Awarded Playful Visualization of Data (TaY 2017) writes about their project

Tämä on Pitkyn stipendillä vuonna 2017 palkitun TaY:n Playful Visualization of Data -projektiryhmän kertomus projektistaan.

This is the story of UTA's Playful Visualization of Data group, which was awarded Pitky's stipend in 2017.

Playful Visualization of Data

As everyone who has been involved with prototyping knows, it can be very rewarding and exciting, but is almost always also quite demanding. As you can imagine, it does not become at least any easier when you're talking

about two concurrent prototyping projects which are intended to complement one another. This was the challenge we faced with the MurMur - Playful Visualization of Data project.

MurMurs are playful hybrid furniture which are currently being developed at a TEKES funded research project at the University of Tampere. What they will ultimately end up being is still somewhat of a mystery, because the team are exploring what playful hybrid furniture could be, and what might work best for their clientele. We were charged with creating a software companion to the line of MurMur furniture, a playful information screen which would display data about the MurMurs – in their fiction they are magical, living beings - as well as actual real world data and metrics fetched from sources specified by users.

The task was by no means easy. Because their end of the project was still also in heavy prototyping, our clients had only general ideas of what they would want from the software. Thus they gave us only very basic and general requirements, leaving the rest up to us. Considering our software would be a key component in the MurMur line of products, we were feeling some pressure from the start. At the same time, the project was also very exciting. Whereas some other groups were basically just checking off boxes from a strict and detailed list of specifications, we got to be involved in a very creative enterprise where we had a lot of freedom to make decisions.

In the end we created a product we're quite proud of. Our visualizer is able to hook up to Twitter, Trello, Slack and both Google's and Microsoft's calendars by using their proprietary APIs and by parsing a lot of JSON. It also features both up to date weather data from the user's location as well as a weather forecast for tomorrow, as well as displaying information about desired stocks.

Data. Visualized. Playfully!

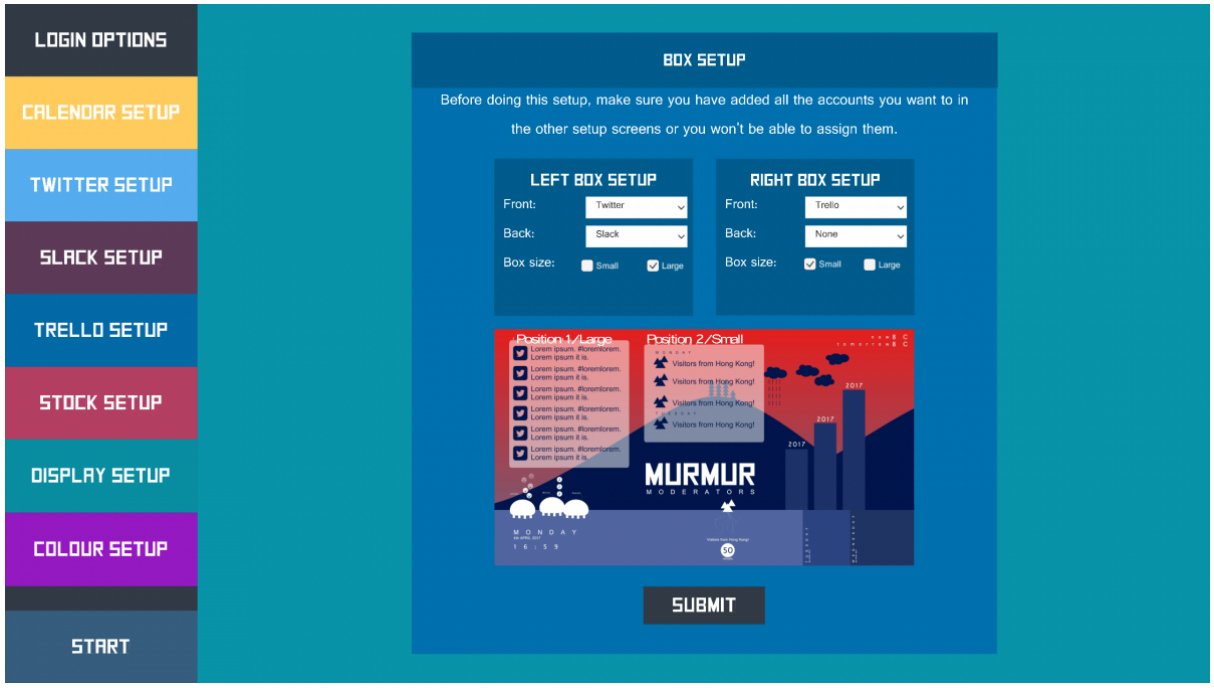
All this information is processed and turned into custom data types, which are then displayed in our visually rich graphical scenes. For this part of the project we used the wonderful and widely used Unity Engine. This gave us some challenges of its own, because Unity only supports rather old versions of Microsoft's .NET, thereby forcing us to do a lot of extra work building bridges between it and APIs and libraries designed for newer versions.

Unity also proved rather challenging from a version control perspective. Initially we had hoped to use Subversion, but we soon discovered that Unity simply was not compatible with it, forcing us to do a lot of extra work after each commit. Luckily Unity also offered a proprietary collaboration tool we were able to migrate to, which also ended up giving us a lot of other fun toys to play with, like the ability to build directly on a variety of platforms off Unity's cloud servers.

In the end it was worth it. The software looks unique and striking, runs well and thanks to Unity's wide array of supported platforms, will be able to be ported to different operating systems with ease. The project was a lot of

work: in a little over four months the five of us logged nearly 800 hours of development time with everyone handling a variety of roles as required.

Our clients were thrilled with our work, and we all got to experience the enjoyment of actually shipping a real life software project, on time and as specified.



The program also features a custom setup program where the user can specify which accounts to use and authorize with them.

Group members:

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Artikkelilaji: Stipendiartikkelit

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