be active after an update. (1.24.5)

<AST-3776> - The action panel in the Navigator consisting of four buttons for adding reminders, printing, displaying the print preview, saving and closing the patient can be hidden if necessary, please contact the astraia support for details. (1.24.5)

<AST-3791> - It may happen that a patient is locked, e.g. due to a technical problem. In those cases it is possible to manually unlock the patient and start working with the data. However it needs to be made sure first that the patient is not actually opened and being worked on on another computer, e.g. by mistake. Otherwise serious data corruption can occur. A new confirmation message explicitly asks the user before unlocking to make sure that the patient is not opened on another computer in order to avoid problems. (1.24.6)

<AST-3854> - If a preliminary license is in use, a message on the desktop of astraia will display the date on which the license will expire. After that date, astraia can only be used with a new license. (1.24.6)

<AST-4264, AST-4245, AST-3663> - Fields that appeared in different screens could have different precisions, as acceptable ranges for biometry or biochemistry values can vary as the pregnancy progresses. However, this could cause problems when users switch screens by mistake. Therefore, all data entry fields have been set to the highest precision of any screen that they appear in. This has also solved the problem that the range for AFP values in the 1st Trimester Biochemistry screen has been too little. Ranges will be implemented differently in future versions. (1.24.8)

<AST-4351> - It is now possible to search for a specific examination in the Patient Lookup window by means of Visit Number and Order Id/Accession number. This can be configured via a property, Please contact [support@astraia.com](mailto:support@astraia.com) for help. (1.24.9)

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## 6.11 Printouts / Reports

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<AST-1448> - In Ultrasound --> Biometry / Anatomy, the printout for findings in Detailed Anatomy --> Heart have been improved. It is now clearly recognizable whether the findings relate to 4-chamber view, outflow tract or 3-vessel.

<AST-1449> - It is now possible to add bullet-point lists to the reporter texts.

<AST-1675> - The pie chart "Risk of premature delivery" from the cervical assessment screen can now be included in the printouts.

<AST-1758> - The values for Doppler of the Uterine artery have been separated from the fetus in the printouts. For pregnancies with multiple fetuses, the values appear only once in the printout now.

<AST-1880> - In the Gynaecology module, the printout for the risk of malignancy of adnexal masses has been improved. The risk classifications are now printed in bold to stand out more from the references.

<AST-1946> - In printouts of Obstetric History, the symbols for week (w) and day (d) change now according to the selected language.

<AST-2003> - When sending a report via e-mail, the last e-mail address used as sender by the user is saved. It will only be used if the user has no e-mail address in the user description, though. Otherwise, the e-mail address from the user description will be used.

<AST-2024> - Reports can now be printed in several formats by adding a page size to the report template. Current available values are Letter, Legal, A4 and A5. Example: <printout title="Ad hoc letter" pagesize="A5" >

<AST-2142> - Sending sensitive patient data via e-mail must be done in a secure way (e.g. using encryption). If a report is about to be sent via e-mail, a warning message asks the user to make sure the e-mail configuration complies with the local security requirements.

<AST-2556> - Report templates can now contain underlined text.

<AST-2557> - The error message that appears when a report file is erroneous has been improved to better indicate where the error is.

<AST-2756> - User defined variables in the reporter (ad hoc letters, conclusions) that include database fields referenced in the fetus A / fetus B tabs (in case of twin pregnancies) are now displayed in a comma-separated list of values. (1.24.2)

<AST-3273> - With the function "user\_fullname()" It is now possible to put full user names on a printout. user\_fullname() without arguments will return the full name of the currently logged in user, if given. user\_fullname() accepts also database columns as arguments, so expressions like this can be put in reports: <t>validated by:

</t><data>user\_fullname(Exam.Validated\_by)</data>. The function always returns the full name if given, and the user name if not. (1.24.5)

<AST-3596> - For custom printouts, there are improvements and new features regarding loops and growth bars. Loops have a new, optional attribute 'max', to determine the maximum number of records to loop over, e.g., <loop table="Fetus" delimiter="no" max="3">. The handling of growth bars has been improved so that they are correctly displayed in line, to the right side of the label. (1.24.5)

<AST-3662> - It is now possible to suppress printing the risk for T21 in a printout. (1.24.5)

<AST-3770> - There were problems with the PDF export of reports when the filename contained the report name, and the xml template for the report was in subfolder. This has been fixed. (1.24.6)

<AST-3927> - Volumetric values (length x width x height) from the Cortical anomalies section are now printed in one line on reports instead of being separated by a new line. (1.24.6)

## 6.12 Command Line Interface

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<AST-2701> - A new command line option "-saveAndExit" saves all open patients and closes every running instance of astraia. This is useful e.g., in larger installations, when the fast user switch from windows is used and licenses would be blocked by running but unused instances of astraia.

## 6.13 Options

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<AST-1721> - Changes in properties do now show up in the audit trail, under the type "Settings".

<AST-3542> - Font size can now be set up to +5 in Options - Appearance. (1.24.5)

### 6.13.1 Charts

<AST-1439> - For BPD, OFD and Corpus Callosum: **Tilea et al.:** *Cerebral biometry in fetal magnetic resonance imaging: new reference data*. Ultrasound Obstet Gynecol 2009; 33(2): 173-181

<AST-2078> - For CRL, BPD, AC, FL, HC: **Leung et al.:** *Fetal biometry in ethnic Chinese: biparietal diameter, head circumference, abdominal circumference and femur length*. Ultrasound Obstet Gynecol 2008; 31(3): 321-327

<AST-2359> - For Yolk Sac Diameter and GSD: **Papaioannou et al.:** *Normal Ranges of Embryonic Length, Embryonic Heart Rate, Gestational Sac Diameter and Yolk Sac Diameter at 6-10 Weeks*. Fetal Diagn Ther 2010; 28(4): 207-219

<AST-2883> - For Birthweight: **Skjærven et al.:** *Birthweight by gestational age in Norway*. Acta Obstet Gynecol Scand 2000; 79: 440-449

For Umbilical artery doppler indices: **Acharya et al.:** *Reference ranges for serial measurements of umbilical artery Doppler indices in the second half of pregnancy*. Am J Obstet Gynecol 2005; 192(3): 937-944

For Uterine Artery Doppler: **Flo et al.:** *A new non-invasive method for measuring uterine vascular resistance and its relationship to uterine artery Doppler indices: a longitudinal study*. Ultrasound Obstet Gynecol 2011; 37: 538-542



