AT4BloW

'at ‘fOr 'blO

An Agile Tool for Blogging Work Reports

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1. Agile KM Tools

Typically, Information Technology for Knowledge Management is rather heavy-weight: Processes have to be defined and managed, ontologies have to be built, documents have to be annotated, users have to attend debriefing sessions to elicit a project’s lessons-learnt, etc. The drawbacks of these approaches are obvious: All these activities are “second-order” with respect to a worker’s business task at hand. Consequently, workers drop these KM tasks whenever possible, especially when the respective tools are complicated, hard too handle, and don’t show immediate benefit. Moreover, the task of acquiring knowledge from a companies most valuable knowledge sources, their employees, is often disregarded or at least decoupled from the real genesis of knowledge.

Recently, in areas like software engineering that also used to propagate heavy-weight methods (Requirements Analysis, Specifications, Documentation, etc.) more agile methods have been proposed. Examples in the SE domain are pair programming, extreme programming and rapid prototyping, but also Blogging[1] and WikiWiki[2].

Research on agile KM IT (AKM) investigates where the place of VLKT (“very lightweight knowledge tools”) in the KM landscape might be. AKM inherits its first tools from those areas that already have some experiences with agile methods, but it also inherits their first “negative results”, e.g., with respect to the sustainability of the methods. Like “traditional” KM tools, also VLKT will not be the philosopher’s stone, the one key that fits all bolts. Therefore, AKM aims at identifying the characteristics of those points in the KM landscape where VLKT are the sweet spots.

2. Work Reports as Means for KM

When employees accomplish their daily business processes they not only apply knowledge that is implicitly in their head or manifest in documents, processes or other “organizational knowledge containers”, they also generate new knowledge. This may be a relatively conscious and goal-directed process (e.g., experimenting with a specific material for a certain demand of a new product in an R&D department) or it may be more coincidentally, e.g., by just applying a well-known technique in a new context where it has not been used before, without reflecting it. Even the information that somebody did something in a certain way in a specific situation may become important knowledge for a second person, viz. when later on he realizes that

[1] See e.g., http://www.elearnspace.org/Articles/blogging_part_1.htm

[2] http://c2.com/cgi/wiki?WikiWikiWeb

– in a new situation – more or less the same approach might be applicable and that the company actually has someone who is capable to perform that approach.
From this – admittedly rather brief – analysis, we derive that documenting work is not only or primarily a means of controlling (e.g., for accounting), but may also be an important tool for personal and organizational Knowledge Management, with an emphasis on generation and acquisition of knowledge. Having identified work documentation as a valuable resource of knowledge it is straight-forward to instantiate a "standard KM framework" with "work reports as knowledge objects". Figure 1 shows an initial proposal for paring off work reports and the Probst/Raub/Romhardt KM cycle.

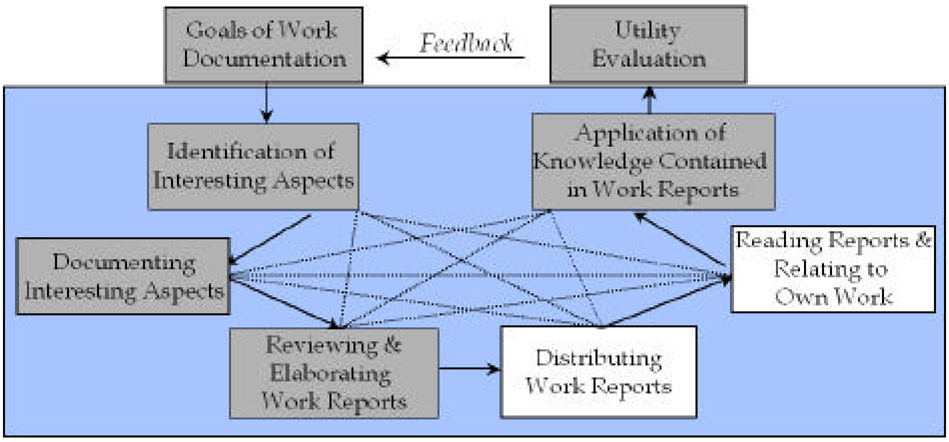

Goals of Work Documentation
Feedback
Utility Evaluation
Identification of Interesting Aspects
Application of Knowledge Contained in Work Reports
Documenting Interesting Aspects
Reading Reports & Relating to Own Work
Reviewing & Elaborating Work Reports
Distributing Work Reports

