

# MoSS Tutorial 1 - ODD

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The aim of this tutorial is for you to become familiar with the Overview, Design Concepts and Details (ODD) protocol. It is based on the exercises at the end of Chapter 3 of Railsback and Grimm (2019).

## Before the tutorial

Look at Railsback and Grimm's [list of papers with ODDs](#). From the abstracts, identify a paper that you would be interested in learning more about. Try to find the ODD from the online version of the paper. It can often be found as additional information in the "Supplemental Material", Take a quick look at the ODD.

If there are no papers you're interested in, you're welcome to search for other papers with ODDs, by searching online, or by following up references of other papers, e.g. [Grimm et al \(2020\)](#).

## In the tutorial

At the start we'll ask you all to share the name of the paper you're interested in. On the basis of your interests, we'd then like you to organise into groups of maximum size 5 and undertake the following 2 exercises:

### 1 Read an ODD

Read the ODD of one or more of the papers that members of your group have chosen. Discuss the following questions:

- How clearly did the authors follow the protocol?
- Does the model description seem clear and complete?

Note that some of the terms used in the protocol have changed as the protocol has evolved.

### 2 Write an ODD

Together think of a simple problem concerning a system that you would like to better understand using a model. Consider the following questions:

- What entities, variables and processes are important for this problem? Which are essential, and which can go on the "wish list"?
- Use the [ODD template](#) from the book website to draft an ODD for this model. If you have time, discuss and revise the draft.

You may find that you're unsure about some of the decisions you need to make, this is normal, and part of the modelling process.

## References

Railsback, Steven F., and Grimm, Volker (2019) 'Agent-based and Individual-Based Modelling: A Practical Introduction'. Second Edition. Princeton: Princeton University Press

Grimm, Volker, Railsback, Steven F., Vincenot, Christian E., Berger, Uta, Gallagher, Cara, DeAngelis, Donald L., Edmonds, Bruce, Ge, Jiaqi, Giske, Jarl, Groeneveld, Jürgen, Johnston, Alice S.A., Milles, Alexander, Nabe-Nielsen, Jacob, Polhill, J. Gareth, Radchuk, Viktoriia, Rohwäder, Marie-Sophie, Stillman, Richard A., Thiele, Jan C. and Ayllón, Daniel (2020) 'The ODD Protocol for Describing Agent-Based and Other Simulation Models: A Second Update to Improve Clarity, Replication, and

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