



3rd V4Design Newsletter

Visual and textual content re-purposing FOR(4) architecture, Design and virtual reality games



V4Design is an EU H2020 research and innovation program. It was successfully launched in January 2018 aiming to reuse and repurpose visual data and texts by developing novel approaches for visual analysis, 3D reconstruction, language understanding and generation of dynamic 3D objects that can be reused as basis for design. The final goal is to provide innovative tools to architects and video game designers that will inspire and assist them in sharing content and maximize its exploitation.

During the past 3 months, our work was focused on the implementation of the V4Design platform. A lot of effort was placed on the refinement of user requirements and use cases, which have been finalized. More information can be found on the "Use case creation and user requirements extraction exercise" section.

As per the technical requirements, the system architecture was specified, and there was significant progress with regards to the system's components. In addition, several technical specifications about the implementation of the V4Design platform have clarified (such as the communication of components and data storage) in the light of the operational prototype development.

V4Design partners also participated in a number of high-profile conferences and fairs disseminating the V4Design project and introducing its concept and its main objectives to the public. Event highlights are illustrated in the "Events" section.

Events



THE PIRATE SUMMIT 2018, COLOGNE, GERMANY, JULY 3-5 2018

NURO presented the showcase of the 4th V4Design use case at the Pirate Summit 2018 <https://piratesummit.com>. During this event potential users, investors and industry experts participated to the demonstration and provided valuable feedback.



RESEARCHER'S NIGHT, THESSALONIKI, GREECE, SEPTEMBER 29th 2018

CERTH participated in 2018 [researchers' night](#) that took place in Thessaloniki, Greece and showcased a V4Design demo. The event was very successful and attracted more than 3200 visitors of all ages that had the chance to have a close look at the project's preliminary results and interact with the technologies.

Use case creation and user requirements extraction exercise



During the last months V4Design user partners (AUTH, HdM, DW, NURO) have further elaborated on the pilot use cases (PUC) and the user requirements, within the broader frame of providing a 'visual and textual re-purposing platform for architecture, design and virtual reality games'. An extensive array of criteria has been taken into consideration for the use case creation, the main of which were: a. the relevance to the V4Design challenges; b. the interest for content reuse and repurpose; c. the interest of the stakeholders.

Eventually, four PUCs have emerged. PUC1 is articulated in two scenarios. Scenario 1 is related to the case of the broader historical area of Delphi, Greece. This scenario provides a lot of available visual material and a lot of related, visually rich historical input, such as the ancient Greek architecture and art and is further facilitated by the proximity and knowledge

of the selected place to project partner AUTH. Scenario 2 is related to the case of a new cultural building in downtown Berlin, Germany. This is also a case with a lot of available visual documentation, connected to an actual project, winning scheme of an architectural competition designed by project partner HdM. In PUC2 users have selected the case of Japanese and East Asian calligraphy and is related to interior space elements, designed to host and be inspired by it. For PUC3, a television series for German language learning was selected, named 'Nico's Weg', broadcasted by project partner DW. Then for PUC4, a case was selected for a 're-living the past' virtual experience, including past historical periods and places in Germany, such as the Gendarmenmarkt square in Berlin, which will be applied on the case of historical Bauhaus buildings and the broader cultural heritage. With respect to the user requirements, which will direct the design of the V4Design platform architecture and the specification of its main components, a combined approach has been adopted. More specifically, the approach has included the following steps, as outlined below:

- a. Collection of user requirements from the analysis of the V4Design PUC scenarios.
- b. Collection of user requirements through structured questionnaires distributed to a focus group of architects, designers, game creators and content providers.
- c. Collection of user requirements through the market analysis and industrial requirements elicitation process conducted in the first months of the project

User requirements derived from this process, have been hierarchized as high level user requirements (HLUR) and further refined into user requirements (UR). HLUR are placed one level up in the hierarchy and include abstract notions of user needs that might include sets and combinations of UR. UR is the simpler form of HLUR that will be directing the actual development of the V4Design platform.

Upcoming dissemination targets: ICT 2018

We are also planning our participation in this year's ICT expected to take place in Vienna from 6-8 December 2018! If you happen to be there make sure to pass by from our booth to test our "Living in the past" demo and have a hands on experience with novel VR technologies!



If you like what you are reading and would want to have the opportunity to test out V4Design's early prototypes and demos make sure to subscribe to our user group: <https://v4design.eu/user-group/>

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