

# Webinar Q&A Report: The Power of Scripting with a Desktop SEM



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**1. The automation shown in the webinar of September, 16 was completed on the Phenom XL. Is it possible to apply the scripting and automation to other Phenom models?**

Ruud B. : Scripting is available on all Phenom systems. The XL was shown due to the large stage which makes it very suited to automatically imaging multiple samples.

**2. Is scripting and automation also available with other microscopes like Helios, Apreo, Quanta...etc.?**

Ruud B. : Thermo Fisher Scientific's larger floor model systems also offer the possibility to create custom scripts. It is called Autoscript and is based on the Python programming language.

**3. Do you have a list of scripts that users can download?**

Ruud B. : We have several scripts available showcasing the basic functionality of scripting for the Phenom systems.

The following scripts are delivered with the API:

- Basic Phenom commands and image Acquisition.py
- Compatibility with NumPy and OpenCV.py
- Find and connect to your Phenom.py
- LicenseManager.pyw
- PdfReport.py
- PhenomImageDisplay.pyw
- Plotting with Matplotlib.py- Acquiring an image
- Basic PDF reporting

**4. Can EDX be automated too?**

Ruud B. : At the moment EDX functionality in scripting is only available for Thermo Fisher Scientific written scripts. We are working on releasing this functionality for customers.

**5. You have mentioned on-line libraries for image processing. What library would you recommend?**

Ruud B. : Two libraries used often are Numpy for image processing and Matplotlib for representing the data. A common image processing library that is compatible with PPI is OpenCV.

**6. Can I damage the system with scripting?**

Ruud B. : All the safety features of the Phenom remain in place so it is not possible to damage the system with scripting. It is also not possible to adjust software settings which permanently disable the system. Depending on your scripting skills you might have a software bug though.

**7. Can I use scripting to correlate results from different analytical systems?**

Ruud B. : This is definitely possible. You would have to correlate the coordinate systems of the two different systems but once this is done the script can match the results.

**8. Is a license required to run scripting on a Phenom? Follow up on that one: Can multiple users use one license?**

Ruud B. : Yes, a license is required to be able to run scripts on a Phenom. A license is linked to a single Phenom and anybody can use that license to run scripts on that specific Phenom.

**9. Are the sample scripts and API spec available online?**

Ruud B. : Example scripts and API specifications are made available to customers and are not available publicly online.

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