INTERLEAVE

Installation, configuration and management manual

May 7, 2010

Interleave version 5.4.2

INTERLEAVE

Preface

Welcome to Interleave.

Interleave was founded in 2001 to have a better administration on a department of a multinational company in which tasks came in, had to be handled, and went out to the next department.

Started as a simple web administration tool called CRM-CTT, it now is a multi-lingual workflow, interface and web-publishing application used by thousands of businesses all over the world.

Enjoy using Interleave!

Regards,
Hidde Fennema
info@interleave.nl

Commercial support

As Interleave's complexity increased, we received more and more requests for commercial support. Since April 2008 this is available through Interleave. On the project site www.interleave.nl you'll find a page dedicated to commercial support.

Donations

If you, or even better, your company, is using Interleave and is enjoying it, please consider donating. As far as we can see, businesses all over the world (records from Western Europe, Eastern Europe, USA, Asia, South America, Africa, Russia and Australia) are now using Interleave to organize their day-to-day business, and a little motivation now and then would be nice. So, admins: try and convince your managers to donate a little and point him/her to the Interleave donation page at:
https://sourceforge.net/project/project_donations.php?group_id=61096

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Please note

Before you start be aware of the fact that this manual covers most of the administrative tasks needed to perform when maintaining an Interleave installation. This however does not mean this manual covers everything. Interleave has lots of functions which are self-explanatory – these functions are mostly not in this manual.

In other words; this manual is not intended to cover 100% of Interleave functionality.

1. Installation

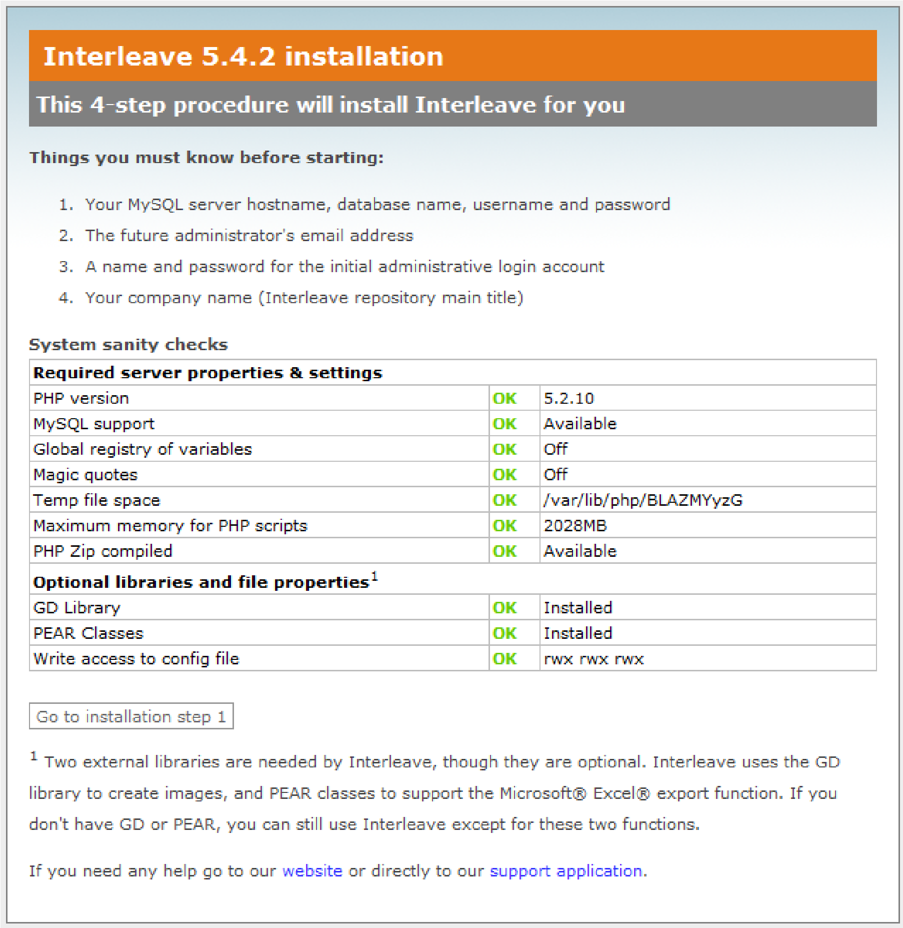
After downloading the archive, place it in on your webserver and unpack it. You'll have around 100 files and directories as a result.

When on *NIX, enter:

```
# chmod 777 config/config.inc.php
```

On Windows you don't have to issue any command.

Next, point your web browser to the location where you placed the files. Interleave will automatically redirect you to the installation routine. You will see this screen:


Interleave 5.4.2 installation

This 4-step procedure will install Interleave for you

Things you must know before starting:

1. Your MySQL server hostname, database name, username and password
2. The future administrator's email address
3. A name and password for the initial administrative login account
4. Your company name (Interleave repository main title)

System sanity checks

Required server properties & settings		
PHP version	OK	5.2.10
MySQL support	OK	Available
Global registry of variables	OK	Off
Magic quotes	OK	Off
Temp file space	OK	/var/lib/php/BLAZMYyzG
Maximum memory for PHP scripts	OK	2028MB
PHP Zip compiled	OK	Available
Optional libraries and file properties[1]		
GD Library	OK	Installed
PEAR Classes	OK	Installed
Write access to config file	OK	rwx rwx rwx

Go to installation step 1

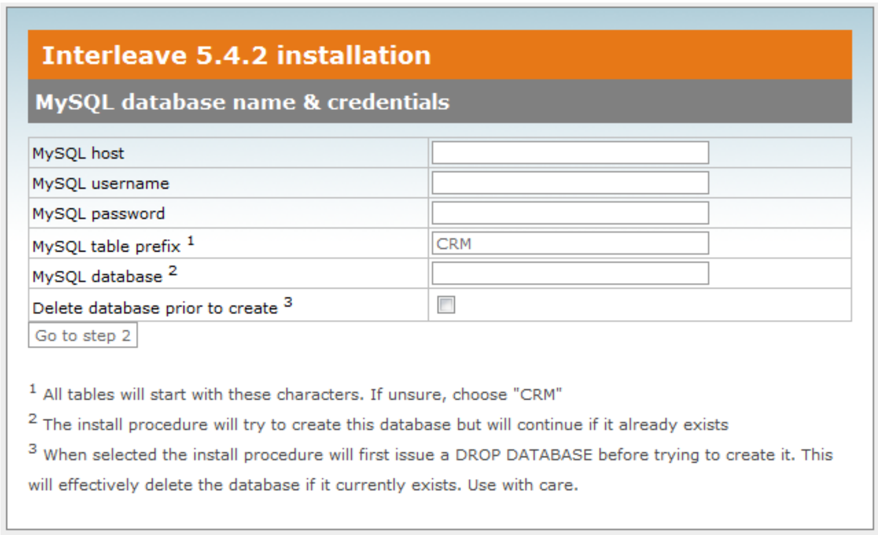
[1] Two external libraries are needed by Interleave, though they are optional. Interleave uses the GD library to create images, and PEAR classes to support the Microsoft® Excel® export function. If you don't have GD or PEAR, you can still use Interleave except for these two functions.

If you need any help go to our website or directly to our support application.

The upper table contains check which should all be passed – you cannot continue if a check fails.

Check	Must have value	Explanation
PHP Version	> 5.2.3	Must be at least version 5.2.3
MySQL support	Yes	Must be available in PHP
Global registry of value	Off	Must be switched off. If it's not switched off, edit your server's PHP.INI file and look for the REGISTER_GLOBALS setting.
Magic quotes	Off	Magic quotes, PHP's worst mistake ever, must be disabled. If it's enabled, edit your PHP.INI file and look for the MAGIC_QUOTES_GPC setting.
Temp file space	Must be writeable	Interleave sometime needs temporary file space to store data.
Maximum memory for PHP scripts	> 15 MB	Interleave needs at least 16 MB for PHP. If your server reports less, edit your PHP.INI file and look for the MEMORY_LIMIT setting.
PHP Zip compiled	Must be available	Interleave uses Zip compression en deflation to handle MS Office 2007 files and to compress data. This library is mandatory.

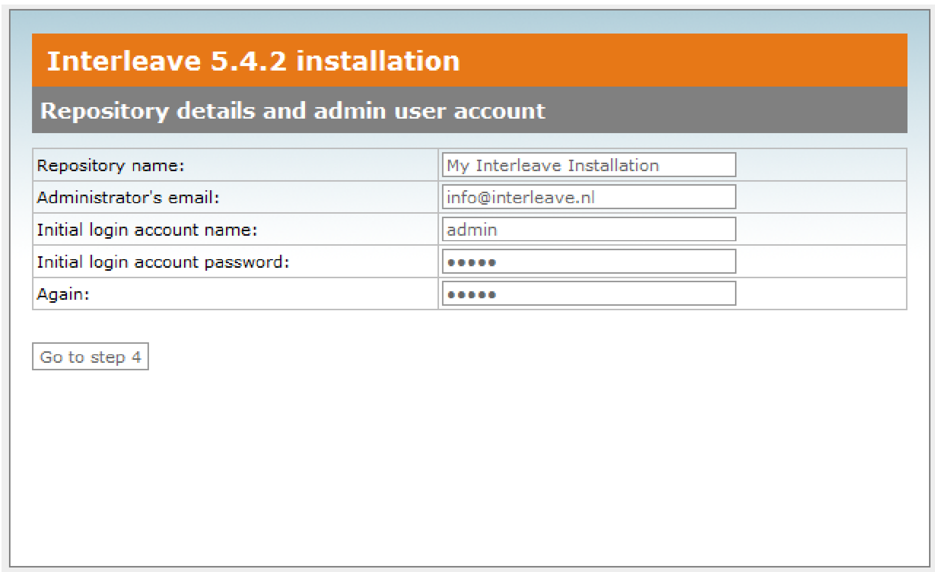
Click the "Go to installation step 1" to continue. You will have to enter your database credentials:



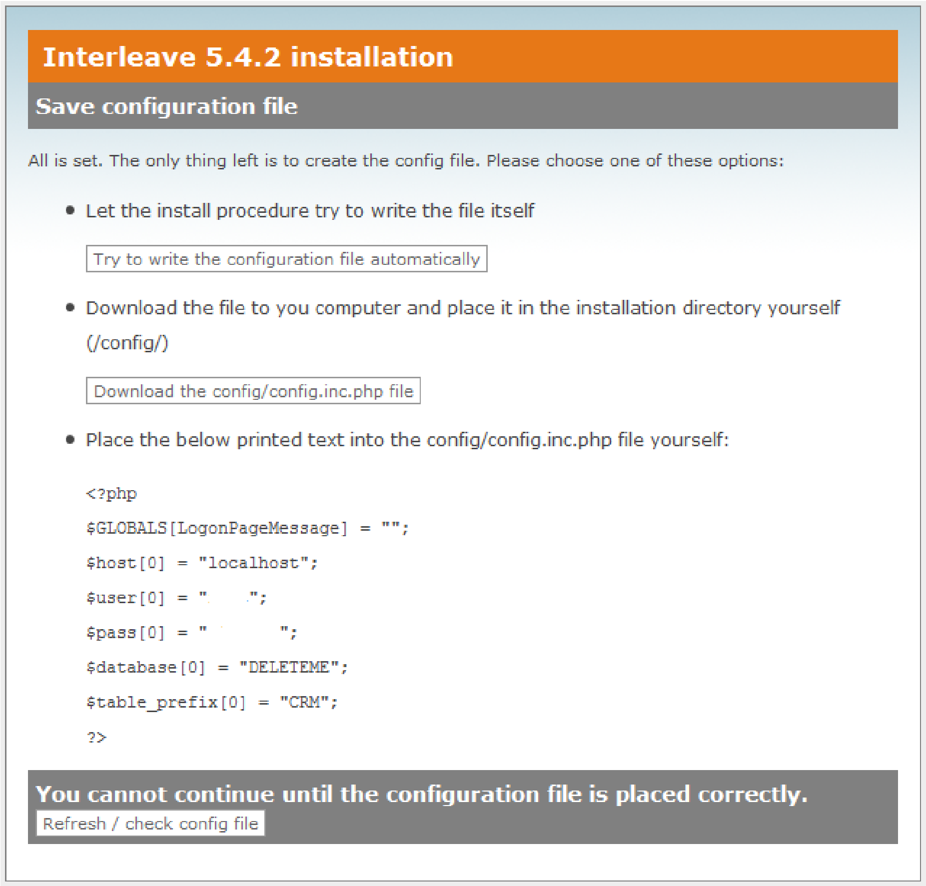
After clicking “Go to step 2”, assuming all information was entered correctly, Interleave will test the database connection and install the database schema. Also, the English language pack will be installed.

