

# LuBan

3D Window

Mesh  $\rightarrow$  LuBan

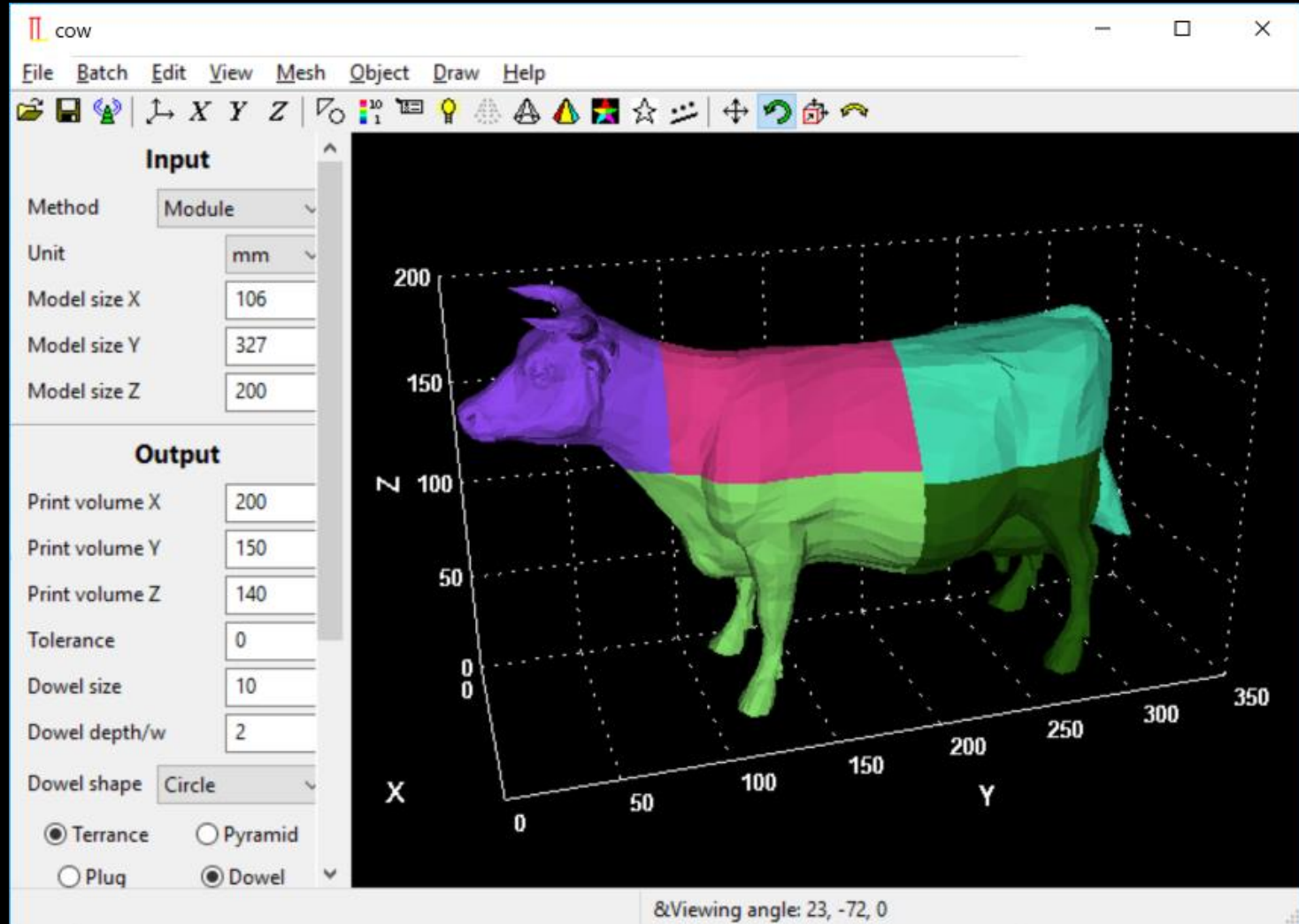
Module assembly sequence

Mesh → LuBan, Module method segments a 3D mesh into parts automatically.

If the number of parts is small, it is intuitive to figure out an assembly sequence but given a large number of parts, it might be difficult to assemble the structure without following a sequence.

In an export folder, \*\_Sequence.txt is the assembly sequence file.

This example shows an object segmented into five parts.



The content of the sequence file is

Part\_1: 1, 1,

Part\_2: 1, 0, 1,

Part\_3: 1, 0, 0,

Part\_4: 0, 1,

Part\_5: 0, 0,

Each column represents one or more cuts made by **LuBan**. The first column is the first cut, which splits Parts 1, 2, and 3 from Parts 4 and 5. The numbers 0 and 1 indicate the index of the resulting parts, starting from 0.

The second column has two cuts. The first one splits Parts 1 from Parts 2 and 3. The second one splits Parts 4 and 5.

The third column has one cut, which splits Parts 2 and 3.

Although not present in this example, a cut may produce more than two parts; hence, the index of parts maybe more than 1, especially in a complicated big object.

Assembly should be done in the reverse order of the cuts, i.e. assemble from the last to the first column.

As indicated in the sequence file, the last column produced Parts 2 and 3.

Part\_2: 1, 0, 1,

Part\_3: 1, 0, 0,

They should be assemble first.

The second column has two cuts.

Part\_1: 1, 1,

Part\_2: 1, 0,

Part\_3: 1, 0,

Part\_4: 0, 1,

Part\_5: 0, 0,

Assemble Part 1 and 2\_3.

Assemble Part 4 and 5.

They can be done in any order.

The first column has one cut.

Part\_1: 1,

Part\_2: 1,

Part\_3: 1,

Part\_4: 0,

Part\_5: 0,

Assemble Part 1\_2\_3 and 4\_5.

Done!