Sundtek Smart Facts

Advantages Sundtek Drivers:
* Manufacturer controls the driver, the manufacturer can update the driver in a compatible way for all existing Linux systems
* Innovations can be brought to the enduser immediately without having to take care about other release cycles.
* Supported by Chipdesign Companies
* Kernel dependencies are low
* no compiling needed, fast installation (in fact, customer only needs to run one installer)
* driver issues will not take down the entire Linux System, **drivers run at application level**
* Very high backward compatibility, 2.6.15+ without Kernel modifications, 2.6.0 - 2.6.14 with a single linechange in the kernel.
* precompiled packages are available for all 32bit, 64bit x86 and Playstation 3 (rev1) systems.
* emulates Audio to act like the first Linux TV devices which were hardwired with the soundcard (makes old applications work properly)

Disadvantages old Kerneldriver technology:
* user needs to prepare a kernel development environment for his particular system
* user needs to compile drivers by himself
* kernel API is not stable and the linuxtv TV drivers won't work correctly with kernels <2.6.21
* not fully supported by many chipdesign companies
* crashes can take down the entire Linux system, **drivers run at core system level**
* Audio usually doesn't work with existing analog TV applications
* reverse engineered drivers can break devices, but will definitely lower the lifetime of a device
* what are the advantages of kernel drivers when no kernel drivers are needed?

examples on the linux media kernel driver mailinglist:
* [linux-dvb] Kernel OOPS in "dvb_demux_release" -- My hardware: WinTV NOVA-T (USB Stick) rev.D1F4 (linux DVB 11 Sept 2009)
* Problems with Haupauge WinTV-HVR 900 (There was a regression with the HVR-900 that exhibited this behavior,....) (10. Sept 2009)
* KWorld UB435-Q support? -- I *had* it working just fine until the stick up and died on me... (13. August 2009)
* We are not forced to accept any hardware design under all conditions anymore (Topic Media controller: sysfs vs ioctl 12. Sept 2009), meaning Hardware companies have to comply what opensource people want, putting themselves to the top – killing 3rd party innovations.

Why are there kerneldrivers if userspace drivers work?
The answer is quick, the first drivers were written as Kerneldrivers by time some smart people invented interfaces which allow to run everything directly at application level.

Although Sundtek has been the first one who developed a multimedia stack which makes use of those new interfaces, providing an **easier way to install Multimedia devices** and **fitting the requirements of the Chipdesign companies**.