When selected on the previous screen, the chosen database (in this example called “DELETEME”) will be deleted prior to trying to create it.

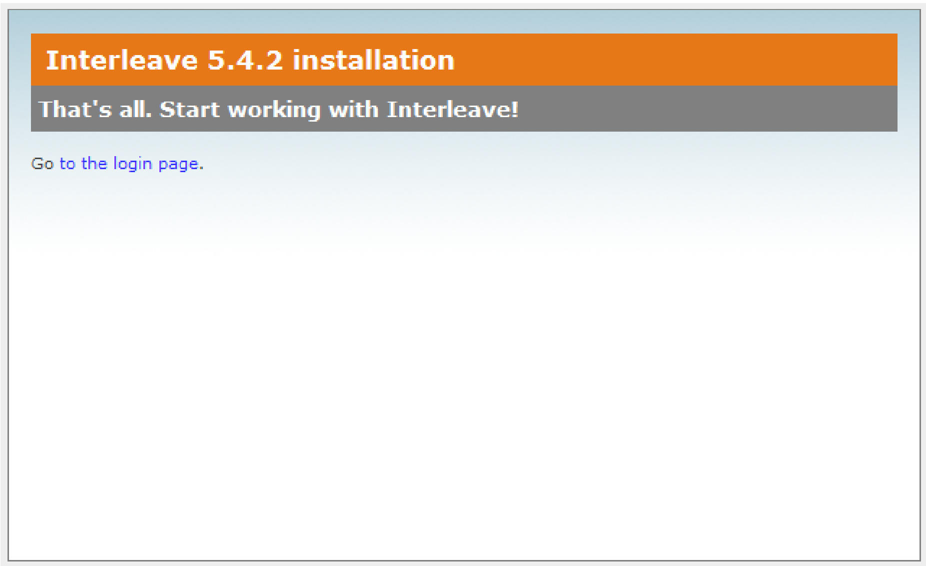
Click “Go to step 3”. On this screen you have to enter the repository name and an initial administrative account. All information on this screen can be altered later on.



After clicking “Go to step 4” the installation is essentially complete:



After saving the configuration file, you can start working with Interleave!



When on *NIX, don’t forget to fix the permissions on the config/config.inc.php file!

After installing and clicking around for the first time, don't forget the following post-installation steps:

Add a cron job to some machine (could be local, but also remote) to start the email-notifier agent for entities; an example from a cron file: (the cron user doesn't need to be root)

```
# Interleave Alarm date manager
0 8 * * *       wget http://yoursite.com/interleave/duedate-notify-
cron.php?password=yourCRONpwd\&reposnr=XXX 1> /dev/null 2> /dev/null

* * * * *      wget
http://yoursite.com/interleave/\housekeeping.php?password=yourCRONpwd\&reposnr=XXX 1>
/dev/null 2> /dev/null
```

This will send an e-mail notification at 8 AM. Entities wich will be mentioned are entities which have an alarm date set to [today] and all triggers. Important: the housekeeping script must be ran every minute, this is essential!

Please note – in the crond-example the scripts are called over the web. You can also run the scripts locally like “php housekeeping.php [repos] [cronpass]”.

The reposnr=XXX part resembles the repository number you'd like to send notifications for. reposnr=0 for the first, reposnr=1 for the second and so on (equal to the values in your config file). Skip the "1> /dev/null 2> /dev/null" part if you'd like reports mailed to the user under which the crond job runs.

2. General system configuration

There are a few things which you should absolutely configure as soon as you have Interleave installed.
Go to "Administration" -> "Global system values"
You can configure several things here. The most important are:

CRONPASSWORD:
The password used by the cron script to collect due dates (duedate-notify-cron). Always set a password, even if you do not use this functionality.

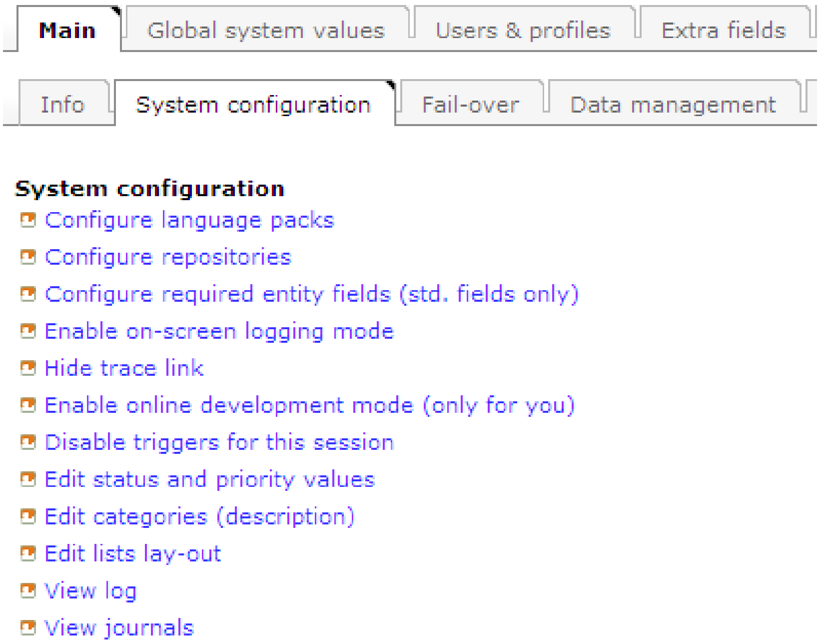
Main language:
The system-wide default language

There is a great number of things you can change, though these are the most important. Make sure you've set all above variables correctly. For more explanation on the remaining directives, see appendix I.

3. Language configuration

Interleave standard comes with only one language: English. However Interleave is available in Dutch, German, French, Brazilian-Portuguese, Danish, Slovenian, Italian, Slovene, Slovak, Polish and Spanish too. You can download language packs at the Interleave website at http://www.interleave.nl.

To deploy a new language, go to the administration section, tab “System configuration”. Next, choose "Configure language packs".



To import a pack file, choose “import a pack file” and on the next screen click "Browse" to upload the pack file. The language is now deployed and ready for use.

You can also use the “Install pack file from the Interleave project page” option to automatically download and install language packs by selecting the “Install a pack file from the project page” link. Be sure your web server has web-access if you want to use this function.

4. Language masks

A more complicated matter - but this is what makes Interleave so versatile. When you use a mask instead of a complete language pack you can only adjust the terms, sentences or words which you want to have adjusted without the effort of copying a complete language with some alterations.

4a. Creating a language mask

To create a language mask, go to the "Manage language packs" (Administration, System Configuration, Configure Lange Packs) section and click "Add new language or language mask:" and give your language a name (e.g. NEWMASK) and click "Submit". You will see something similar to this:

Now, collect the "tag-names" of the words or phrases you want to be replaced in your Interleave. The best way to do this is by using the "tag-display-mode". After you know these tags, click [add an entry] and enter the tag names along with the values you think they should have. When done, apply your language mask in the "Change system values" section.

You can import and export masks like they where language packs.

Character-encoding

Since version 2.6.2, Interleave supports the use of different types of character encoding in your language pack. The default is still ISO-8859-1, but if you add a language tag to your language pack called “CHARACTER-ENCODING” (in capitals, without the quotes) containing the correct value, Interleave will use this to override the default encoding.

4b. Language and language mask hierarchy

3. Mask layer	Language mask, overrules all
2. User preference layer	If not overruled in the "Change system values" section
1. Base layer	System-wide Language default
0. Just-to-be-sure layer	English (hard-coded)

0. Just-to-be-sure layer

This layer is always loaded first. This way a tag will never be empty. When your system-wide pack misses a tag, it will still be displayed in English.

1. Base layer

The base layer is loaded directly after the just-to-be-sure layer, filling the language array which tag contents of your language of choice, and when everything goes ok, overwriting all tags filled by the just-to-be-sure layer.

2. User preference layer

After that, when a user has selected another language, this language will be loaded on top the base language. This only happens if this option is not overruled with the langoverride directive in the administration section.

3. Mask layer

When a mask is selected, this will be loaded on top of all layers before, thus overwriting some entries causing Interleave to display some tags differently.

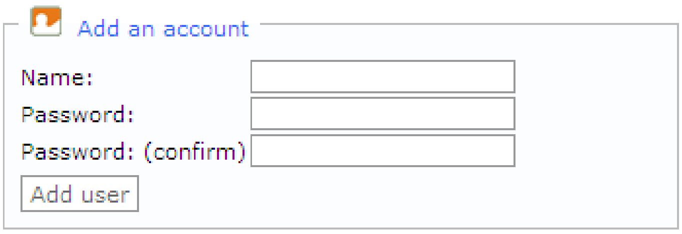
It is advisable to override the users' language preference to prevent confusion when using language masks.

5. Users and profiles

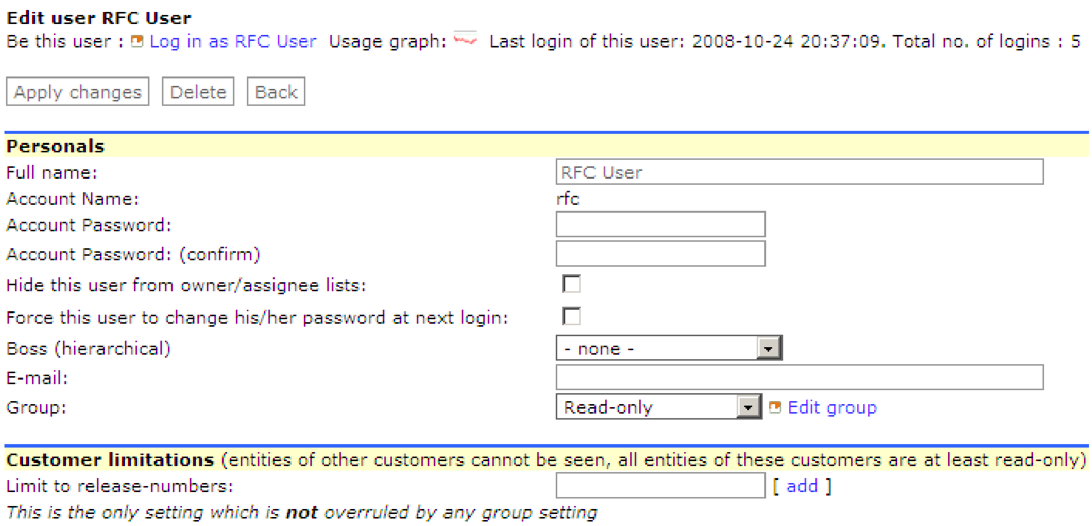
Before digging deeper into the way Interleave handles access to data, here's how to create new users. Next to that, this chapter also tells you how to create user profiles.
For both users and profiles, you first have to navigate to the user management section, to be reached in the administration section, tab "Users & profiles". You can also press ALT-U on your keyboard for fast access to this section.

5a. Adding and editing users

To add a new user, just fill in the form:



After hitting "Add user", the screen refreshes, and a link will show which takes you to the account options page.



A user can be limited to use only a specific set of customers by setting the appropriate customers-numbers in a semicolon-separated list.

