Requirement definition

GUI-Client Prototype



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# Change history

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| --- | --- | --- | --- |
| Date | Version | Author | Description |
| 19.04.2018 | 1 | Dominik Hutterer | Initial version |

# Requirement definition

## Introduction

For all future projects a host application has to be build, that can handle and display every type of (KPU) template, as well as a management of users and rights. Therefor it has to communicate with the personal assistant (ADAM), to request the accessible modules and their presentation form.

## Scope

### Proof of concept

The presentation possibilities in Xamarin of a received XAML code (from ADAM) at runtime have to be investigated and tested.

A communication technology between Client and ADAM has to be chosen, important is a safe (encrypted) message exchange between those two. Also, each message has to be authenticated, therefor an authentication concept has to be created, together with the Access Control (AC) unit.

### Software design

Once the technology stack is clear, a full UML model for the GUI-Client will be created, implementing the following functions:

* Login: Authentication of a user by ADAM, returns some kind of certificate or key to grant all future communication as safe.
* Request of accessible modules: The client requests a list of all accessible modules for the current user.
* Request of a presentation template: For each module in the list of accessible modules, the client have to be able to request a graphical template (XAML) to display this module.
* An abstract and dynamic local datastore for binding the visualization of a module to its data is needed. (MVVM-Pattern)
* Two types of messages from ADAM have to be handled:
  + Data update: Change in the displayed data – the local datastore have to be updated.
  + Force dialog pop up: For user confirmation, warnings etc. ADAM must be able to force the pop up of a new dialog. (The presentation also has to be handover by ADAM.)

### Functional GUI-Client

After presentation, review and approval of the model. The model will be implemented in a functional Xamarin App.

The displaying elements should be simple, because a layout design will be provided later buy an external designer. There has to be a simple possibility to enter username and password, as well as displaying a hierarchical menu structure – like a tree view and finally displaying a received XAML – like a content presenter or so on. This XAML maybe has to be presented in a new dialog also.

### Interface testing

If the interfaces are already implemented in ADAM, then the testing should be done directly against these interfaces and reported/logged in ADAM or by an ADAM plug in.

Otherwise a testing application has to be built to verify the correct implementation of the interfaces, as well as the business logic behind the Interfaces.

## Exclusion from scope

The layout design will be done by an external designer.

A controller that defines the workflow of a single client, is part of the next prototype.

## Action plan

* Proof of concept
* Definition of the technology stack
* Definition of the interfaces
* Create UML model
* Presentation, review and approval of the model
* Implementation
* Testing

## Effort estimation

The implementation effort is estimated as follows.

|  |  |
| --- | --- |
| Task | Hours |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
|  |  |
| Total |  |

### Annotations

## Risk assessment

### Risk short description

#### Description

Please describe the risk in detail.

#### Consequences

What are the consequences, if this takes place?

#### Avoidance

What can be done to avoid this?

#### Probability

How high is the probability?

## Prerequisites

What is necessary to meet the targets?

## Acceptance

Enter the acceptance criteria, test protocols, etc.