Introduction

For the registration of worked hours the University of Twente uses the TAS system. All employees can register the hours worked on certain projects on a daily basis. The TAS Workflow system (TAS-WF) goes a step further and enables the project leader to check the hours registered by the employee and approve or reject the registration. In the latter case the employee automatically receives an email notification with a request to correct the hours registered. After correction the project leader has to approve the hours again.

Until last year the approval of the hours was done via printed lists that were manually signed by the project leaders. Now this step has been automated by means of a workflow. With BO reports the progress of the validation process can be monitored at all times and the administrator can get a summary report of the validated hours.

Method

Project leaders approve hours registered for their projects. Every unit of approval is determined by the activity number, the employee number and the total hours registered in a certain period.

\[
\text{unit of approval} = (\text{activity number, employee number, total hours})
\]

To avoid that project leaders will get an email for every unit they have to approve, all units of approval for the same project leader will be collected in one online overview which can be used to approve all individual cases at the same time.

Project leaders receive an email when there are hours available for approval. Employees for which hours have been rejected receive an email with a request to correct these hours. The local TAS administrators also receive a notification. Corrected hours will be offered to the project leader for re-approval until all hours have been approved (or until the workflow ends).

Project leaders who do not respond to a request for approval within a certain period will be reminded on a weekly basis. The same holds for employees who forget to correct their hours.

Because employees can work for more than one department it is essential that the workflow starts at the same time for all departments. Every year a common schema will be agreed upon for all departments of the University of Twente. The workflow starts immediately after closing the period in TAS. Employees can not correct rejected hours themselves (because the period in TAS has already been closed), so they must contact their local TAS administrator for that. Corrected hours will be sent to the project leader for approval again.

Globally the time scheme for the workflow is as follows: After every 4-week period employees will be given 2 weeks to register their hours. Then the TAS system will be locked and the workflow will start. The workflow runs for 4 weeks. During the first 2 weeks hours rejected by the project leader can be corrected by the employees. During the last 2 weeks of the workflow the corrected hours can be finally approved by the project leader (if not yet done). The workflow ends with the start of the workflow of the next 4-week period. So every workflow will be used to validate the hours of exactly one period.

During the workflow period every night the corrections and approvals will be processed and the online approval overview for the project leaders will be updated. So after a correction, the project leader can approve the corrected hours the other day if necessary. Every week project leaders and employees receive a reminder if there are hours available for approval or correction.
With the computer application UUR (universitaire uren registratie) a TAS administrator can select individual project activities that have to be included in the workflow for approval. The default is to include all activities if the department participates in the workflow.

Schema
TAS Workflow is controlled by a schema common for all departments. Every year a common schema will be agreed upon by all departments of the University of Twente. For all periods during the year the closing date for TAS and the start of the workflow are determined.

Below you can find the schema for 2010:

<table>
<thead>
<tr>
<th>Date</th>
<th>Period</th>
<th>Weeks</th>
<th>Input</th>
<th>Close TAS</th>
<th>Workflow Correction</th>
<th>Workflow Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>04-Jan-10</td>
<td>1</td>
<td>2</td>
<td>3</td>
<td>4</td>
<td>5-6</td>
<td>9-10</td>
</tr>
<tr>
<td>01-Feb-10</td>
<td>2</td>
<td>5</td>
<td>6</td>
<td>7</td>
<td>8</td>
<td>9-10</td>
</tr>
<tr>
<td>01-Mar-10</td>
<td>3</td>
<td>9</td>
<td>10</td>
<td>11</td>
<td>12</td>
<td>13</td>
</tr>
<tr>
<td>29-Mar-10</td>
<td>4</td>
<td>13</td>
<td>14</td>
<td>15</td>
<td>16</td>
<td>17</td>
</tr>
<tr>
<td>26-Apr-10</td>
<td>5</td>
<td>17</td>
<td>18</td>
<td>19</td>
<td>20</td>
<td>21</td>
</tr>
<tr>
<td>24-May-10</td>
<td>6</td>
<td>21</td>
<td>22</td>
<td>23</td>
<td>24</td>
<td>25</td>
</tr>
<tr>
<td>21-Jun-10</td>
<td>7</td>
<td>25</td>
<td>26</td>
<td>27</td>
<td>28</td>
<td>29</td>
</tr>
<tr>
<td>19-Jul-10</td>
<td>8</td>
<td>29</td>
<td>30</td>
<td>31</td>
<td>32</td>
<td>33</td>
</tr>
<tr>
<td>16-Aug-10</td>
<td>9</td>
<td>33</td>
<td>34</td>
<td>35</td>
<td>36</td>
<td>37</td>
</tr>
<tr>
<td>13-Sep-10</td>
<td>10</td>
<td>37</td>
<td>38</td>
<td>39</td>
<td>40</td>
<td>41</td>
</tr>
<tr>
<td>11-Oct-10</td>
<td>11</td>
<td>41</td>
<td>42</td>
<td>43</td>
<td>44</td>
<td>45</td>
</tr>
<tr>
<td>08-Nov-10</td>
<td>12</td>
<td>45</td>
<td>46</td>
<td>47</td>
<td>48</td>
<td>49</td>
</tr>
<tr>
<td>06-Dec-10</td>
<td>13</td>
<td>49</td>
<td>50</td>
<td>51</td>
<td>52</td>
<td>53</td>
</tr>
<tr>
<td>03-Jan-11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

