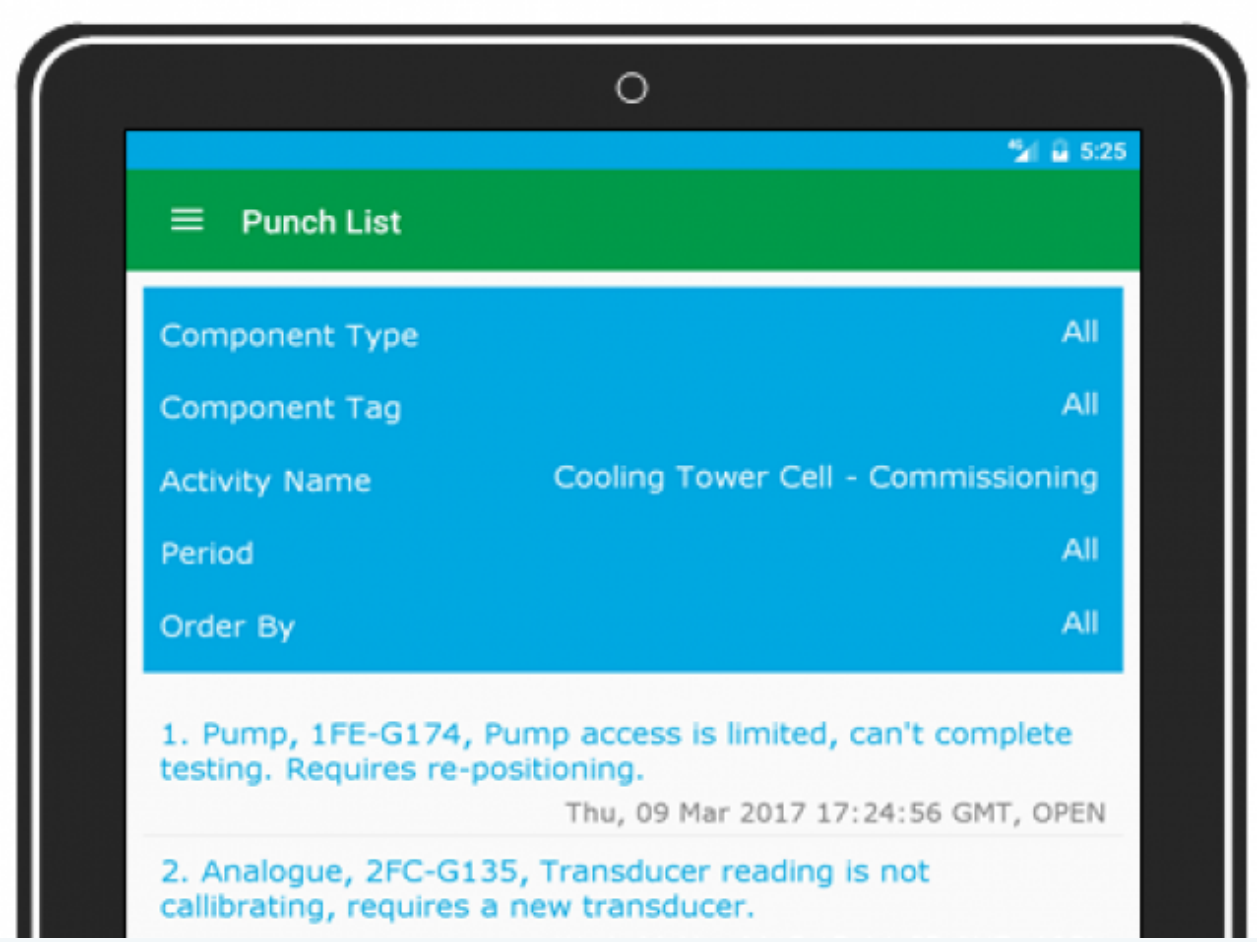
CMS extended with Mobile

In 2014/15 we developed a plant completions and commissioning system for a large industrial gas company which has been used successfully to aid the commissioning of several very large industrial projects in Asia.

In 2017 we've added mobile functionality to the application.



Background

The process of commissioning these large, capital intensive plant requires extensive planning with hundreds of personnel performing many thousands of activities upon tens of individual commissioning systems and hundreds of subsystems.

It is a daunting task that can sometimes take several years to complete. Safety is a key preoccupation and a precise audit trail is required.

During the commissioning process equipment has to be systematically preserved and this is

of particular importance when the project is being built and operated in extreme environmental conditions. This all needs to occur within the budget constraints of the project and by the required deadlines, otherwise significant financial penalties can be incurred.

Mobility requirement

In 2016/17 this same application is being used in the completions and commissioning of a vast, industrial gas generation facility in the Middle East. In 2016 we were asked to enhance the functionality of the system in preparation for this project and one of the key features was to introduce a mobile capability.

Rather than issue printed work instructions for personnel to carry out the work required and then scan, import and / or type the details of the resultant activity at a desktop computer, significant effort can be avoided if those same work instructions can be accessed and actions recorded via a mobile device.

The mobile application needed to be accessible from an Android, IOS and Windows device and to be capable of operating without network connectivity (as this can often be difficult to provide on-site).

The screenshot above illustrates one of the mobile features; to be able to record, allocate and resolve punches (faults discovered).

Technology used

Microsoft Azure

- Web App Service
- Mobile App Service
- Blob Storage
- SQL Database
- Azure Active Directory
- Azure Resource Manager

Client Platforms

- Windows 10, Windows 7, Android, IOS, UWP (Universal Windows Platform)

Technologies

- Visual Studio 2015, Xamarin, TFS, RadControls, DevExpress, HighStock Charts, .NET

Framework 4.5

Design

Microsoft Visio

Programming Languages

C#.NET, T-SQL, JavaScript, XAML, HTML

Database

Azure SQL DB

SQLite

If you would like more information about this application or our development capabilities in general please contact us here

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