



Project 15-4, 15-9: Mobile Engineering Apps

Final Report: September 2016; available online @ www.dstar.org

Project Summary:

The DSTAR eHandbook was released in 2002 as a Portable Document Format (PDF) document with a series of tables and formulae compiled to aid field engineers in performing necessary engineering calculations. In addition to its static content, the eHandbook contains links to other PDF standalone documents with forms that can perform calculations directly. The user enter the necessary inputs to the calculation using Adobe Acrobat Reader's form-filling features, and the output is printed to the form.

As mobile technology has become ubiquitous over the decade since the initial eHandbook release, opportunities exist to use mobile devices to perform the calculation functions in eHandbook. This provides several distinct advantages over the existing eHandbook calculators.

This project surveyed DSTAR members on which eHandbook Apps were the most popular and useful and developed mobile apps to perform the calculations.

The DSTAR mobile apps are simple calculators written in HTML and JavaScript, hosted in single web pages on DSTAR's servers. Calculations are performed in client-side JavaScript and reflected in input controls on the same page. No HTTP requests (page refreshes) are required for the calculators to perform.

Upon first accessing a resource on the Internet, many modern browsers will attempt to cache the resource. The browser cache is a set of pages or files copied locally to allow faster recall on subsequent access. In the event of limited Internet connectivity, most modern browsers will return a cached version of a page. As potential users of the engineering apps sometimes working in areas with limited or no Internet connectivity, The DSTAR mobile apps is relying on this feature.

At present, there is no user authentication required to use the apps. This may change in the future, which would require an update to the instructions below and an update to devices in the field.

Getting Started/Installation:

It is highly recommended that installation occur with the device connected to the Internet (Ethernet, wi-fi, or 3G/4G/LTE). In order for browser caching to work successfully, the remote webpages must be available at least once. If Internet access is not available at installation, testing should occur at a location with Internet access before attempting to use the apps in the field.

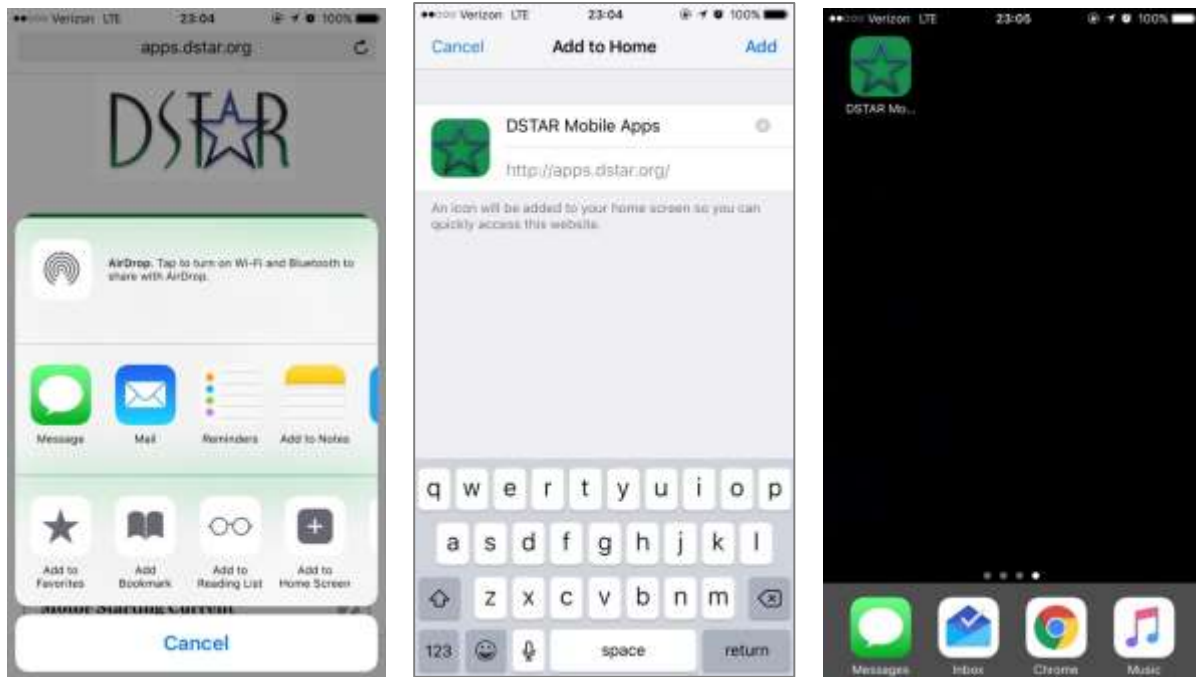
The new DSTAR apps are static webpages, addressable individually through their URLs, or collectively through a common launcher page URL. The launcher page is located at <http://apps.dstar.org>. It is strongly preferred that users employ the launcher page and not link directly to any of the individual apps if possible. If you encounter any issues, please send an email to: dstar-support@ge.com.

Desktop and Laptop Computers (PC, Mac OS X, Linux)

Browsers differ, but you should be able to add a link to the app launcher, <http://apps.dstar.org>, the same way you would to add a bookmark or favorite.

IOS Devices (iPhone, iPad):

1. Click on the “Share” link on the bottom center of the screen, then select “Add to Home Screen”.
2. Enter the desired name of the bookmark, then tap “Add”.
3. A new home screen icon will appear allowing quick access to the e-Handbook Apps



Android Devices (Phones and Tablets):

Please follow the instructions [here](#) to create a bookmark to the DSTAR Apps page on your device.

Who Should Use:

Distribution Planners, Standards Engineers, Designers

For more information on DSTAR Project 15-4/15-9: Engineering Mobile Apps, visit www.dstar.org.



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