

Edition 11.23: Downwards Compatibility EOSYSTEM – EOSPRINT

Overview

This document describes the *downwards* compatibility of EOSYSTEM to EOSPRINT versions from earlier software editions. Beginning with software edition 05.23, EOSYSTEM can build tasks that were exported with an EOSPRINT from Edition 11.22 or later.

This means, that when adding new systems to a machine park or when upgrading systems to a newer EOSYSTEM software, it is now an option to retain the current EOSPRINT version. As EOSPRINT is the key driver of the AM process, this helps to significantly reduce re-qualification & verification efforts in highly regulated industries such as aerospace and medical.

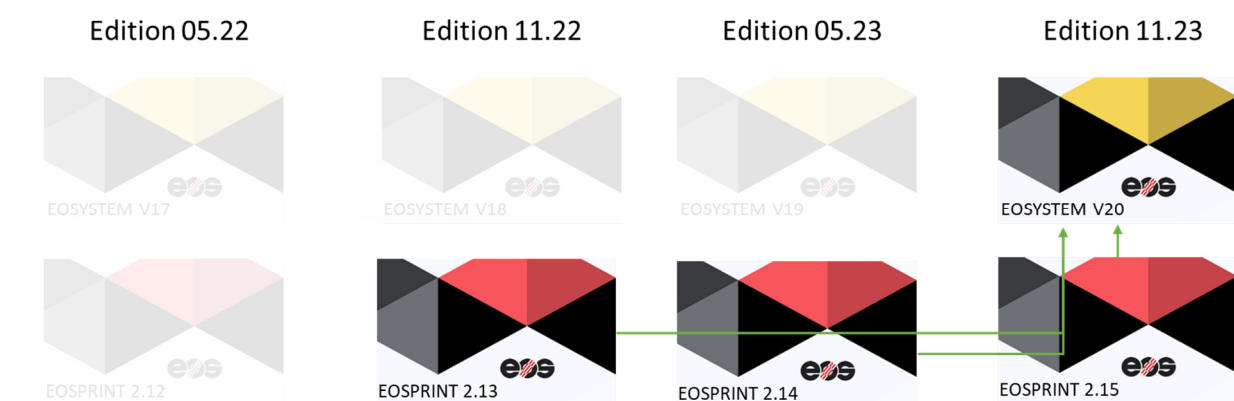
Please note that compatibility with EOSPRINT versions from an earlier software edition requires a case-to-case assessment and cannot be guaranteed up-front. However, EOS is confident that compatibility will be retained in most cases.

The compatibility is restricted by the results of the compatibility tests as documented in the following sections. These tests were performed in a virtual environment.

Test Setup

In the setup for the downwards compatibility tests, tasks as exported with the EOSPRINT versions shown in the picture are tested against the current EOSYSTEM version.

Testing of EOSPRINT versions from the *same* software edition as the current EOSYSTEM edition is not within the scope of this document.



EOSYSTEM Tests

The following table documents the outcome of tests that were performed to verify that tasks created with earlier EOSPRINT versions are compatible with EOSYSTEM Edition 11.23.

		EOSPRINT version		
		2.12	2.13	2.14
Testcases	The recoater speed is the same	n.a. ¹	ok	ok
	The min layer time is the same	n.a. ¹	ok	ok
	The applied heating values are the same	n.a. ¹	ok	ok
	The dosed powder per layer is the same	n.a. ¹	ok	ok
	The applied gas flow is the same	n.a. ¹	ok	ok
	The applied oxygen concentration values are the same	n.a. ¹	ok	ok
	The pre-process times are the same	n.a. ¹	not tested	not tested
	The post-process times are the same	n.a. ¹	not tested	not tested

EOSTATE Tests

The following EOSTATE tests were performed to verify that the executed task can be monitored by EOSTATE in the same way as with the edition with which the EOSPRINT was released.

		EOSPRINT version		
		2.12	2.13	2.14
Testcases	PowderBed Imaging stores images	n.a. ¹	ok	ok
	Exposure OT stores images	n.a. ¹	ok	ok
	Exposure OT image analysis	n.a. ¹	ok	ok
	MeltPool stores images	n.a. ¹	ok	ok
	MeltPool image analysis	n.a. ¹	ok	ok

Remarks

The above compatibility tests do not guarantee the comparability of build part quality. This must be verified on a case-by-case basis by the user with their existing hardware and guidelines.

These tests were performed for the following machines:

- EOS M 290
- EOS M 300-4
- EOS M 400
- EOS M 400-4

¹ not applicable as downwards compatibility only starts with EOSPRINT versions from software edition 11.22 or later (EOSPRINT 2.12 is from software edition 05.22)