D-NA3.2: Training and user documentation: first report

01/10/2012

Project acronym:	VERCE
Project n°:	283543
Funding Scheme:	Combination of CP & CSA
Call Identifier:	FP7-INFRASTRUCTURES-2011-2
WP:	WP3/NA3, User documentation and training
Filename:	D-NA3.2.pdf
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Location:	http://www.verce.eu/Repository/Deliverables/RP2/
Type of document:	Deliverable
Dissemination level:	Public
Status:	Final
Due date of delivery:	01/10/2012
Reviewer:	M. Simon (LMU), A. Tosi (CNRS)
Keywords :	NA3, Documentation, Training, DISPEL, GridFTP, HPC, iRODS

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History	*Author*	*Date*	*Comments*
0.1	X. Wang (ULIV)	11/09/2012	Initial draft for comments
0.2	A. Rietbrock (ULIV)	12/09/2012	Corrections
0.3	X. Wang (ULIV)	12/09/2012	Update
0.4	X. Wang (ULIV)	24/09/2012	Accept M. Simon's comments and update
0.5	X. Wang (ULIV)	02/10/2012	Accept A. Tosi's and G. Moguilny's comments. Add more training contents, glossary. Remove registration form.

[1] Alphabetical order

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Executive summary

To encourage and support the use of the VERCE infrastructure, the NA3 (Training and user documentation) work package is defined to provide users and developers of the earthquake and seismology community with appropriate documentation, tutorial examples, web accessible self-tuition material and training in the use and exploitation of the VERCE platform.

NA3 strategy encompasses five phases: collection, analysis, review, update and delivery. The necessary information for developing the training and documentation program is collected from surveys and direct input from NA2 and SA3. After analysing this information, the documentation and training program will be developed and updated on a regular basis. Additional members from other WPs will be invited to review the documentation and training program. With the review result, NA3 will collect further information or update documentation and training. Formal information for the outside global community will be delivered to NA4 for a timely dissemination. The documentation and training material will be constantly updated during whole project period. Normally the above five phases are repeated every 6 months to ensure a timely update of the material.

Chapter 1 outlines the achievement of NA3 work package. The following works have been done so far. A first internal training workshop was organised at ULIV on 3-5 September. The workshop was organised in two parts: presentations and hands-on sessions. Seismology, Use-cases, and data-intensive processes and technologies were presented to give relevant background information. The exercises, access to HPC resources (1) and usage of DISPEL (2) were provided in hands-on sessions. A workshop feedback form was designed and the returns were analysed for improving next training event. The Knowledge Base is regularly updated on the project website. Tutorials (selected training materials from the first training workshop) will be released on the project website in the next several weeks. On the Redmine server, an issue tracker NA3 trainer was created. Project members can submit NA3 related questions to the NA3 trainer account and NA3 members behind NA3 trainer account can process the questions easily and effectively. External training events offered by other EU projects are identified and disseminated via Redmine. The NA3 wiki and repository are kept up-to-date as well.

Work in progress and work in the next six months are pointed out in Chapter 2. We did not create or collect a video or a webinar so far, but we will do for the All Hands Meeting next January in Munich.

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1. NA3 WP Achievement

In this chapter, we will describe the current achievements.

1.1. Internal training workshop

The most important target in this deliverable period was to organise the first internal training workshop. The motives of this workshop were to get the two communities of ICT and seismology nearer, to make experts and researchers of the above two fields better understand each other needs, and to allow better progress towards project goals. The target group was focused to be project members from the seismological and IT groups working on the VERCE project. After discussion with project members, we decided to organise this workshop on 3-4 September at ULIV followed by a project F2F management meeting on 5 September to discuss future steps. To make sure all presentations were ready, a F2F meeting was organised among NA3 and presentation providers at UEDIN one week before this workshop. 27 participants attended this workshop. All workshop presentations and hands-on materials had been uploaded in the Redmine Wiki. Also some pictures during this workshop were stored in the category of Image Gallery in the Redmine as well.

1.1.1. Programme

The training workshop registration call and programme were released on 10 July. The workshop was organised in two parts: presentations and hands-on sessions. Seismology, Use-cases, data-intensive processes and technologies, and GridFTP were presented to give relevant background information. The exercises, access to HPC resources (1) and usage of DISPEL (2) were provided in hands-on sessions.

