

“Sea current Py mapping v.1.0”: documentation file

1. Warranties and responsibilities

“Sea current Py mapping v.1.0” (RSE SpA) is a minor tool, which is released “as is” with no warranty. NEITHER RSE SPA, NOR ANY OF ITS REPRESENTATIVES (OR ANY AUTHOR) MAKE ANY WARRANTY, EXPRESS OR IMPLIED, OR ASSUMES ANY LEGAL LIABILITY OR RESPONSIBILITY FOR THE ACCURACY, COMPLETENESS, EFFECTIVENESS, INTEGRITY, AVAILABILITY, OR USEFULNESS OF THE SOFTWARE, ANY INFORMATION PERTAINING TO THE SOFTWARE, OR REPRESENTS THAT ITS USE WOULD NOT INFRINGE PRIVATELY OWNED RIGHTS. No support service (for the software installation, use, ...) is implied by or included in the software license. ”

2. Citation of “Sea current Py mapping v.1.0”

All the published and unpublished items/products/documents of every kind, somehow related to “Sea current Py mapping v.1.0”, need the following citation: “Sea current Py mapping v.1.0 (RSE SpA)”.

It is also mandatory to cite the use of “Sea current Py mapping v.1.0 (RSE SpA)” in all the related publications, reports and dissemination tools and media, by means of the following citation:

“The minor tool “Sea current Py mapping v.1.0” is realised by RSE SpA thanks to the funding “Fondo di Ricerca per il Sistema Elettrico” within the frame of a Program Agreement between RSE SpA and the Italian Ministry of Economic Development (Ministero dello Sviluppo Economico).”

3. Acknowledgments

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4. Description and references

“Sea current Py mapping v.1.0” (RSE SpA) is a minor tool, which reads a formatted ".nc" file from the free dataset of MetOcean-INGV at www.myocean.eu on daily mean current synoptic-scale velocity (of a given year) and provides the yearly average of the specific power flow of marine currents at the same scale ($P=500(\text{radq}(u_x^2+u_y^2))^3$). The output is both in binary and formatted ".vtk" file format.

With Copyright 2016 (RSE SpA), “Sea current Py mapping v.1.0” was written by Andrea Amicarelli in 2011.

“Sea current Py mapping v.1.0” is free software released under the GNU General Public License (Free Software Foundation).

5. Notes

The input files are:

- ✓ file_name_list.txt (to be modified by the user, according to her/his needs);
- ✓ all the files mentioned in file_name_list.txt .

The input files are located in the same folder of the executable file of “Sea current Py mapping v.1.0”.

The tool “Sea current Py mapping v.1.0” was coupled with “Sea current Pmy ITA mapping v.1.0” to provide the results described in:

- Section 2 of:
Agate G., A. Amicarelli, R. Guandalini, G. Stella; 2012; “Mappe di producibilità energetica dal moto ondoso e dalle correnti marine dei mari italiani”; Project deliverable; Project “Studi su potenziali sviluppi delle energie rinnovabili”; Negri A.N. (Principal Investigator); RSE record 12000352.
- Sections 3.1.4 and 3.1.5 of:
Cavicchioli C., R. Marazzi, G. Stella, G. Agate, A. Amicarelli, M.A. Peviani, E. Lembo, L. Serri, D. Airoidi; 2012; “Strumenti di supporto al Marine Spatial Planning”; Project deliverable; Project “Studi su potenziali sviluppi delle energie rinnovabili”; Negri A.N. (Principal Investigator); RSE record 12000349.
- Sections “Atlante delle risorse; MARINO - Flusso di potenza delle correnti - Fascia costiera” and “Atlante delle risorse; MARINO - Flusso di potenza delle correnti” of:
Tritone (2015, RSE SpA); <http://map.rse-web.it/tritone>