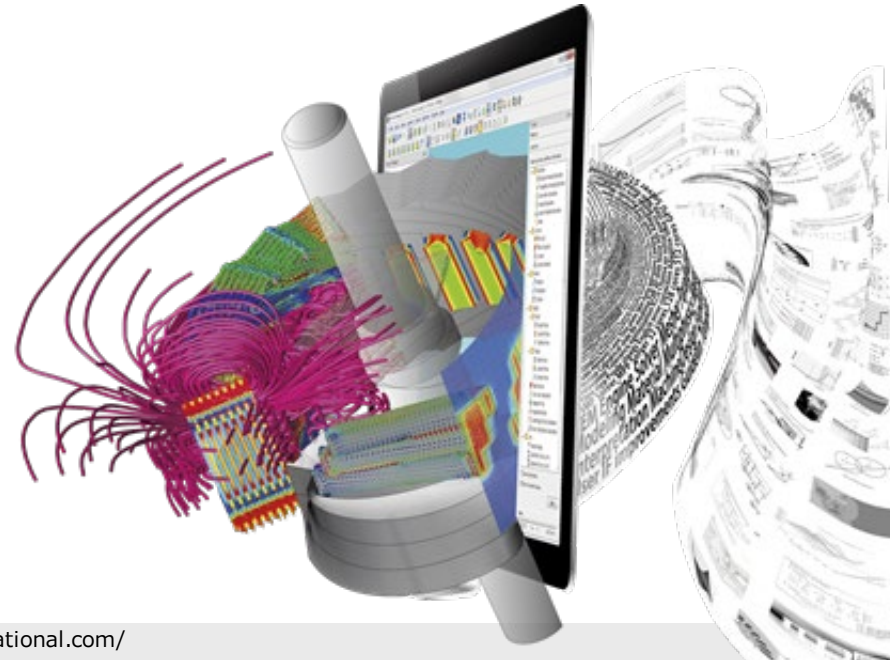


First Edition February, 2020  
Second Edition March, 2020  
Third Edition October, 2020

# To All Users of JMAG-Studio

JMAG Division  
JSOL Corporation  
October, 2020

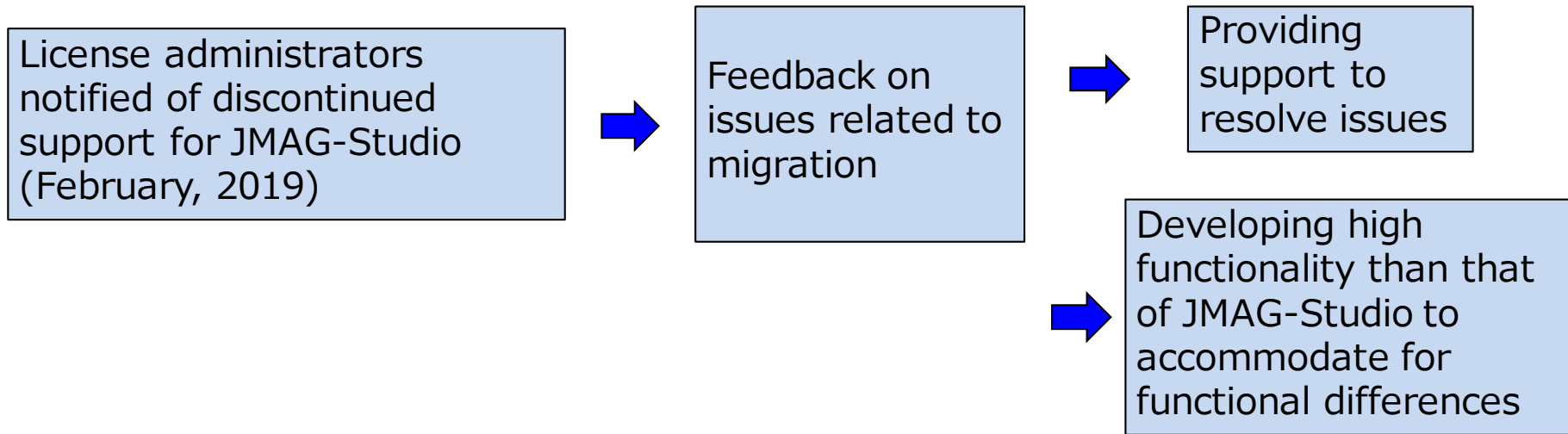


# Overview

- JMAG-Studio development has been discontinued as of 2013.
- In accordance with the discontinuation of development, the technical support for JMAG-Studio will cease at **the end of December, 2020**.
  - Only LM-X licenses will be issued from 2021. JMAG-Studio and JMAG-Designer 15.0. and older will also no longer be available.
- For those who will subsequently be unable JMAG-Studio, please contact us with a detailed explanation of the issues that you may face regarding this transition.
  - Support will be made available in order to resolve such issues.