periods 7 and 8 are combined because of the summer holidays
the workflow for period 13 must be finished before week 4 due to closing the books at year-end

A number of exceptions have been made due to the summer holidays and closing the books at year-end.

Role of the project leader
At the start of the workflow and if necessary every week as a reminder, project leaders receive the email below:

Dear Sir, Madam,

This is an automatically generated mail from the Time Accounting System (TAS).

As a project leader you have to approve hours.
To get an overview of these hours use the link below:

http://webapps.utwente.nl/taswf/

The link brings the project leader to the approval screen. This screen will be updated every night to reflect the actual situation in TAS.
First login with your ICT account (Single Sign On) with m-number and password:

Now the TAS approval screen appears:
The project leader can click on the name of an employee to get detailed information including the hours the employee has worked for other projects (other productive hours) and the total number of non-productive hours (sickness, leave). With this detail overview an integral hour control is easy to do if necessary.
The project leader can approve individual lines (= units of approval) or approve or reject all cases at once. It's possible to postpone the approval of a case if for some reason this is not possible at the moment.

Below you can see an example where the project leader has approved only a subset of all cases. In case hours are rejected a comment is mandatory.
Clicking on the SEND button brings us to the confirmation screen:
In case of an accidental error clicking on the BACK button will bring us back to the approval screen where we can make corrections if necessary.

When pressing SAVE the approval will be finally stored and the project leader will see the remaining cases waiting for approval.

**WARNING:**
If the project leader forgets to press SAVE, nothing will be stored!
By pressing SAVE the project leader in fact digitally signs the approved hours.
The project leader may now close the application. The next time TAS Workflow is started the remaining not yet approved cases will be visible in the approval screen.

**Role of the employee**

If a project leader rejects hours the employee will receive an email immediately with a request to correct the registered hours:

Dear Sir, Madam,

This is an automatically generated mail from the Time Accounting System (TAS).

Some hours in your time registration have been rejected by the project leader (A. Brands):

**114–ISA–OV0041 IMPLEMENTATIE BO–XI**

- Week 49  12.00
- Week 50  5.00
- Week 51  10.00
- Week 52  7.00
- Total  34.00

Explanation: De cursus in week 50 moet ook op het project worden geboekt.

Please contact your local TAS administrator to change the rejected hours as soon as possible.
For employees for which there are rejected hours an extra menu option "corrections" will appear in TAS. This option prints (on screen) an overview of the hours which have to be corrected.

The employee however cannot change the hours herself because the period has been closed in TAS at the start of the workflow. Therefore she has to contact her local TAS administrator to register the corrected hours in TAS. The TAS administrators also receive an email of rejected hours.

If an employee does not respond to a request for correction she will receive a reminder on a weekly basis.

Dear Sir, Madam,

This is an automatically generated mail from the Time Accounting System (TAS).

Some hours in your time registration have been rejected by the project leader. Please contact your local TAS administrator to change the rejected hours as soon as possible.

