

## Kerbal Space Program - Feature #3980

### Option to disable automatic switching of reference frame?

01/20/2015 04:54 AM - drhotdog

<b>Status:</b>	New	<b>% Done:</b>	0%
<b>Severity:</b>	Normal		
<b>Assignee:</b>			
<b>Category:</b>	Controls and UI		
<b>Target version:</b>			
<b>Platform:</b>	Any	<b>Mod Related:</b>	No
<b>Expansion:</b>			

#### Description

##### Issue:

KSP automatically switches reference frame between surface, orbit and target depending on altitude and proximity to your target. Most of the time this is helpful but it does this regardless of whether the user has previously made an explicit choice by clicking on the navball reference frame & speed display. At worst this was a trivial annoyance in 0.25 and earlier versions of (stock) KSP but in 0.90 these reference frame switches don't just affect the navball display, they also affect the autopilot function provided by sufficiently advanced Kerbals/probe cores. Consequently automatic reference frame switches result in unrequested and sudden changes of heading if the autopilot is in use and set to follow prograde/retrograde/etc. One example is when an autopilot is set to follow the prograde vector during a rocket launch it will suddenly pitch over when the reference frame automatically switches from surface to orbit during ascent. For a rocket with marginal structural integrity/control authority/aerodynamic stability this can even result in Rapid Unplanned Disassembly.

##### Proposal:

Follow the example of the camera mode control (auto, orbit, free, chase) by providing the user with 4 reference frame modes (auto, surface, orbit, target) which can be cycled through in the normal way by clicking on the navball's reference frame & speed display. Auto corresponds to the current behaviour of automatically switching between surface, orbit and target frames of reference depending on the situation. Auto should be the default and the reference frame mode should revert to auto on changing the active vessel (like camera mode) but should not revert when toggling between main view and map view (unlike camera mode, that's one for another feature request...). If the user selects one of the other three modes (surface, orbit or target) the system should stay in the corresponding reference frame until the user either explicitly changes it or changes the active vessel.

#### History

##### #1 - 01/20/2015 08:25 AM - Squelch

A very good and well described suggestion. It has been forwarded for attention.