Figure 1: Work Reports as Knowledge Objects
in a Standard KM Cycle

In the DFKI KM group, we negotiated to weekly compile and distribute work reports across the whole group. An analysis of method and tool support for this practice leads to the following basic results:

- Identification and documentation of "interesting work aspects" is guided by the structure of a prototypical report: *Achievements*, *Problems*, and *Goals* are included in the report. Whether a piece of information might be interesting for the worker himself, for the whole group or especially for the boss is not explicitly differentiated.[3]
- Whether documentation is done in parallel to first-order business tasks or at dedicated time slots (e.g., on Friday evenings or Monday mornings) is left to the individual worker. Neither way is supported by a dedicated tool though some group members with the "dedicated time slot method" might use general tools like a regular alarm in a task management tool like Outlook or a simple clock tool like Chameleon.
- The documentation task itself is not tool-supported. Typically, unstructured general purpose noting software (post-it, word processors, spreadsheets, …) is used.
- The distribution of work reports is supported by general e-mail technology and a dedicated mailing list.

[3] It may happen that the purpose and target group intended by the creator of a work report and the expectations of the actual receivers of the report might substantially diverge. This may lead to bad acceptance of the method on either side, the creator's and the receiver's.

- Embedding distributed work reports in a group member's individual information space is slightly facilitated by the naming conventions for the subject field of work report mails. If and how the recipients really process the reports is left to themselves.

To sum up, one can say that the left half of the inner cycle of Figure 1 is to some extend supported by methodological guidelines. Tool support is left to the individual user. The lower right part of the cycle is supported by agreed-upon use of e-mail tools, but there are no methodological guidelines for incorporating and applying the report information.

3. The AT4BloW Approach

AT4BloW aims at complementing the current practice of reporting work by a special tool for creating and distributing them. We followed two major design principles: a) KISS ("Keep it simple, stupid!"); b) Don't replace the whole reporting process, but allow for a smooth integration in the current work process.[4]

Inspired by general tools for blogging (or: Web Logging), the result is a lightweight application with a GUI (cf. Figure 2) that resembles the structure of work reports described in the previous section: The user can record achievements, problems, goals and not classified (Misc) information.

