Contents

1 Protocol Template

MIOP protocol template

1.1 AUTHORS

PREPARED BY All authors known to have contributed to the preparation of this protocol, including those who filled in the template.	AFFILIATION	ORCID (visit https://orcid.org/ to register)	DATE
Content Cell	Content Cell	Content Cell	yyyy-mm-dd
Content Cell	Content Cell	Content Cell	yyyy-mm-dd

1.2 PROTOCOL REVISION RECORD

Version numbers start at "1.0.0" when the protocol is first completed and will increase when changes that impact the outcome of the procedure are made (patches: 1.0.1; minor changes: 1.1.0; major changes: 2.0.0). Please store all versions in the gDrive folder designated to your institute.

VERSION	RELEASE DATE This is the date when a given protocol version was finalised	DESCRIPTION OF REVISIONS Please include a brief description of what was changed relative to the previous version
1.0.0	yyyy-mm-dd	Initial release
Content Cell	Content Cell	Content Cell

1.3 RELATED PROTOCOLS IN YOUR FOLDER

This is a list of other protocols deposited in your folder which should be known to users of this protocol. For example, if you create a derivative or altered protocol, you would link to the original protocol in the section below. Please include the link to each related protocol. Also include the version number of that protocol when you linked to it.

PROTOCOL NAME AND LINK	VERSION The version of the protocol you linked to	RELEASE DATE This is the date corresponding to the version listed to the left
Content Cell	Content Cell	yyyy-mm-dd
Content Cell	Content Cell	yyyy-mm-dd

1.4 RELATED EXTERNAL PROTOCOLS

This is a list of other protocols that are not in your folder which should be known to users of this protocol. These include, e.g., kit manuals. Please upload all relevant external protocols to Appendix A and link to them here.

EXTERNAL PROTOCOL NAME AND LINK	ISSUER / AUTHOR Please note who authored the protocol (this may also be a company name)	ACCESS DATE This is the date you downloaded or scanned the protocol and uploaded it.
Content Cell	Content Cell	yyyy-mm-dd
Content Cell	Content Cell	yyyy-mm-dd

1.5 ACRONYMS AND ABBREVIATIONS

ACRONYM / ABBREVIATION	DEFINITION
Content Cell	Content Cell

1.6 GLOSSARY

SPECIALISED TERM	DEFINITION
Content Cell	Content Cell
Content Cell	Content Cell

2 BACKGROUND

This document describes the required protocol to conduct insert name of the method/protocol.

2.1 Summary

Insert a short description of the background for the method/protocol (e.g. why and for which purpose do you perform water sampling). Please provide a brief summary of your method including, as appropriate, a brief description of what techniques your best practice is about, which ocean environments or regions it targets, the primary sensors covered, what type of data/measurements/observing platform it covers, limits to its applicability.

2.2 Method description and rationale

Insert a short description of the functioning principal of the methodology used in the protocol (i.e. how does the method work?). Please note that this is different from the step-by-step description of the protocol procedure. Insert a short statement explaining why the specific methodology used in the protocol has been selected (e.g. it is highly reproducible, highly accurate, procedures are easy to execute etc. . . .).

2.3 Spatial coverage and environment(s) of relevance

If applicable, please specify the region where the protocol is applied. For regional term guidance see here. If applicable, please indicate here the environment(s) of relevance for the protocol, e.g. Abyssal plain. Select from the ENVO terminology.

3 PERSONNEL REQUIRED

Insert the number of technicians, data managers, and scientists required for the good execution of the procedure

3.1 Safety

Identify hazards associated with the procedure and specify protective equipment and safety training required to safely execute the procedure

3.2 Training requirements

Specify technical training required for the good execution of the procedure.

3.3 Time needed to execute the procedure

Specify how much time is necessary to execute the procedure.

4 EQUIPMENT, SOFTWARE & PACKAGES

NAME	VERSION OR MODEL	MANUFACTURER OR CREATOR	REMARKS
Equipment			
e.g. Laptop	Content Cell	Content Cell	e.g. needs at least 16 GB of RAM
Content Cell	Content Cell	Content Cell	Content Cell
Software			
Content Cell	Content Cell	Content Cell	Content Cell
Content Cell	Content Cell	Content Cell	Content Cell
Code			

NAME	VERSION OR MODEL	MANUFACTURER OR CREATOR	REMARKS
Please include the links to the code you used for this analysis e.g. link to the released version of a github repository	Content Cell	Content Cell	Content Cell
Content Cell	Content Cell	Content Cell	Content Cell

5 GUIDE TO ARCHIVED METHODOLOGY

The contents of this archive should allow your analysis to be reproduced exactly as you intended it.

This document provides guidance on the contents of each partner's compressed archive of in-silico methods. This document should be part of that same archive, serving as an extended README.

Below, please find guidance on what this archive should include. When describing the contents of the archive, please give precise file names and relative paths to the files.

6 Archive content

To reproduce the in-silico analysis, please provide one of the following (in order of decreasing preference)

1. Jupyter, R notebook(s) or equivalents
2. Downloaded archive of (the released version of) your github repository
3. Individual scripts

In each of the above cases, guidance and documentation for all the steps you took to perform the in-silico analysis should be included. In case 1., code and documentation are integrated. In cases 2. and 3., in-line comments may be provided, however, these are not generally sufficient as documentation. In those cases, please provide a step-by-step protocol on how and when to run each script in the Execution Procedure section below.

Please include a script on **data acquisition** (e.g. documentation and code to pull sequences from INSDC, access sequences on an institutional FTP server, download metadata files, check file integrity via md5 checksum). Please add sufficient detail, so that the partners only have to install the software, run this

script and will then have all the data needed to perform any analysis described below.

6.0.1 Code

Here please describe each file containing code, including its purpose, its input, its output. Please provide the names and the relative paths to this documentation.

6.0.2 Code documentation

Here, please indicate if your documentation is with the code (in a code notebook) or stored separately. In-line comments are not considered documentation. If the documentation is stored separately, please provide the names and the relative paths to this documentation.

6.0.3 Metadata

Please provide link(s) to the files containing metadata about your sequence data (e.g. environmental data, procedural data). Please see the MIxS compliant metadata guidance.

Auxiliary files e.g. mapping files, test/dummy files, colour palette

6.1 Execution Procedure

Please fill out this section if you have not already documented it as part of your R, Jupyter, or similar notebook. In this section, please provide a step-by-step guidance on how and when to run each component of your code.

6.2 Quality control

In this section please include the names and paths that can be used to validate that operations were successful. If such checks were done during the execution procedures, please note this here. We recommend identifying such steps with in-line tags (e.g. "#QC").

6.3 Basic troubleshooting guide

Identify known issues associated with the procedure, if any. Provide troubleshooting guidelines when available.

7 REFERENCES

Insert all references cited in the document. Please insert full DOI address when available, e.g. http://doi.dx.org/10.1007/s11258-014-0404-1