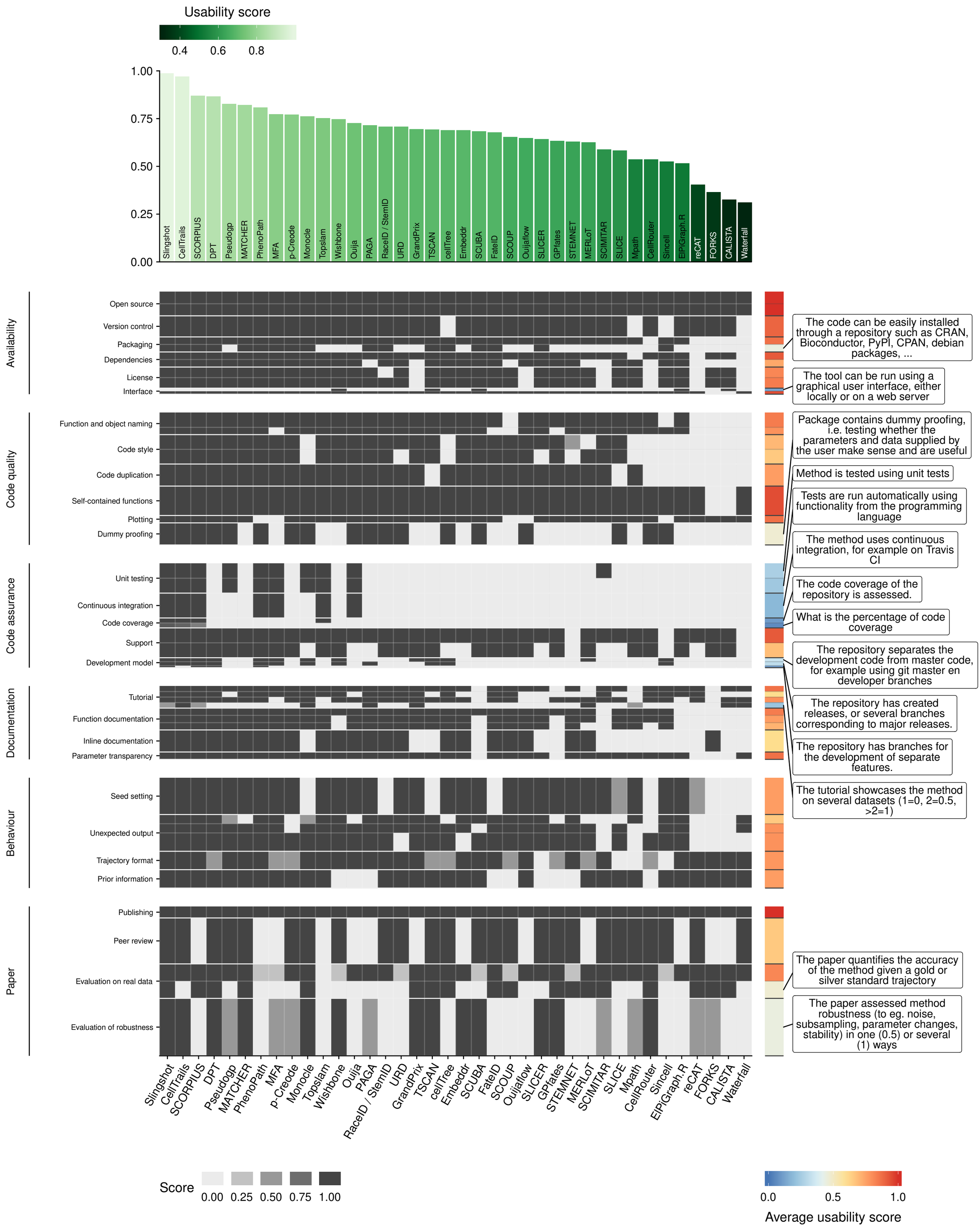
Usability score
0.4
0.6
0.8
1.00
0.75
0.50
0.25
0.00
Slingshot
CellTrails
SCORPIUS
DPT
Pseudogp
MATCHER
PhenoPath
MFA
p-Creode
Monocle
Topslam
Wishbone
Ouija
PAGA
RaceID / StemID
URD
GrandPrix
TSCAN
cellTree
Embeddr
SCUBA
FateID
SCOUP
Ouijaflow
SLICER
GPfates
STEMNET
MERLoT
SCIMITAR
SLICE
Mpath
CellRouter
Sincell
ElPiGraph.R
reCAT
FORKS
CALISTA
Waterfall
Availability
Open source
Version control
Packaging
Dependencies
License
Interface
The code can be easily installed through a repository such as CRAN, Bioconductor, PyPI, CPAN, debian packages, ...
The tool can be run using a graphical user interface, either locally or on a web server
Code quality
Function and object naming
Code style
Code duplication
Self-contained functions
Plotting
Dummy proofing
Package contains dummy proofing, i.e. testing whether the parameters and data supplied by the user make sense and are useful
Code assurance
Unit testing
Continuous integration
Code coverage
Support
Development model
Method is tested using unit tests
Tests are run automatically using functionality from the programming language
The method uses continuous integration, for example on Travis CI
The code coverage of the repository is assessed.
What is the percentage of code coverage
The repository separates the development code from master code, for example using git master en developer branches
Documentation
Tutorial
Function documentation
Inline documentation
Parameter transparency
The repository has created releases, or several branches corresponding to major releases.
The repository has branches for the development of separate features.
The tutorial showcases the method on several datasets (1=0, 2=0.5, >2=1)
Behaviour
Seed setting
Unexpected output
Trajectory format
Prior information
Paper
Publishing
Peer review
Evaluation on real data
Evaluation of robustness
The paper quantifies the accuracy of the method given a gold or silver standard trajectory
The paper assessed method robustness (to eg. noise, subsampling, parameter changes, stability) in one (0.5) or several (1) ways
Score
0.00
0.25
0.50
0.75
1.00
0.0
0.5
1.0
Average usability score