## 2D animation and speech recognition for videos

***Egg, September 20, 2024:*** *With the 2024/IX version of AVMultimedia, our open source Linux distribution receives two new tools that offer many new possibilities for creating multimedia content. The ArchivistaBox also benefits greatly from this, because thanks to the modern foundation of AVMultimedia, the further development of the ArchivistaBox runs seamlessly. By way of introduction, a few remarks on why a new release primarily means testing and the extent to which the ArchivistaBox is subjected to these tests.*



### Why an up-to-date foundation is extremely important

Before introducing the new features of AVMultimedia 2024/IX, we would like to point out once again why an up-to-date foundation for the ArchivistaBox is ultimately important. A large proportion of our customers do not actually want updates. Our solution has been running stably for years. True to the motto ‘Never change a running team’, there may be good reasons for simply leaving a solution that runs without friction as it is.

However, the amount of effort required to keep a software solution running stably tends to fade into the background. The ArchivistaBox is not delivered as an embedded box solution without good reason. Without the seamless integration of our business solutions (ArchivistaDMS, ArchivistaERP and ArchivistaVM) with the operating system, it would be impossible to deliver products that run reliably for many years.

Even if a large proportion of business solutions are still “only” available for Windows, hardly any provider today can avoid the fact that solutions must be available on the web or on smartphones. Windows is not a suitable platform here. Web servers run on Linux and apps are available for Android and iOS.

In short, Linux (or FreeBSD for iOS) serves as the basis for all platforms.

However, this success also has its downsides. While Linux was still a relatively lean operating system at the beginning of the 2000s, the current code base is based on a foundation that is many times larger.

Updating the ArchivistaBox, as is currently the case with the 2024 release, does not simply mean upgrading the foundation (kernel). No, the entire software needs to be updated. The corresponding work is extensive, as are the associated tests.



**Test database with currently over 6 billion images**

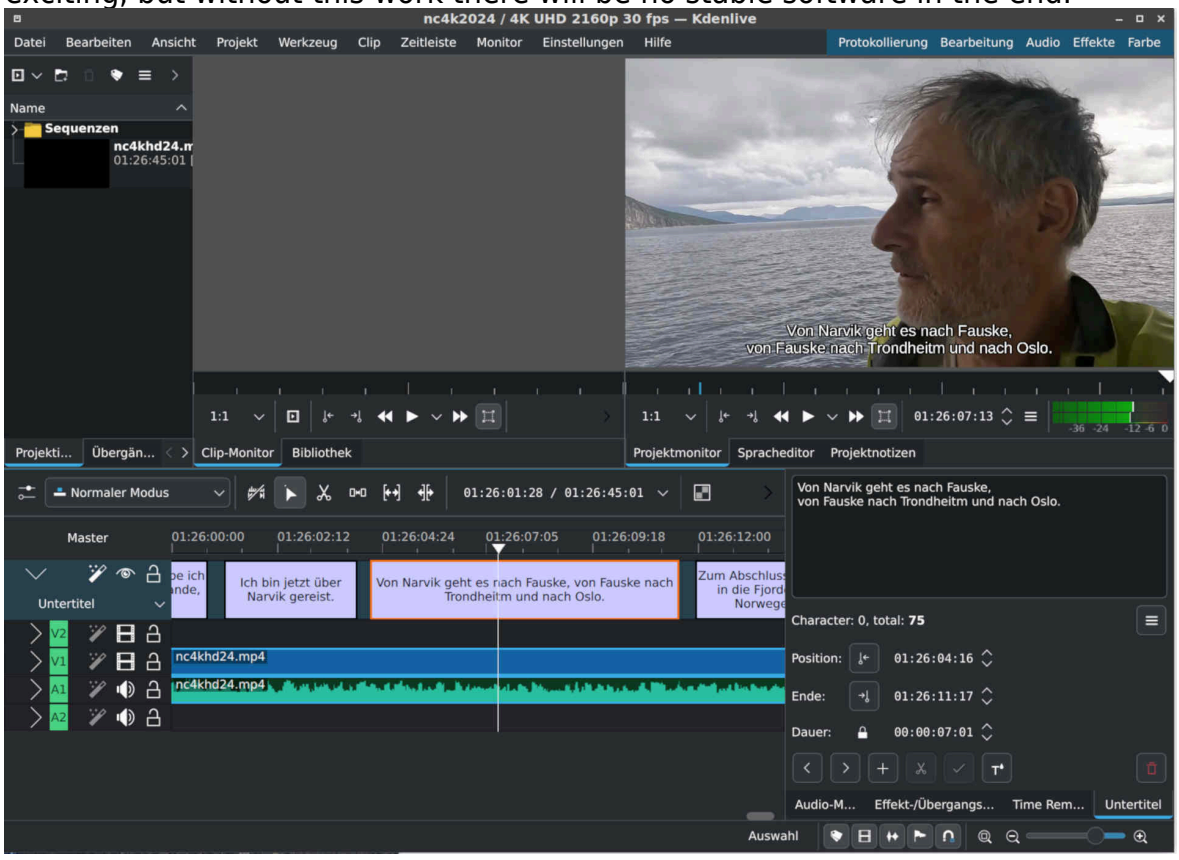
Testing means burdening the ArchivistaBox as much as possible with tasks that do not even occur in our customers' day-to-day business. Our test database now contains over 6 billion individual images. That's right, billions, not millions. We are proud to say that this amount runs on standard ArchivistaBox hardware. The ArchivistaBox Matterhorn with 2x 26 TB hard disk capacity each is currently in use.