Please note: always try to use groups or you'll be very sorry later on as your user base grows…

The clearance levels are described in chapter 6.

5b. Groups

Groups look the same as normal users. The advantage is that you can couple a group of users to a profile. This has two advantages:

1. You don't have to enter all specific allows and denies for each user
2. You can the rights of a large number of users by just adjusting the profile, instead of altering all users

6. User hierarchy and security

6a. User types

Interleave uses only one user-type. You can give user privileges using the user account profile or by using groups. Either way, it looks like this:

Privileges

Entities	
Can add new entities	☑
Can see owned entities	☑
Can edit owned entities	☐
Can see assigned entities	☑
Can edit assigned entities	☐
Can see other entities	☑
Can edit other entities	☐
Can add comments to read-only entities	☑
Not allowed to assign or own entities (limited user)	☐

Lay-out	
May select columns in lists	☐
May use filter in lists	☑
Columns to show (entity list)	[list layout set] [select]

Customers	
Can add new customers	☐
Can see owned customers	☑
Can edit owned customers	☐
Can see other customers	☑
Can edit other customers	☐

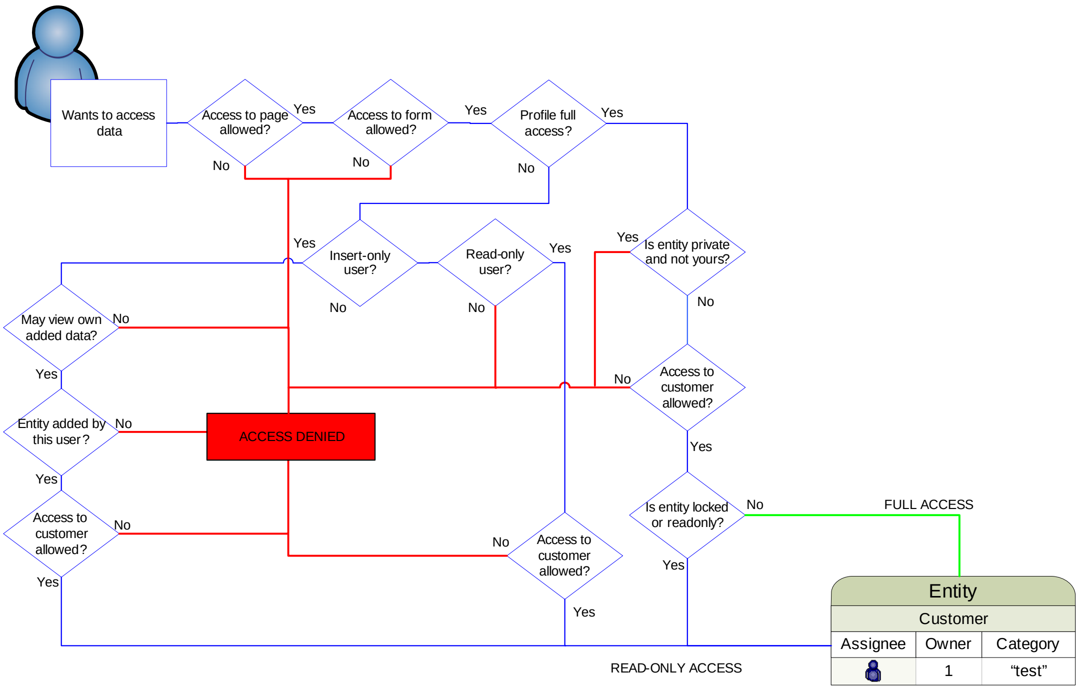
Administrative tasks	
Can add/edit users	☐
Can add/edit extra fields	☐
Can add/edit triggers	☐
Can add/edit templates	☐

You can create any type you want by playing around with these privileges.

Please note; all permissions are split in three; “owned”, “assigned” and “other”. When a user has rights to see “other” entities, he/she cannot automatically also see his/her “own” entities.

6b. Decision flow

This chart shows the way Interleave decides whether or not a user has access to an entity:



7. Repositories

Interleave can use multiple repositories. A repository is a complete database with it's own settings, languages, entities, users etcetera. Important to know is that between repositories, NO data is shared whatsoever. If you have more than one repository, a drop-down box will be presented on the logon page where you choose the repository to log on to.

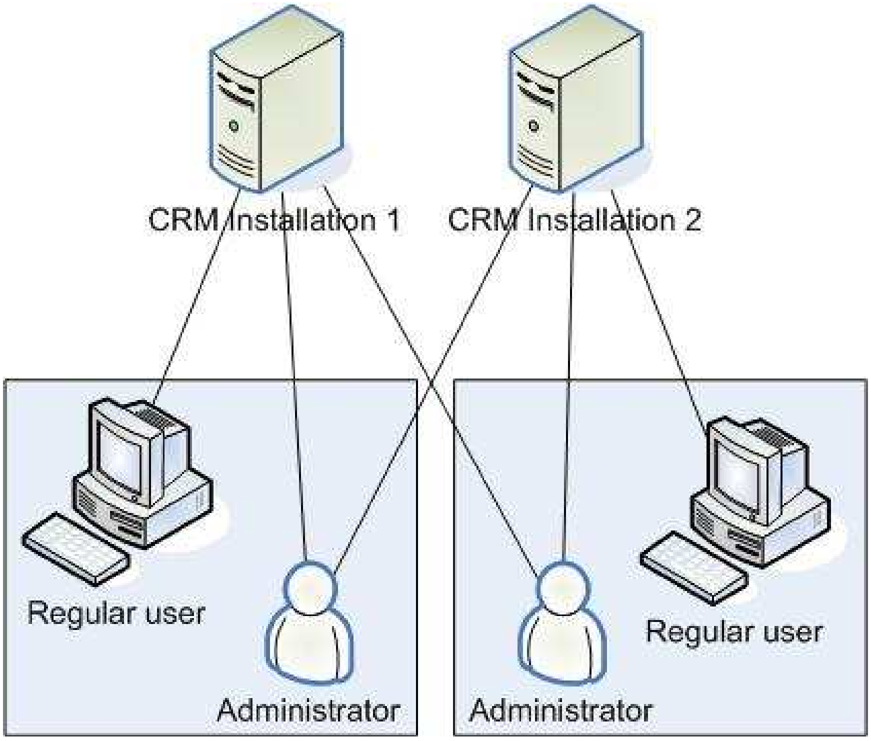
When you just installed Interleave, the installer created the first repository. If you want another added to your system, go to "Manage repositories" in the administration section and click "Add a repository". This will take you to a page similar to the install procedure. When done, you will have to add some information to your configuration file (config.inc.php).

When the information in your configuration file is not correct, your new repository will not show up at the logon page.

You will need to add a cron job for every single repository if you want e-mail notification enabled. See the “installation” chapter for more information.

Please note: You can also use the "Manage repositories" section to delete repositories. You are able to delete the repository in which you are currently working causing a complete loss of data and causing Interleave to stop working immediately. Use this only when uninstalling Interleave.

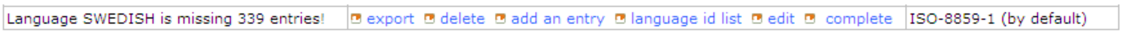
When an administrator has similar accounts in multiple repositories (same name/password/admin rights) he/she will be able to access other repositories then the one logged on to and edit the repository settings (Extra fields, delete repository, empty sessions table)



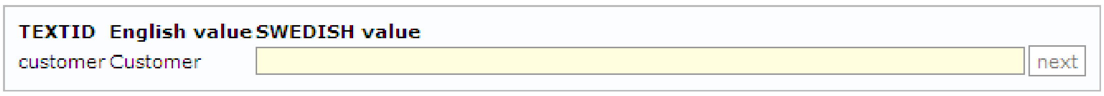
8. Translating Interleave

Interleave can be easily translated to any language using the "manage language packs" option on the administration page.

On this page, go to "Add new language or language mask:" and give your language a name (e.g. SWEDISH) and click "Submit". Your language is now added to the summary:



To start translating, click [complete]. Interleave will now present all words and sentences which need to be translated:



It will show you the English values so you can translate them. If you'd like to stop translating and continue later on you can just log out, and later click [complete] again.

NOTE: After adding your language it will be visible (and selectable) immediately from the language selection box. To avoid this, either override the user-selectable language (admin -> system values -> langoverride) or use a separate repository for translation. You can add and delete repositories from the "Manage repositories" page in the admin section.

9. Extra entity fields

This is what it's all about. You need to build your own database with extra fields. Extra fields can be referred to throughout the application and they also will appear in your CSV exports, reports etc.

To add or modify extra fields, you can use the “Extra Fields” tab in the administration section.

To start adding a new field, click tab “New extra entity field”.

You can add the following field types:

- Single-line text box
- Multi-line text box (text area)
- Drop-down box
- Drop-down box based on customer extra field of type “List of values” (see chapter 9)
- E-mail field
- An internet-link (hyperlink)
- Invoice cost field (for invoicing only, validated for being numeric)
- Invoice cost including VAT field (for invoicing only, validated for being numeric)
- Invoice quantity (for invoicing only, validated for being numeric)
- VAT-overrule field (for overruling the global VAT setting when using invoicing)
- Comment field (for displaying text between your extra fields)
- Date field (will spawn the calendar popup select window, validated)
- A numeric field (will be validated when submitted)
- A drop-down list of Interleave users (mainly for use in combination with triggers)
- A “List of values” – this field is just like a textbox, only this time not one, but multiple, preceded by the number. This can come in handy when registering multiple phone numbers, for instance.
- A button which does something based on triggers (in other words; after creating a button, you need to set triggers on the button (section triggers -> misc. triggers)
- An SQL query
- A booking calendar
- A group of calendars

You can add some more attributes to your extra field:

Allow users to add values to this list: ☐
Sort list alphabetically in forms: ☐
Show a little fast-search box next to this drop-down field: ☐
Limit the width of this drop-down box to [0] pixels (will auto-size when clicked).

Order	333
Detailed access restrictions	[none set] [select]
Conditions	[none set] [select]
Make this a required field	☐
Default value	No

The “Make this is a required field” setting causes, when set, a configurable error message when a user tries to save an entity without having given this field a value.

For easy configuration of these fields, use the “In line edit mode” – all field names in the form will become direct hyperlinks to the extra field properties page of that field.

The above example shows how the fields are placed on the default edit form. You can also create your own forms so you can place extra fields anywhere your like.

The link [detailed access restrictions] gives you a pop-up window where you can select who access to this field. Recommended is the use of profiles to avoid unnecessary administrative load.

The [conditions] link brings you to a pop-up screen where you can add conditions to this extra field. If one of these conditions is not met, the field will not show up.

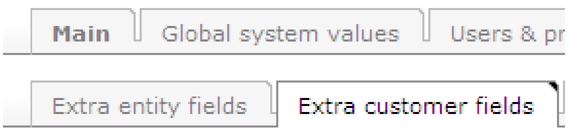
To make your extra fields show up on your forms, check chapter 22, “Formfinity”.

10. Configuring extra customer fields

The standard Interleave customer database consists of the following fields:

- Customer
- Contact
- Contact title
- Contact phone
- Contact e-mail
- Address
- Remarks
- Homepage

If you want to store more information in this database, use the “Edit extra customer fields” option in the administration section:



The method is equal to extra entity fields, except that the location for an extra customer field cannot be chosen.

Note: extra customer fields of type “List of values” can be used in entities to populate drop-down boxes. For instance when you have an extra customer field of type “List of values” which is named “Contact person”, you can have this field appear in an entity, so when the entity is logged, the specific customer contact person can be identified.