For the partners from ICT to better understand Seismology background knowledge, Andreas Rietbrock from ULIV and Alberto Michelini from INGV were invited to present the Seismology introduction and use case respectively. The explanation of seismic waves and paths, seismic properties, seismometer improvements and their frequency ranges, the peak of natural background noise and interpretation of seismic data was very helpful. These made much of the data selection and preparation processes more understandable.

For the partners from Seismology to understand the data-intensive processes and technologies, and huge data transfer and job running technologies, training in Dispel, GridFTP, iRODS and Unicore were organised. Malcolm Atkinson, Paul Martin, Chee Sun Liew and Amy Krause whom from UEDIN provided Dispel training which covered the following parts: introduction to Data-Intensive processes and technologies, registry, Dispel functions, Dispel enactment, and Dispel manual. Michele Carpene from CINECA introduced the usage of GridFTP, Unicore and platform iRODS.

For all partners to better understand the platform we offered so far, a whole day hands-on session was organised. During the day, the SDX was demonstrated by Andreas Rietbrock. SDX is an application for analysing seismic waveform data. It has an intuitive interface, access to ArcLink data and speed archived by indexing locally stored files. Dispel practice that included embedding Python in ADMIRE, Dispel validation and function were offered by Malcolm Atkinson, Paul Martin, Iraklis Klampanos, Amy Krause and Chee Sun Liew whom from UEDIN, and Alessandro Spinuso and Luca Trani whom from KNMI. Cerlane Leong from BADW-LRZ and Marek Simon from LMU contributed simulation and introduction to the HPC infrastructure. This was a fluent demonstration of SA2 platform developments followed by a demonstration of submitting a model run and viewing its results.

1.1.2. Feedback and analyse

For improving next training event, a discussion was made at the project management meeting on the 5 September. The discussion resulted the training workshop was necessary and very useful, it should be repeated, perhaps in small subgroups. This would have two effects: to refresh and to extend what we had

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learnt already, and to prepare material for attracting and inducing external users of VERCE when the platform is robust and presents itself well.

To help us to evaluate this workshop, a feedback form was designed and the participants were required to complete the forms and return them at the last day of the workshop. The feedback form can be seen at Appendix A.

We collected the answers to the questions in the feedback form and present the results in the following bar charts.

