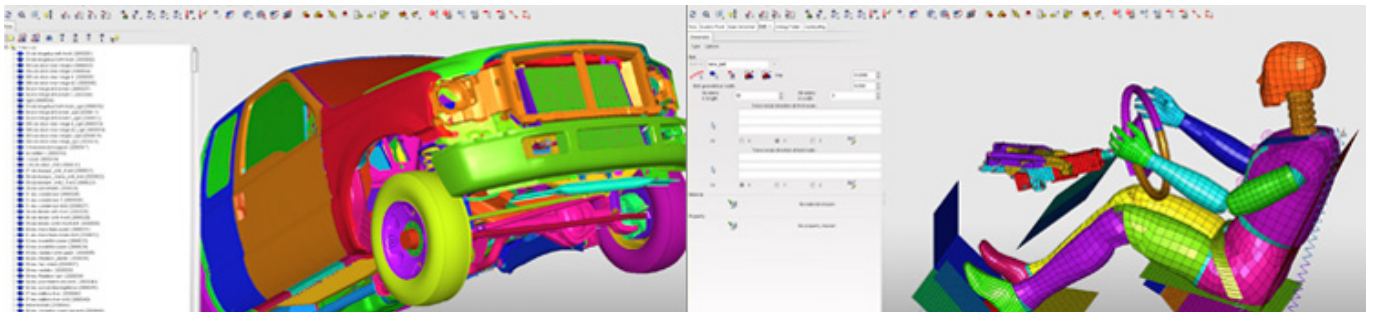


Case Study: Altair

In 2008 [Altair](#) was the developer of an application called [HyperCrash](#) used to simulate car crashes to help car manufacturers improve the safety of their products. The application used [GTK+](#) in conjunction with an [OpenGL](#) area to show the 3D representation of the car.

With an increasing number of data points and memory usage, Altair and their customers were moving over to Windows 64-bit. While GTK+ was already working out of the box on 64-bit Linux at the time, 64-bit Windows required some work.



The build system on Windows is quite different to Linux, the tools commonly used (MinGW/MSys) didn't support 64-bit compilations at the time, even though work had started in this area. Windows 64-bit also, in contrast to 64-bit Unix, did not use 64-bit longs. The windows platform defines "long" to a 32bit int for compatibility reasons. This meant special support in Glib for Windows 64 platforms.

Our work with Altair consisted of setting up GTK+ with dependencies to be built using the [MSVC](#) (Microsoft Visual C++) stack. Once the build system was working properly, each library had to be built properly and work on 64-bit Windows.

Lanedo's experienced developers have had experience building applications on Windows before helping Altair and in this case, the project resulted in several patches to different libraries up and down the stack including GTK+ and Glib to correctly function on Windows 64-bit.