

MOON TOURS: MOBILE APPLICATIONS FOR EXPLORING THE MOON. G. Chang¹, B. Day², E. Law¹;
¹Jet Propulsion Laboratory, California Institute of Technology, ²Ames Research Center;
George.W.Chang@jpl.nasa.gov, Brian.H.Day@nasa.gov, Emily.Law@jpl.nasa.gov

Introduction: The Lunar Mapping and Modeling Portal (LMMP)[1], provides a web-based Portal and a suite of interactive visualization and analysis tools to enable lunar scientists, engineers, and mission planners to access mapped lunar data products from past and current lunar missions. In addition, it fosters outreach which aims at education and exploration of the moon by the general public. Moon Tours[2], the LMMP's mobile application, makes LMMP's information accessible to people of all ages and puts opportunities for real lunar exploration in the palms of their hands.

Moon Tours allows users to browse and search LMMP's entire catalog of over 600 data imagery products ranging from global basemaps to LRO's Narrow Angle Camera (NAC) images that provide details of up to .5 meters/pixel. Users are able to view map metadata (e.g., abstract of the data) and can zoom in and out of the map to view more or less data as well as pan around the entire lunar surface with the appropriate basemap. They can arbitrarily stack the maps and images on top of each other to show a layered view of the surface with layer transparency adjusted to suit the user's desired look. They can even view lunar terrain data rendered in realtime 3D. In addition, users can calculate the distance between two locations on the lunar surface.

More advanced features are planned to include the ability to interact with the data. Using the services provided by LMMP, users will be able to log in and access the same scientific analysis tools provided on the web site including measuring between two points, generating subsets, and running other analysis tools, all by using a customized touch interface that are immediately familiar to users of these smart mobile devices. Users can also access their own storage on the portal and view or send the data to other users.

Moon Tours now is available for download on the Apple App Store [3]. Its Android version is under development and will be available this Spring. This poster illustrates and highlights Moon Tours's features.

References:

- [1]<http://lmmp.nasa.gov/>
- [2]http://pub.lmmp.nasa.gov/LMMPUI/LMMP_CLIE_NT/index_m.html
- [3]<https://itunes.apple.com/us/app/moon-tours/id696977262?mt=8&ign-mpt=uo%3D4>