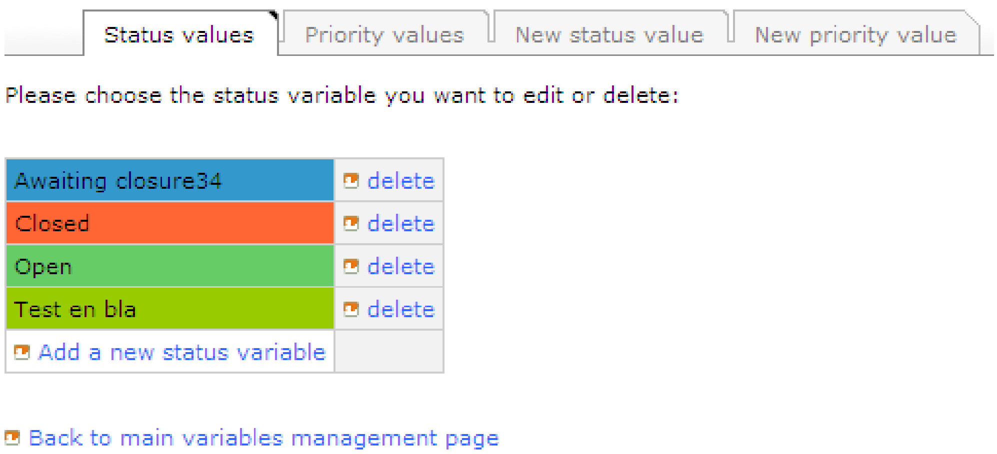
See chapter 8 for more information.

11. Configuring custom Status and Priority variables

A standard Interleave installation comes with the status variables “Open”, “Awaiting closure“ and “Closed”. The standard priority variables are “Low”,”Medium”,”High” and “Critical”.

These values can be adjusted. To do so, click on the “Change status and priority values” in the administration section and then click the type of variable you want to change (Status or Priority).

When you select [edit status variables] you will see something similar to this:



When you click on a variable name, you are able to adjust the name, and the color:

When you change the name, all entities (including deleted entities) will be updated to the new variable name.

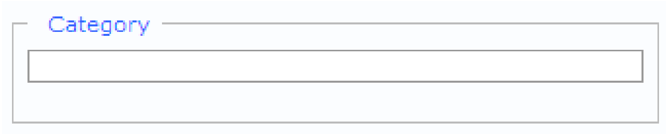
When you delete a variable name, this status or priority variable can no longer be used, but all existing entities carrying that status or priority will keep the old status or priority.

12. Custom category variables

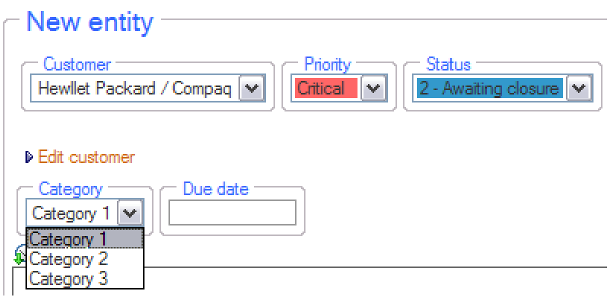
Interleave supports 2 types of category variables:

1. A plain text box
2. A drop-down menu

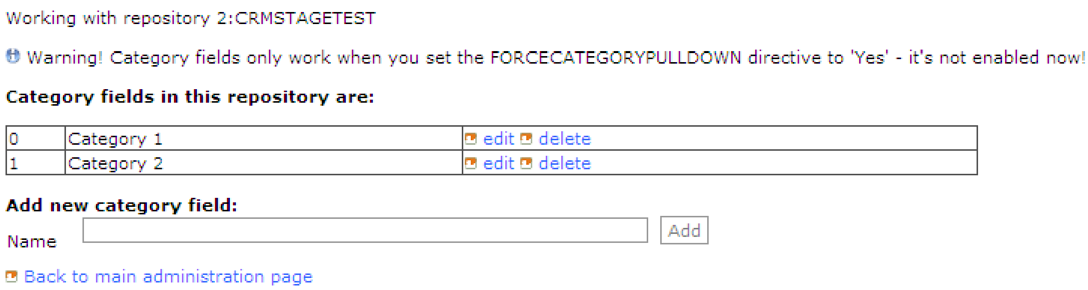
Normally, Interleave displays the plain text box when adding or editing an entity:



You can alter the size (width) of the default category box by setting the CAGORYBOXSIZE variable in the global system values. Also, you set the directive FORCECATEGORYPULLDOWN to ‘yes’, Interleave will present a drop-down menu when adding and editing an entity, forcing the user to choose from a pre-defined list:



You have to configure a list of possible options before you can use the pull down menu. Do this using the “Edit categories” option in the administration section:



13. Configuring e-mail notifications

Please refer to chapter 16 – Triggers for more information on this.

14. Fail-over configuration

Database fail-over support was added in version 3.4.3. It can be used to have Interleave update two identical databases at the same time. If one of the databases goes down, the other will take over without any loss of data and without any user noticing it.

This can be useful for availability purposes, but also for backup use.

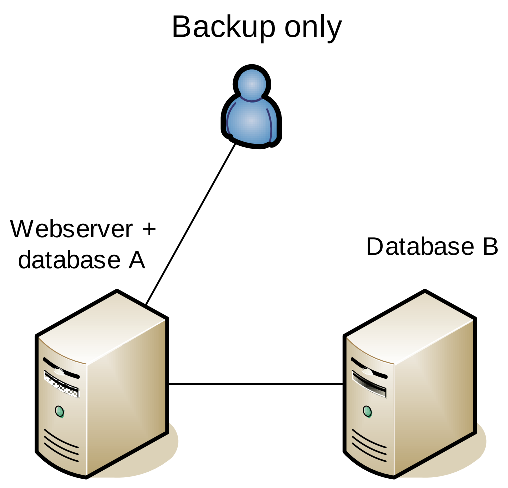
This chapter will show some possible configurations first. After that the necessary actions to achieve this are described.

We can roughly determine 4 major different ways to use this function:

1. Backup-only (2 servers)
2. Low-end redundancy (2 servers)
3. Medium-end redundancy (4 servers)
4. High-end redundancy (4 servers, network appliance)

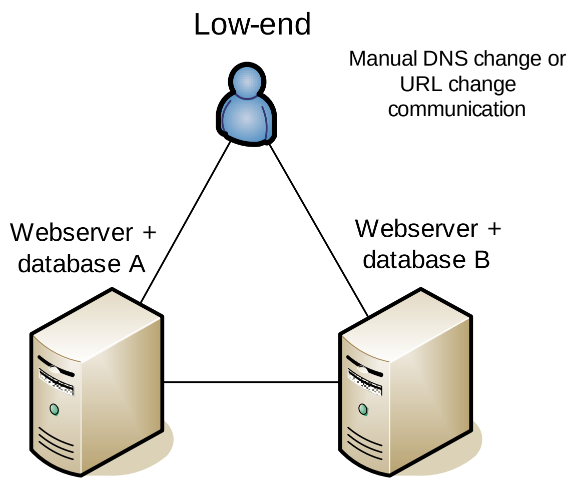
1. Backup-only.

Schematically this infrastructure would look as follows:



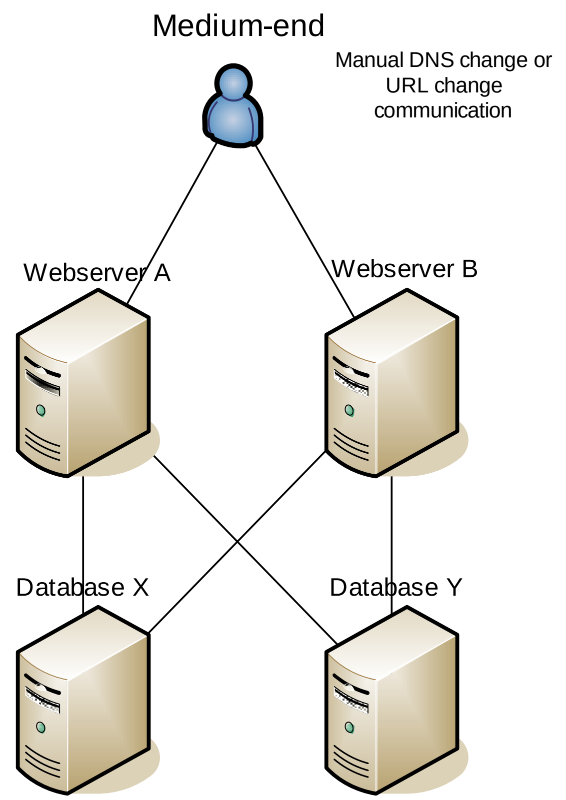
1. Low-end.

Schematically this infrastructure would look as follows:



2. Medium-end.

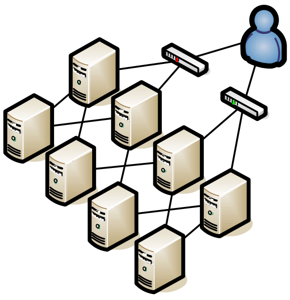
Schematically this infrastructure would look as follows:



4. High-end.

Schematically this infrastructure would look as follows:

Not possible: paranoid constructions:



Interleave can only replicate 2 databases at a time, not more. However with the high-end solution a four-nines (99,99%) availability should be possible.

Configuring a fail-over database

The following instructions assume you already have a running Interleave instance on 1 machine. It's not important if the database and webserver are on the same hardware.

This is fairly easy. Follow the following steps:

1. Enable maintenance mode on your current (only) node
2. Shut down your MySQL database
3. Copy your table files to node 2 and make sure they are accepted by the MySQL instance
   Leave the database name and database user intact!
4. Start MySQL instance on node 2.
5. Make sure it's possible to connect from the webserver to node 2 on port 3306.
6. On the webserver, edit the config.inc.php in your Interleave installation directory. Find the configuration section for the node 1 database. It should look a lot like this:

```
$host[0] = "node1.mysqldb.yourdomain";
$user[0] = "crm";
$pass[0] = "crmpassword";
$database[0] = "CRM_DB_NAME";
$table_prefix[0] = "CRM";
```

7. Add a $slave[x] section. In this example it should look like this:
   ```
   $slave[0] = "node2.mysqldb.yourdomain";
   ```
8. Start your MySQL server on node 1.
9. Open Interleave in your browser and log onto the repository you just configured.
10. Go to the admin section select tab “Fail over”. It should look as follows:

Fail-over status ▸refresh

Currently running on database	10.0.0.1
Configured slave database	10.0.0.19
Slave database status	OK
Local jobs waiting for replication	0
Remote jobs waiting for replication	0
Replication status	OK
Database integrity	OK

In this screen shot other database host names were used

11. Bring down your MySQL database on node 2

12. Refresh the administration page. It should now look as follows:

Fail-over status ▷refresh

Currently running on database	10.0.0.1
Configured slave database	10.0.0.19
Slave database status	DOWN
Local jobs waiting for replication	4 ▷view ▷empty ▷unlock stalled records
Remote jobs waiting for replication	n/a
Replication status	SYNC HALTED [will continue when host is up]
Database integrity	▷Check now

13. Note that you will already see some jobs waiting. These are produced by your own browsing through the admin section.
14. Start your MySQL database on node 2 again and refresh the page twice. The result should be like the figure at bullet 10.
15. Now shut down your MySQL database on node 1 (make sure you're not shutting down any repositories on this system which are not using fail over yet). After refreshing the page it will look like this:

Fail-over status ▷refresh

Currently running on database	10.0.0.19
Configured slave database	10.0.0.1
Slave database status	DOWN
Local jobs waiting for replication	3 ▷view ▷empty ▷unlock stalled records
Remote jobs waiting for replication	n/a
Replication status	SYNC HALTED [will continue when host is up]
Database integrity	▷Check now

16. Note that the current and slave database were switched.
17. Start your MySQL database on node 1 again and refresh the page twice. The result should be like the figure at bullet 10.
18. Smile and disable maintenance mode.

Configuring a fail-over webserver

If you also want to use 2 webservers (with or without a load balancer) just replicate the Interleave installation directory from webserver 1. Do not switch the slave/master settings. They must be exactly the same on both servers to assure data integrity. When doing this, also make sure that connections from webserver 2 to both database node 1 and database node 2 are allowed to port 3306.

