X-Keys Pro (USB) SE

Mouse killer

If there's one thing that crops up constantly in our chats with fellow flight simmers, it's a desire for a programmable keypad to replace the conventional PC keyboard, and we can understand – why should your desktop flying rely on the same input device you use all day in the office?

When PI Engineering started to sell its X-Keys range of programmable PC keypads, the people the US-based firm expected to adopt the products included graphic designers, software developers, financial traders and office workers. Being an enterprising bunch, however, it wasn't long before FS enthusiasts hijacked the technology. PI Engineering's website now boasts a section dedicated to flight simulation and includes cockpits built by enthusiasts who have adopted a variety of PI products to increase their feeling of immersion in the virtual world.

The F-16 dominates the cockpits pictured on the PI web site; the keypads have been seized upon as a good way to emulate a real F-16 component called an ICP (Integrated Control Panel). The square, multi-key ICP sits in the centre of the aircraft's main panel, immediately below the HUD, and is a vital piece of equipment used to manage items including radios and weapons.

The keypads aren't restricted to military aircraft such as the F-16, however. Nor are they confined to use with any one

developer's sim. If a piece of virtual equipment can be controlled through a conventional PC keyboard, even if a complex series of keystrokes such as [Control]-[Shift]-[F2] is involved, a key on an X-Keys keypad can be configured to send the right instructions to your PC.

It's perfectly feasible to control items including the FS2004 GPS and a raft of autopilot and engine functions through an X-Keys keypad, reducing the number of times you'll need to resort to the mouse or a conventional keyboard when flying. The extent to which this enhances the feeling that you're controlling an aircraft, instead of operating a computer, is surprising; doing away with the mouse, in particular, makes a significant difference. With careful planning and enough cash, dedicated enthusiasts could devise sim set-ups with multiple
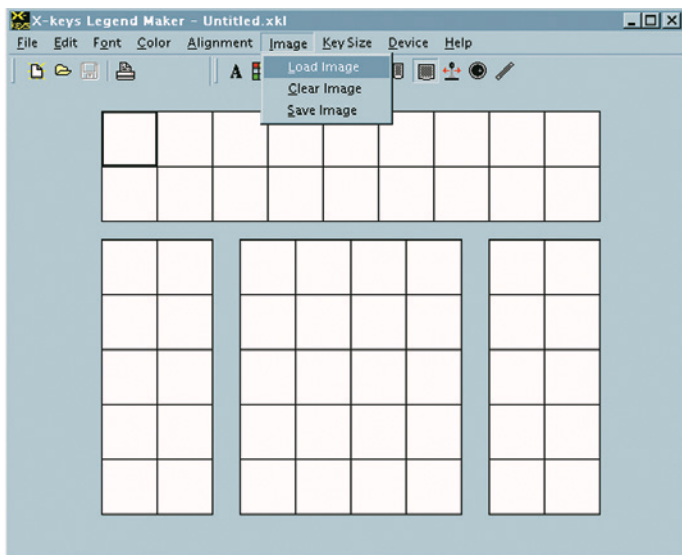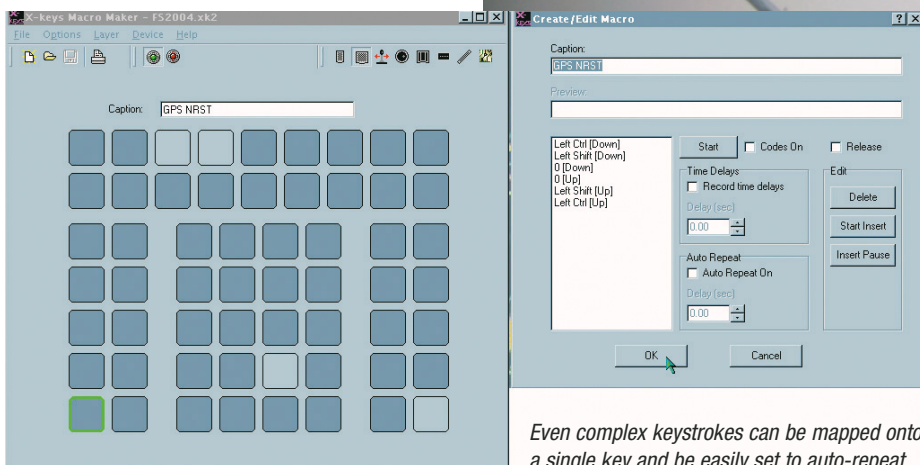
Mapping keys is simple – and a custom colour scheme improves the visual appeal even further

X-Keys keypads that make the PC's standard keyboard and mouse redundant – except at the very start and end of a flight. The only catch is that, despite their advantages and robust quality, the X-Keys keypads will appear pricey to some.

