Artec
SPIDER II

Quick Start Guide
Scanning with Artec Spider II

Artec 3D

In this document you will find a short description of how you can collect data with Artec Spider II.

A detailed description of the complete functionality can be found in the English manual that is installed on your computer during the installation of Artec Studio. You can open this with CTRL-F1. We strongly advise you to take time for this and especially to read the practical tips carefully.

Here are some practical tips that are important to consider before and during scanning.

Tip 1.

Preparation of the object to be scanned

This means, among other things, that the model to be scanned must have sufficient structure, so that the scanner has a good overlap between the different frames.

If there is insufficient structure, place or stick something on or near the object that the scanner can "see" while scanning. This then serves as a reference for the various recordings.

Do you need to scan an object with little relief and no color change like a car hood for example?

Then there are a couple of options:
- Add geometry to the object. E.g. a crumbled sheet of paper works very well.
- Add shades of color to the object. It is best to work with high-contrast images such as a newspaper advertisement or homemade tools. Think of an A4 with an irregular "pendulum pattern" drawn on it. This works best!
- **Note**: do **not** use Fine Liners for this, but a thicker pen!
- Use Scan Spray and spray it irregularly from close by, so that you can clearly see traces.

Make sure you are well prepared on HOW you are going to scan

- Make sure that you can **always** see the screen of the computer during the scanning process because the computer controls the scanning procedure. You have to keep looking at that 90% of the time!
- Move around with the scanner to get an idea of the distance you need to the object and practice the part you want to scan.
- Think in advance about the scanning trajectory you are about to do. Also think of cables etc.
- If you notice any errors, stop scanning.
- If you move too far/too close/too fast, the display will turn red and start beeping. Go back to a spot on the object that has already been scanned, and Artec Studio will attempt to recognize that location and continue scanning.
- Sometimes this does not work. Then stop and make a new scan.

Scan as fast as possible

Move the scanner over the object as quickly as possible. Very slow scanning does not provide more information and neither does it scan closer. If the scanner is moved too quickly, the screen will turn red during scanning. Then move the scanner to an already scanned position and the software will recognize that and will continue scanning. If that fails, stop and make a new scan.

Scanning Speed Setting: always set the slider to maximum. This is 30 FPS (Frames per Second) for the Spider II scanner.

Don't make the scans too large

If possible, make sure that the number of frames in a scan does not become too large. It is better to have some more separate and smaller scans than large and massive ones. Aligning the separate scans works very well in Artec Studio. In general, it is recommended not to scan longer than approx. 1 minute! With the Spider II you get about 2000 Frames. Bigger is also possible, but then the calculation takes longer. Too small scans with only 15 frames are definitely not recommended!

Try to keep scanning at as constant a distance as possible from the object being scanned. To check this during scanning, you can activate the Distance Overlay before you start scanning.

Overlap Scans

If you make multiple scans, make sure you have a large overlap in data, so that the scans can be properly aligned during post-processing!

Accuracy of the scan

If the goal is to get the most accurate scan result possible, pay attention to the following:

- Let the scanner warm up approx. 10 minutes.
- Optimal lighting conditions (subdued light - certainly not too much). In direct sunlight, provide shade by shielding the object.
- Scan as close as possible. For the Spider II scanner, this means about 20 cm distance from the object. Keep this distance as much as possible.
- Scan as perpendicular as possible to the surface to be scanned.
- If possible, scan the entire object around plus an overlap.

Save Scan Data

The file is saved automatically. This is done by default in the user folder. So, you never have to worry about losing data. If you want to save the file in a project folder (File/Save or CTRL-S), the data will be removed from the user folder.

Note

When scanning, **Always** save the data on the PC/Laptop you are working with and **Never** on a network drive or in the cloud or the like! If you want to move the data there, you can do so when you're done with the scan.

When the scans have been made, read the document **Tips & Tricks Post-processing**! This briefly shows the method for each scanner how to post process and how you can eventually create your STL or OBJ file.

Have fun scanning with
ARTEC SPIDER II

4C Creative Cad Cam Consultants

4C Creative CAD CAM Consultants is a company specialized in 3D technologies and is located in Emmen, Drenthe. 4C is your partner for delivering professional hardware and software for 3D scanning, reverse engineering, AR & VR and quality control.

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For more information, FAQ, updates, documents and videos about Artec Spider II

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