

<b>Technical Support Bulletin 2023-02</b>	<b>IFCB Computer &amp; MATLAB Requirements</b>	<b>March 10, 2023</b>
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**Alert Level: INFORMATIONAL**

**Instruments: IFCB**

**Software Versions: N/A**

**Hardware Version: N/A**

**Subject: IFCB Computer Processor and MATLAB Requirements**

**Summary:** This document lists the computer processor specifications and MATLAB programs required for IFCB post-processing.

### Computer Processor Recommendations

- The IFCB requires a modern CPU. For example, Intel Gen 7/8/9/core i7/i9 or equivalent, with 16 GB or more of RAM.
- Future Python/Deep-learning work enhancements will require the Nvidia 10-40 series or equivalent CPU.

### MATLAB Requirements

MATLAB requires a modern CPU with 16 GB or more of RAM.

#### Other MATLAB requirements

In addition to the MATLAB program, several toolboxes are required. The MATLAB Parallel Computing Toolbox is optional but highly recommended. The MATLAB parallel Computing Toolbox requires multiple processor cores/threads, allowing them to run multiple instructions in parallel.

- MATLAB Image Processing toolbox
- MATLAB Neural Network toolbox
- MATLAB Statistics toolbox
- MATLAB Curve Fitting toolbox
- DIPUM toolbox, which can be purchased at:  
[http://www.imageprocessingplace.com/DIPUM\\_Toolbox\\_2/DIPUM\\_Toolbox\\_2.htm](http://www.imageprocessingplace.com/DIPUM_Toolbox_2/DIPUM_Toolbox_2.htm)
- See updated MATLAB software requirements for running post-processing analysis at:  
<https://github.com/hsosik/ifcb-analysis/wiki>

The table below provides the minimum processor requirements. This information can be accessed from the Mathworks website: <https://www.mathworks.com/support/sysreq.html>

**Note** – A 7th or newer generation Intel core ix or AMD equivalent will outperform the more restricted Pentium and Celeron alternatives.

64-Bit MATLAB, Simulink, and Polyspace Product Families			
Operating Systems	Processors	Disk Space	RAM Graphics
Windows 10, 11 Windows 8.1 Windows 8 Windows 7 Service Pack 1 Windows Server 2016 Windows Server 2012 Windows Server 2008 R2 Service Pack 1	Any Intel or AMD x86-64 processor AVX2 instruction set support is recommended With Polyspace, 4 cores is recommended	2 GB for MATLAB only, 4–6 GB for a typical installation	