To be fair, it should be added here that fast SSD disks (NVMe technology) are used. And this is where the problem begins. In order to be able to use fast NVME disks at all, up-to-date kernel drivers are required. Without these, this hard disk technology would not work at all. And this is precisely why a modern foundation is so crucial.

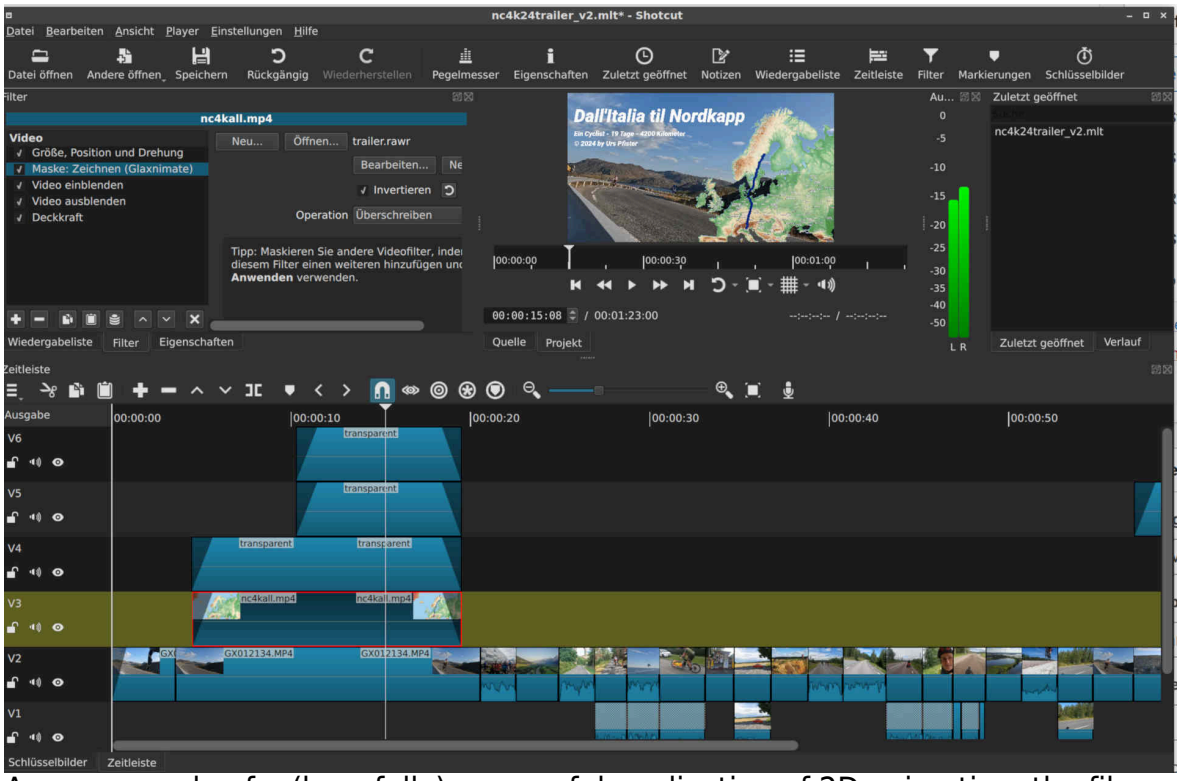
Without up-to-date software, there would be no up-to-date hardware. And that is why an up-to-date foundation is also crucial for those customers who would rather never install an update at all. Up-to-date software (i.e. ArchivistaBox) is required at the latest when replacing the hardware, because without it, no standard hardware could be installed.