Important facts, possible errors & fail-over troubleshooting

Important facts to know about Interleave's fail-over implementation:

- When a slave database is out-of-sync but just came up again, Interleave will send cached queries to that server with 250 at a time, using user sessions. When your slave system is behind a lot (e.g. > 1000 jobs) it is wise to refresh the Fail Over admin page as an administrator with maintenance mode enabled to avoid users having very slow page loads.

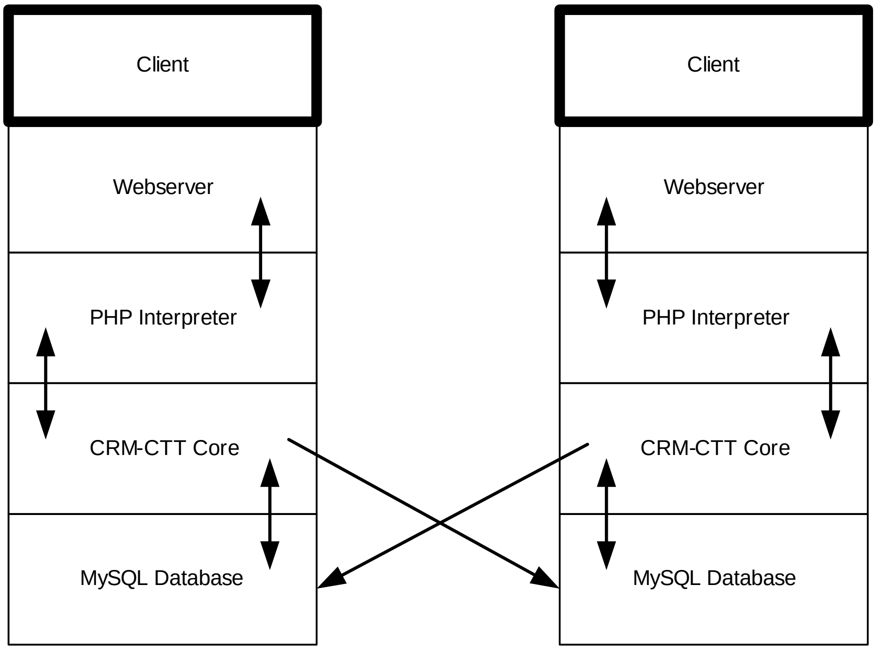
- If the status of your failover system still gives COMP, it's possible to use the command-line Interleave interface (cmd.php) to automatically rebuild your slave database. Use command "x sync repair" for this.

- The option "unlock stalled records" should only be used if a job queue won't empty by itself. Using this is fairly harmless; it just frees any records which were locked for use earlier (but somehow didn't replicate).

- Fail-over does not main load balancing! Although using 2 webservers and databases at the same time (by switching the master/slave host names) will seem to work, though entities will potentially not be saved with the same EID.

Internal fail-over mechanism schematics

For the record; Interleave's internal fail-over mechanism looks as follows:



15. A word on entity journaling

Interleave supports journaling. Journaling means that an update to en entity is logged. This was already done by logging, but with journaling you can see what exactly was updated.

If you set the configuration directive “ENABLEENTITYJOURNALING” to “Yes” (it is enabled by default), every change to an entity is saved. Here’s an example:

Sat November 29, 2003 20:34	Hidde Fennema	Entity updated Problem solver updated from Interleave to Hidde Fennema Responsible updated from Interleave to Hidde Fennema Status updated from Checked in to Canceled Priority updated from 1 - Critical to 2 - High Release updated from Unknown to Interleave Vere. 2.0.0

Using this method you can see which user updated what field to what value.

When the journaling subsystem is enabled, a “Journal” – link will automatically be added to the main Edit Entity page.

16. Event triggers (work flow)

Event triggers are actions which are executed when a set of requirements is met. More to the point; if you, as administrator, want an e-mail when somebody updates the priority of an entity to priority “Critical” you can do that by adding an event trigger.

Event triggers can be added in the “Configure event triggers/work flow” section, to be found on the administration page. Event triggers can be placed on change of one of the following entity fields:

- Status
- Priority
- Customer
- Owner
- Assignee
- Every extra entity field you may have added
- Miscellaneous events
- Administrator events

To use event triggers which send an e-mail efficiently, you’ll need HTML templates. You can add and edit HTML templates in the “Edit RTF and HTML templates” section. If you want Interleave to also attach a report of some kind, you’ll also need an installed RTF report, or you might just use the default PDF report.

To create the above mentioned event trigger, do the following:

Priority

On value change of field	When the value is updated to	perform action	Template	
Priority	1 - Critical	[mail admin]	[default]	Go!

This will result in a trigger:

Current event triggers:

On value change of field	**when the value is updated to**	**perform action**	Template	Delete
status	[something else]	[mail owner]	BODY_ENTITY_EDIT	✖

Besides sending e-mails, you can also configure a trigger to execute a query when the event occurs.

The following events are defined and ready for use:

- Mail the owner of the entity (whomever it is)
- Mail the assignee of the entity (whomever it is)
- Mail the customer of the entity (whomever it is)
- Mail the administrator
- Delete/undelete an entity
- Toggle read-only/read-write
- Toggle private/public
- Set /unset close-date of entity (stop-clock/start-clock)
- Re-set create date of entity (re-set clock)
- Set status to [any status]
- Set priority to [any priority]
- Set owner to [any user] or [customer owner]
- Set owner to [the value selected in extra field xx]
- Set assignee to [any user] or [customer owner]
- Set assignee to [the value selected in extra field xx]
- Mail [any] customer
- Mail [any] user
- Extend due-date with 1/2/3/4/5/10/20/30 days
- Set the form type of an entity to a different form
- Run a module and check the result (either “true” or “false” in plain text)

Using these events, you can create work flows by adding them one at a time. Prepare your work flow on paper before adding them in the system to make sure you're not missing a step.

A basic work flow for an imaginary department, which handles requests for PC-upgrades would look as follows in Interleave:

Current event triggers:

On event or value change of field	when the value is updated to	perform action	Mail template	Attach report	Attach mail to entity	Dele
Is this request about a PC-upgrade?	Yes	mail user Department Manager	Demo	Std. PDF-report	No	✕
Is this request about a PC-upgrade?	Yes	Set assignee to 30	n/a	n/a	n/a	✕
PC-Upgrade approved by Dept. Manager?	Yes	mail owner	BODY_ENTITY_EDIT	Don't attach anything	No	✕
PC-Upgrade approved by Dept. Manager?	Yes	Set assignee to 1	n/a	n/a	n/a	✕

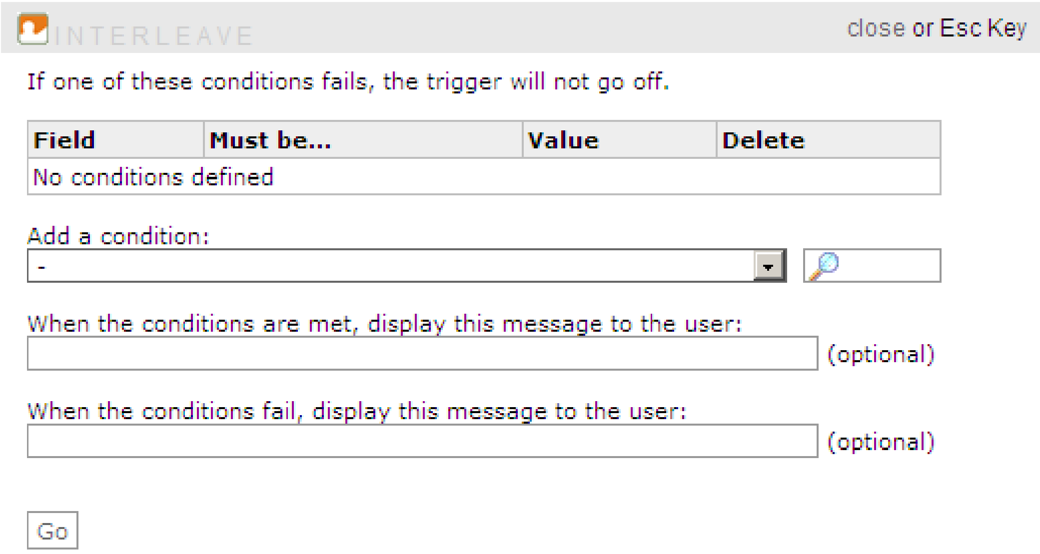
These settings will create the basic work flow Note that you have to add a trigger for each event you want to occur. There are no triggers like "Update owner to Dept. Manager *AND* send an e-mail to the assignee of the entity". This trigger contains 2 events; "Set owner" and "E-mail assignee" – so, 2 triggers need to be defined.

To be more in control regarding when a trigger fires, you can give it a set of conditions to be met before the trigger fires. This is very useful when designing work flows; you only want a trigger to go off when a certain list of conditions is met. Conditions in this case are based on the values of other fields, like "the status of this entity must be 'Prospect'" and so on.

You can set the conditions with the link on the bottom of the edit-trigger page:

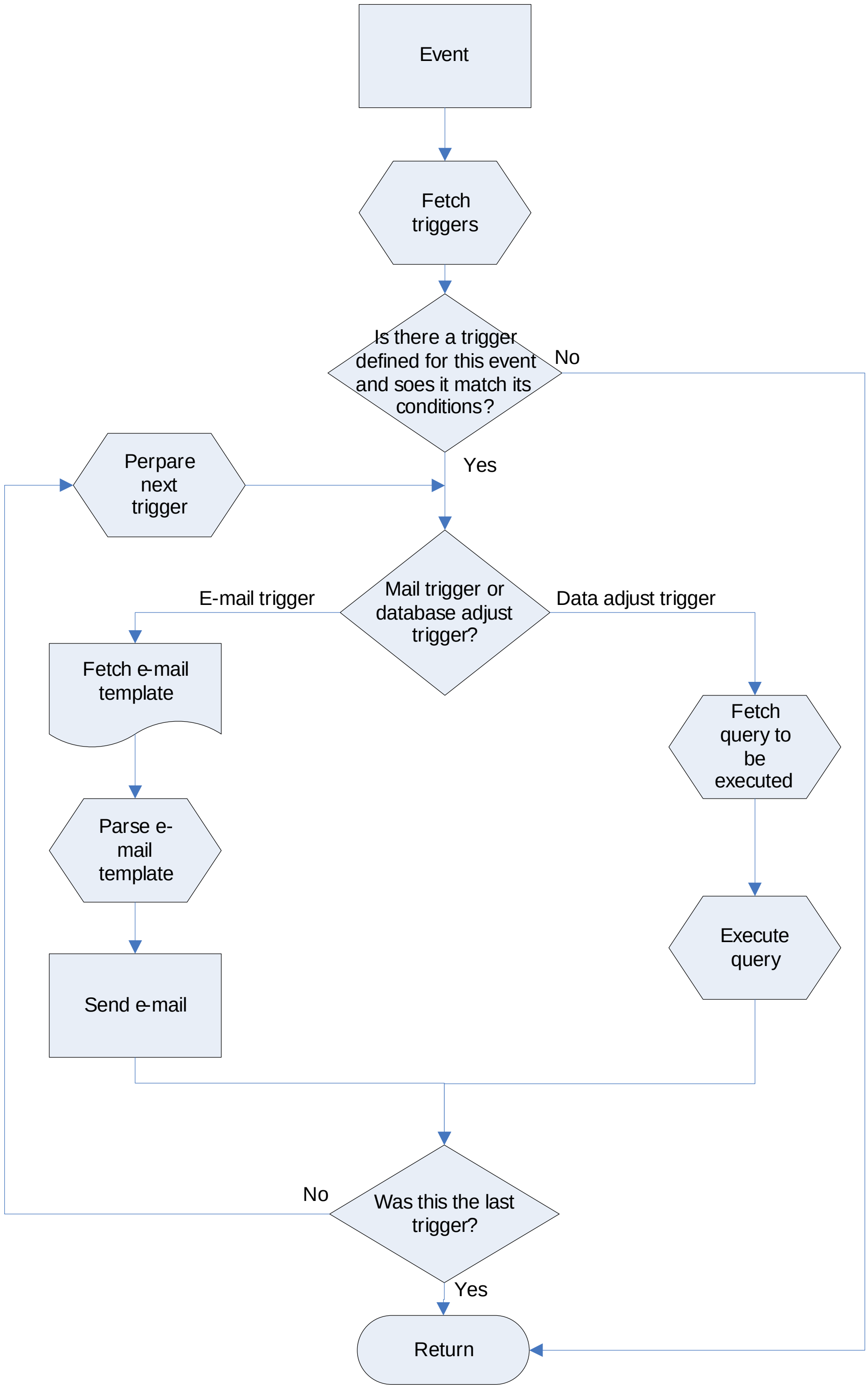
Conditions	[none set] [select]

Click [select] to add/edit your conditions;



You can also add a success- and failure message. These are very useful; they tell the user why or why not a trigger has fired, like “A message was send to your boss because you extended the due date” or “Message was not send because the status of this project does not allow it”.

