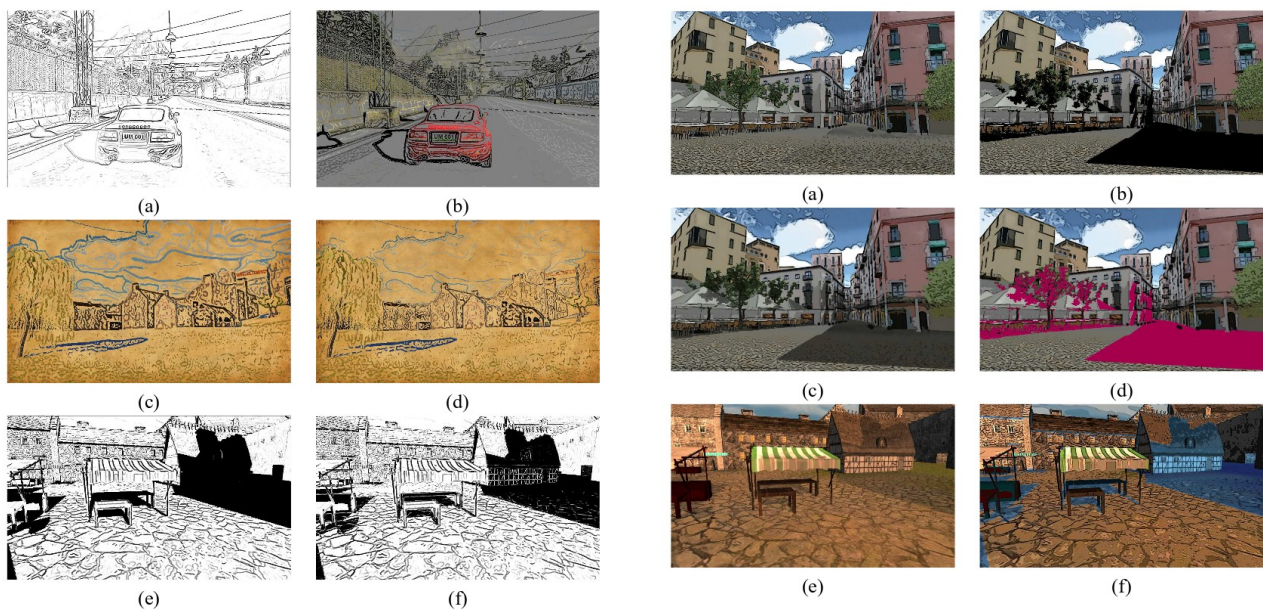


Magdics et al. in their paper, *Post-Processing NPR Effects for Video Games*, describe their work on a framework of NPR tools that can be used with any video game. The authors argue that appropriate post-processing can greatly affect the mood of a game. Also they identify the need for a post-process effect framework which are, according to authors, mostly missing or limited in available video-game middleware and engines. The authors further defend the need for more NPR usage by claiming that certain techniques can emphasize elements of importance and hide unnecessary details.

The work provides means to integrate common NPR post-processing techniques in new games and also to change the style of existing video-games and thus allowing for creating a whole new experience from an existing product.

The paper provides background information on how different elements can affect the experience. There are mentions of contours, color themes, the use of lights and shades, the viewpoint and perspective and also the level of detail. Next, there is an overview of common post-processing techniques that affect the aforementioned style elements.



The authors present their results by including game screen-shots with post-processing applied. The images clearly demonstrate how greatly the result can change the experience of a game. No formal user-study was conducted in this experiment. The authors brand it as a future work so that they can evaluate how their work affects player feelings.

The video games used for the experiments include in-house *Legends of Girona* as well as various Unity3D demos. The authors note it is trivial to add support to any Unity3D games. In most cases the process takes just couple minutes. The framework already includes necessary scripts to provide in-game selection of post-processing effects in the same way video games offer control over graphics quality settings.

The work presents interesting ideas on how useful NPR post-processing can be. Various techniques explained in the paper can become powerful tools in creating atmospheric and enjoyable video games. These exact items are of interest to me since one of my personal interests is to attempt to create a rendering configuration producing 3D graphics in the style of certain video games from the early 90s.

References

Milán Magdics, Catherine Sauvaget, Rubén J. García, and Mateu Sbert. 2013. Post-processing NPR effects for video games. In *Proceedings of the 12th ACM SIGGRAPH International Conference on Virtual-Reality Continuum and Its Applications in Industry* (VRCAI '13). ACM, New York, NY, USA, 147-156.
DOI=10.1145/2534329.2534348
<http://doi.acm.org.proxy.cc.uic.edu/10.1145/2534329.2534348>