<AST-3032> - For Gestational Age by HC: **Johnsen et al.:** *Fetal age assessment based on ultrasound head biometry and the effect of maternal and fetal factors.* Acta Obstet Gynecol Scand 2004; 83: 716-72;

For HC and AC: **Johnsen et al.:** Longitudinal reference charts for growth of the fetal head, abdomen and femur. European Journal of Obstetrics & Gynecology and Reproductive Biology 127 (2006) 172-185;

For EFW: **Combs et al.:** *Sonographic estimation of fetal weight based on a model of fetal volume.* Obstet Gynecol. 1993; 82(3): 365-70;

For EFW: **Johnsen et al.:** *Longitudinal reference ranges for estimated fetal weight.* Acta Obstetricia et Gynecologica 2006; 85: 286-297;

For Gestational Age by FL: **Johnsen et al.:** *Fetal age assessment based on femur length at 10-25 weeks of gestation, and reference ranges for femur length to head circumference ratios.* Acta Obstet Gynecol Scand 2005; 84: 725-733

(1.24.2)

<AST-3065> - In Options / Charts, a new tab has been added for dating methods. CRL defaults to Robinson formula. Others default to the selected growth chart. New methods have been added for HC and FL, from Chitty and Johnsen. These agree very well with the Snijders charts except for gestational ages 13-15 weeks. All dating methods from **Loughna et al.:** *Fetal size and dating: charts recommended for clinical obstetric practice.* Ultrasound 2009;17(3):161-167.(1.24.2)

<AST-3450> - For BPD, HC, AC, and FL in dichorionic diamniotic (DCDA) and monochorionic diamniotic (MCDA) twin pregnancies: **Stirrup et al.:** *Fetal growth reference ranges in twin pregnancy: analysis of the Southwest Thames Obstetric Research Collaborative (STORK) multiple pregnancy cohort.* Ultrasound Obstet Gynecol 2014 Jul 23. doi: 10.1002/uog.14640. [Epub ahead of print] (1.24.5)

<AST-3538> - For Gestational Age by CRL: **Papageorghiou et al.:** *International Fetal and Newborn Growth Consortium for the 21st Century (INTERGROWTH-21st): International standards for early fetal size and pregnancy dating based on ultrasound measurement of crown-rump length in the first trimester.* Ultrasound Obstet Gynecol 2014 Jul 8. doi: 10.1002/uog.13448. [Epub ahead of print] (1.24.5)

<AST-3562> - For BPD, OFD, HC, AC, FL: **Papageorghiou et al.:** *International Fetal and Newborn Growth Consortium for the 21st Century (INTERGROWTH-21st): International standards for fetal growth based on serial ultrasound measurements: the Fetal Growth Longitudinal Study of the INTERGROWTH-21st Project.* Lancet 2014; 384(9946): 869-879 (1.24.5)

<AST-3571> - For birthweight, birth length, birth HC for boys and girls respectively: **Villar et al.:** *International Fetal and Newborn Growth Consortium for the 21st Century (INTERGROWTH-21st): International standards for newborn weight, length, and head circumference by gestational age and sex: the Newborn Cross-Sectional Study of the INTERGROWTH-21st Project.* Lancet 2014; 384(9946): 857-868 (1.24.5)

<AST-3676> - For cervical length 20-34 weeks: **Silva et al.:** *Reference ranges for cervical length by transvaginal scan in singleton pregnancies.* J Matern Fetal Neonatal Med. 2010 May;23(5):379-82. doi: 10.3109/14767050903177169. (1.24.6)



<AST-3851>- For Estimated Fetal Weight: **Williams et al.:** Fetal growth and perinatal viability in California. Obstet Gynecol. 1982 May;59(5):624-32. (1.24.6)

<AST-3859> - For Estimated Fetal Weight: **Hadlock et al.:** In utero analysis of fetal growth: a sonographic weight standard. Radiology 1991; 181:129-133. (1.24.6)

<AST-3860> - For BPD, HC, FL, AC: **Hadlock et al.:** Computer-assisted analysis of multiple fetal growth parameters. Radiology 1984;152:497-501. (1.24.6)

<AST-3955> - For MCA cerebro-placental ratio (CPR): Morales-Roselló J, Khalil A, Morlando M, Hervás-Marín D, Perales-Marín A: Doppler reference values of the fetal vertebral and middle cerebral arteries, at 19-41 weeks gestation. J Matern Fetal Neonatal Med. 2015; 28(3):338-43. (1.24.8)

<AST-4109, AST-4343> - For Biometry / Anatomy, a new alternative screen is available under the option "Additional Biometry factors (SIEOG)". If this screen is selected, new fields appear on the Biometry / Anatomy screen relating to biometric data of the parents. When these fields are filled, new customized charts for BPD, HC, AC, and FL become available. Those charts are generated from the parents' biometric data and activated when the check box "Activate SIEOG charts" is ticked. Please note that the charts are only for clinical evaluation. When the check box is unticked, the standard charts (selected in Options --> Charts) are active.

**Screen configuration:**

☐ Do not display this screen

☐ This screen is required

Label

**Additional biometry factors**

**Biometry / Anatomy**

**Detailed anatomy**

weeks +  days

EDD by scan  (BPD)

Mother: Weight  kg Weight  st  lbs

Height  cm Height  ft  in

Parity

Father: Height  cm Height  ft  in

Ethnicity

☒ Activate SIEOG charts (only for clinical evaluation)

For BPD, HC, FL, AC: **Ghi et al (SIEOG working group on Fetal Biometric Charts):** Customized Fetal Growth Charts for Parents' Characteristics, Race, and Parity by Quantile Regression Analysis: A Cross-sectional Multicenter Italian Study. J Ultrasound Med 2015 Dec 7. pii: 15.03003. [Epub ahead of print]. (1.24.9)

<MSH-124>- For sex-specific estimated birth weight: **Kramer et al.:** *A New and Improved Population-Based Canadian Reference for Birth Weight for Gestational Age*. Pediatrics 2001; 108(2): E35.

## 6.13.2 Administrator

<AST-4130> - It is not possible to deactivate the Audit Trail anymore. All Audit Trail specific options have been removed from Options -> Administrator. (1.24.8)

## 6.13.3 Printouts

<AST-1502> - In the options for PDF printouts and e-mails, the variable %DATE% was added to the help popup. It can be used to generate a PDF file name or an e-mail subject.