Interleave Event handling schematics



Note that data changes caused by a trigger **do not** trigger other events to prevent looping.

18. WebDAV

WebDAV support has been discontinued. Interleave version 5.3.2 and later do not support WebDAV anymore. Several internet polls showed that this functionality is very rarely used.

19. Invoicing with Interleave

Since version 2.5.2, Interleave supports invoicing. With this module, an administrative user is able to create invoices based on information stored in the database. This module has some prerequisites.

Please note: this invoice module is based on each entity being 1 invoice line on your invoice and it will thus only work with the entity table. Since FlexTables arrived, we advise administrators to use flextables for invoicing. This invoice module will be disabled in time.

Configuring your installation

First, make sure you have set configuration directive "ENABLEMAILMERGEANDINVOICING" to "Yes" in the administration section. Without this, the link will not appear on the main page. When enabled, the link will still only appear for administrative users.

An invoice rule is one line on your invoice, representing something your company did for a customer. Each entity (matching some given criteria) will be an invoice rule on your invoice. These entities must have values in their invoice fields. These invoice fields can be created by adding extra fields of type "Invoice cost" and "Invoice qty." :

33	407	**Invoice total cost**	invoice cost	0	None set	None set	No	
34	420	**Invoice quantity**	invoice qty	0	None set	None set	No	

These fields are "regular" Interleave custom fields, with the exception that they will be interpreted specially by the invoice module. Without these fields, Interleave will refuse to generate invoices.

If your company is used to enter invoice costs including VAT, you can choose to use the field "Invoice cost including VAT". The price will still be broken down on the invoice.

If you want your users to be able to overrule the default VAT percentage which you entered in the global configuration, you can also add a field of the "VAT drop-down" type. When this field contains a value, this value will override the default setting.

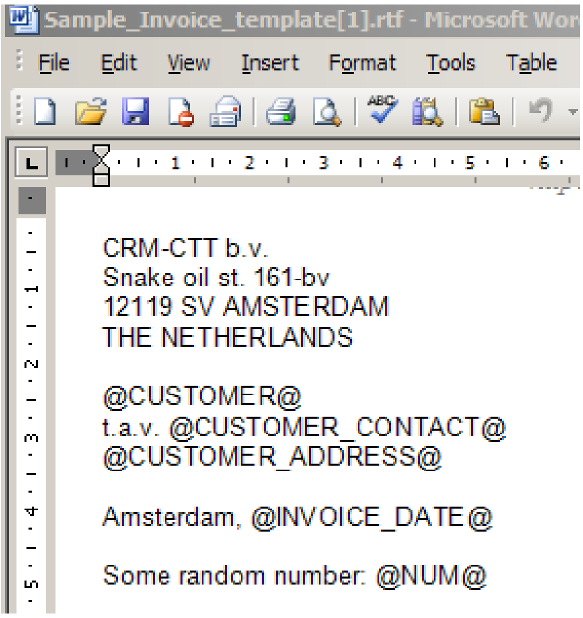
Templates

If you want to generate invoices, you need to upload an RTF-template. RTF stands for Rich Text Format – it's a document type all word processing applications like MS Word and OpenOffice support. You can upload templates in the administration section, by clicking the "Edit RTF templates" link. This will give you the list of templates currently in your database:

Invoice templates

File id	Filename/Template name	Document type	Created by	File subject	Creation date	Delete	Edit
21334	sample_invoice_template_multiple_VAT.rtf	Invoice	Hidde Fennema	n/a	2007-11-26 22:02:02	Delete	Update

The templates shown above are put there by the installation (or upgrade) procedure. When you download and open them, you'll see a document with some tags enclosed by @'s:



These tags will be replaced by actual text when Interleave parses a template using the invoice module.

A complete overview of the available tags:

@INVOICE_DATE@	The current date in the format configured in Interleave
@DATE@	The current date in the format configured in Interleave
@CUSTOMER@	The customer (main) name
@CUSTOMER_CONTACT@	The name of the customer contact
@CUSTOMER_ADDRESS@	The address of the customer
@NUM@	The invoice number, prefixed when configured
@TOTAL_COST_EX_VAT@	Summarized cost excluding VAT
@TOTAL_COST_INC_VAT@	Summarized cost including VAT
@TOTAL_COST_VAT@	Summarized VAT cost
@REPEAT@	Start tag for recurring invoice rules
@LVAT@	Local (could be overruled) VAT percentage (*)
@IHS@	Invoice quantity (*)
@IHC@	Invoice cost (*)
@RVAT@	Per entity cost ex VAT (*)
@CVAT@	Per entity cost inc VAT (*)
@VAT@	VAT percentage
@ENDREPEAT@	End tag for recurring invoice rules

The tags marked with an asterisk (*) must be enclosed by the @REPEAT@ and @ENDREPEAT@ tags.

Interleave also supports extra fields in templates. Suppose you have a drop-down entity field named “Invoiced”, you can find it’s reference number under “Show list of valid template tags” on the main administration section (let’s say it’s 12). Using this reference number, you can include the corresponding field value in the template by using a tag like @EFID12@. For a full list of supported tags, click “List of valid template tags” on the main administration page.

When you’re not sure how this works, try adjusting the sample template to your needs.

20. Mail merges

Since version 2.5.2, Interleave supports mail-merging. With this module, an administrative user is able to create mail-merges based on information stored in the customer table. The mail merge module of Interleave works similar to the invoice module, except it only parses customer addresses.

Configuring your installation

First, make sure you have set configuration directive "ENABLEMAILMERGEANDINVOICING" to "Yes" in the administration section. Without this, the link will not appear on the main page. When enabled, the link will still only appear for administrative users.

Second, make sure a mail merge template exists. Interleave standard comes with a sample. To create your own RTF-sample (see the chapter on "Invoicing") use a standard word processor like MS Word or OpenOffice.

Tags in your template must be enclosed by @'s. The available tags are:

@DATE@	The current date in the format configured in Interleave
@CUSTOMER@	The customer (main) name
@CUSTOMER_CONTACT@	The name of the customer contact
@CUSTOMER_ADDRESS@	The address of the customer

Interleave also supports extra fields in templates. Suppose you have a drop-down entity field named "Invoiced", you can find it's reference number under "Show list of valid template tags" on the main administration section (let's say it's 12). Using this reference number, you can include the corresponding field value in the template by using a tag like @EFID12@. For a full list of supported tags, click "List of valid template tags" on the main administration page.

For a full list of supported tags, click "List of valid template tags" on the main administration page.

This should be enough to create a solid mailing for all your customers. When you're not sure how this works, try adjusting the sample template to your needs.

21. Templated entity forms

Hint: also read the chapter about FormFinity!

When installing Interleave, the standard entity form was installed. This form has some characteristics and limitations. The most important limitation is that it a) cannot be adjusted and b) will always show all extra fields the user has access to.

The standard form is complete, and probably the best to use for day-to-day operations. But, if you have a specific group of people who need another form, you can create this yourself.

If you want to create your own forms, you need to follow these steps:

1) Determine which fields you would like to have on the form. The Customer-field and a save-button are mandatory.
2) Make sure all fields already exist
3) Create the form template
4) Assign the form to a test user
5) Test the form
6) If the form is good, create a user-profile having this form assigned
7) Assign the people to the user-profile

In form templates, tags are enclosed by #'s for creating a form element (e.g. a select box, text box, date field etc) and static information tags are enclosed by @'s just like all other templates.

Example scenario

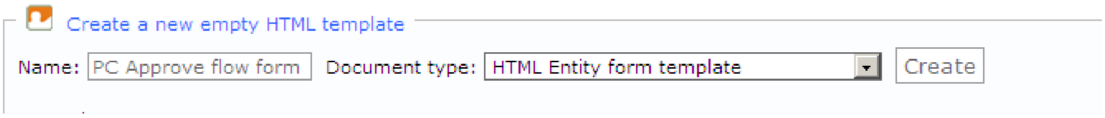
1. Determine the fields

Let say you'd like a form containing (only) the following information:

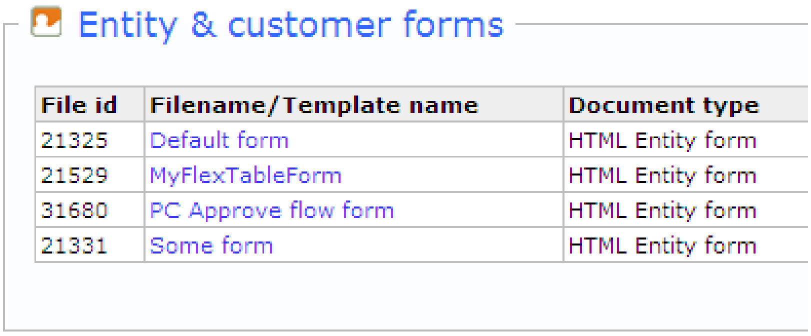
a) The name and address of the customer
b) Extra field "Is this request about a PC-upgrade?"
c) Extra field "PC-Upgrade approved by Dept. Manager?"
d) The main comment box
e) The "download PDF report" icon
f) The possibility to upload files
g) A "Save to database" button

2. Create the form

Go to the templates section, and create a new, empty form template:

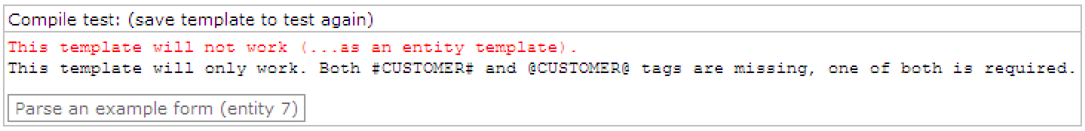


Click “Create” and after the page refreshes, click “Edit” on the appropriate row in the “Forms” section:


Entity & customer forms

File id	Filename/Template name	Document type
21325	Default form	HTML Entity form
21529	MyFlexTableForm	HTML Entity form
31680	PC Approve flow form	HTML Entity form
21331	Some form	HTML Entity form

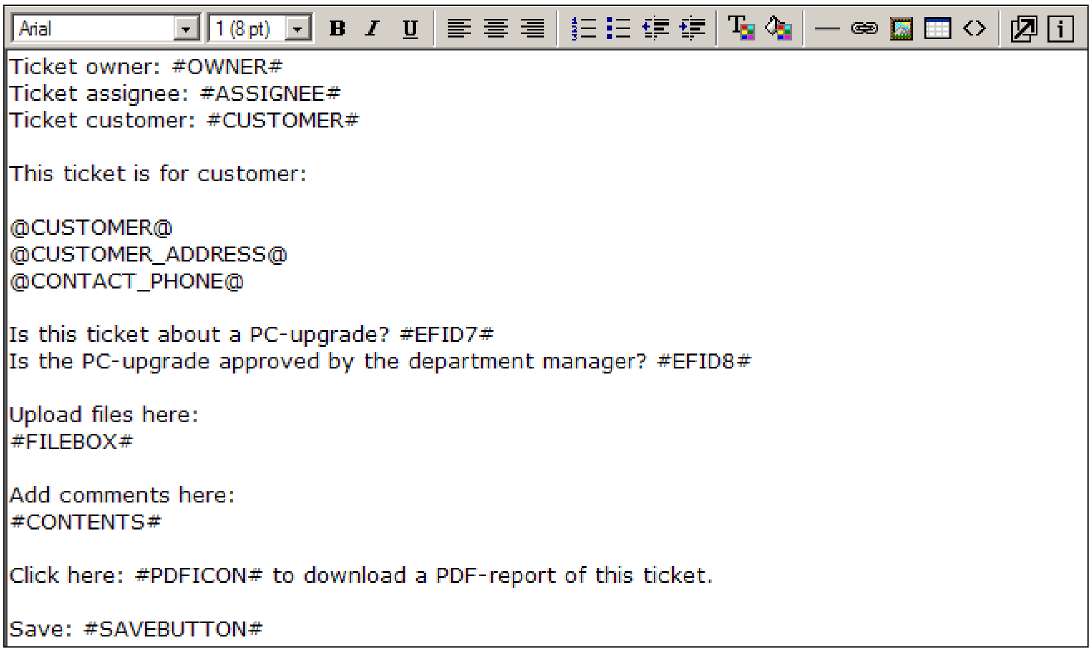
You’ll see the rich-text editor, and a form compile text box. This box contains errors already:



This is because the form is empty, so nothing to worry about.

