Package ‘sara4r’

February 9, 2022

Type Package

Title An R-GUI for Spatial Analysis of Surface Runoff using the NRCS-CN Method

Version 0.0.9

Depends R (>= 4.1.0), tcltk, tcltk2

Imports raster, sp, rgdal

Maintainer Rafael Hernandez-Guzman <rhernandez.g@gmail.com>

Description A Graphical user interface to calculate the rainfall-runoff relation using the Natural Resources Conservation Service - Curve Number method (NRCS-CN method) but include modifications by Hawkins et al., (2002) about the Initial Abstraction. This GUI follows the programming logic of a previously published software (Hernandez-Guzman et al., 2011)<doi:10.1016/j.envsoft.2011.07.006>. It is a raster-based GIS tool that outputs runoff estimates from Land use/land cover and hydrologic soil group maps. This package has already been published in Journal of Hydroinformatics (Hernandez-Guzman et al., 2021)<doi:10.2166/hydro.2020.087> but it is under constant development at the Institute about Natural Resources Research (INIRENA) from the Universidad Michoacana de San Nicolas de Hidalgo and represents a collaborative effort between the Hydro-Geomatic Lab (INIRENA) with the Environmental Management Lab (CIAD, A.C.).

License GPL (>= 3)

Encoding UTF-8


VignetteBuilder knitr

Suggests knitr, rmarkdown

RoxygenNote 7.1.2

NeedsCompilation no

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Repository CRAN

Date/Publication 2022-02-09 07:40:02 UTC
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sara4r

An R-GUI for Spatial Analysis of Surface Runoff using the NRCS-CN Method

Description

a raster-based GIS tool that outputs runoff estimates from Land use/land cover and hydrologic soil group maps.

Usage

sara4r()

Details

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Note

http://hydro-geomatic-lab.com/sara4r.html

Author(s)

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Maintainer: Rafael Hernandez Guzman<rhernandez.g@gmail.com>

References


[SARA4R, Hernández-Guzmán et al., 2021. Sara4r – an R graphical user interface (GUI) to estimate watershed surface runoff applying the NRCS – curve number method. Journal of Hydroinformatics, 23(1), 76-87](https://doi.org/10.2166/hydro.2020.087)

**Examples**

```r
sara4r()
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