Invitation à la soutenance publique de thèse

Pour l'obtention du grade de Docteur en Sciences de l'Ingénieur

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Ingénieur civil en informatique

A Model-Based Approach for Dynamically Distributing Graphical User Interfaces Based on their Properties, Graphs, and Scenarios

Human-Computer Interaction is the field of research for the design and use of computers. User interfaces allow humans to interact with one device. Recently, we have seen a growth of laptops, tablets and smartphones that keep getting higher and higher capabilities. Nowadays applications are still designed for a single computing device and to be used by only one person at a time.

The problem to be addressed in this thesis is to enable designers and developers to create applications that support dynamic distributed graphical user interfaces to use all available devices.

We propose a software support that will allow the creation of such applications in the form of a toolkit. In order to offer such software, we first defined conceptual models and describe an approach based on these models.

A distributed system is a collection of computers connected through a network which enables them to communicate and share resources. Such systems are hard to create, observe and maintain.

This led us to create the Distribution Graph model which allows us to represent the users, the devices and how they are all connected together. We have also introduced the Application Graph model as a detailed graph to represent how the application are distributed across all the devices.

Computing devices range from a digital alarm clock and household appliances to cell phones and computers. The size of the device, of the screen and its operating system are several constraints that can prevent an application from a device to be installed and run on another device. In this thesis, we offer a way to deal with this complexity.

Mardi 19 janvier 2016 à 14h00

Auditoire BARB 92
Place Sainte Barbe, 1
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