Having decided on the precise simulated equipment you want to control, and researched the applicable keystrokes, it's time to fire up a utility called Macro Maker to map these onto keys on the X-Keys hardware. Because Macro Maker isn't specific to one particular type of unit and you can use multiple keypads of different types together, the first screen you see may well be for a model other than your own; on start-up, the software defaults to display a schematic of the 20-key, X-Keys Desktop unit. Although this can be disconcerting the first time it happens, it isn't a major issue. There's a dropdown menu that will allow you to choose your specific unit, in our case the 58-key X-Keys Pro.

The X-Keys Pro unit installed in the awesome F-16 cockpit of Bruno 'Flattop' Mainardi (http://cf.geocities.com/flattop_101qaf/fabcockpit.html), a member of the Wild Panthers unit of the Québec Air Force (www.quebecairforce.com)

Even complex keystrokes can be mapped onto a single key and be easily set to auto-repeat

listening for keyboard commands is assigned a low priority, ensuring they react relatively slowly to X-Keys.

If the X-Keys Pro unit tested is representative of all PI Engineering keypads, the product line is solidly built. The task of configuring keys is straightforward and ample resources are provided to enable good-looking labels to be created.

When in use, virtual equipment in FS2004 and FS2002 reacts promptly when keys are pressed, but when some gauges in one or two aircraft we tested didn't respond first time this was frustrating. Despite this, having the ability to avoid the mouse when controlling FS functions does enhance the experience of virtual flight. The only real question mark against PI's X-Keys line is whether the relatively high price tags attached will be considered affordable by the majority of enthusiasts. ∎

Iain Dawson

Mapping key strokes onto each individual key is straightforward once you've devised a suitable layout. After highlighting a graphic of the key you want to program – a move which turns the key's border a lurid green – it's sensible to assign a meaningful caption. This makes it significantly easier to edit your layout later. After this, pressing 'Start' on the Create/Edit Macro screen ensures that the next key sequence you type on your standard PC keyboard is recorded by X-Keys and linked with the highlighted key. If you need the newly programmed key to auto-repeat, achieving this is as simple as ticking a box.

The top of each transparent X-Keys key can be removed using a finger nail, allowing you to add a paper label. Once you re-attach the key tops, the label is protected and can look surprisingly professional beneath the sheen of its plastic coat. A sheet of pre-scored, blank paper labels is supplied so you can write, or print, appropriate legends.

To help anyone who prefers printed labels, PI includes a straightforward utility called Legend Maker that's accessed through Macro Maker. This allows text or images to be used to create legends, as well as making it possible to add a background colour to

each label. This is a handy feature if you want to adopt a colour code, perhaps tinting GPS control keys lilac and autopilot controls blue, making the keys easier to find in flight. If you are adept with more professional packages, such as Adobe's Photoshop or Illustrator, the PI website has ready-made blank templates you can download for use within these applications.

Having programmed the keys you want and created labels with appropriate legends, it's important to use a further X-Keys utility to activate the saved layout before you go flying. This utility, called Macro Manager, can be configured to start with Windows, reducing the chances that you'll forget to activate your keypad layout before trying to use it!

If you can break the habit of reaching for the mouse, and reach for your new X-Keys unit instead, the only frustration when using X-Keys in flight is that some keys do have to be tapped more than once to ensure their function is recognised. The only pattern that's discernible is that this happens primarily when controlling virtual gauges which most, if not all, of us normally manipulate using the mouse. It's possible that where gauges are programmed with this mouse-oriented expectation, the task of