In TAS you can select "corrections" from the menu to get an overview of the rejected hours.

http://webapps.utwente.nl/tas/
Monitoring

For Business Objects (BO) a "TAS Workflow" Universe is available to build reports based on data in the TAS Workflow system. A standard monitor report is already available. This report asks for a company/department number, a calendar year and a period number and outputs a list of all project activities including the name of the project leader, approval state (approved, rejected, waiting for approval), number of hours approved in the workflow and number of hours registered in TAS.

Example:

<table>
<thead>
<tr>
<th>Date/Year</th>
<th>Project/Activity/Other Activity</th>
<th>Team/ProjectLeader</th>
<th>Team/Workflow</th>
<th>Hours TAS</th>
<th>Hours TAS Approved</th>
<th>Resultaat</th>
<th>Datum Status/Geldigheid</th>
</tr>
</thead>
<tbody>
<tr>
<td>114 2020</td>
<td>13/11170 ONDERSTEUNING TIBBEKING A B</td>
<td>GENTENMEYER R</td>
<td></td>
<td>21</td>
<td>21</td>
<td>Niet beoogd</td>
<td>1/01/2020</td>
</tr>
<tr>
<td>114 2020</td>
<td>13/11043 TMV Naarvloermateriaal</td>
<td>REEDERSON F</td>
<td></td>
<td>25.5</td>
<td>25.5</td>
<td>Nog beoogd</td>
<td>1/01/2020</td>
</tr>
<tr>
<td>114 2020</td>
<td>13/BA-FM0018 WORKFLOW TAS</td>
<td>BRANDS I R A</td>
<td></td>
<td>32</td>
<td>32</td>
<td>Nog beoogd</td>
<td>1/01/2020</td>
</tr>
</tbody>
</table>
| 114 2020 | 13/BA-FM0018 WORKFLOW TAS | THEEVAEN IR J C | | 2 | 2 | Afgekeurd | 1/01/2020 | Volgens mij is het aantal ure aan te wijzigen.
| 114 2020 | 13/BA-FM0018 WORKFLOW TAS | TRIP E C | | 5 | 5 | Afgekeurd | 1/01/2020 | Volgens mij is het aantal ure aan te wijzigen.
| 114 2020 | 13/BA-FM0026 Nieuwe release TAS | WESTERKING J B | CHAATENIER I N T | | 4 | 4 | Afgekeurd | 1/01/2020 | Volgens mij is het aantal ure aan te wijzigen.
| 114 2020 | 13/BA-FM0026 Nieuwe release TAS | WESTERKING J B | GELDERING O C A D | | 19 | 19 | Afgekeurd | 1/01/2020 | Volgens mij is het aantal ure aan te wijzigen.
| 114 2020 | 13/BA-O-00041 IMPLEMENTATIE BO-10 | BRANDS I R A | BRANDS I R A | | 34 | 34 | Afgekeurd | 1/01/2020 | De cursus in week 50 moet ook op h.
| 114 2020 | 13/BA-O-00041 IMPLEMENTATIE BO-10 | BRANDS I R A | GOELEN J R O E | | 13 | 13 | Afgekeurd | 1/01/2020 | Volgens mij is het aantal ure aan te wijzigen.
| 114 2020 | 13/BA-O-00041 IMPLEMENTATIE BO-10 | BRANDS I R A | WISSELINK H | | 12 | 12 | Afgekeurd | 1/01/2020 | Volgens mij is het aantal ure aan te wijzigen.
| 114 2020 | 13/BA-O-00041 IMPLEMENTATIE BO-10 | BRANDS I R A | SLOTMAN J O A | | 32 | 32 | Afgekeurd | 1/01/2020 | Volgens mij is het aantal ure aan te wijzigen.
| 114 2020 | 13/BA-O-00041 IMPLEMENTATIE BO-10 | BRANDS I R A | STEENBEKE O J F | | 118 | 118 | Nog beoogd | 1/01/2020 | Volgens mij is het aantal ure aan te wijzigen.

Sum: 317.5 317.5 110.5

If a local TAS administrator changes hours after the workflow for a certain period has been finished, differences will result between TAS (the registered hours) and TAS Workflow (the approved hours). Therefore every TAS administrator must keep a logbook of changes in TAS after the period has been closed. The logbook should include which hours have been changed, when and why. In case of an inspection the logbook can be used to account the differences between TAS and TAS-WF.