KDE: Elisa, Krita and KDE Itinerary

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- **UPnP DLNA support in Elisa** [2]

    It has been a long time since I have written about Elisa. In the meantime, I have been busy working on Elisa and also some other personal side projects. I plan to write about them later.

    One area, Elisa is not fulfilling my needs is the support for UPnP DLNA. I am working actively on that but this is a lot of work and my plan is to probably release a preview of it in the next release to get feedback on it.

- **First Krita Beta for Android and ChromeOS in Play Store** [3]

    Thanks to the hard work of Sharaf Zaman, Krita is now available in the Google Play Store for Android tablets and Chromebooks (not for Android phones).

    This beta, based on Krita 4.2.9, is the full desktop version of Krita, so it doesn?t have a special touch user interface. But it?s there, and you can play with it.

    Unlike the Windows and Steam store, we don?t ask for money for Krita in the store, since it?s the only way people can install Krita on those devices, but you can buy a supporter badge from within Krita to support development.

- **Efficient Coordinate to Timezone Mapping** [4]

    For KDE Itinerary it?s crucial we know the correct timezone for each element in the timeline, precisely enough to also handle complex situations like daylight saving time changes during an international flight. How can we reliably determine the timezone though, e.g. given a

geographic coordinate, offline and on a resource-constraint mobile device?

[...]

The use of an image format has the advantage that precision/cost trade-offs are pretty obvious, it?s very easy to create using the above mentioned timezone shapefiles and QGIS, and debugging can be done visually with an image viewer.

This approach has been in use for the offline preparation of KDE Itinerary?s extractor engine knowledge base so far. Not so much for it?s runtime efficiency though (as we are using a gigantic 27942 x 13968 map), but for its ease of use.

The efficiency of this comes from the run-length encoding of scanlines, which is very good at leveraging one-dimensional spatial proximity of the encoded features, ie. a typical scanline only contains few continuous regions, independent of the resolution. It however doesn?t use the same property in the second dimension at all. Image formats that exploit this like e.g. PNG achieve an even better compression, but at the cost of constant memory decoding.

[KDE](#)

Links:
[1] http://www.tuxmachines.org/taxonomy/term/108
[2] https://mgallienkde.wordpress.com/2020/05/23/upnp-dlna-support-in-elisa/
[3] https://krita.org/en/item/first-krita-beta-for-android-and-chromeos-in-play-store/
[4] https://www.volkerkrause.eu/2020/05/23/kde-itinerary-coordinate-based-timezone-lookup.html