Next, give the form a subject. This subject won’t be used, though you must set it in order to be able to save the form:

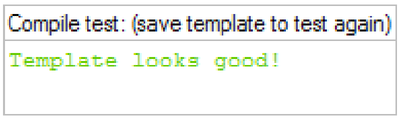
Next, hit “Go!”. The template saves and we can start adding fields:



Note: screenshot is out-of-date

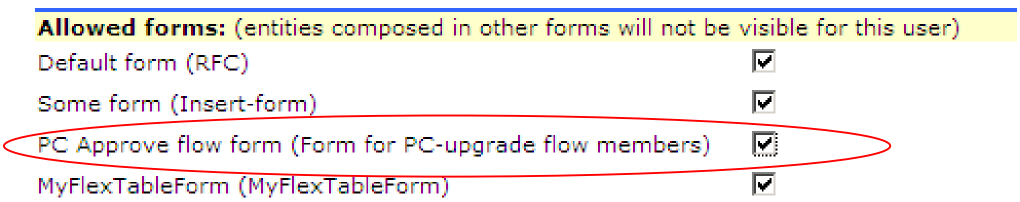
Next, click “Go!” once more.

If all went well, the compile test box at the top now says the following:



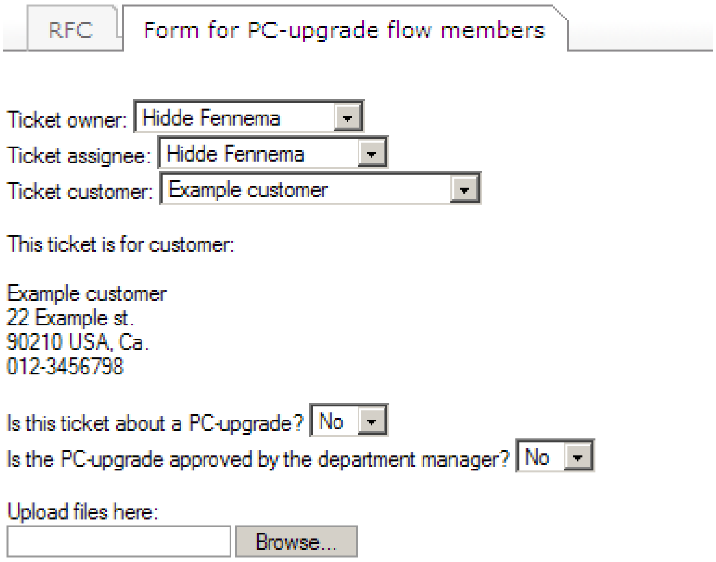
3. Assign the form to a test-user

Now let’s take a look at the template. Go the the users/profiles section, and assign the form to a test user – could be yourself…



4) Test the form

Now add an entity! You'll see your newly created form as one of the tab options:



22. FormFinity – multiple forms in one repository

With FormFinity, an entity has it’s own form, and it will always present itself in that form. Next to that, users can get access to a set of forms (in their personal profile, or by group policy) so that they will be presented with a list of forms to choose from.

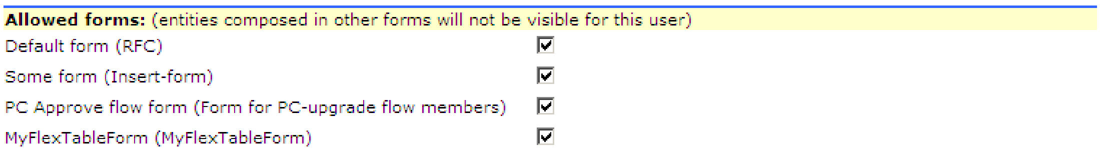
When installing Interleave, FormFinity is enabled by default, and all users have the right to use the default edit-entity form. When you upgrade from a previous version, FormFinity will be disabled because it could interfere with your current settings; you will have to enable it in the Global Settings section.

Hint: before starting to edit your own forms, enable the Online Development Mode.

Create your forms using the HTML Form editor. The subject of the form will be the text the user gets to see. Let’s say we’ve created four forms:

1. Support request
2. Office supply request
3. Salary upgrade request
4. Some test template

Make sure the user has the rights to use these forms (by user-profile or group policy) :



When the user now tries to add a new entity, he/she will see this:

The template will “stick” to the entity the whole way. Templates which are in use by an entity (open or deleted) cannot be removed.

Warning: in PDF and Excel exports, the user is still able to see fields which may not be in the template!

23. Templated entity reports

RTF Reports

Since version 2.6.0, Interleave supports configurable RTF entity reports. These reports work the same as the invoice and mail merge functions, except that entity reports are not primarily based on the customer list, but on the entity list.

Before you can use templated entity reports, you must set configuration directive ENABLEENTITYREPORTING in the global settings section

HTML Reports

You can also create templates in HTML for entity reports. They work the same as all other templates. Create a template of type “HTML Summary page report template” in the templates section. As soon as you’ve added it, it will be available for reporting. You can use it in the summary page, it will appear in the “Report method” pull-down box.

PDF Reports

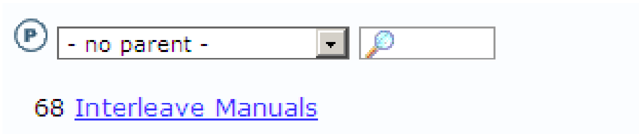
PDF reports can also be added in the templates section. You can edit them using the same richt-text editor. Interleave will use TCPDF automatically to convert your report from HTML to PDF.

Please note: TCPDF needs very strict HTML. If you forget to close only one TD or TR the PDF will not appear.

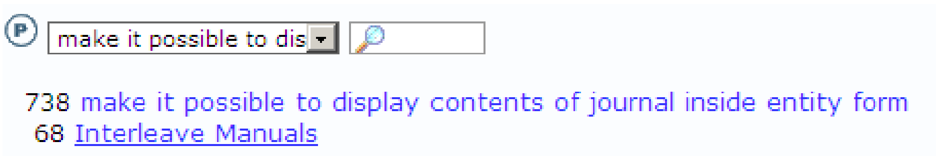
24. Entity relations (sub-entities)

Since version 3.3.2, Interleave supports entity relations. Entity relations can be used to relate entities to one another.

To enable entity relations, set the global setting ENABLEENTITYRELATIONS to ‘Yes’. This will enable an extra drop-down field on the main entity form – if it’s not there, you must add it to your form using tag #PARENTBOX#:



When you select an entity here, the current entity will be regarded as “child” of the parent entity:



Now entity 68 (in this example) is related to entity 738.

However, entity 68 will now still show up in the main list. To avoid this, enable the HIDECHILDSFROMMAINLIST setting.

Note: entity relations are made to make your life easier when working with the application – Interleave will regard relations for all other functions like exports, invoices, reports etcetera.

25. Fast indexed searching vs. traditional searching

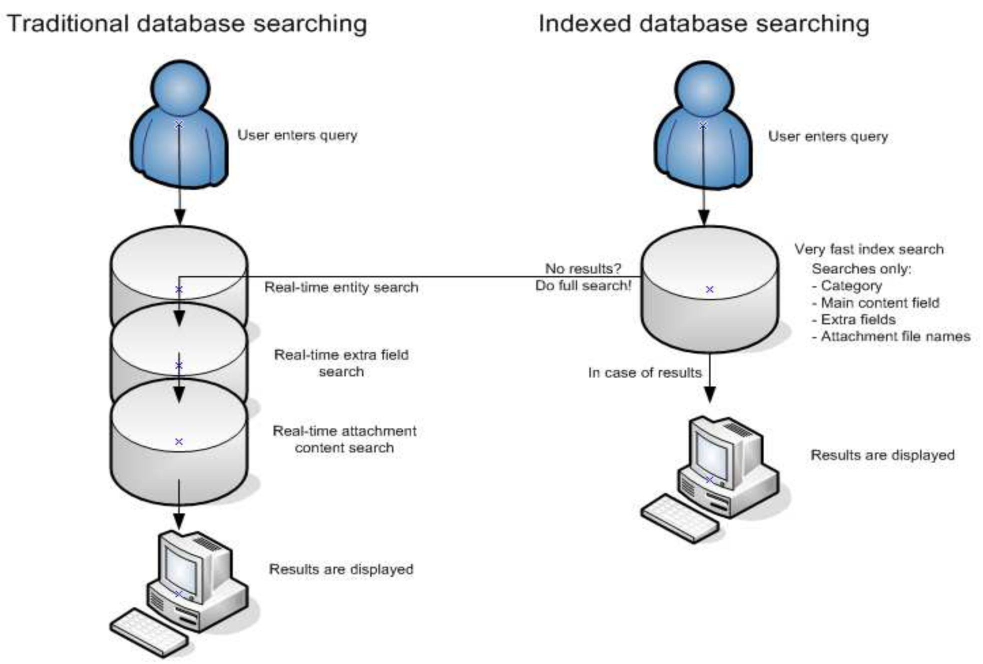
Interleave supports two ways of searching through the database. By default, fast indexed searching is enabled. To see which method is used, check the search input box in the top-right corner. If fast indexed searching is enabled, it looks like this:

.. and a similar box will also be shown on the main page. If the top-right box looks like this:

The main difference between normal searching and fast indexed searching is the time it takes before Interleave founds the words you're looking for. Fast searching also has a downside; if the word you were looking for wasn't found, all was for nothing. Interleave will then start all over again using the traditional method.

Usually Interleave scans the search index within a second. That second is the delay which you will have when the word is not in the search index. So two things are important: 1) keep your search index up-to-date and 2) keep in mind that that when using fast indexed searching you can only search for one word at a time. Searching for a phrase will automatically bring you to the traditional search method.