# Support for Migrating to JMAG-Designer

- Support will be made available so that users may rest assured after support for JMAG-Studio has ended.



# Major Migration Issues From Inquiries Received So Far

1. Unable to make the most of JMAG-Studio analysis assets
2. Unable to output NASTRAN files
3. Unable to edit the content of input or output files
  - Our company tools assume the text editing of SSV and PLOT files
4. Functional differences in manual mesh functions
  - The operability of mesh models is not good as JMAG-Studio
  - The procedure for assigning materials to each element is complicated
  - Unable to move nodes in JMAG-Designer
5. Unable to use JMAG-Studio scripts with JMAG-Designer

# 1. Utilizing JMAG-Studio Analysis Assets

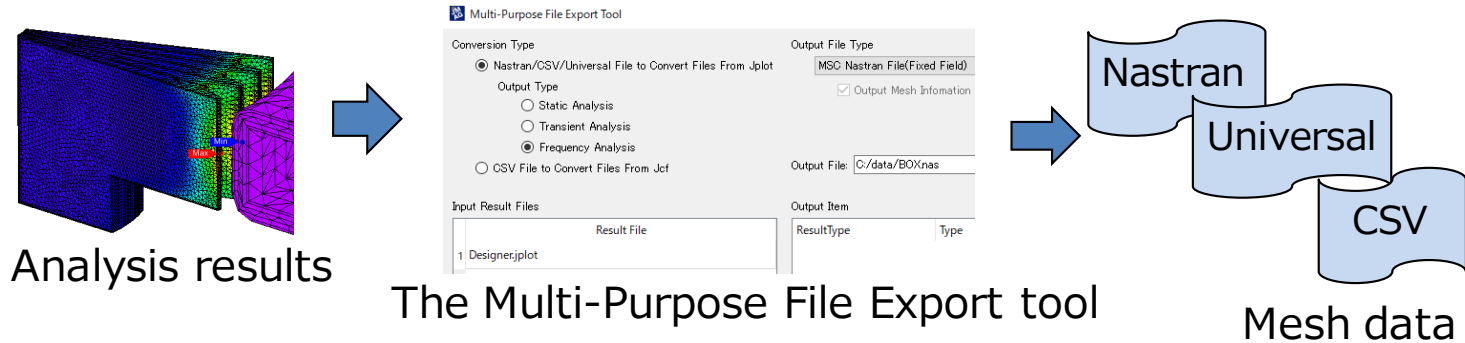
- JMAG-Designer is able to read jcf and plot files so that existing analysis assets can keep being used.

File type	Support	Notes
JCF files	○	
JSP files	×	
Save data files (* .ssv)	×	Save data and solver data must be saved as JCF files
Solver data files	×	
Circuit files (*.cct)	○	
Result files (*.plot)	○	

Support for reading JMAG-Studio files with JMAG-Designer

## 2. NASTRAN File Output

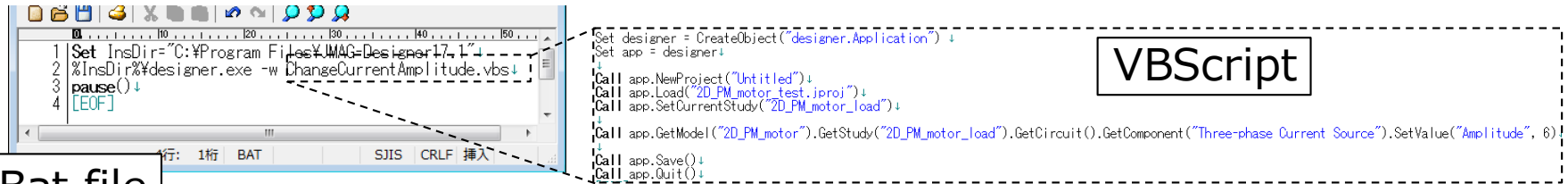
- Distribution quantities can be mapped to mesh data and output with the Multi-Purpose File Export tool.
  - Analysis results are needed to map distribution quantities.