<AST-1508> - Users can now select a colour for the headings in the printout, go to Options - Printout - Colour of the headings.

<AST-2802> - In the options for PDF printouts and e-mails, the variables %EXAMDATE% and %EXAMTIME% were added to the help popup. they can be used to generate a PDF file name or an e-mail subject. (1.24.2)

## 6.13.4 Users

<AST-2089> - The user configuration contains now a field for the full name. User menu, License Warning, Reminders and Validation will show the full names, instead of the user name, when available.

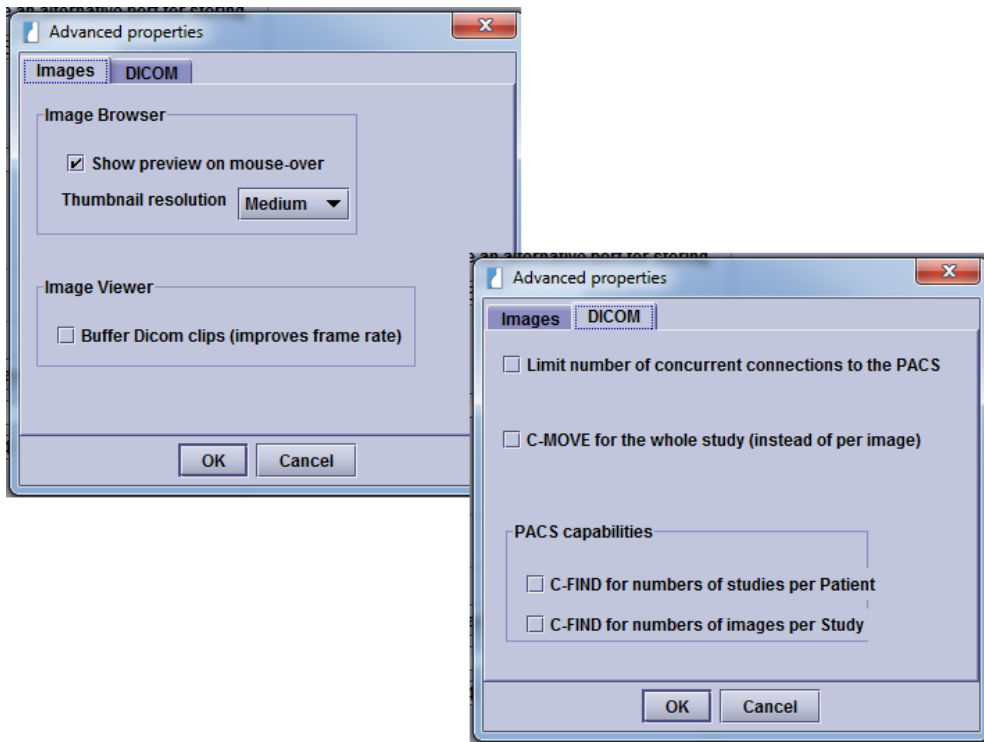
## 6.13.5 Workstation

<AST-2288> - Measurement Data transfer from the astraia measurement server can now be configured automatically for all workstations. In the tab Options -> Workstation, click "configure for all workstations" and the setting will automatically transferred also to new astraia workstations. (1.24.8)

## 6.13.6 Imaging / Worklist

<AST-2525> - The different input fields in the Image module options dialog are visually grouped to improve usability.

<AST-2621> - An advanced options dialogue has been added.



## 1. Images

- a. *Thumbnail resolution*: This is the size of the thumbnail in the database. Small will be 80px width, Medium 160px width, and Large 240px. Changing this option will not be applied on previously stored images and unexpected look and feel results can occur. It is recommended to change this on installation time (when no images are stored yet).
- b. *Show preview on mouse-over*: When an image is fully loaded in memory (i.e., it has been opened in the current session before), resting the mouse for a short amount of time on an image will bring up a preview frame of 500px width, with a preview of the image.
- c. *Buffer DICOM clips*: DICOM clips are meant to be played at a specific frame rate. Achieving this frame rate sometimes can be difficult because there is not enough CPU time to load and render the image between frames. This option will process and compress all the images in memory, so we can reach the specific frame rate later on. The images cached in memory are handled in the Images Memory Manager and it will be one of the first type of items to be swapped out on memory need. If there is not enough memory free, it will not buffer anything, and the clips will be played as in astraia version 1.23 with a slower frame-rate.

## 2. DICOM

- a. *Limit number of concurrent connections to the PACS*: Some PACS have special licenses that limit the number of connections. This is why astraia taking all the channels of the PACS momentarily can block the PACS to other applications in the hospital. This is to be set to a safe value (2 or 3), or to be negotiated with the hospital. The more concurrent connections, the faster loading the images will be.
- b. *C-MOVE for the whole study (instead of per image)*: When there are no images at all in the database for a specific patient, astraia can perform a C-MOVE as per study, which is less network overhead, but in some PACS this implies to use only one channel to send one by one (this can be desirable as it is less load for the PACS, but also slower).
- c. *PACS capabilities*: astraia will sort this out automatically on every session, but if you know what capabilities the PACS supports, you can specify it here.

<ASTWS-39> - A new property System.Worklist.DeleteAfterMinutes allows to configure the worklist to delete patients from the worklist already after e.g. 30 minutes, whereas in earlier versions the minimum values was an hour. Please contact the astraia support ([support@astraia.com](mailto:support@astraia.com)) if you want to customize this setting. (1.24.6)

<ASTWS-36> - A new mapping for Portuguese characters to be transmitted from astraia to the Ultrasound machine via the worklist has been implemented. This fixes problems with Mindray US machines. (1.24.8)

## 6.13.7 Languages

<AST-2781> - Unreleased languages are now clearly marked in the Options menu. Switching to an unreleased language is only possible for testing and translation purposes. It results in the program being marked as "Unreleased language: not for clinical use". When switching to an unreleased language, a pop-up warns: "The translation of the astraia program for this language has not been officially released - not for clinical use."

## 6.14 Installation

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<ASTWINST-71> - The recommended amount of RAM when using the Image module was raised from 512 MB to 1024 MB. The installation program was adjusted accordingly. (1.24.4)

<ASTWINST-82> - When the installation process detects a Sybase database, it performs automatically an update to the newest Sybase version. (1.24.7)

## 7 Bug Fixes

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### 7.1 Summary Screen

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<AST-1827> - Deletion of a procedure in the 'Accounts' screen, after having validated that examination, does now register as a change in the examination. In the summary screen, the "modified by" message is now shown.