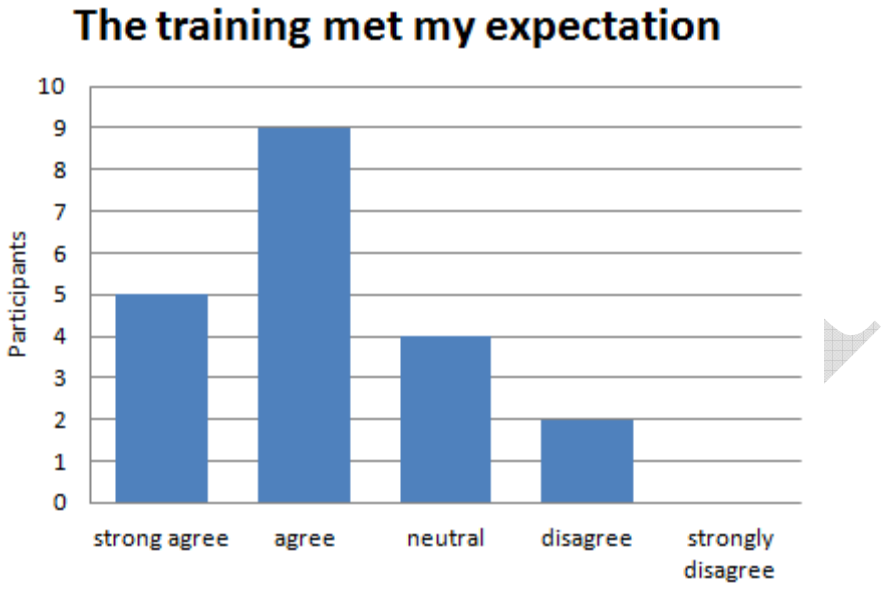

Figure 1. Training expectation

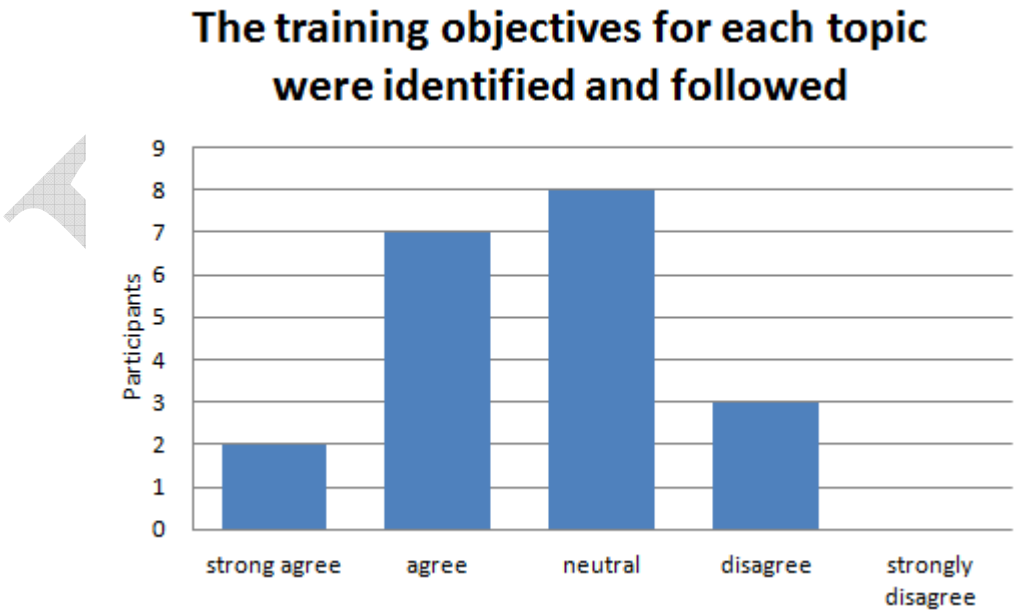

Figure 2. Identification and follow of training objectives

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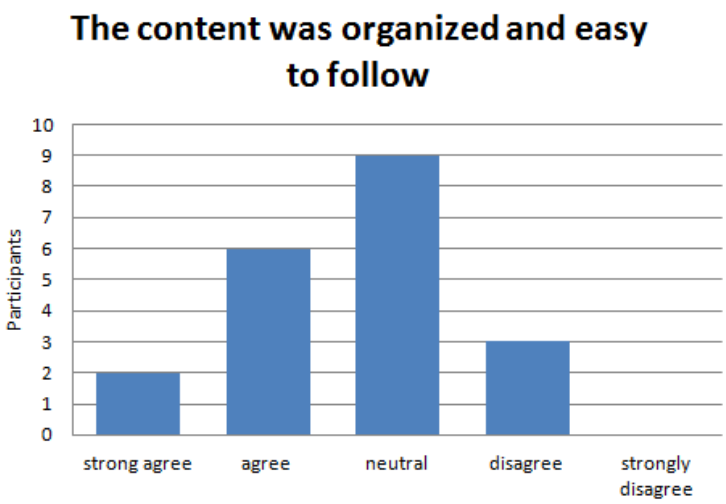