- Refer to the function tutorial for details.
  - [https://www.jmag-international.com/tutorial/jft022\\_multi-purposefileexporttool/](https://www.jmag-international.com/tutorial/jft022_multi-purposefileexporttool/)

# 3. Directly Editing Input Files

- With any of the following methods, analysis conditions can be modified in JMAG-Designer without the need to open any input files.
  - SimpleFHI
    - ◆ JCF file analysis conditions can be modified via Excel VBA and C/C++
  - Scripts (VBScript, Python, and JScript languages)
    - ◆ The analysis conditions of studies in JPROJ files can be modified



An example script for changing the current amplitude of a circuit three-phase current source to 6A

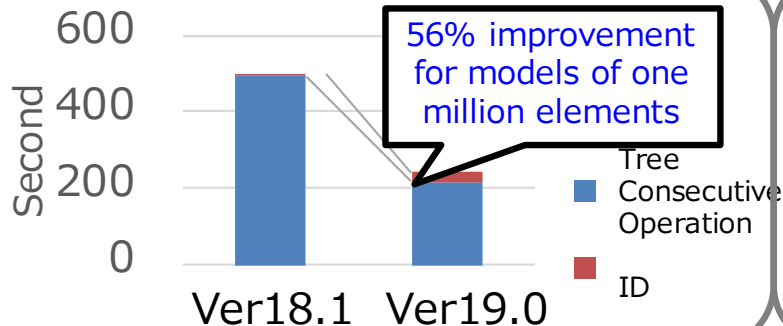
# 3. Directly Editing and Viewing Output Files

- Files can be edited and referenced with any of the following methods.
  - Outputting mesh data that is mapped distribution amounts using the Multi-Purpose File Export tool
    - ◆ Output in Nastran, Universal, and CSV formats
    - ◆ Output files can be directly edited and referenced
  - Obtaining distribution amount data using API **Ver19.0**
    - ◆ Distribution amounts can be obtained directly from result files (editing not available)
    - ◆ Refer to the function tutorial for details.
    - ◆ [https://www.jmag-international.com/tutorial/jft095\\_jplotaccessapi/](https://www.jmag-international.com/tutorial/jft095_jplotaccessapi/) (User ID and password required for viewing)

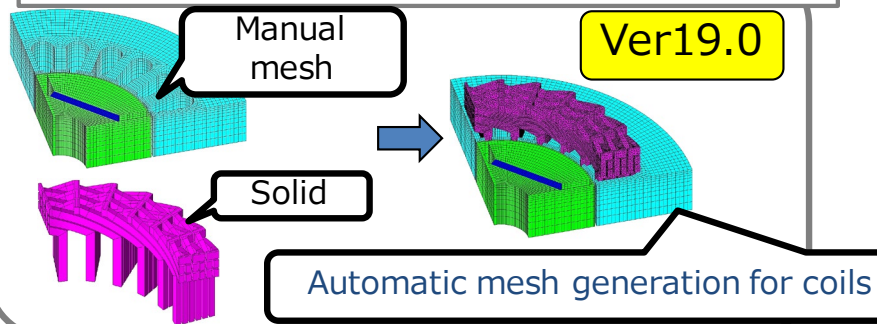


# 4. Improving Mesh Model Operability

Reduced GUI response time for large-scale models

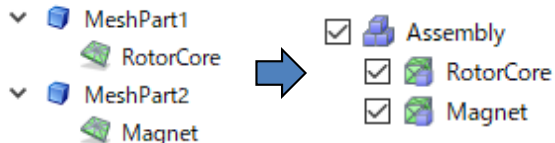


Improved efficiency for generating mesh that is a combination of solid and mesh models



Improved mesh part operability

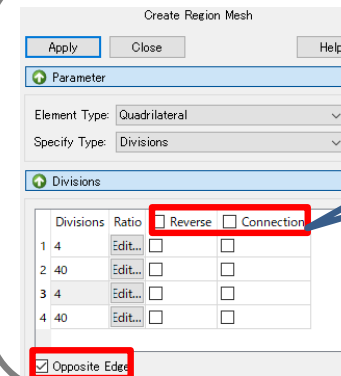
Geometry Editor Designer Ver19.0



Option to not include mesh part names in part names when importing

Improved mesh part generation efficiency

Ver18.1



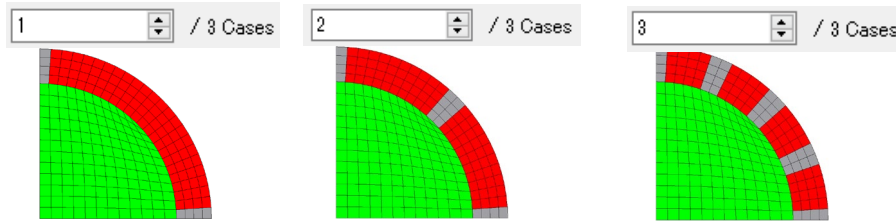
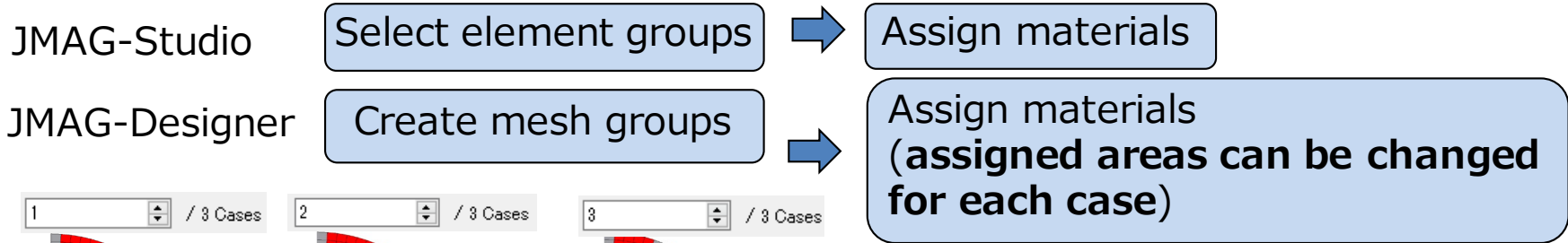
Assistance in setting the number of divisions and connection nodes

