

# DiVA 1.0

*The plot design routine for MatLab*

## Author

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## Prerequisites

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DiVA necessitates a working version of **MatLab 2014b or later**.

DiVA works best with the latest version of MatLab as earlier versions might disable multiple DiVA features and might cause problems as compatibility is not maintained carefully any longer.

## Installing

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To install DiVA, add the DiVA folder with all subfolders to your MatLab path.

Add all DiVA files manually to the MatLab search path (in MatLab go to: *HOME* > *Set Path* > *Add With Subfolders*).-->

- It is best practise to delete old DiVA versions.

## Testing

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- To test DiVA on your system, simply execute the included ***ExamplePlotA.m***. This can be done in the MatLab terminal by typing:

```
cd <yourPath>/DiVA
ExamplePlotA
```

## Running

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- DiVA is a function that is simply called by

```
DiVA;
```

but allows for a large variety of options to refine a plot to the individual circumstances by using

```
DiVA(STYLE, SWITCH, SAVE);
```

where STYLE, SWITCH, and SAVE are fields containing multiple variables (see ExamplePlotB.m for possible options).

You can call DiVA from any directory you like.

You will always be able to re-use your old DiVA calls with newer versions of DiVA.

DiVA saves the publication-ready figures, if:

```
SAVE.Figure = logical(1);
```

To specify a certain write directory change the default:

```
SAVE.writeDirectory = 'auto';
```

to e.g.:

```
SAVE.writeDirectory = '/work/testFigure/';
```

## Acknowledging DiVA

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- Please acknowledge the free use of the DiVA, which is part of the code StagLab, or any of its routines.

Use for example:

"The plot design software DiVA (Crameri 2018) is used in this study."

*Crameri, F. (2018), Geodynamic diagnostics, scientific visualisation and StagLab 3.0, Geosci. Model Dev., 11, 2541-2562, doi:10.5194/gmd-11-2541-2018.*

## Contact

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- Bug reports, requests and general questions to [Fabio Crameri](#).

## Contributors

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### External routines

- `export_fig` originally by **Oliver Woodford** to add more flexibility to figure saving.
- `plotboxpos` by **Kelly Kearney** to return the position of the plot more accurately and reliably.

## Versioning

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### DiVA 1.0

- stability improvements
- bug fixes

## Reference

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- Cramer, F. (2018), *Geodynamic diagnostics, scientific visualisation and StagLab 3.0*, *Geosci. Model Dev.*, 11, 2541-2562, [doi:10.5194/gmd-11-2541-2018](https://doi.org/10.5194/gmd-11-2541-2018).

## License

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