Figure 3. Training contents

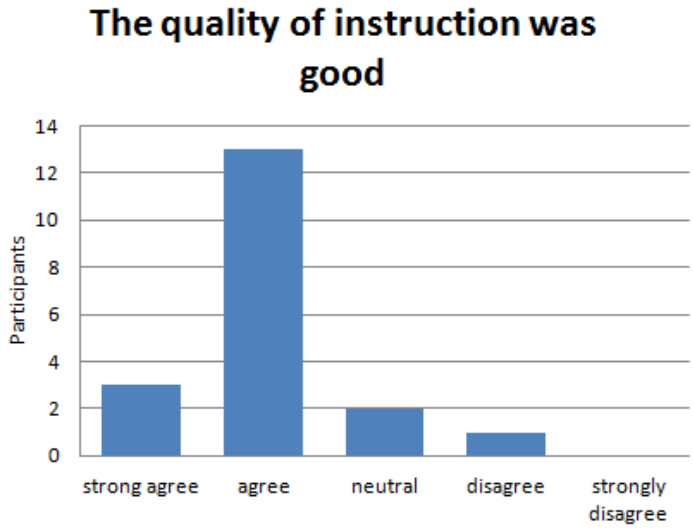

Figure 4. Quality of instruction

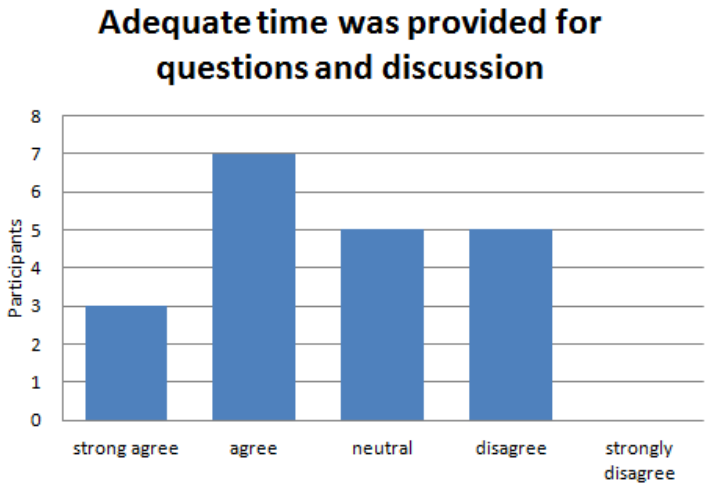

Figure 5. Time for questions and discussion

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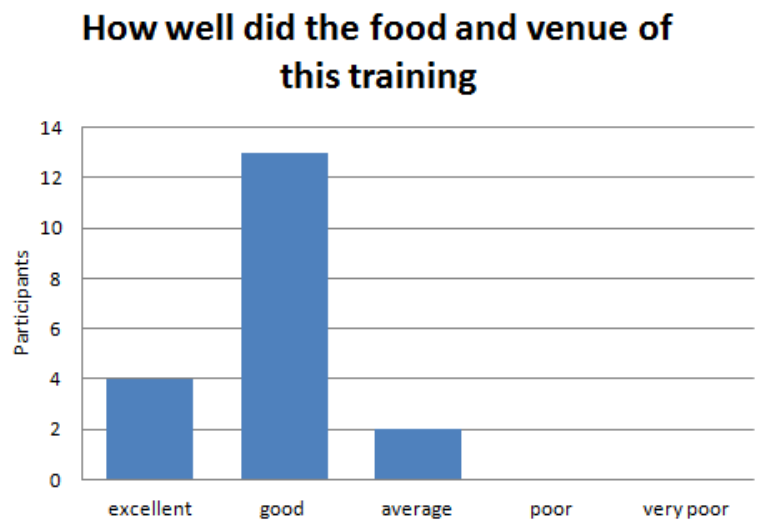

Figure 6. Food and venue

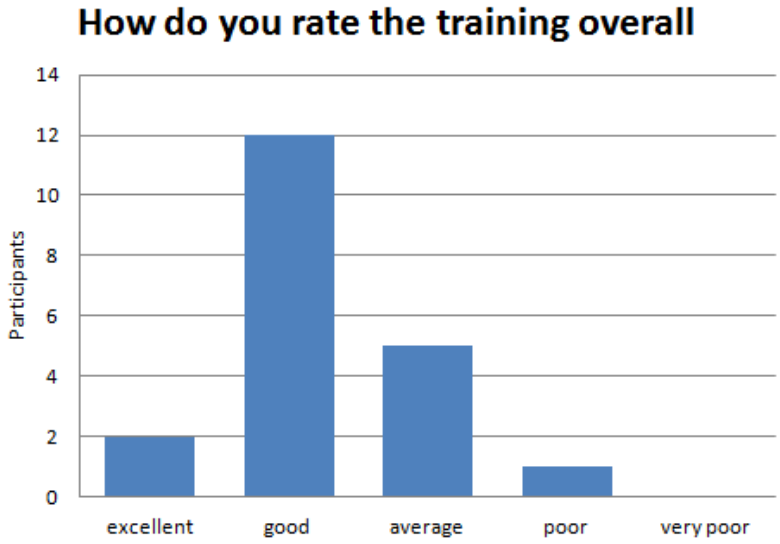

Figure 7. Training overall evaluation

1.1.3. Lessons learned

During the training workshop, we encountered a wireless connection problem. The wireless service was used by the bulk of participants and due to the weak signal the connections were interrupted several times. Fortunately this problem could be solved on the 2nd day. From this incident, we learn that we have to put even greater care into providing reliable network connections, since most of the training activities will be carried out on remote computers, which might require a high bandwidth. By analysing the training feedback questionnaires we find that more time should be allocated to the hands-on session and discussion to give all participants the opportunity to finish the required exercises and process and assimilate new knowledge and skills.

