# Doomsday Engine - Feature #1886

## Use SDL 2 for window management, display modes, color correction, and keyboard/mouse/gamepad input

2014-10-20 15:17 - skyjake

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|---|---|---|---|
| **Status:** | In Progress | **Start date:** | 2014-10-20 |
| **Priority:** | Urgent | **% Done:** | 90% |
| **Assignee:** | skyjake | | |
| **Category:** | Redesign | | |
| **Target version:** | 3.0 | | |

**Description**

SDL 2 has quite good support for low-level functionality that is essential to games. Particularly, it supports native input APIs like XInput on Windows, for raw device events. Using SDL 2 instead of custom code and Qt for all these things (wm, video, input) should improve robustness and reduce the maintenance burden.

In practice:

- SDL 2 should be linked to libgui and there should be a variant of GLWindow that creates an underlying SDL_Window.
- DisplayMode should be removed and replaced with SDL video functions.
- Qt's OpenGL API wrappers should still be usable with an SDL-created OpenGL context (after creating a QOpenGLContext representing the previously created context).

**Related issues:**

| | | |
|---|---|---|
| Related to Feature #1229: Input plugins: generate events from connected contr... | **Rejected** | 2003-07-09 |
| Related to Feature #1741: Upgrade to SDL 2 | **Closed** | 2014-03-27 |
| Related to Bug #778: Gamepad usability issues | **Progressed** | 2007-06-07 |
| Related to Bug #1042: [Windows] Alt key and console activation | **New** | 2012-05-15 |
| Related to Bug #1041: [Windows] Pressing Alt/AltGr key confuses turning | **New** | 2012-05-15 |
| Related to Feature #1758: Separate left/right modifier keys (Shift, Alt, etc.) | **New** | 2014-04-18 |
| Related to Bug #2259: Mouse unusable on ArchLinux with Gnome / Wayland | **New** | 2017-07-23 |

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**History**

**#1 - 2014-10-20 15:17 - skyjake**

*- Related to Feature #1229: Input plugins: generate events from connected controllers added*

**#2 - 2014-10-20 15:17 - skyjake**

*- Related to Feature #1741: Upgrade to SDL 2 added*

**#3 - 2014-10-20 15:17 - skyjake**

*- Subject changed from Use SDL2 for keyboard, mouse, and joystick input to Use SDL 2 for keyboard, mouse, and joystick input*

**#4 - 2014-10-20 15:25 - skyjake**

*- Tags changed from Input to Input, Plugin*

**#5 - 2015-01-16 12:14 - skyjake**

*- Description updated*

**#6 - 2015-01-16 12:15 - skyjake**

*- Description updated*

**#7 - 2015-01-16 12:15 - skyjake**

*- Related to Bug #778: Gamepad usability issues added*

**#8 - 2015-03-13 08:58 - skyjake**

*- Related to Bug #1042: [Windows] Alt key and console activation added*

**#9 - 2015-03-13 08:58 - skyjake**

*- Related to Bug #1041: [Windows] Pressing Alt/AltGr key confuses turning added*

**#10 - 2015-04-22 04:31 - danij**

*- Priority changed from Normal to High*

**#11 - 2015-04-22 05:08 - danij**

*- Assignee set to danij*

**#12 - 2015-05-03 17:03 - skyjake**

*- Target version changed from 42 to 2.0 – Home UI & Packages*

**#13 - 2015-09-13 13:45 - skyjake**

Joysticks/gamepads are already being accessed via SDL2.

**#14 - 2015-11-03 09:20 - skyjake**

*- Subject changed from Use SDL 2 for keyboard, mouse, and joystick input to Input plugins that use SDL 2 for keyboard, mouse, and joystick input*

**#15 - 2015-11-03 09:20 - skyjake**

*- Subject changed from Input plugins that use SDL 2 for keyboard, mouse, and joystick input to Input plugin that use SDL 2 for keyboard, mouse, and joystick input*

**#16 - 2015-11-03 09:21 - skyjake**

*- Subject changed from Input plugin that use SDL 2 for keyboard, mouse, and joystick input to Input plugin that uses SDL 2 for keyboard, mouse, and joystick input*

**#17 - 2016-03-27 08:15 - skyjake**

*- Target version changed from 2.0 – Home UI & Packages to Input and game controllers*

**#18 - 2017-07-05 08:29 - skyjake**

*- Assignee changed from danij to skyjake*

*- Priority changed from High to Urgent*

*- Target version changed from Input and game controllers to 2.1 (Late 2018)*

**#19 - 2017-07-05 08:30 - skyjake**

*- Subject changed from Input plugin that uses SDL 2 for keyboard, mouse, and joystick input to Input plugin that uses SDL 2 for keyboard and mouse input*

**#20 - 2017-07-05 08:32 - skyjake**

When the game grabs key/mouse input, events should be received via SDL so that the appropriate low-level APIs are used.

UI event handling can still be done via Qt as currently.

**#21 - 2017-07-11 19:11 - skyjake**

*- Subject changed from Input plugin that uses SDL 2 for keyboard and mouse input to Use SDL 2 for window management, display modes, color correction, and keyboard/mouse/gamepad input*

*- Description updated*

*- Category changed from Enhancement to Redesign*

*- Target version changed from 2.1 (Late 2018) to Rendering*

**#22 - 2017-07-11 19:13 - skyjake**

*- Related to Feature #1758: Separate left/right modifier keys (Shift, Alt, etc.) added*

**#23 - 2017-07-24 08:22 - skyjake**

*- Related to Bug #2259: Mouse unusable on ArchLinux with Gnome / Wayland added*

**#24 - 2018-07-29 16:41 - skyjake**

*- Target version changed from Rendering to 3.0*

**#25 - 2018-07-29 16:41 - skyjake**

*- Status changed from New to In Progress*

*- % Done changed from 0 to 50*

**#26 - 2018-07-29 16:43 - skyjake**

I've been working on this recently, in addition to removing dependencies on Qt in the main executables. Currently debugging through a number of regressions. At least  keyboard input should be much improved thanks to raw input modes.

**#27 - 2018-11-05 19:31 - skyjake**

*- Target version changed from 3.0 to 2.2 (2019)*

**#28 - 2019-06-28 06:58 - skyjake**

*- % Done changed from 50 to 90*

**#29 - 2019-10-14 10:23 - skyjake**

*- Target version changed from 2.2 (2019) to 3.0*