<AST-4408> - In version 1.24.8, if a user made changes to a validated examination, the message that the examination was modified after validation was not retained on the summary screen after closing and reopening the patient file. This has been fixed. (1.24.8 P1)

### 7.2 Pregnancy

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<AST-1528> - In the Biometry / Anatomy screen, the Persson formula for the estimated fetal weight (EFW) was calculated using the transversal abdominal diameter (TAD) instead of the mean abdominal diameter. This has been corrected. The Persson formula now calculates automatically the arithmetic mean of TAD and APAD (A-P abdominal diameter) and uses this value to calculate the EFW. (NEW)

<AST-2144> - In the screen 'Conclusions', for the reporter variable 'gestation', "weeks" and "days" are now translated correctly to Italian.

<AST-2356> - In version 1.23, the risk for preterm delivery in Examination --> Ultrasound --> Cervical assessment could be calculated outside the gestational age range of 20-26 weeks. This has been fixed.

<AST-2449> - A wrong input error message in Investigations—> Fetal—> Amniotic fluid has been fixed.

<AST-3082> - In Obstetrics --> Fetal assessment --> Fetal heart rate, the field for Time was a text-field and has been changed to a time-field. (1.24.2)

<AST-3083> - Growth retardation appeared twice in different lists in Indication --> Fetus. One entry has been removed. (1.24.2)

<AST-3183> - In Obstetric --> Counselling, the summary was not printing when the fields Counselling.Details or Counselling.Indication have been filled. This has been fixed. (1.24.4)

<AST-3436> - In the 2nd trimester risk assessment, it is now possible to adjust for Biochemistry even without any 1st trimester screening. (1.24.4)

<AST-3511> - The risk for preterm delivery in Examination --> Ultrasound --> Cervical assessment could be calculated for pregnancies with multiples, although the literature covers only singleton pregnancies. This has been corrected. (1.24.4)

<AST-3766> - The Polish translation for the label "Cortical anomalies" was incorrectly set to "Wady nerek". This has been fixed and set to "Nieprawidłowości kory mózgowej". (1.24.5)

<AST-3552> - The field 'Live fetuses after procedure' on the screen Procedure - ER/Fetocide did not accept the value 0 (zero). This has been fixed. (1.24.5)

<AST-3653> - The group permission 'Can modify all lookup records' was not respected for all lookup tables. This has been fixed for the fetal echocardiography diagnosis. (1.24.5)

<AST-3595> - In version 1.24.3 there was a character restriction on the field "Sample Number" in First Trimester - Biochemistry. Special characters like "/" or "\*" could not be entered. This restriction has been lifted in 1.24.5. (1.24.5)

<AST-3844, AST-4065> - The field Cervical length on the screen Cervical assessment can now be filled with the value 0 which is meaningful to predict imminent delivery. (1.24.7)

<AST-3857> - The screen Placenta Outcome was not working correctly: When clicking on the New Placenta tab, the focus just went to that tab rather than adding an actual new placenta. This has been fixed. (1.24.6)

<AST-3941> - In Swedish and Danish installations, estimated fetal weight (EFW) comes with the percentage by which the current fetus' weight differs from the median, not the centile value. This means that in this case, negative values are allowed. A bug caused astraia to not display a negative percentage (indicating growth inhibition) on the screen or reports. This has been fixed. (1.24.6)

<AST-4038> - In the Screen "Fetal Assessment --> Biophysical Profile", total scores have been calculated even if not all fields have been filled in. This has been fixed. An additional problem with the printout of the BPP in the alternative screen BPF - MSH has also been corrected. (1.24.7\_7125)

<AST-4096> - In the tab "Heart" in the Biometry/Anatomy screen, there are 3 check boxes for normal entries: 1) normal 4-chamber view, 2) normal outflow tracts, 3) normal 3-vessel view. The tab turned green when the first two have been selected although it should turn green only when all three are selected, This has been fixed. (1.24.7)

<AST-4115> - If, for a measurement, a chart has been selected that produces a centile, and afterwards the chart has been changed to one without centiles implemented, the corresponding data field has not been cleared. This has been fixed. (1.24.8)

<AST-4120> - Under some circumstances the GA in the history screen could differ from the correct GA in the examination screen. This has been corrected. (1.24.8)

<AST-4386> - In version 1.24.8, the GA was not retained after the user has entered the maternal assessment screen. This has been fixed. (1.24.8 P1)

<AST-4385> - In version 1.24.7, under certain specific circumstances, it could happen that in the field Ductus Venosus on the First Trimester Screen the values entered were rounded from two decimals to one decimal, or that the two decimals were retained. The resulting risk could be slightly different, but not in an order of magnitude to have a diagnostic impact. This has been fixed and the field retains now always the two decimals. (1.24.9)

<AST-4394> - From version 1.24.2 on, the amniotic fluid index on the Biometry/Anatomy screen was not calculated anymore when one of the values was 0. Users had to enter a 0.1 as workaround. This has been fixed, 0 can be entered in any of the four pool fields, and AFI as well as deepest pool are calculated correctly. (1.24.9)

## 7.3 Charts

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<AST-3587> - The axis description for the chart for estimated fetal weight (EFW) by GA based on Johnsen et al. (Acta Obstetrica et Gynecologica. 2006) was misleading and has been improved. (1.24.5)

## 7.4 Gynaecology

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<AST-2567> - Two errors in the Simple Rules Classification algorithm for solid and irregular tumours have been fixed: Rule M1 now applies correctly only to irregular purely solid tumours, and not to unilocular-solid or multilocular-solid tumours as before. Rule B4 now applies correctly only to multilocular tumours not containing any solid component.

<AST-2579> - Maximum input limitation on "R uterine artery" has been changed to 9.99, the same value as with "L uterine artery".

<AST-3248> - Putting a menopausal age in history gynaecology did block examinations before that age, unless the patient file was closed and reopened again. This has been fixed. (1.24.3)

## 7.5 Reminders

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<AST-3253> - In Reminders --> Options, The "Edit action" button was always disabled. This has been fixed. (1.24.4)

## 7.6 Diary

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<AST-1426> - When an appointment was made, astraia suggested a GA on appointment day based on a previous pregnancy, even if the result of this first pregnancy (termination or preterm delivery) is filled in. This has been fixed.

