StackProf

Logiciel de mesures sur profils empilés

version 1.01 (30 mai 2021)

Traces set (.jtraces) json file format
English description

Object content description

Item name	Type	Value type	details
_descAbout_routePoint	key-value pair	string	Comment about point coordinate reference system and point index. String content value: "Points coordinates are [x, y] in pixel image coordinates. The top-let corner of top-left image pixel is [0.0, 0.0]. idPoint increases by 1 from first point to last point"
contentType	key-value pair	string	constant by app release String content value: "routeset"
versionFormat	key-value pair	string	constant by app release. String content value: "0.5"
bUseGeoRef	key-value pair	boolean	Indicates if the traceSet uses georeferencing
backgroundImage_geoRefInfos	object		Background image with its associated georeferencing data used by the traces set.
routeset	Array of Route object		'Route' means 'trace' in this file

Sub-objects description

BackgroundImage_geoRefInfos object

Item name	Type
coordRefSys_coordTrans	object
imageGeoRef	object

CoordRefSys_coordTrans object

Item name	Type	Value type	Details	Value example
EPSG_code	key-value pair	string	format is: EPSG:<string>	EPSG:32633

Example:
```
"coordRefSys_coordTrans": {
  "EPSG_code": "EPSG:32633"
}
```

For traceSet not using georeferencing, the EPSG Code value is "notSet":
```
"coordRefSys_coordTrans": {
    "EPSG_code": "EPSG:notSet"
}
```

ImageGeoRef object

Item name	Type	
pathAndFilename	object (PathAndFilename object)	Not used by project. Path and filename of the background image, set at project creation.
worldFileContent	object	World file data used in project

WorldFileContent object
World file data content as described here: https://en.wikipedia.org/wiki/World_file

Item name	Type	Value type	Details
0_A_xScale	key-value pair	number (double)	
1_D_rotationTerms_1	key-value pair	number (double)	
2_B_rotationTerms_2	key-value pair	number (double)	
3_E_yScale	key-value pair	number (double)	
4_C_xTranslationTerm	key-value pair	number (double)	
5_F_yTranslationTerm	key-value pair	number (double)	

Example:
```
"worldFileContent": {
  "0_A_xScale": 0.5,
  "1_D_rotationTerms_1": 0,
  "2_B_rotationTerms_2": 0,
  "3_E_yScale": -0.5,
  "4_C_xTranslationTerm": 350697.75,
  "5_F_yTranslationTerm": 4754094.75
}
```

Route object

Item name	Type	Value type	Details
nbPoints	key-value pair	number (integer)	Number of points in the points array
routeId	key-value pair	number (integer)	routeId must start at 0 (zero). Increases by one for each route.
routeName	key-value pair	string	Valid characters: A to z A to Z 0 to 9 space _ (underscore) . (dot)
	Array of Point2D (array)		Array of the trace points. (0.0, 0.0) matches with the top-let corner of top-left pixel of the image. x increases going to right. y increases going to down

Example:
```
{
  "nbPoints": 4,
  "points": [
    [
      13823.6513694,
      24796.2923689
    ],
    [
      13402.2889171,
      24397.1874568
    ],
    [
      12927.5075765,
      23904.8301561
```

```
    ],
    [
      12455.98149,
      23307.7094755
    ]
  ],
  "routeId": 1,
  "routeName": "trace 2"
}
```

Point2D array (double)

Item index	
0	x
1	y

PathAndFilename object

Item name	Type	Value type	Details
absolutePath	key-value pair	string	absolute path to the file with '/' character separating directories
filename	key-value pair	string	

Example:
```
"pathAndFilename": {
  "absolutePath": "/home/user2/test/directory",
  "filename": "Px1_Num5_DeZoom1_LeChantier.tif"
}
```

Additional content file constraints

To be loaded by StackProf, the file content must follow some additional constraints described below.

contentType
Must exists with value: "routeset"

versionFormat
Must exists with value: "0.5"

bUseGeoRef
. For traceSet not using georeferencing, it must exist with value: false
. For traceSet using georeferencing, existence is not mandatory. If it exits, its value must be: true

backgroundImage_geoRefInfos
It must exit.
. for traceSet using georeferencing, "EPSG_code" numeric value must be known by the PROJ database used by StackProf
  (the PROJ database is the proj.db file provided with the software)
. worldFileContent
  . 0_A_xScale value and 3_E_yScale must have the same absolute value
  . 1_D_rotationTerms_1 and 2_B_rotationTerms_2 must be 0 (zero numeric value)

Route object
The distance between successive points must be greater or equal to 1 (one) (unit: image pixel)

[End of document]