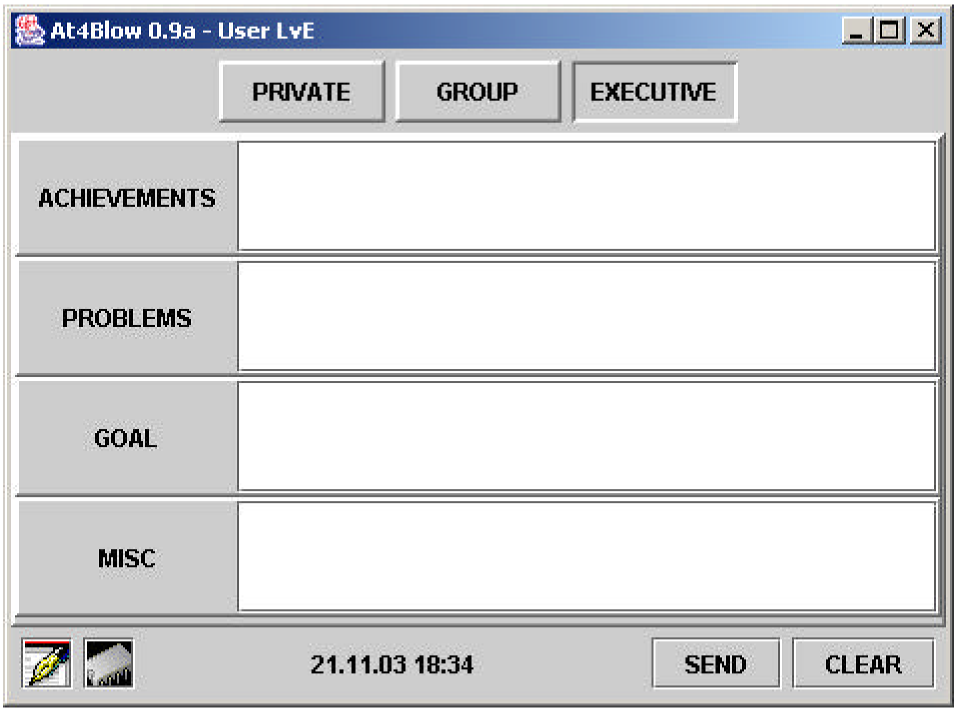
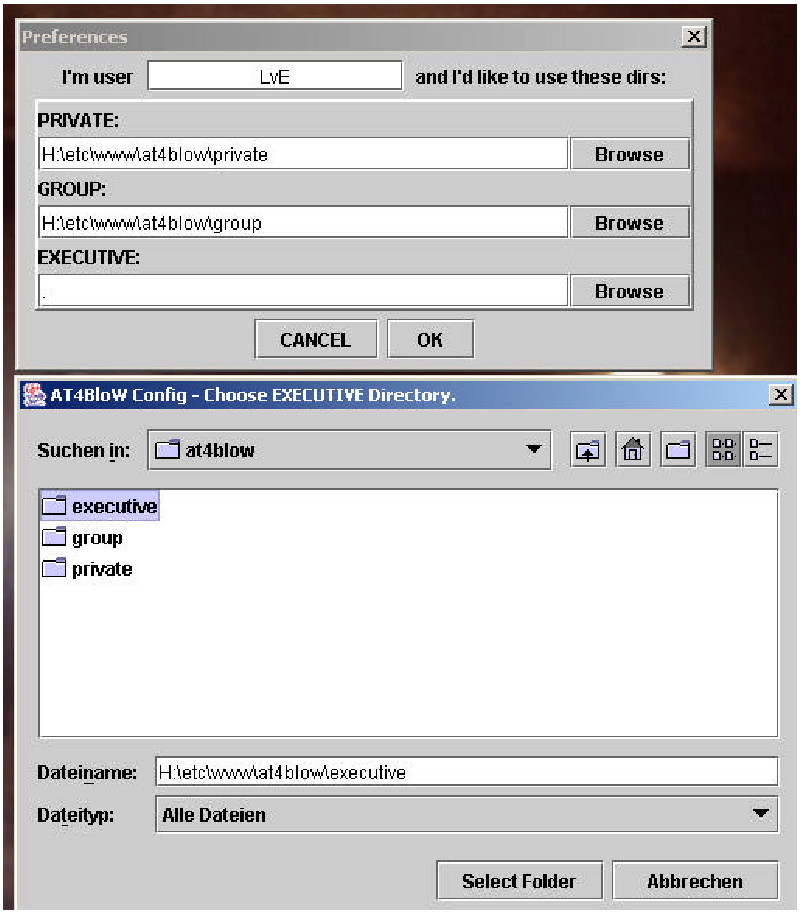


Figure 2: Main Input Windows of AT4BloW

In addition to the original structure, we decided to allow for the specification of the intended receiver group (or: scope) of a record: A private record is just for personal documentation purposes; information that might be relevant for other colleagues should be marked with "Group"; and "boss information" should be classified as

[4] From the current state of the art in KM technology it is not obvious that with these principles AT4BloW will still be of any use from a KM perspective! ;-)

“Executive”. The idea is to have a more and more fine-grained sieve for the recorded information: The creator wants to see information on any level of detail and also might want to keep some portions private, disclosed information can be seen by all group members, very important or condensed information is handled separately to allow for executive management summaries. Thus, the distinction between “Private” and “Group/Executive” is meant to be on the level of access rights AND scope, while the distinction between “Group” and “Executive” is just one of scope.



