

Release Notes for XXICC revision 0.0d

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This document describes enhancements and bug fixes for XXICC revision 0.0d, released 29 January 2012. 0.0d adds Ubuntu as the principal target platform and has a number of compiler and XOE improvements and bug fixes.

1. GalaxC Language

- Revision 0.0c added type `wstring` for writable strings. Revision 0.0d names this type `vstring` to mean “variable string” as opposed to “constant string”. GalaxC reserves `wstring` for strings with wide (16-bit) characters.
- Improved handling of amorphous types, i.e., types whose representation is unknown to GalaxC because it is defined in the underlying operating system (e.g., a file descriptor) or window manager (e.g., an internal font). Added “`typedef name = @amorph`” to define a pointer to an amorphous type. Changed `gxclib.gal` and `gswimlib.gal` to use `@amorph`.

2. XOE

- When XOE opens a `.xoe` file or pastes from a XOE window, it now checks that the data does not contain executable code other than XXICC objects. This helps prevent malware from infecting XOE.
- When XOE opens a text file or pastes text, it converts extraneous control characters into ‘?’.
- Previous versions of XOE usually crashed.
- You can now press the `MENU` key to expose the menu bar. This works for both X Windows and Microsoft Windows. You can also press and release `ALT` to expose the menu bar under Microsoft Windows.

3. G-SWIM

- The character coding for the Symbol font differs between Microsoft Windows and X Windows and may differ between Symbol font files. While G-SWIM will most likely do the correct thing on your computer, it may be necessary to specify the coding explicitly using the `-SC`, `-SE`, or `-SU` command option. See *Installing and Running XXICC* revision 0.0d.
- The Ubuntu 11.10 version of X Windows sometimes does not show diagonal lines or arcs immediately, though they do show up if you click the title bar. Since the problem does not occur with horizontal and vertical lines, filled regions, or text, I’m guessing it’s a problem with the X windows server or a graphics driver. I’m guessing that diagonal lines and arcs are drawn to an invisible buffer and then copied to the screen when the buffer is flushed, except the buffer is not flushing consistently. I’ve added a macro “work around Xlib bug” to G-SWIM to mask the problem until it gets fixed or I get a better idea of what’s going wrong. The macro copies a region to

itself, which *mostly* fixes the problem, though occasionally a small part of the graphics does not show up immediately.

- The X Windows clipboard needs work. If you get rid of the source data before pasting, X Windows may not copy the selection to the clipboard. I'm not sure exactly how this is supposed to work under X Windows. At some point I may need to create a temporary file.

4. Bug Fixes

- Fixed minor problem with generic TVA macros left over from 0.0c (§A.6).
- Fixed numerous bugs in the X Windows version. Amazing what you find when you start using a version most of the time.