<AST-2308> - In the appointment dialog, the number of fetuses was not shown when the field "EDD by US" was not filled previously. This has been fixed.

<AST-3132> - Entering a location with unusual characters like "(", or ")" in the Diary could cause problems like the loss of the appointment. This has been fixed so that no data is lost anymore. (1.24.2)

<AST-3592>, <AST-3588> - When entering a new patient's data in the Diary, clicking on the field for hospital ID and leaving that field again without entering an ID, the rest of the fields became disabled. This has been fixed. (1.24.5)

<AST-3856> - The tooltip for Indication did not show up in the diary anymore. This has been fixed. (1.24.8)

<AST-3862> - When booking a patient from a diary's appointment, that patient's examination date is now set to the appointment's date, not the current date. This also fixes some problems with related HL7 functionality. (1.24.6)

<AST-4084> - There was a problem with Chinese fonts in the diary; when a short appointment was displayed in Chinese, the font was too small to be readable. This has been fixed. (1.24.8)

## 7.7 Patient Data

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<AST-1703> - Astraia tried to give the same patient ID to 2 new patients if more than 10 patients were booked without saving any of them in the meantime, which then resulted in a database error. This limit has now been increased to 30 patients. Please save in between.

## 7.8 Patient Lookup

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<AST-4575> - When using the Enter key to open a patient in the Patient Lookup dialog, the wrong patient could be opened in the following situation: there was more than one patient in the list and the user then explicitly (with mouse or keyboard) selected one of the entries before pressing Enter. This has been fixed. (1.24.9 P1)

<AST-3266> - When entering a patient ID in the patient lookup field and clearing the field again, the list of patients shown should be empty again which was not the case in some 1.24 versions. This has been fixed. (1.24.5)

## 7.9 User Interface

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<AST-1517> - In helper lists, automatic capitalization of entries was broken and is now fixed

<AST-1859> - The spell checker sometimes caused astraia to freeze when a long and unusual word has been entered. This has been fixed.

<AST-2295> - In screen configuration, positioning of user defined fields works correctly again.

<AST-2467> - The patient frames now remember size and position correctly, also when opened from the Query module.

<AST-3089> - Switching tabs inside screens could be very slow. This has been significantly improved. (1.24.2)

<AST-3342> - There was a problem with user-defined number fields where data would disappear when entered the first time. This has been fixed. (1.24.4)



<AST-3618> - In previous versions of 1.24 when selecting a different font size in the Reporter and hitting the Return key to start a new line, the font size was set back to the old value. This has been fixed. (1.24.5)

<AST-3650> - When using a customized date format, this date format was not used in Reporter variables. This has been fixed. Please contact the astraia support ([support@astraia.com](mailto:support@astraia.com)) if you want to use a customized date format. (1.24.5)

<AST-3664> - The date format in the Reporter is now consistent with the date format on the screens. (1.24.5)

<AST-953> - When adding a new entry to a list, hiding it and adding another entry, the two entries got the same ID which must not happen. This has been fixed. (1.24.5)

<AST-3457> - When a user tries to close a patient while images are imported, the user is now asked to confirm that the import of images will be cancelled. (1.24.5)

<AST-3563>, <AST-3415> - When trying to close a patient without having saved changed data, a dialog appears asking the user if the changes should be saved. Pressing the 'Esc' key or clicking on the close button in the top right corner of the dialog was equal to clicking on 'No' in the dialog which closed the patient without saving data. This behaviour could cause data loss. The problem has been fixed; pressing 'Esc' or clicking on the Close button behaves like clicking on the Cancel button. (1.24.5)

<AST-3565> - The feature allowing a user to drag and drop variables from one folder to another in the Reporter (available on several screens) was not working. This has been fixed. (1.24.5)

<AST-3749> - In 1.24.4, the mutually exclusive navigator tabs in the Ultrasound menu did not become bold anymore when clicked on. The user had to change data entries on the new (desired) screen when he wanted the tab to become bold, e.g. because an examination that has been conducted in the Biometry/Anatomy screen was in reality a Growth Scan. This behaviour has been changed back to the former one and a tab becomes bold when clicked on. (1.24.8)

<AST-3865> - When clicking on the field pre-eclampsia on the Outcome screen's configuration, a list was offered in the bar on the right for manual configuration which is not applicable for checkboxes. This has been fixed. (1.24.6)

<AST-3977> - In the module Obstetrics 'Early Pregnancy', 'First Trimester', 'Biometry / Anatomy', and 'Growth scan' are mutually exclusive screens. It is intended that only one of them can be filled per examination. As a result, only one of these screens will be bold when data is entered. However, the behaviour in 1.24 versions was different than in earlier versions: When switching from one of the mutually exclusive screens to another, the original screen's name in the Navigator changes from bold to regular font. When going back to that original screen, the screen name used to go back to bold in 1.23, but didn't in 1.24. This has been restored to the old behaviour. (1.24.6)

<AST-3988> - When the user enters data on one screen (e.g. Biometry/ Anatomy), clicks on another screen with mandatory fields and tried to leave this second screen without entering data, a popup appears that asks to enter the necessary data. Astraia was having an issue that, after the user entered the required data and left the second screen, the first screen did not appear bold anymore in the navigator, and the printout would not show the information on this screen. This has been fixed. (1.24.6)

<AST-4055, AST-4054> - Some reporter fields have erroneously be restricted to 4000 characters instead of unlimited size. With Oracle DBs, some rarely used reporter fields were entirely unusable because if a type mismatch. This has been fixed. (1.24.8)

<AST-4118> - User defined fields in the Account screen have been hidden after updating from 1.23 versions to 1.24. This has been fixed (1.24.8)

<AST-4127> - In some cases, the Conclusions screen did not stay bold although data was entered, and the conclusions were not printed in the complete report. This has been resolved. (1.24.8)

<AST-4407> - In an open patient screen, the F3 key can be used to bring the focus to the navigator. Then the user can use the arrow keys to navigate to different entries in the navigator, and the enter key to select the screen. This was broken in version 1.24.8, and has been fixed now. (1.24.9)

## 7.10 Image Browser

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<AST-840> - Optional points in the DICOM standard are handled more flexible. This makes the PACS communication more stable. (1.24.2)

<AST-1641> - Instance availability was not taken into account in queries to the PACS, resulting in a failed C-MOVE. Now, images with an Instance availability "OFFLINE" are not reported as a result of a C-FIND. (1.24.2)

<AST-1734> - When all examinations are selected, it is now more obvious to which thumbnail the date belongs.

