

Call for Papers: Special Issue on Procedural Content Generation IEEE Transactions of Computational Intelligence and AI in Games

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The cost of manually creating virtual worlds for computer games is spiraling upwards. Procedural content generation (PCG), by which a computer algorithm generates game levels, art assets, quests, background history, stories, characters, or weapons, offers hope for substantially reducing the authoring burden in game development.

Moreover, PCG has the potential to facilitate artistic expression and to promote creative experimentation, enabling individuals to create appealing games that otherwise could only be developed by large teams.

Automated content generation can take player behaviour history and player preference models as its inputs, and thereby create games that adapt to individual players. Content generation algorithms can also create novel game elements, in the process revealing new game potentials and improving our theoretical understanding of game design.

This special issue welcomes high-quality, mature work on procedural content generation for games. We welcome submissions relating to all game genres, including commercial games focused on entertainment, experimental indie games, web-based and social networking games, tabletop games, and serious games for simulation and education. Topics include but are not limited to:

- Procedural game level, scenario and quest generation
- In-game procedural creation of game objects
- Procedural creation of urban and natural environments
- Automatic layout techniques and generation of interiors
- Procedurally-assisted generation of art assets
- Adaptive game balancing and dynamic content generation
- Automatic generation of game rules and game variants
- Deployment of procedural generation within game design
- Case studies of industrial application of procedural generation
- Systematic evaluation of procedural content generation
- Combining manual editing with procedural generation of content

Authors should follow normal T-CIAIG guidelines for their submissions, but clearly identify their papers for this special issue during the submission process. See <http://www.ieee-cis.org/pubs/tciaig/> for author information. Extended versions of previously published conference/workshop papers are welcome providing the journal paper provides a significant extension of the conference paper, and is accompanied by a covering letter explaining the additional contribution.

Deadline for submissions: November 1, 2010

Notification of Acceptance: January 15, 2011

Final copy due: April 15, 2011

Publication: June 2011