Elements and mesh blocks can be switched between shown and hidden

# 4. Simplifying Material Assignment per Element

Ver19.0

- This uses a procedure similar to JMAG-Studio.



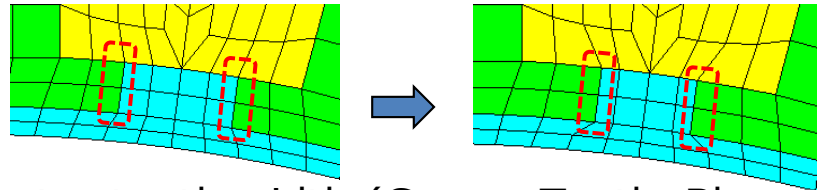
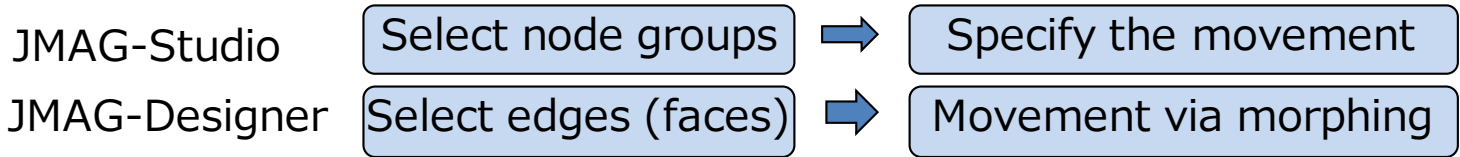
Example of rotor magnet partitions for an SPM motor  
(Gray: Air, Red: Magnets, Green: Electromagnetic steel sheet)

- Refer to the function tutorial for details.
  - [https://www.jmaginternational.com/tutorial/jft100\\_changematerial\\_perelement/](https://www.jmaginternational.com/tutorial/jft100_changematerial_perelement/) (User ID and password required for viewing)

# 4. Moving Nodes in JMAG-Designer

Ver19.0

- Nodes can be moved on edges via a procedure similar to JMAG-Studio without any need to return to Geometry Editor.



Modifying motor teeth width (Green: Teeth, Blue: Air, Yellow: Coil)

- Refer to the function tutorial for details.
  - [https://www.jmag-international.com/tutorial/jft093\\_movenodesmorphing/](https://www.jmag-international.com/tutorial/jft093_movenodesmorphing/)

(User ID and password required for viewing)

## 5. JMAG-Studio Scripts

- JMAG-Designer does not support JMAG-Studio script languages.
- We therefore request that scripts are replaced with JMAG-Designer script languages (VBScript, Python, Jscript).
- Please contact us if you have any questions regarding how to replace scripts or any other issues.

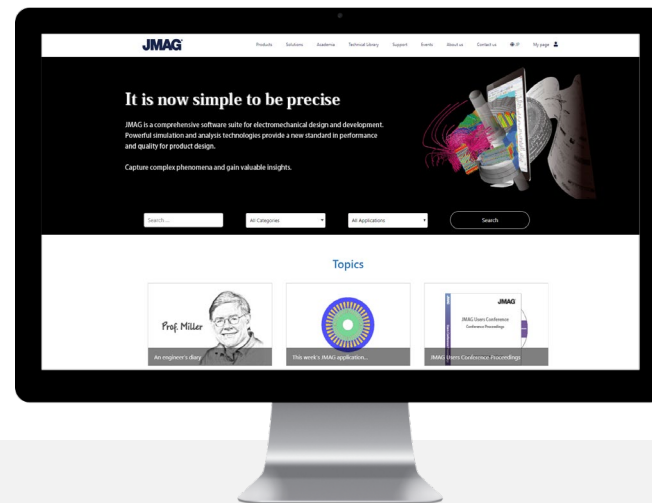
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