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Application Note

Running VIC-Py Extensions

VIC-3D 11

2026

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Measure with Confidence

Installing VIC-Py Extensions (*vicpyx*)

Introduction

Introduced in VIC-3D 11, the ***vicpyx*** update builds upon the previous VIC-Py framework deploying Python to manipulate, transform, and export DIC measurement data for application-specific requirements. Whether computing derived quantities, applying coordinate transformations, or combining multiple variables into new metrics, the ***vicpyx*** framework handles the complexity so researchers can focus on the engineering. Fully integrated with VIC-3D, ***vicpyx*** allows users to apply custom calculations to full-field data by executing Python scripts directly.

The ***vicpyx*** extensions are powered by Python, but you don't need to write code to benefit from them. A library of ready-to-use extensions covering common research needs is installed with VIC-3D. Further, additional extensions can be edited and shared among colleagues or obtained from Correlated Solutions. Once Python is installed, simply select an extension from the menu, configure the options, and run.

For users with Python experience, the framework is fully open. Here are a few of the possibilities available to researchers using *vicpyx*:

- **Create new variables computed from existing measurements**
- **Transform coordinate systems to match your analysis needs**
- **Extract line profiles and point data along custom paths**
- **Export to any format required by downstream tools (FEA software, custom analysis pipelines, reporting systems)**
- **Leverage any Python library - NumPy for numerical computing, SciPy for advanced algorithms, or domain-specific packages**

Extensions work directly within the VIC interface. Results appear alongside your original data, can be visualized with the same tools, and are saved with your project. There is no need to export data, process it externally, and re-import results.

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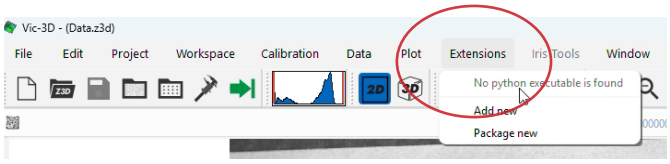
Installing *vicpyx* Extensions

Running *vicpyx*

To use ***vicpyx***, click on the *Extensions* tab in the Main Tool Bar.



If you see “No python executable is found”, you need to install Python.

Installing Python

The most efficient way to install Python for use with ***vicpyx*** is to download directly from the Python Software Foundation website using the main download link below.

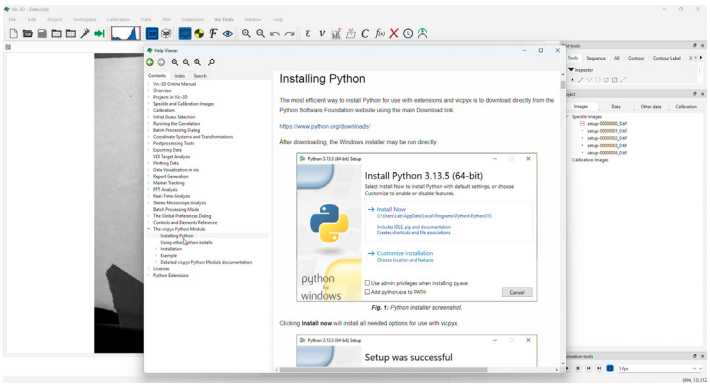
https://www.python.org/downloads/

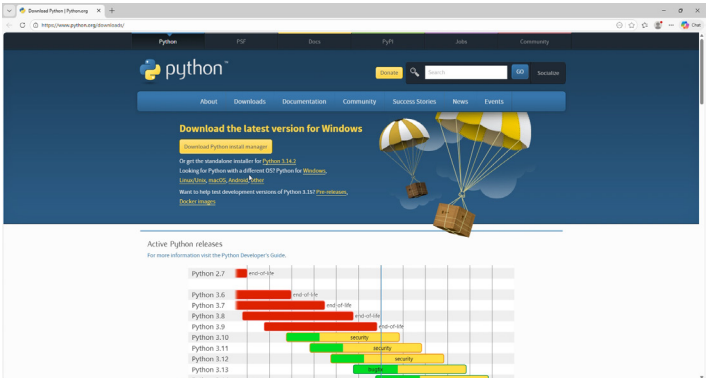
(This link, along with more details can be found in the VIC-3D User Manual which can be accessed by clicking *Help* in the Main Menu.)

