MxD 15-04-01	Category: Recurring Manufacturing, Engineering Change
Title:	Manufacturing Work Instructions on Wearable and Mobile Devices with Augmented Reality White Paper
Completion Date:	2018-04-30
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Problem:

Because SMEs rely on paper documentation, it causes slow updating of information, possibly awkward to use, and only one method of information presentation. Our solution is to have electronic WIs so easy to update and instant to deploy. Can integrate help documents and videos. Because engineers need to support remote production, it causes communication friction, such as unnecessary travel. Our solution is to have a collaboration tool with screen sharing and annotations. Because SMEs use different planning tools, it causes challenges in integration of software system. Our solution is to use industry standard interfaces to make it quicker to integrate.

Objective:

Android apps that provide AR enabled WI on hand-held and wearable hardware, a framework for AR enabled WI content and data storage and data access APIs based on open standards. In the Augmented Reality space, there are a couple prototypes of manufacturing applications, but they are oriented to the large corporations. Our application is oriented toward SMEs that cannot afford the development of a work instruction system and is targeted to Android hardware, which is typically lower cost.

Development of:

- Android WI Framework App
- Android Collaboration App
- Data store and Data Bridge to engineering and business systems.
- AR enabled WI templates
- Training materials for content creators and consumers