Package 'ISM'

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Type Package

Title Interpretive Structural Modelling (ISM)

Version 0.1.0

Author Adarsh Anand, Gunjan Bansal

Maintainer Gunjan Bansal <gunjan.1512@gmail.com>

Description The development of ISM was made by Warfield in 1974.
ISM is the process of collaborating distinct or related essentials into a simplified and an organized format. Hence, ISM is a methodology that seeks the interrelationships among the various elements considered and endows with a hierarchical and multilevel structure.
To run this package user needs to provide a matrix (VAXO) converted into 0's and 1's.
Warfield,J.N. (1974) <doi:10.1109/TSMC.1974.5408524>
Warfield,J.N. (1974, E-ISSN:2168-2909).

License GPL-3

Encoding UTF-8

Depends xlsx,rJava,xlsxjars

LazyData true

RoxygenNote 6.0.1

NeedsCompilation no

Repository CRAN

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R topics documented:

ISM *Interpretive Structural Modeling (ISM).*

Description

This methods provides a wellformated solution of ISM

Usage

```
ISM(fname, Dir)
```

Arguments

fname	a matrix consists of 1s' and 0's (initial reachability matrix)
Dir	a path where user wants to save output files

Details

This Function Provides well-formatted and readable excel output files (Final Reachability Matrix and Level Partition of each iteration) that make interpretation easier.

Value

provides two output files (Final Reachability Matrix and Level Partition of each iteration) in Excel format

Author(s)

Adarsh Anand, Gunjan Bansal

References

Adarsh Anand, Gunjan Bansal, (2017) "Interpretive structural modelling for attributes of software quality", Journal of Advances in Management Research, Vol. 14 Issue: 3, pp.256-269, https://doi.org/10.1108/JAMR-11-2016-0097

Examples

```
ISM(fname=matrix(c(1,1,1,1,1,0,1,1,1,1,0,0,1,0,0,0,1,1,1,1,0,1,1,0,1),5,5,byrow=TRUE),Dir=tempdir())
```

`Mat_format` *This Mat_format Function formats the ISM_Matrix.xlsx file That is implicitly called by ISM.*

Description

This Mat_format Function formats the ISM_Matrix.xlsx file That is implicitly called by ISM.

Usage

```
Mat_format(fin_mat, A_mat, file2)
```

Arguments

`fin_mat`	a final matrix consists of 1s' and 0's (final reachability matrix) produced by `ISM`
`A_mat`	a initial matrix consists of 1s' and 0's (initial reachability matrix) produced by `ISM`
`file2`	a final matrix consists of 1s' and 0's (final reachability matrix) produced by `ISM`

`outputformat` *This outputformat Function formats the ISM_output.xlsx file that implicitly called by ISM.*

Description

This outputformat Function formats the ISM_output.xlsx file that implicitly called by ISM.

Usage

```
outputformat(file1)
```

Arguments

`file1`	a Level out iterations produced by `ISM`

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