

From 32 to 64 bit

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With deployment of next generation servers in 2018 and 2019, <u>only 64-bit applications will be</u> <u>supported</u> and CineSat and all of its 3rd party tools and libraries will be 64-bit, too.

Until 2018, CineSat migration to new operating systems and computer architectures has been mainly driven by the server hardware and operating systems used at major customer sites - typically RedHat Enterprise Linux 5 32-/64-bit bi-architectures. While these legacy servers are meanwhile being operated well beyond their hardware life-time and operating system life-cycles, the technical requirements for the CineSat application have continuously increased with availability of new meteorological data, e.g.

- New data interfaces require up-to-date interface libraries that are not available for the outdated RHEL 5 operating system, and
- New CineSat features make use of latest web technologies and third party systems, and they require an up-to-date operating system and latest Linux kernels.

Therefore, the 2019 CineSat releases will be based solely on up-to-date 64-bit operating systems. Extended support of old 32-bit systems beyond 2018 will only be possible under a dedicated <u>Extended Lifecycle License</u> and will be limited in time, as well as in functionality and in keeping track with latest input data formats.

The current development platform is CentOS 7.5 and will move to CentOS 7.6 by the end of this year. All installations and deliveries in 2019 will be based on RedHat Enterprise Linux 7.6.

The CineSat 64-bit migration project is successfully on track. The 64-bit beta release for RHEL 5 is planned for September 2018, and for CentOS 7.5 or higher in January, 2019.

The major challenge are not the 500.000 souce code lines of the CineSat core, but the <u>consistent integration of matching versions</u> of

- many dozens of open source libraries and tools,
- more than 50 data interface formats, and the
- smooth interplay of several programming languages like C, C++, Java, JavaScript, PHP, Python, Unix shell, ...