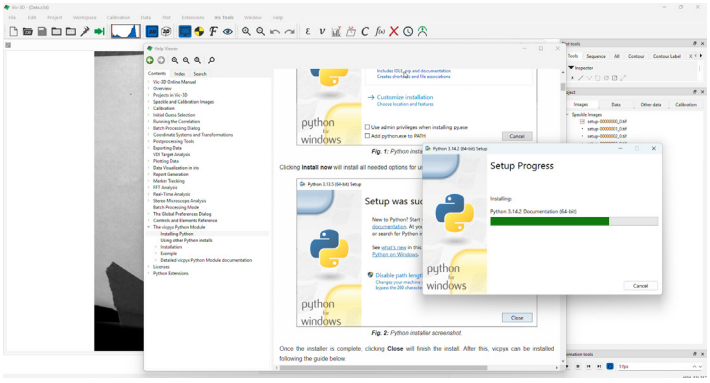
After downloading, the Windows installer may be run directly.

Clicking *Install now* will install all needed options for use with ***vicpyx***.

Once the installer is complete, clicking *Close* will finish the installation.



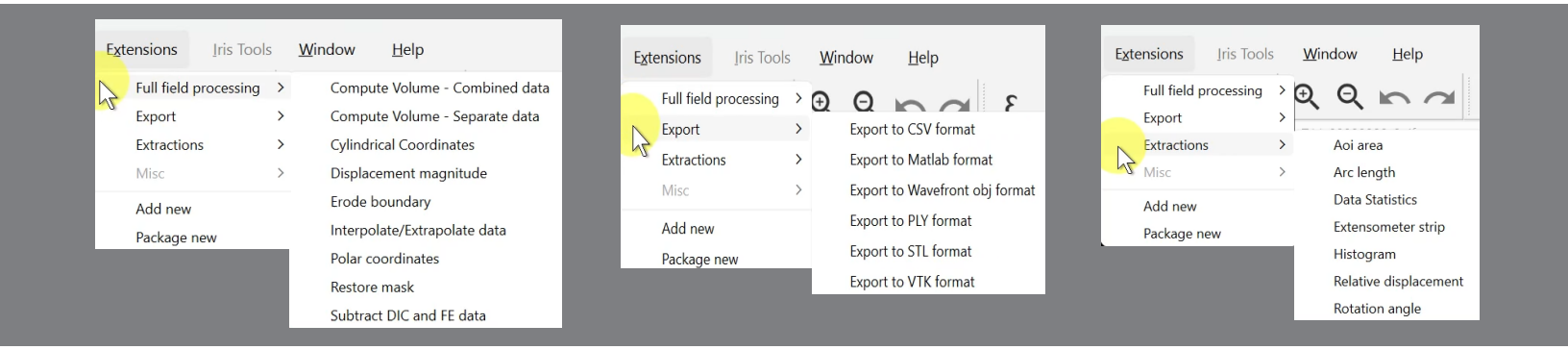




Restart VIC-3D, and **vicpyx** will be ready to use.

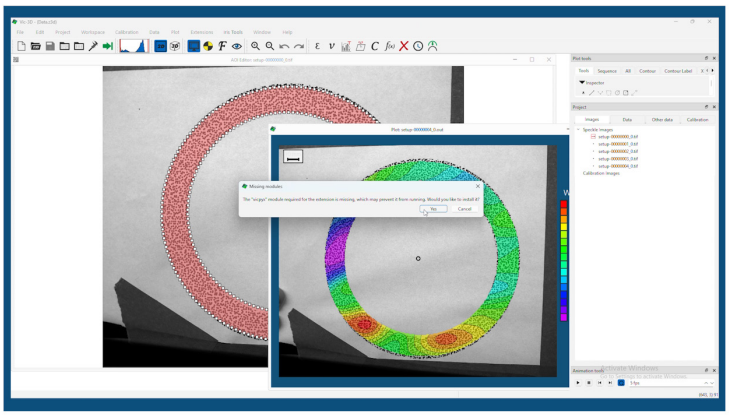
Running vicpyx Extensions

To run an extension, click on *Extensions* in the Main Tool Bar. The available extensions as of January 2026 are listed below in three categories.



When individual extensions are selected, any missing modules required for the chosen extension are automatically added by clicking *Yes*.

Now configure the options as needed and run the extension.



In upcoming application notes, individual ***vicpyx*** extensions will be covered in greater detail.

Support

If you have any questions about this document or any other questions, comments, or concerns about our software, please contact us at support@correlatedsolutions.com, or visit our website at correlatedsolutions.com/support.

The powerful extensions feature is available exclusively in VIC-3D 11. Contact one of our Sales Engineers at sales@correlatedsolutions.com for information on updating your software.