<AST-2428> - Astraia was not compatible to relational PACS. This has been fixed. (1.24.2)

<AST-2580> - The order of the images in the image browser could under certain circumstances appear random, or change when patients have been closed and reopened. This has been fixed.

<AST-3345> - When switching from 'All images' to an examination's images in the ImageBrowser, it could happen that the thumbnails were displayed incorrectly. This has been fixed. (1.24.4)

<AST-3479> - A refresh problem caused that not all thumbnails for a patient / case showed up in the image browser under certain circumstances. This has been fixed. (1.24.5)

<AST-3631> - In previous versions of 1.24 using the mouse wheel to scroll the list of images in the Image Browser only worked on the scrollbar on the right, not on the main area which contains the images. This has been changed back to the behaviour of 1.23 so now the entire area can be used for scrolling. (1.24.5)

<AST-3459> - When there was an error trying to load images in the Image Browser (e.g. because the remote PACS was not responding), the 'Import' button was still enabled seemingly making it possible to import images. The button is now disabled in situations when importing images is not possible. (1.24.5)

<AST-3479> - A refresh problem caused that not all thumbnails for a patient / case showed up in the image browser under certain circumstances. This has been fixed. (1.24.5)

<AST-3499> - When one case shared images with a different case and the user switched from one case to the other (using 'Data' -> 'Change case'), the Image Browser combobox still displayed the exam dates of the first case rather than the new case's. It did not update properly. This has been fixed. (1.24.5)

<AST-3619> - Images with a faulty entry in the database that could be loaded in 1.23 versions of astraia could not be loaded in 1.24 anymore. This has been changed to match the old behaviour. (1.24.5)

<AST-3640>, <AST-3627>, <AST-3629> - In previous versions of 1.24 with many patients and their images opened at the same time, it could happen that not all images were loaded and astraia froze. This has been fixed. (1.24.5)

<AST-3644>, <AST-3355> - In previous versions of 1.24 when several patients with many images each were opened, astraia could run out of memory and freeze. This has been fixed. (1.24.5)

<AST-3832>- When using the auto-import feature for images, the setting for scanning manually (requiring the user to click on a button in order for the scanning to occur) was not respected; scanning was always done automatically. This has been corrected. (1.24.6)

<AST-3840> - Deselecting images in the Image Browser by clicking on an empty area did not work anymore in 1.24.5. This has been fixed. (1.24.6)

<ASTIS-133> - When updating from a 1.23.x version to 1.24.5 using an Oracle database, the option to forward C-FIND queries from the Image Server to a PACS was enabled by default, but should have been disabled. This could cause the Image Server setup to not function as expected and has been fixed. (1.24.8)

<ASTIS-157> - Calling AET has always been greyed out in astraia Options --> Imaging --> Generic Dicom. This has been fixed (1.24.8)

## 7.11 Image Viewer

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<AST-1301> - Special characters in annotations (äüöß, etc.) are now shown correctly after closing and reopening the image.

<AST-1469> - Attempts to import non-image DICOM files are now handled correctly.

<AST-1640> - In previous versions, when a tag for an annotation was created and this operation was not finished by pressing "enter", the name of the tag was not displayed. This has been fixed.

<AST-2062> - With the context menu open on an annotation, another right click on another object did not deselect the previous object. Thus it was possible to accidentally perform operations on the wrong object. This has been fixed.

<AST-2071> - Because of some problems with this feature, doing measurements in frames of video clips has been deactivated temporarily.

<AST-2433> - The "Image Notes and Comments"-side panel behaved inconsistently and has now been fixed.

<AST-2971> - When playing very large DICOM clips, the framerate could sometimes drop to very low values. This has been fixed. (1.24.3)

<AST-3208, AST-3168, ASTIS-105> - Because of problems with the thumbnails, loading of images when opening a patient file could be very slow on earlier 1.24 versions. Occasionally not all thumbnails were displayed, or displayed correctly. This has been fixed. (1.24.3)

<AST-3256> - Printing a large number of images either directly or in the reports was very slow in earlier 1.24 versions and could cause astraia to run out of memory. This has been improved. Limits to the number of images allowed in one printout have been introduced. Users are not allowed to print more than 100 images (configurations with 1024 MB). (1.24.4)

<AST-3272> - In version 1.24, astraia uses a new format for storing measurements and annotations. Measurements and annotations from earlier versions will be converted during updating. If this fails for some images, a summary will be displayed at the end of the updating process indicating the number of failed conversions. In the log files you find a comprehensive list of affected images and patients. (1.24.4)

<AST-3536> - Clicking on the patient data window while the Image Viewer window is open caused the Image Viewer window to be hidden. This made it impossible to look at an image and enter data at the same time. The Image Viewer window now stays on top like in version 1.23. (1.24.5)

<AST-3576> - In order for a right-click to invoke the context menu on a measurement in an image, it is not necessary anymore to explicitly select the 'Select and Move' tool. A right-click will always bring up the context menu which restores the behaviour from 1.23. (1.24.5)

<AST-3578> - In previous versions of 1.24 when trying to perform a measurement on an image that is not calibrated yet, the user is asked to calibrate it first. It used to be necessary to reselect the measurement tool after calibration, but now astraia remembers and automatically activates the previously selected tool. (1.24.5)

<AST-3606> - The Reopen button (tooltip: Create a new View with the images selected) in the Image Viewer's toolbar can be used to open a subset of the currently displayed images. When there was only one image displayed, that button used to be hidden because in that case no smaller subset of images exists. The button is now disabled instead of hidden to make the user interface more consistent and less confusing for the user. (1.24.5)

<AST-3276> - In 1.24, a new format is used for storing measurements and annotations in images. When updating from older versions to 1.24, measurements and annotations should be updated automatically. In case this fails for some images, the user will be notified when opening such an image that old measurements and/or annotations are available and that they will be overwritten if he chooses to add new measurements/annotations. (1.24.5)

<AST-3586> - The workflow for moving measurements and annotations in images in the Image Viewer changed from 1.23 to 1.24.4. In 1.24.4 two mouse clicks were necessary, in 1.23 just one; measurements could be dragged directly. In 1.24.5 both ways are possible. (1.24.5)

<AST-3634>, <AST-3707> - Image loading time in the Image Viewer has been improved substantially. (1.24.5)

