

STEP ONE - PICK A DESTINATION

This is the starting point for a user visiting the CCM web application. The user is greeted and offered a brief introduction to CCM.

The user is invited to pick a **single** destination. These destinations are preset.

Destination map tips display wikipedialike information such population and predominant industries.

Possible senarios:

MOJAVE

Mexicali

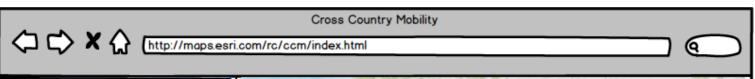
San Diego

Tijuana

- Invasion and capture of city.
- Evaculation of nearby towns and rendezvous in destination city.

Clicking next will advance to the origin(s) selection part.

Next >



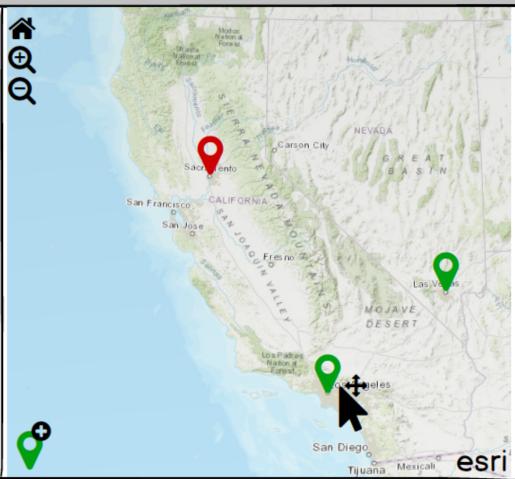
Cross Country Mobility

Position the origin of the cross country voyage. To add more than one origin click the icon in the lower left hand corner.

Click **Next** to progress to the analysis or **Previous** to change the destination.

Process

< Previous

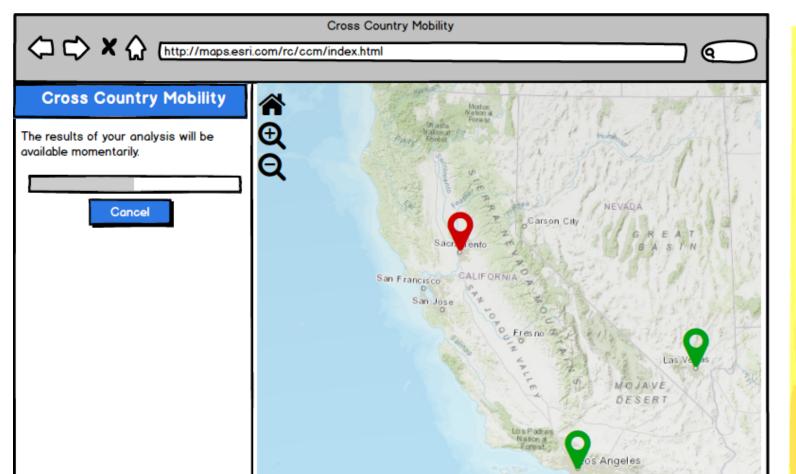


STEP TWO - PICK ORIGIN(S)

The user is requested to pick one or more origins. Multiple origins are offered so that the user can compare routes from two or more origins.

To add more than one origin, the user must first click the green icon with the "+" icon and then position the marker on the map by dragging it.

Pressing Process will advance to the next step and the commencement of geo-processing for all three modes of transport and for all origins.



