ECO-FRIENDLY WALK SCORE CALCULATOR
Choosing a place to live with GIS

USER GUIDE
CONTENTS

1. INTRODUCTION

2. GRAPHICAL USER INTERFACE

3. MEASUREMENT MODES
   3.1. GET SCORE BY ADDRESS
   3.2. GET SCORE BY BLOCK
   3.3. INTERACTIVE SCORE
1. INTRODUCTION

Walkability
Walkability is a measure of how friendly an area is to walking. Walkability will answer following questions.
• How many facilities can we go by walking?
• How easy to reach them?
• What kinds of facilities are available in my place?
• More ..... 

Eco-friendly Walk Score
Eco-friendly Walk Score measures the degree of greenness (green space density) by specified circular distance based on Normalized Different Vegetation Index (NDVI). NDVI was calculated from Advanced Land Observation Satellite ALOSAVNIR-2sensor).

Who can use
• Local residents
• Nature/Green lovers
• Real estate agencies
• Potential home buyers
• City planners
• Any spatial information users in Tsukuba City
2. GRAPHICAL USER INTERFACE

1: Get score by address
2: Get score by block
3: Interactive score
4: Setup desire facilities
5: Results display
6: Map controls
3. MEASUREMENT MODES

3.1. GET SCORE BY ADDRESS

1. Select Address (e.g. Kasuga 3 Chome 8-9)
2. Set search radius (Default is 250m)
3. Click Go and get the score.

Greenness Score = (GA/CA)*100

GA = Green Area
CA = Circle Area

* Qualified distance shops = Network distance <= Search radius
3. MEASUREMENT MODES

3.2. GET SCORE BY BLOCK

1. Select Block (e.g. Sakura 2 Chome)
2. Click Go and get the score.

Greenness Score = \( \frac{GA}{BA} \times 100 \)

GA = Green Area
BA = Block Area
3. MEASUREMENT MODES

3.3. INTERACTIVE SCORE

Get score by user defined place

1. Click “Home” icon and draw a circle on a map
   (Click on a map and hold the mouse button to draw a circle)
3. MEASUREMENT MODES

3.3. INTERACTIVE SCORE

Plan your walking route either shortest or greenest path

1. Select route type (either Single or Loop)
   (Loop = Return to the start point)
2. Select path (either Greenest or Shortest)
3. Click “Walk” icon and define series of points
   (require minimum two points)
4. Click “Go” to get the Greenness Score

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Route Information: Greenest
P1-P2: 2.29Km (G.Score: 57)
Total Distance: 2.29Km
Total Average Green Score: 57

Route Information: Shortest
P1-P2: 1.44Km (G.Score: 14)
Total Distance: 1.44Km
Total Average Green Score: 14
3. MEASUREMENT MODES

3.3. INTERACTIVE SCORE

Multiple points and loop operation.

Sometimes you may need to walk multiple places. (e.g. home to library, library to park, etc.)

Route Information: Greenest
P1-P2: 3.34Km (G.Score: 55)  
P2-P3: 1.85Km (G.Score: 51)  
P3-P4: 2.65Km (G.Score: 61)  
P4-P1: 3.57Km (G.Score: 55)  
Total Distance: 11.41Km  
Total Average Greenness Score: 55

Reset the function.
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