<AST-3647> - In previous versions of 1.24 when measuring small distances with the calliper tool, the box containing the current distance value could sometimes obscure the feature being measured. Therefore, the measurement value box is now only displayed when the measurement is complete by default. (1.24.5)

<AST-3758> - In some cases, the arrow buttons in the Image Viewer that can be used to go to the previous or next image became enabled when they should not be. This has been fixed. (1.24.5)

<AST-3894> - When the DICOM port (default: 1104) was being used or blocked on a client for some reason (for instance by a firewall), the entire imaging module was disabled not just on that client, but also on all others connected to the same server. This was unnecessary and could only be worked around by re-enabling the imaging module on the affected machines. This has been fixed. The imaging module will only be disabled on the blocked client; an error message will be shown. (1.24.6)

## 7.12 Worklist

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<AST-3866> - There was problem with Polish characters on the worklist: It was not possible to receive patients whose name starts with the character 'Ż' in their name via the worklist. This has been fixed. (1.24.6)

## 7.13 Audit

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<AST-2501> - In the First Trimester Audit, the filter for dates did not work in certain languages and with certain ORACLE versions (10, 11). This is now fixed.

<AST-2517> - In the First Trimester Audit, import of previously exported files did not always work. This has been fixed.

<AST-4125> - The printout of the First Trimester Audit did not respect the paper margins and ended up cropped. This is now fixed. (1.24.8)

## 7.14 Printouts / Reports

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<AST-1786> - In the Chinese Language version there was a problem with HTML tags showing up in the reports. This has been fixed. (1.24.2)

<AST-1798> - The "EDD by scan"-field can now correctly be suppressed in printouts. It cannot be suppressed in the First trimester screening report as it is required there.

<AST-1877> - In printouts, the abbreviations for "weeks" and "days" in gestational age used to show up as "w" and "d" in any language. This has been fixed.

<AST-1920> - Changes in image contrast or brightness have not been reflected in the print preview under certain circumstances. This has been fixed.

<AST-2220> - Printed percentiles are now robust against changes of the chart.

<AST-2321> - Re-printing stored printouts using the print preview in the Audit Trail was broken and has now been fixed.

<AST-2333> - User specific saving of default selections for printouts (doctors, patient, own copy and copy for file) have not been saved for admin users. This has been fixed.

<AST-2744> - The validation status of an examination can now be put on a report.

<AST-2760> - The printout of the pelvis data was broken when the chart renal pelvis from Benacerraf was selected. This is now fixed.

<AST-2855> - Several issues with the printout of family history have been corrected: Formatting of issues "on partner's side" and "on patient's side" has been improved, and the field labels are now displayed correctly. (1.24.3)

<AST-3000, AST-3002> - Some formatting problems in the German report "Zweittrimesterscreening" have been corrected. (1.24.2)

<AST-3284> - In earlier versions of 1.24, creating a PDF from a printout could give an error message. This has been fixed. (1.24.4)

<AST-3332> - In 1.24.3, images have been printed in a different order than they were displayed in the image viewer. This has been fixed. (1.24.4)

<AST-3605> - For certain report font size settings, a small white line was visible on headings in report files. This was visible not only in exported PDF files, but also on the actual printout. This has been fixed. (1.24.5)

<AST-631> - When displaying the print preview of the printout 'Follicle tracking' in a Gynaecology case, the selection of images in the Image Browser was lost. The user had to select them again for another printout. This has been fixed. (1.24.5)

<AST-3533> - The time needed for downloading images before printing them has been substantially reduced compared to 1.24.4. (1.24.5)

<AST-3655> - In the Reporter module (Examination - letters), you can create predefined items with often used text segments. These items can be organized in a hierarchy using folders. Creating a new subitem of another item used to always make that other item a folder which meant that if an item contained its own text segment, it was lost. Now it is only possible to create subitems for items that don't have their own text, so no text segments are inadvertently lost. (1.24.6)

<AST-3770> - There were problems with the PDF export of reports when the filename contained the report name, and the xml template for the report was in subfolder. This has been fixed. (1.24.6)

<AST-3777> - The first trimester's risk results were sometimes not printed correctly in plaintext reports; labels, the FMF operator and linebreaks could be missing. This has been fixed. (1.24.6)

<AST-3881> - When printing the first trimester's information on a report, it could happen that the heading 'Risk calculation' (but not the risk itself) was printed inadvertently. This does not happen anymore. (1.24.6)

<AST-3882> - It could happen that astraia modified a report template to include two deprecated report items causing astraia to display two unwanted sections. This has been fixed. (1.24.6)

<AST-3855> - In report templates, there was a problem with incorrect indentation inside tables when using the <lintent> tag. This has been fixed. (1.24.6)

<AST-4062> - When switching to Spanish language, the First Trimester Report was not available to select anymore. This has been resolved. (1.24.8)

<AST-4462> - In 1.24.8, printing did not work when there were user-defined fields on the fetus level. This has been fixed. (1.24.9)

## 7.15 Database Queries

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<AST-2196> - In queries with enabled data range option, the labels of the radio buttons to select data range have been corrected to "Yesterday", "Last week" and "Last month".

<AST-3037> - In installations with an Oracle DB, when the user runs the default query "Missed Appointments", date is displayed instead of time in the column 'time'. This has been fixed for new installations. In existing installations, users need to modify the query manually by changing Diary.ATime to TO\_CHAR (Diary.ATime, 'HH24:MI') (1.24.2)



<AST-3321>, <AST-3443> - The query 'Patients with images' did not return the correct number of images that belong to each patient. This has been fixed. (1.24.4)

<AST-3712>, <AST-3691> - With Oracle databases, query results that included a decimal value were displayed as rounded integers. This is fixed. (1.24.5)

## 7.16 Audit Trail

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<AST-3532> - In 1.24.3, printouts with images were not always stored correctly in the Audit Trail. This has been fixed (1.24.4)

## 7.17 Lab Interfaces

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<AST-3265> - Message transfer to PerkinElmer AutoDELFIA has been fixed in this release. Please contact PerkinElmer for more information. (1.24.4)

<AST-3595> - In version 1.24.3 there was a character restriction on the field "Sample Number" in First Trimester - Biochemistry. Special characters like "/" or "\*" could not be entered. This restriction has been lifted in 1.24.5. (1.24.5)