San Diego

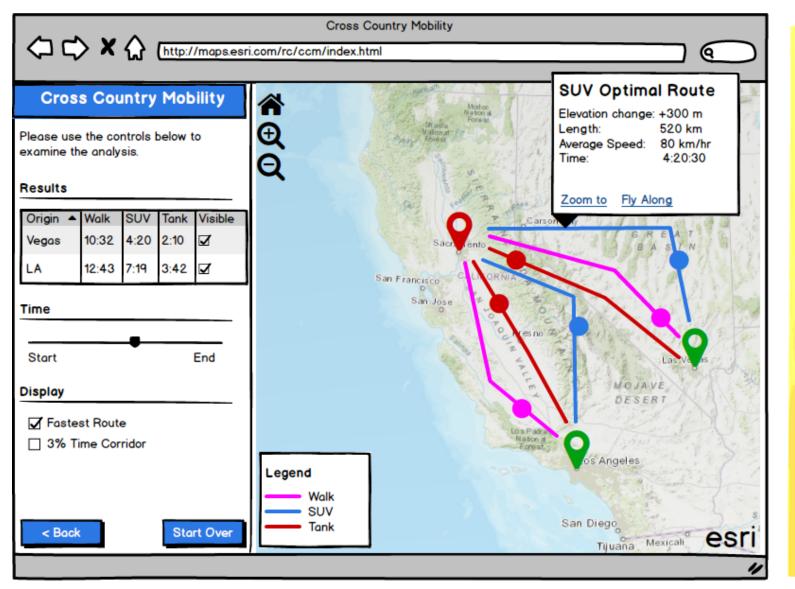
Tijuana

Mexicali

STEP THREE - PRE-PROCESSING

At this part of the CCM workflow both the destination and origin have been selected. This information has been submited to the server Fortunately we have already pre-computed the cost surface for all three transportation modes and cost-destination surfaces for all destinations. What is not computed is cost paths and cost corridors for each mode and origin. These are being computed now server-side.

During proessing the user can navigate in the map but they cannot return to a previous step unless processing is cancelled.



STEP FOUR - POST-PROCESSING

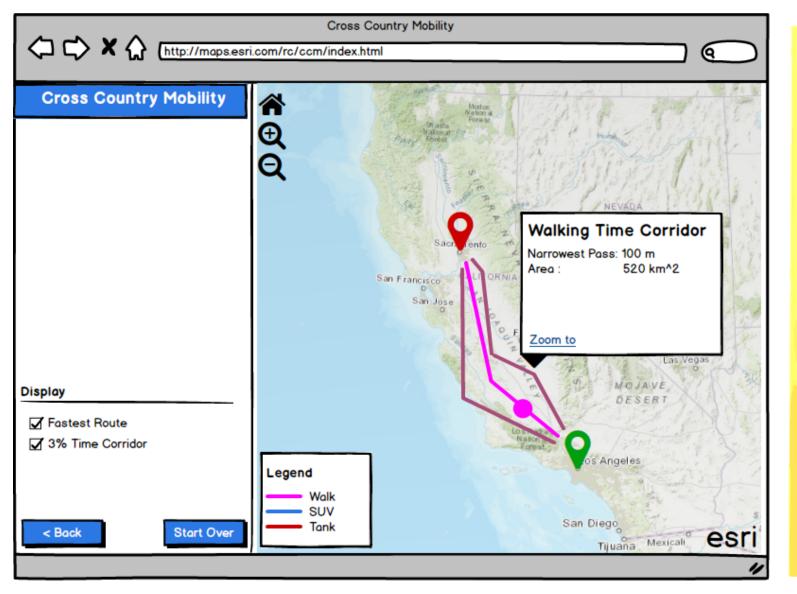
The fourth and final step in the CCM app. This step displays the results of the CCM analysis for all origins and all three modes of transport both graphically and tabularly.

Tabular results can be ordered if more than one origin. The table can also be used to show/hide results relating to a single origin. This is particularly useful when origins are located close to each other.

The time slider is used to animate markers travelling along the optimal route. This slider will effectively show the relative speed of travel but also how individual vehicles perform along the cost path.

The display section in the UI panel allows the users to toggle visibility of both the optimal path and the 3% time corridor. A corridor is narrow polygon band in which the vehicle can travel without exceeding 3% of additional time.

Detailed travel information is provided in path popup windows as shown. Popup action buttons allow the user to zoom closer to the route but also smoothly fly along the route in 3d.



STEP FOUR - POST-PROCESSING #2

An illustration of a time (or "cost") corridor for a single path. From the display section in the information panel the user can independently toggle either the optimal path or the cost corridor.

Unlike the illustration here, the time corridor will be a filled area. The corridor is an important consideration for planning purposes. It highlights alternative routes with minimal cost/time reduction and also narrower locations (or "choke points") that must be traversed.