1.2. Knowledge Base

Knowledge Base provides seismological and VERCE-related IT information/terms to be accessed by the public. It can be accessed from http://verce.eu/Training/KnowledgeBase.php. We will maintain this Knowledge Base and update it on a regular basis for the whole project period.

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1.3. Tutorials

We will publish the first tutorial materials in the next several weeks. The tutorial materials will be selected from the presentations at the Liverpool training workshop. The tutorials can then be accessed from http://verce.eu/Training/Tutorials.php.

1.4. Helpdesk

In Redmine, a new issue tracker NA3 trainer has been set up at the issues section. Project members can submit documentation and training related questions to NA3 trainer. NA3 members behind NA3 trainer can process the questions easily and effectively.

1.5. External training opportunities

In addition to the event organised by NA3, we look around training events offered by other EU projects, and put the events that we think would benefit the VERCE Project in Redmine.

1.6. NA3 Wiki and repository updating

We update the NA3 wiki (http://www.verce-project.eu/projects/verce1/wiki/WP3-NA3_wiki) and repository (http://www.verce-project.eu/projects/verce1/repository/show/verce/All/NA/NA3) regularly so it reflects the carried out work.

2. Next Steps

In the next six months, the following tasks are proposed:

1) Create Video and webinar. So far we didn't create and receive any video and webinar and it was rather difficult to find good video and webinar items offered by other organisation. We will borrow video record equipment for the next All Hands meeting in January 2013 at the BADW-LRZ in Munich and produce some Video footage.

2) Keep NA3 wiki and repository updated.

3) Regularly update the Knowledge Base on project webpage.

4) Regularly update the Tutorials on project webpage.

5) Identify appropriate training opportunities offered by other EU projects and e-Infrastructure programs.

6) Submit a provisional agenda for the upcoming next training event in September 2013

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Appendix A: Training Workshop Feedback Form

VERCE Developers Training Workshop Feedback Form

(3-4 September 2012, Liverpool)

Please indicate your impression of the items listed below.

	Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
1. The training met my expectations.	○	○	○	○	○
2. Training objectives for each topic were identified and followed.	○	○	○	○	○
3. The content was organized and easy to follow.	○	○	○	○	○
4. The quality of instruction was good.	○	○	○	○	○
5. Adequate time was provided for questions and discussion.	○	○	○	○	○

6. How well did the food and venue of this training?

Excellent	Good	Average	Poor	Very Poor
○	○	○	○	○

7. The formal training event will be organised yearly. If you prefer other venue and date for the next training event, please point out.

8. How do you rate the training overall?

Excellent	Good	Average	Poor	Very Poor
○	○	○	○	○

9. What aspects of the training could be improved?

10. Any other comments or suggestions?

11. Your name and Organisation. (Optional)

THANK YOU FOR YOUR PARTICIPATION!

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Glossary and Links

DISPEL	Data-Intensive systems Process Engineering Language, a workflow composition language for data-intensive applications.
GridFTP	An extension of the standard File Transfer Protocol for use with Grid computing.
iRODS	Integrated Rule-Oriented Data-management System - https://www.irods.org/
HPC	High Performance Computing
SDX	Seismic Data eXplorer
Unicore	Interface to Computing Resources - http://www.unicore.eu/
SA2	Equivalent to Work Package 6 (WP6)
NA3	Equivalent to Work Package 3 (WP3)
CINECA	Consorzio Interuniversitario Cineca
INGV	Istituto Nazionale di Geofisica e Vulcanologia
LMU	Ludwig-Maximilians-Universitaet Muenchen
BADW-LRZ	The Bavarian Academy of Sciences and humanities – Leibniz Supercomputing Centre – http://www.lrz.de/english/
ADMIRE	Architectures for Data Intensive Research – http://www.admire-project.eu
ArcLink	A protocol for data transfer from geographically distribute data archives based on time windows – http://www.seiscomp3.org/wiki/doc/applications/arclink
ULIV	Liverpool University
UEDIN	Edinburgh University

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