

The Promise of Rosegarden

The Rosegarden project didn't just promise a radically new version of its sequencer; it's close to delivering a stable and highly usable release. LinuxUser & Developer interviews two leading developers of Rosegarden 4

Rosegarden, an application for musicians who need to use traditional musical notation in a sequencing environment, has a long history on UNIX, having originally been written for SGI's Irix platform. Due to many recent advances in Linux GUI toolkits and audio infrastructure, a complete rewrite of the application was embarked upon several years ago. This effort is referred to by the project as Rosegarden 4, to distinguish it from earlier versions. Most of the recent work on the program has been done by Chris Cannam, Guillaume Laurent, Michael McIntyre and LinuxUser & Developer contributor Richard Bown.

Bown explains that like many popular free software projects, it's been a team effort. "Michael has done a great job with many bugs

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and features, and also written a wonderful tutorial called 'Using Rosegarden' to help users get started. There are also many people chipping in with bug reports, patches and general help still. It's probably a good sign that the user's list is now more active than the developer's one."

"It's been over four years since this rewrite started, and you have to make sure that you get everything finished when you've been going that long. It's tempting to keep it interesting by adding new features and technologies. Whilst we have done that to a certain extent (to keep sane as much as anything), one has to stabilise on a set of features and let them bed down without causing too much 'churn' in the overall

codebase. I'm hoping now we're achieving both maturity of code and maturity of technology; keeping our fingers off, and not being tempted to fiddle too much!"

Musicians are supposed to be technologically conservative, often favouring older or even obsolete technology if they feel comfortable with it, such as the proprietary Mac OS now re-branded by Apple as 'classic', or the ancient Atari ST platform. It could be difficult to persuade this kind of user to try both a change of platform, and a move from proprietary to free software at the same time. Bown agrees: "I don't think you can persuade anyone to use this or that for their music making - I know I certainly wouldn't be persuaded by any sales gimmicks or angles that any software, let alone

free software, would have to offer."

"It's my conviction that people will use whatever fits their need - and if you treat music software as a tool to achieve your goals in the same way you would a guitar or an 8-track tape machine, then that's good. Personally, I would always go for the low tech solution to any problem, but I realised after using Logic, Cubase et al that music technology didn't really need to be all that clever and exclude people either by technological barriers, monetary barriers or by locking you into one way of doing things. The time and effort people spend on learning to use software is real - and that can't be recovered if a company discontinues a product or service."

But how important is traditional score in an

age of computer-based music? Chris Cannam responds: "I think that the amount of new music for which classical score is perfectly well suited has been on the decline for quite a while - longer than computers have been around. I'm not sure that computers make all that much difference, especially since music is not a field with a fixed upper limit on the level of public interest. It's not like computers are displacing people: people make music with computers and with acoustic instruments. The one doesn't necessarily detract from the other, and anything that needs to be played by people obviously needs to be communicable to people too, so there's still plenty of use for score. And I think - at least, I hope - that a formal musical education in which score plays an integral part will long continue to be regarded as a useful thing. I'm talking about classical score, of course, and it is already being displaced to an extent by a variety of inventive notations for modern music. I wouldn't be too surprised if computers actually help to reverse that displacement to some degree, by taking over some of the role of modern graphical notations."

DOING IT FOR THE KIDS

Fervent Software, the consultancy which supports the Rosegarden 4 project, has been working to create Linux-based products for the education market in the UK, as Richard Bown relates: "We've had very positive feedback from schools and colleges regarding the deployment and use of Rosegarden and other free music software. I've given demos at a number of schools in the South West both to teachers and pupils, and there is great enthusiasm for the software - not least the slightly anarchic feel that students get from using open source. Most of

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the feedback we've got from schools is "when can we have it?" and I have to say "when it's ready" - so the last year has been spent finishing it off and making sure then next time we go to schools that we have something they can actually use. Additionally, there is some interest in using Rosegarden as part of the curriculum for a proposed music technology GCSE course."

The flexibility of free software makes a Linux distribution based around Rosegarden an obvious candidate for a standard school music platform. Source code access has meant that a Welsh translation of the Rosegarden interface, co-ordinated by Kevin Donnelly, is already available - just one example of a feature that a niche proprietary software house would be unlikely to offer. Of course, access on demand to binary applications is likely to be even more important for this group of users. Proprietary

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music software licenses are priced on the assumption that a typical studio will have one or two machines and a similar number of users, and the cost of software can now easily exceed

that of the hardware it runs on.

For schools with dozens of PCs and hundreds of users, the ongoing costs of proprietary licensing usually mean that an individual pupil will get limited access to current music software, as Bown explains: "Schools can and do have government 'e-credits' to spend on software, and often have one or two machines with sequencers, soft synths and notation software on them. It doesn't come cheap though, and software companies are loath to sell site licences; they certainly won't let pupils take copies of the software home to use on their own PCs. Fervent wants to enable just this kind of licencing through use of free music software - and not least Rosegarden. Indeed, I've talked with Somerset Music (a branch of local government dedicated to bringing music and music technology to schools in the area) about creating integrated music lessons on a CD that pupils can take home with them."

With this scenario in mind, Fervent Software has recently created a live Linux distribution, which will be marketed under the name 'Studio..to go!' Based on Knoppix and designed to be used with a USB memory stick, it runs entirely from a single CD and requires no installation to the local hard disc.

PLUGGING THE INSTRUMENTS

In a parallel but complementary effort to the

Rosegarden 4 project, Chris Cannam has also been working on DSSI, a plugin system for software instruments which aims to provide an equivalent to the VSTi standard established on proprietary platforms. DSSI stands for the Disposable Soft Synth Interface, a self-deprecating acronym if ever there was one. "We didn't want to suggest that it was a big project, intended to displace the forthcoming GMPI cross-platform plugin initiative being developed by Cakewalk and others. GMPI is a classic

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committee design; it might be great when it's done, but that won't be for a couple of years yet, and we really needed something simpler now."

Cannam hasn't allowed the current dominance of the VST format among computer musicians to dissuade him. "VST is not licensed in a way that makes it usable in completely free software. VST plugins are never ported to Linux, and the standard has its own set of technical problems as a cross-platform API. That said, we are also producing a wrapper for DSSI to allow it to use VST plugins via Wine."

"The aim with DSSI is to provide an API that's fairly simple - it's based on the existing LADSPA (Linux Audio Developers' Simple Plugin API) for effects plugins - but complete enough to be useful, and with no bias to any particular host implementation. I've been working on it for much of the last year with some people who are not Rosegarden developers, and we have a published specification, two working hosts including Rosegarden, and several useful plugins; we're getting close to a fixed 1.0 API. I hope it takes off with synth authors, because it's the only real option for true hosted synths in a sequencer like Rosegarden - there are other APIs out there, but none that's stable, documented, and properly portable to Linux."

DSSI can now host both native synth instruments and proprietary VSTi's within Rosegarden



Key Links

Source code for Rosegarden 4 beta versions:
www.rosegardenmusic.com/getting/

'Studio..to go!' distribution
www.ferventsoftware.com

Disposable Soft Synth Interface
dssi.sourceforge.net