<AST-3636> - In the Lifecycle Interface, there was a problem when selecting "date of conception" for dating the pregnancy in astraia. This has been fixed. (1.24.6)

<AST-3939> - The Autodelfia service could not be started when using an Oracle database. This has been fixed. (1.24.6)

<AST-3831> - It is now possible to add more than 4 devices in the Kryptor Lab interface configuration. (1.24.6)

## 7.18 Languages

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<AST-3382> - The translation for the gestational age in Simplified Chinese was not correct. This has been fixed. (1.24.6)

<AST-3710> - Wrong translations of 'Coarctation of the aorta' and 'Pulmonary atresia' in Simplified Chinese have been corrected. (1.24.6)

<AST-3743> - In Simplified Chinese, the translations for "Multicystic" and "Polycystic" were incorrect and have been fixed. (1.24.7)

<AST-3876> - In the screen Counseling, the phrase "Management after testing" has been wrongly translated to Dutch as "Counselling na ongunstige uitslag". This has been corrected. (1.24.8)

<AST-4189> - In the Obstetrics --> History, "yes / no" has been wrongly translated to Italian as "presente / assente" in several screens. This has been fixed. (1.24.8)



## 7.19 Database

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<AST-2259> - The problem with error messages because of malformed byte sequences in the Greek language version has been solved.

<AST-2502> - Limiting the maximal number of database connections in the connection pool did not always work. This has been fixed.

<AST-3259> - The database connection pool did not correctly reassign connections, causing a thread to sometimes use connections that are still in use by other threads. This issue could have adverse effect especially with Oracle databases, and has been fixed. (1.24.4)

<AST-4003> - In network installations, when two or more clients tried to save a patient at exactly the same time, astraia would assign both patients the same key for the table "Fetus", and was unable to save the patients because of the duplicate keys. This has been corrected. (1.24.8)

<AST-4018, AST-4026> - A combination of bugs could lead to data loss under highly unlikely circumstances. In the table Fetus.EP\_Malformation\_details database the column size was mistakenly set to 1000, while the input limit on the user interface was 4000. This led to an error message when saving the patient data if a comment was entered that exceeded the 1000 character limit in the first place, but not if a comment of fewer than 1000 characters was entered, saved and later updated to more than 1000 characters. In that case, data could be lost. This issue has been fixed: The column size was corrected, and the error message correctly displayed. (version 1.24.6)

<AST-4025> - When entering a very long name in a patient's 'Other names' field using non-latin characters such as cyrillic, the character limit of 100 could not be fully used. An error message appeared stating that the data could not be saved due to right truncation of string data. This previously fixed bug which affects only Sybase installations was reintroduced in 1.24.5 and has been fixed. (1.24.6)

<AST-4031> - An issue with the character encoding in Sybase could lead to a mismatch of database field length and input length on the UI. This has been fixed with this version, and a script bundled with the installer repairs the existing fields during an update. (1.24.7)

<AST-4183> - A faulty handling on timestamps in the case selector led to problems with Oracla databases after an update to 1.24.7. Patients were locked and could not be opened. This has been fixed in 1.24.8.

## 7.20 Measurement Data Transfer

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<AST-3633> - When importing Amniotic fluid measurement data from an ultrasound machine, the data was saved incorrectly (multiplied by a factor of 10) for some Cyrillic languages. This has been fixed in 1.24.5. A workaround for older versions is available. (1.24.5)

## 7.21 Options

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### 7.21.1 Appearance

<AST-2013> - Problems with displaying Chinese characters on the astraia desktop after switching to Chinese from another language have been fixed. (1.24.2)

<AST-2018> - When selecting to edit the astraia blue theme, after clicking exit the default theme was not in the list anymore. This has been fixed.

<AST-1343> - When changing the language to Chinese, the interface's colour scheme changed immediately (in order to enhance the display of Chinese characters) after selecting the language. Now it only changes once the OK button has been pressed. (1.24.6)

### 7.21.2 Administrator

<AST-2101> - In e-mail configuration, 'Server requires authentication' could not be unchecked. This has been fixed.

<AST-3625> - In previous versions of 1.24 when trying to import a faulty Diagnosis field export file where a diagnosis had a hidden diagnosis as its parent, astraia could crash. This has been fixed. (1.24.5)

### 7.21.3 Users

<AST-2811> - When the user table was reordered and the admin tried to change a certain user's password, the user selection did not work correctly. This is now fixed.

<AST-3295> - With users sorted by department, the department window could not display all departments if there were too many of them. Now the window can be scrolled in both directions if necessary. (1.24.4)

### 7.21.4 Charts

<AST-2352> - The title of the 'left femur'-chart has been changed to "Left Femur".

<AST-2677> - The BPD/FL chart (Snijders ea.) was wrongly named "BPD". This is now corrected.

<AST-2960> - If the Hadlock chart without standard deviation was selected for BPD, a value entered for BPD in the Biometry / Anatomy screen was not retained. This has been fixed.(1.24.1)

## 7.21.5 FMF Risks

<AST-3711> - The automatic update of FMF licenses was activated regardless of the corresponding setting in the Options dialog. This has been fixed. (1.24.5)

## 7.22 Help Files

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<AST-3878> - In the English Help Files (F1), the page 'Screen configuration' was empty. This has been fixed.(1.24.6)

## 7.23 Properties

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<AST-1575> - Only admin users are now allowed to change or add properties through the Help - About window.

<AST-2233> - For new installations, DBConnectionPool is now enabled by default.

<AST-2501> - Limiting the maximal number of database connections in the connection pool did not always work. This has been fixed. (1.24.4)

<AST-3470> - On Installations with MSSQL, problems could arise with duplicated properties, which caused errors when users wanted to enter configuration data like auxiliary image path. This has been fixed. (1.24.5)

## 7.24 Installation

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<AST-1135> - In updates of installations with an Oracle DB, the indices for Oracle were not created properly, resulting in performance problems with large DBs. This is fixed now (1.24.2)

<AST-2408> - For fresh network installations, the initialization of the database was not done correctly and the installation failed. This has been fixed.

<AST-3597> - When updating from a 1.23 version to 1.24.4 in Greek, Russian, Bulgarian, Ukrainian, Serbian, Chinese, Korean, Hebrew and Japanese, an error message "Right truncation of string data" appeared when a patient's risk calculation text became too long, depending on the number of calculated risks. Recalculated risks with a text too long were not saved. This has been fixed. (1.24.5)