Package 'sara4r'

January 30, 2020

Type Package

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

Version 0.0.7

Depends R (>= 3.4.0), RGtk2

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 is under 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

LazyData true

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

VignetteBuilder knitr

Suggests knitr, rmarkdown

NeedsCompilation no

Author Rafael Hernandez-Guzman [aut, cre]
(<https://orcid.org/0000-0002-2711-9015>),
Arturo Ruiz-Luna [aut] (<https://orcid.org/0000-0001-6878-0929>)

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R **topics documented:**

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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

Package:	sara4r
Type:	Package
Version:	0.0.7
Date:	2020-01-14
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Imports:	raster,sp,rgdal
License:	GPL (>= 3)
LazyLoad:	yes

Note

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

Author(s)

Rafael Hernandez Guzman, Arturo Ruiz Luna
Maintainer: Rafael Hernandez Guzman<rhernandez.g@gmail.com>

References

[CN-Idris, Hernández-Guzmán et al., 2011 - CN-Idris: An Idrisi tool for generating curve number maps and estimating direct runoff. Environmental Modelling & Software, 26(12), 1764-1766](https://doi.org/10.1016/j.envso

[SARA, Hernández-Guzmán and Ruiz-Luna, 2013. SARA – An enhanced curve number-based tool for estimating direct runoff. Journal of Hydroinformatics, 15(3), 881-887](https://doi.org/10.2166/hydro.2013.145)

Examples

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sara4r()
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