Our research combines electronic institutions and 3D virtual worlds for the construction of virtual institutions which are virtual worlds with normative regulation of interactions. That is, a virtual world where participants actions have to comply with predefined institutional rules. In this context, the actions a participant may perform depend on the institutional rules and the current execution state. We propose to include iObjects, intelligent objects, as entities having both visualization properties and decision mechanisms in the virtual institution. They are a new key element to improve users participation in virtual institutions. We situate them in a middleware infrastructure in order to be independent of 3D virtual world platform and to provide a general solution in which participants could be connected from different immersive environment platforms.