

# Feature Extraction 13.0 - Release notes

## 1. Product Name and Version Number

# G2566AA - Feature Extraction provided with the Agilent Scanner

# G4460AA - G4462AA - Feature Extraction Commercial License

# G4463AA - G4465AA - Feature Extraction Academic License

## 2. Product Part Number

Not applicable.

## 3. Product Description

- Agilent Feature Extraction 13.0 software automatically reads and processes up to 100 raw microarray image files in the batch mode. Real-time extraction occurs as soon as the Agilent scanner produces a TIFF image. The software finds and adjusts microarray grids, rejects outlier pixels, accurately calculates feature intensities and ratios, flags outlier features, and calculates statistical confidences. Application- specific QC reports summarize multiple analyses.
- Changes in FE 13.0
  - Compatibility with VC++ 2022 redistributable.
  - Change in third party libraries used to generate image plots. The XtremeToolkitPro charting package is now used for Tiff image charts and QC report plots.
  - Database upgraded to latest PostgreSQL version, i.e., PostgreSQL 17.5. ODBC driver version upgraded to 17.0.6.

## 4. Installation Instructions

- Feature Extraction can be installed by first downloading it from the Agilent web site.
- Previous versions must be uninstalled before installing a new version. Be sure to export any Protocols, MetricSets and Grid templates that you would like to migrate into FE 13.0 before uninstalling a previous version of Feature Extraction. See migration tool document.
- Refer to the Installation Guide (<https://www.agilent.com/library/usermanuals/public/G4460-90067.pdf>) for more details regarding the installation process.

- Contact Agilent Technical Support if you have any questions or problems with the installation of FE 13.0
- The QC Chart Tool application installation is now optional and may be selected during the FE 13.0 installation. Refer to the FE 13.0 Installation Guide for the details.

## **5. List of pre-loaded data and demo data links to download data**

Not applicable.

## **6. System Requirements for the Software**

### **6.1 Minimum Requirements for Windows**

- Operating system: 64-bit Windows 11 Enterprise or Professional, Windows 10 Enterprise or Professional  
(Note: For all of these operating systems, the regional setting must be set to English)
- Programs: Any program that enables you to open PDF files (for example, Adobe Reader and Microsoft Edge)
- Programs: Runtime components of Microsoft Visual C++ 2015-2022
- Processor: > 2 GHz
- Working memory (RAM): 8 GB or higher
- Hard disk space: 100 GB
- Display Resolution: 1280 x 768 or higher

## **7. List of Issues Fixed in this Version**

<No external issues to be addressed for this release>

## **8. List of Known Issues in FE 13.0 and earlier**

- For million feature Arrays, Error occurs during MAGEML file generation and file is not generated. (Jira - 84)
- Calculation of background for non-Agilent scanned arrays may result in the possibility of receiving small differences in results. (TT 28564)
- XDR images when run together do not get cropped. (TT 282285)

- Changing the color scale does not work while in grid mode. If the user attempts to change color scale from “All Channels” to “Red Channel” or “Green Channel” it does change (TT 2309)
- The eArray integration feature is not quite complete, in that after FE runs, the project explorer is not updated to reflect which grid template and protocol were automatically assigned. This can be confusing to a user after the project has finished as they do not get the feedback in the Project Explorer. User needs to right-click and select “Refresh” in the appropriate navigation panes to see the updated files. (TT 2236)
- For new format scans while setting color ranges, the ability to adjust colors in high fidelity mode can lead to errors, namely if the user tries to set “Auto Scale Image” after unsetting this option. (TT 2166)
- In rare instances, the Switch to Configure Mode button is not being enabled after the extraction is complete. The extraction must be closed and re-opened to enable the config / run mode toggle. (TT 2069)
- The grid template that is currently in use during an extraction can be removed causing the extraction to fail. (TT 2042)
- Attempting to calculate spot size and centroids in manual grid mode using a high resolution scan of a third-party array will cause FE to crash (TT 2032).
- Projects containing multiple 30-micron feature size 1 million feature array will run out of memory if run directly using FENoWindows. The work around is to either use the FE GUI to run these projects or to break up the project into multiple projects each containing 1 extraction (TT 2016).
- If the DBConnectInfo.ini file is removed from the FE installation folder, the software cannot be removed via the install or Add/Remove programs feature (TT1944).
- When viewing shape files, feature outliers are not visible until the image is zoomed or cropped (which effectively zooms) (TT 1955).
- Viewing the scan properties can cause the image to appear distorted. Minimizing followed by reopening the image will correct the issue (TT 1959).
- When a two-channel tiff file is split into two single-channel tiff files (one for Red and one for Green) from the Agilent Microarray Scanner, On-Time project treats the split tiff files as two separate single-channel files (TT 282).
- Cannot open a .tif image from a CDROM or DVD. Users need to copy the image to a hard disk or network share (TT 1463).
- In case of XDR images, if the user has both the images in extraction set, then the images will not be cropped. But if the user has any one image (i.e. Either <image>\_H or <image>\_L) then the images will be cropped. (TT 282285)
- While creating a Critical Probe list (and Dye Norm list), opening this UI can take a long time, especially for million-feature designs (TT 200107).
- Sometime an error is thrown when user tries to import a metric set in FE (TT 282185).

## 9. Known Issues in QC chart tool software 3.5.2.

- Sorting table by ExtractionDate can overwrite names incorrectly. Sorting on ScanDate can cause those values to be deleted. Closing QC Tool and reopening fixes these issues (TT 200499).
- QC Tool Edit Metric Set has incorrect behavior. Second tab reads either “Selected Metrics” or “Existing metrics”, depending upon some user choices (TT 177758).
- New Annotation Import needs additional import options (TT 178701).
- Data for the columns Author and Extraction Status are missing when user exports query result and imports it into the QC tool again. This happens if user exports a query result, opens the query result in Excel, creates a copy of any of the existing rows, modifies any of the fields except Author and Extraction Status, then imports it into the QC tool again. User sees the Author and Extraction Status fields as blank for the newly added row (TT 178855).
- Importing a query result changes, the order of the table columns (TT 179320).
- Query with operator not equal (<>) does not fetch correct results (TT 200429).
- On reimport, query records are not getting added correctly (TT 200431).
- Sometimes when importing query with the same Array ID and extraction name values as an existing query, the query is not overwritten (TT 200436).
- No error message is displayed when user imports an invalid file in 'Import FE statistics and parameters (TT 200438).