Preferences

I'm user LvE and I'd like to use these dirs:

PRIVATE: H:\etc\www\at4blow\private

GROUP: H:\etc\www\at4blow\group

EXECUTIVE: .

AT4BloW Config - Choose EXECUTIVE Directory.

Suchen in: at4blow

executive
group
private

Dateiname: H:\etc\www\at4blow\executive

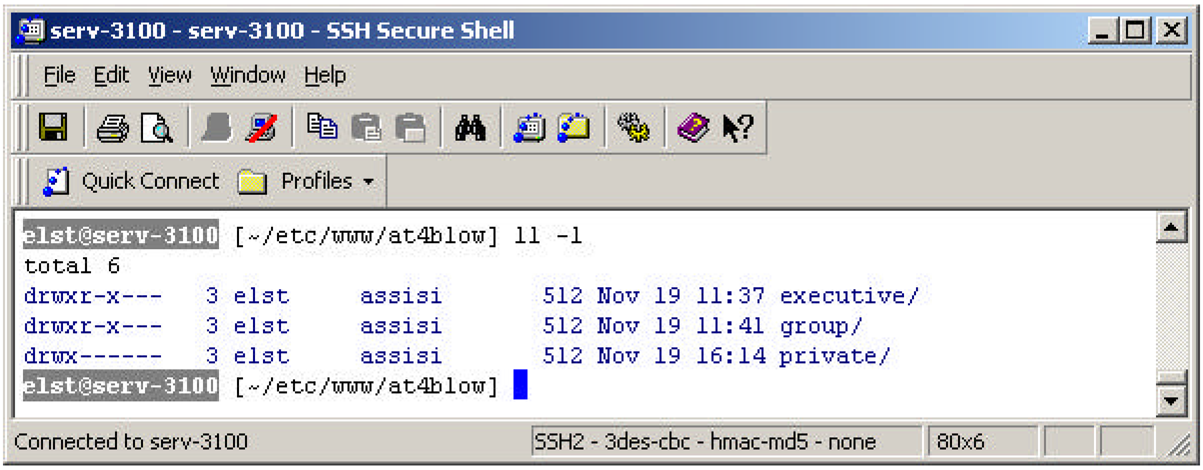
Dateityp: Alle Dateien

Figure 3: Choosing the Location for AT4BloW Files

By pressing the send button, the entered information is stored in the system. AT4BloW uses XML files for that. The location of these files is chosen at the first start of AT4BloW and kept in a configuration file.

The privacy concept explained above can be realized by setting the respective access mode for these directories. Figure 4 shows an example using a Unix directory that can be linked to Windows by a Samba connection.

AT4BloW can be used in parallel to daily work, just by keeping the application running and switching to it or by invoking it whenever one thinks there is something to be documented. Then the recording time (displayed in the GUI) is more or less the time when a recorded information came to mind or an event to be documented is completed. When using the tool in a “special time for reporting work” fashion, these two times will probably be different: At time t_2 one makes a statement about an event at time t_1. AT4BloW supports this by a “time selection slider” (Figure 5) that is activated by clicking in the time display in the main GUI. So, you can document your work of the whole week on Friday evening while still having the right time stamps. The reset button on the slider window switches back to the system time.



