

## Workshop Agenda

This is the workshop agenda for all initial workshops relating to NEMO or OMEN projects. The workshop is designed to take a total of 12 hours over a two-day period. Sometimes a lively discussion ensues and the schedule may therefore need to be open towards the evening.

### Day 1.

|               |  |
|---------------|--|
| 09:00 – 10:00 | Presentation by algorithmica technologies Corporation regarding the purpose of the project and the modeling approach   |
| 10:00 – 11:00 | Presentation by client about the plant to be studied at a broad level with information regarding a basic flow diagram of the plant, the location of crucial points and instrumentation used                                    |
| 11:00 – 12:00 | Construction of an (MS Excel) list of all measurement variables available on the plant in question from the data historian together with any available information regarding the necessary metadata (see appendix on metadata) |
| 12:00 – 14:00 | Break for lunch and office emergencies   |
| 14:00 – 15:00 | Identification of all sensors on the above list NOT relevant for modeling  |
| 15:00 – 17:00 | Assembly of metadata not contained in data historian for relevant sensors  |
| 17:00 – 18:00 | Time for office work   |
| 18:00 – 20:00 | Diner for the group (if desired)   |
| End of day 1  | Desired result: Complete list of relevant sensors with all metadata.   |

### Day 2.

|               |  |
|---------------|--|
| 09:00 – 12:00 | Read-out of data historian with respect to the variables identified on day 1 onto a portable data storage device (see preparatory questions below)   |
| 12:00 – 14:00 | Break for lunch and office emergencies   |
| 14:00 – 16:00 | Determination of objectives: What is the economic impact of potential results?<br><br>For NEMO projects: Which variables need prediction? For how long? How accurately?<br><br>For OMEN projects: What is the objective function? Will this function change? |
| 16:00 – 17:00 | Discussion of lessons learned and next steps   |
| End of day 2  | Desired result: All required data is obtained and checked, objectives have been set, possible outcomes and results have been discussed and next steps are clear.   |

## Who should attend?

The following people are needed for the workshop. Any other people may attend if they so wish. For each person, we state when they need to attend. No person is needed for the entire event but they may choose to attend the whole event.

|                             |   |
|-----------------------------|---|
| Plant supervisor(s)         | For project overview and objectives as well as executive sponsorship. Should attend morning session on day 1 and afternoon session on day 2.  |
| Plant manager(s)            | For business objectives and boundary conditions. Could be the same person as the plant supervisor if the supervisor also deals with the business objectives on a scale larger than the individual plant. Should attend morning session on day 1 and afternoon session on day 2. |
| Plant engineer(s)           | For plant details as well as practical boundaries. Should attend day 1 and afternoon session on day 2.  |
| Instrumentation engineer(s) | For sensor details. Should attend afternoon session on day 1.   |
| Process expert(s)           | For process design details, relevancy of sensors and objectives. Should attend day 1 and afternoon session of day 2.  |
| Data historian expert(s)    | For obtaining the relevant data. Should attend morning sessions on both days.   |

## What preparations should be made?

In order to facilitate the speedy retrieval of data, the following questions should be discussed in advance of the workshop:

1. Approximately how many sensors does this plant have? (e.g. approximately 2500 values)
2. Approximately how long into the history is data available? (e.g. approximately 2 years in five minute intervals)

Together with question 1, this allows us to estimate the amount of data generated and to design a proper data transport method.

3. Do you have a data historian expert who knows how to instruct the data historian to write out data for a specified list of sensors, a specified history and a specified time-step into a single file of comma-separated-values (CSV) format?

The OSI-PI system, for example, offers such an export. If the data is sufficiently small, an export to an Excel sheet would be fine. The write-out into a generally readable database format (MySQL, PostgreSQL, MS-SQL) is also fine.

We cannot accept data in proprietary formats such as the OSI-PI archives.