Today, many software solutions end up in the cloud because the associated basis has become too complex. The cost of setting up and maintaining the solution on a single computer would be several times higher than in the past. However, to cite our test database again. Anyone currently trying to transfer just two dozen TBytes over the network would be waiting many and long anxious days. The copying process, even to a conventional hard disk, takes well under a day, with NVME disks it is still a few hours.
And that’s why you have to test, test and test again. This process is not terribly exciting, but without this work there will be no stable software in the end.



**Latest versions of Shotcut and Kdenlive**
Back to AVMultimedia 2024/IX. The new release includes the latest versions of Shotcut and Kdenlive as well as the 2D animation software Glaximate.
This should also make it clear that the 2024/IX release primarily offers many advantages for those who create multimedia content. Glaximate in particular offers a very pragmatic approach to creating 2D animations with relatively modest effort. Compared to the complexity of Blender, for example, Glaxnimate is many times simpler.
A particularly convincing solution is that Glaxnimate and Shotcut (video editing software) work hand in hand. 2D animations can be integrated very easily into a Shotcut project.
Especially for small film productions **(e.g. just for an AVMultimedia tutorial),** it is essential that the work is as simple and lean as possible (after all, time is money). AVMultimedia 2024/IX offers all tools in one package, which is currently not possible with any other open source Linux distribution.




As an example of a (hopefully) successful application of 2D animation, the film project **Dall'Italia til Nordkapp** is added here. **The trailer can be found here** and some excerpts can be found here. It is important to mention that the aim of 2D animation is not necessarily to be primarily visible in the film, but to be able to realize things in such a way that they fit the material.
For this reason, the new version 2024/IX also offers Kdenlive with the latest release. This allows the corresponding subtitles to be produced automatically (via Vosk speech recognition) from films that have been created.
True miracles should not be expected here (not even the industry leader YouTube offers them). Dialect (Swiss German) in particular does not result in predominantly good translations. However, the corresponding fragments can be found in the correct place, so that only the appropriate text needs to be entered. This alone saves a lot of time.



Also new in version 2024/IX is the updated version of FreeTube. It is important to note that a new opt24.os file must be obtained from AVMultimini 2024 or ArchivistaBox with version 2024/IX, as the latest versions of Shotcut and Kdenlive can only be run with the new 2024/IX release.
This also closes the loop as to why updating software is necessary. Software that is too old means that many newer versions of programs no longer run on an old substructure. From a technological point of view, this does not have to be the case in principle. But in fact it is, which is why the latest releases are simply a must.