Ambient Intelligence Programme

Jigsaw Puzzle

Overview

Jigsaw Puzzle offers all the typical functionality of jigsaw puzzles along with a lot more. Jigsaw Puzzle can be played using a multitouch screen or the mouse, but also supports switches in combination with scanning techniques for people with hand-motor impairments. Furthermore, the game includes a special mode that is accessible by the blind. At the beginning of the game, players can browse a collection of images and select one. Upon selection, they can choose the number of the pieces that the image will break into. When the puzzle is completed information related to the image's content is provided.

Beyond single-machine gaming, Jigsaw Puzzle supports distributed collaborative multiplayer sessions, i.e., multiple people trying to complete a single puzzle using multiple (stationary or mobile) computers at the same time. In this case, a player can start a multiplayer session in any one of the available machines and — at any time — additional gamers can join in. Every time a new players joins (or exits) the game, the puzzle pieces are distributed among the available machines. Single puzzle pieces or even partially completed parts of the puzzle can be transferred from one player's screen to another's simply by being tossed out of its bounds. The game ends when the puzzle is completed in any one of the screens. In the distributed competitive multiplayer version of the game, each player tries to complete the same puzzle before all the others.



Playing the game



Viewing related information upon successful completion



Playing the distributed multiplayer version of the game on 3 different devices (kiosk, table & tablet)

Target Applications

The game is available for PCs running any version of Windows, as well as for mobile devices (smartphones and tablets) running Android, iOS, and Windows 8. The game can be used both as an installation in a public space (museum, exhibition, store, etc.) or a downloadable app for PCs and mobile devices. The distributed multiplayer versions of it are particularly suited for publicity events and social spaces.



Cooperative puzzle game in Eleftherios K. Venizelos Museum

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Additional Information

Permanent public installations:

- Heraklion Archaeological Museum
- Tourism Information Center, Municipality of Hersonissos
- Infopoint, Tourism Office, Municipality of Heraklion
- National Research Foundation "Eleftherios K. Venizelos", Chania



Jigsaw Puzzle web page <u>www.ics.forth.gr/ami/project/jigsaw-puzzle/</u>

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