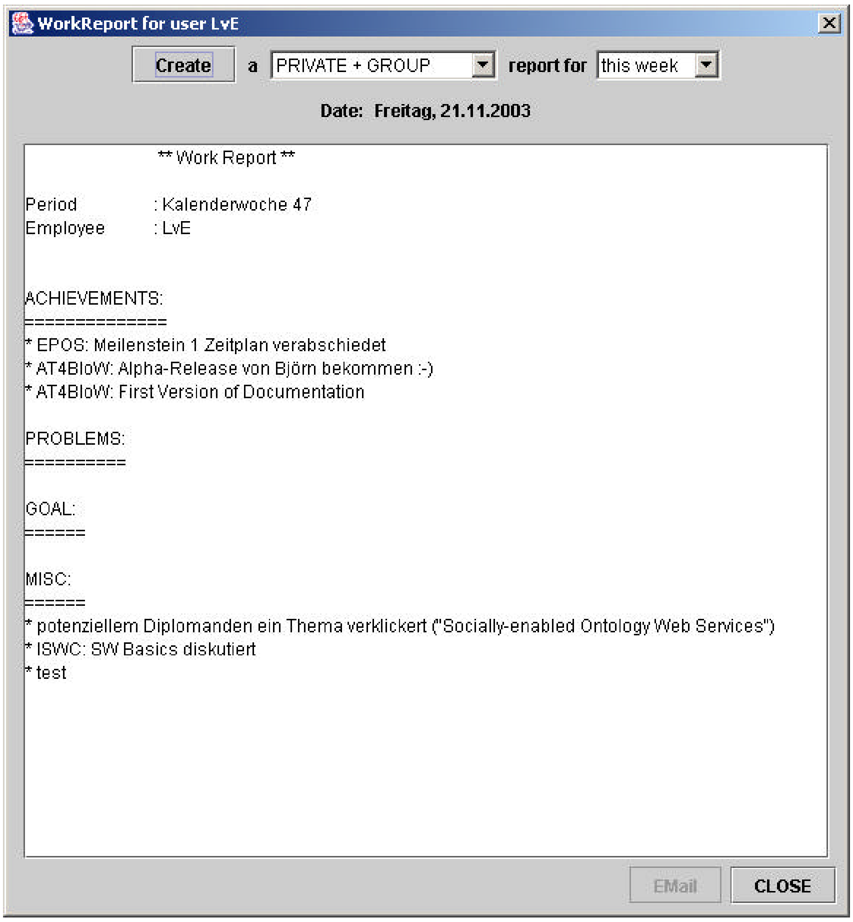
serv-3100 - serv-3100 - SSH Secure Shell
File Edit View Window Help
Quick Connect
Profiles

```
elst@serv-3100 [~/etc/www/at4blow] ll -l
total 6
drwxr-x---    3 elst     assisi       512 Nov 19 11:37 executive/
drwxr-x---    3 elst     assisi       512 Nov 19 11:41 group/
drwx------    3 elst     assisi       512 Nov 19 16:14 private/
elst@serv-3100 [~/etc/www/at4blow]
```

Connected to serv-3100
SSH2 - 3des-cbc - hmac-md5 - none
80x6

Figure 4: Unix Rights to Ensure Privacy

Now, how do you prepare your weekly reports? Just click on the “report button” in the lower left of main window. The report window opens, and you can select the categories to be included (private, group, executive and combinations of them) and the time frame for the report. Clicking on “create” generates the respective report, ready to be edited in the window and copied into your favourite mail application.



a PRIVATE + GROUP report for this week

Date: Freitag, 21.11.2003

```
** Work Report **

Period       : Kalenderwoche 47
Employee     : LvE


ACHIEVEMENTS:
==============
* EPOS: Meilenstein 1 Zeitplan verabschiedet
* AT4BloW: Alpha-Release von Björn bekommen :-)
* AT4BloW: First Version of Documentation

PROBLEMS:
==========

GOAL:
======

MISC:
======
* potenziellem Diplomanden ein Thema verklickert ("Socially-enabled Ontology Web Services")
* ISWC: SW Basics diskutiert
* test
```

Figure 5: Generating Work Reports

(* A deeper integration of the mail service is planned for future releases. Here, new subject field conventions have to be introduced to allow for dispatching (group/executive) by the receiving mail application.*)

(* Obviously, access to work report information should not only be possible via mail applications. The stored files form a kind of repository that might also be browsed and searched, e.g., by a Web page. This is subject to further releases and the reason why I chose the etc/www directory in the above example. *)

4. Concluding Remarks

AT4BloW is not a dogma! It is neither postulated that it is really a Knowledge Management tool nor that it has to be useful for your own way of documenting your work. It is rather meant as an experiment within agile KM research, i.e., a post hoc analysis might discover if and why it might be a sweet spot in the sense of Section 1. However, this experiment can only work if you are willing to participate. So, try AT4BloW and share your experiences with us!