Here's the difference between the two methods schematically:

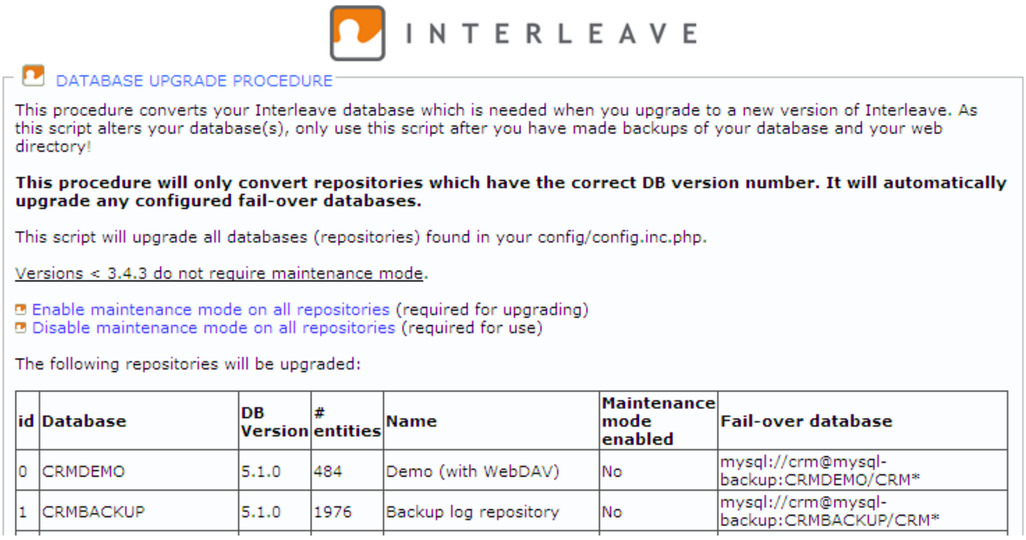


26. Upgrading Interleave

Every release of Interleave comes with a script called “upgrade.php”, which can take care of all upgrade issues. You should handle upgrades as follows:

1. Backup your Interleave directory and your database (really!)
2. Unpack the new Interleave software to a new directory
3. Copy your old config file over the empty distributed one
4. Point your browser to http://yoursite/your/upgrade.php

You will see something similar to this:



INTERLEAVE

DATABASE UPGRADE PROCEDURE

This procedure converts your Interleave database which is needed when you upgrade to a new version of Interleave. As this script alters your database(s), only use this script after you have made backups of your database and your web directory!

This procedure will only convert repositories which have the correct DB version number. It will automatically upgrade any configured fail-over databases.

This script will upgrade all databases (repositories) found in your config/config.inc.php.

Versions < 3.4.3 do not require maintenance mode.

Enable maintenance mode on all repositories (required for upgrading)
Disable maintenance mode on all repositories (required for use)

The following repositories will be upgraded:

id	Database	DB Version	# entities	Name	Maintenance mode enabled	Fail-over database
0	CRMDEMO	5.1.0	484	Demo (with WebDAV)	No	mysql://crm@mysql-backup:CRMDEMO/CRM*
1	CRMBACKUP	5.1.0	1976	Backup log repository	No	mysql://crm@mysql-backup:CRMBACKUP/CRM*

Please be very careful when choosing your upgrading needs! After you have run this script, your database is converted. It is advisable to delete the script called “upgrade.php” after you’re done.

To upgrade repositories more than one version, click all the appropriate links one at the time, starting at the oldest.

You can also upgrade from the command line. In some cases this is more safe; when you have large databases and you don’t want your browser to quit loading because the time is up.

Important: whether you’re running the upgrade procedure via web, or on the command line, you’re still dependent of your PHP-setting “max_execution_time”. If this setting is set too narrow, you can get in serious trouble. Make sure it is at least set to 60 seconds.

To upgrade from the command line, issue the following statement:

```
/path/to/php –q ./upgrade.php
```

You will be asked to log on to one of your repositories as an administrator. When done so, you can choose your upgrading needs.

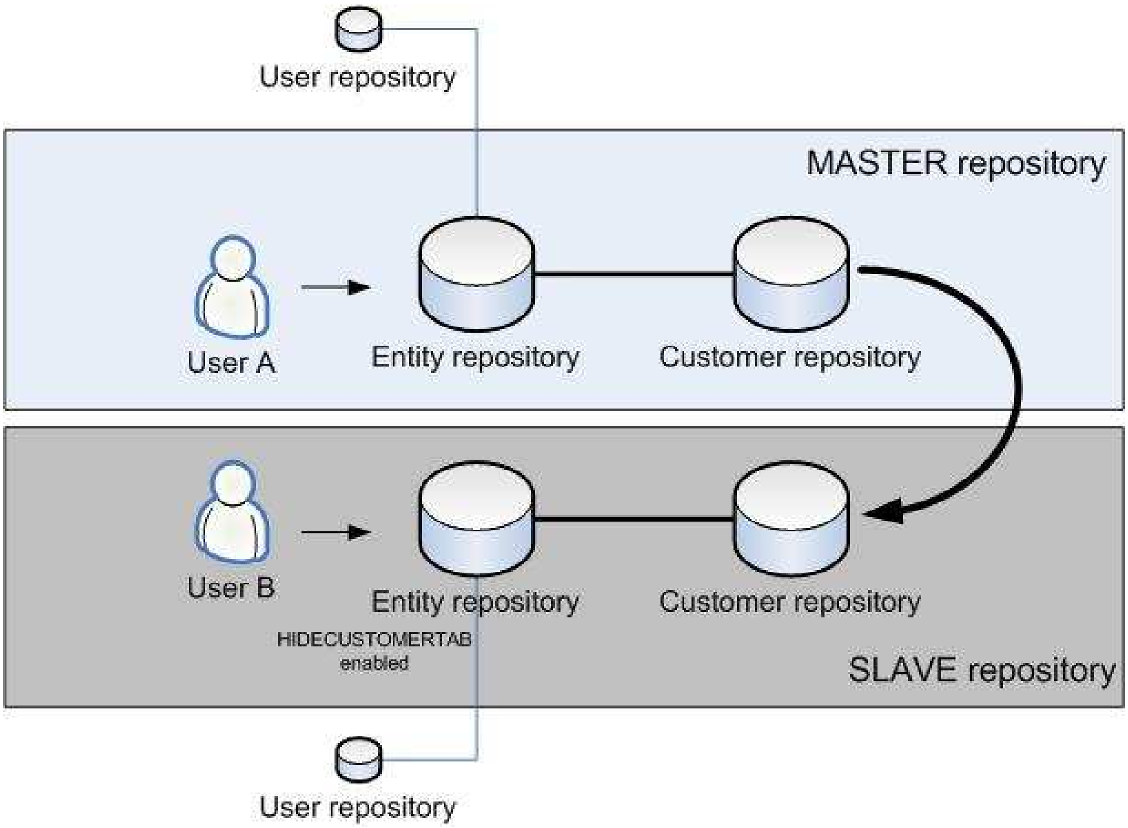
Please note: the upgrade routine will always check your versions and it will never fire queries at a database which doesn't have the exact right version.

Please note: to upgrade multiple versions, you don't need all source code of these versions. Just download the latest version of Interleave and upgrade in succession.

27. Customer database synchronization

Interleave offers a way of having two repositories sharing their customer database. This actually is not a synchronization method, but a plain copy. Nevertheless “synchronization” sounds better than “copying”.
By choosing the “Import [customer] database table from another repository” option in the administration section, you’ll be able to **import** a [customer] table from any other Interleave repository configured in your installation.

This option will only work if the slave repository (see figure below) has the HIDECUSTOMERTAB directive set to “Yes”. Obviously users should not be able to change the data in this table for it will be overwritten the next time the administrator copies the table.



Please be aware you only copy the [customer] table. This includes:

- All customer data
- All customer-related custom fields
- The custom fields definitions for the customer table

Nothing else will be copied; users, logs, entities, calendar entries etc. remain separated.

27. Published pages and reports – Interleave as CMS

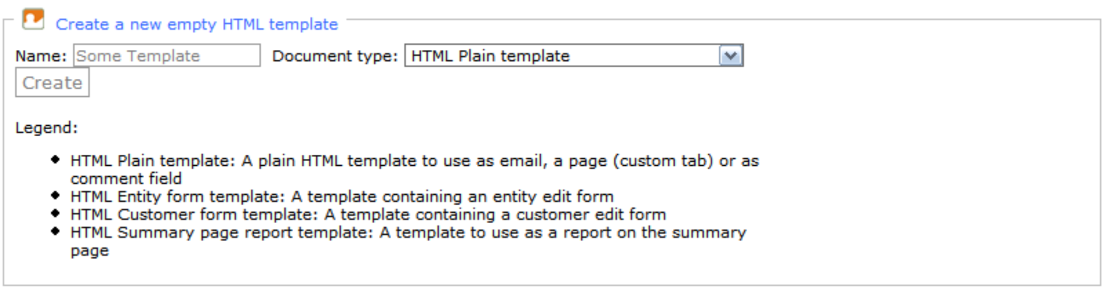
It can be useful to use information stored in entities in Interleave on your inter- or intranet website. You can even use Interleave as a primary CMS (content management system) for your whole website.

Using the standard workflow- and accces-control features you can easily create your own web-authoring system. This chapter will describe what you have to do to publish a single page type containing data of a single entity and how to publish a report, which is a set of entities parsed by a given template.

Publishing a single page type

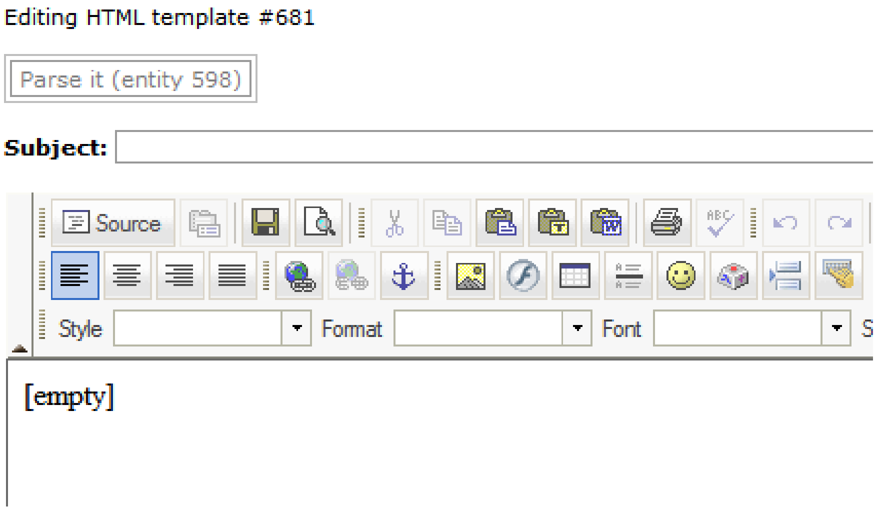
By publishing a page, you basically create a template which will be used to parse enities. The tags in this template (which are normal Interleave tags like @CATEGORY@) will be replaced by the value found in the entity. The entity number must be given when requesting the page, but more on that later.

Step 1: make sure you have a plain HTML-template. Go to Administration, Templates, New template and add an empty plain HTML-template:

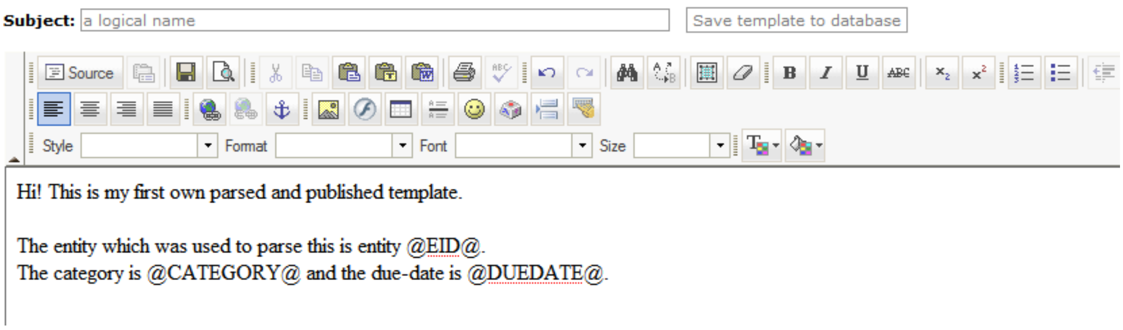


After saving this form, go to the 'Plain HTML Templates'-tab and find your newly created template in the list. Click on 'edit' at the end of the row:

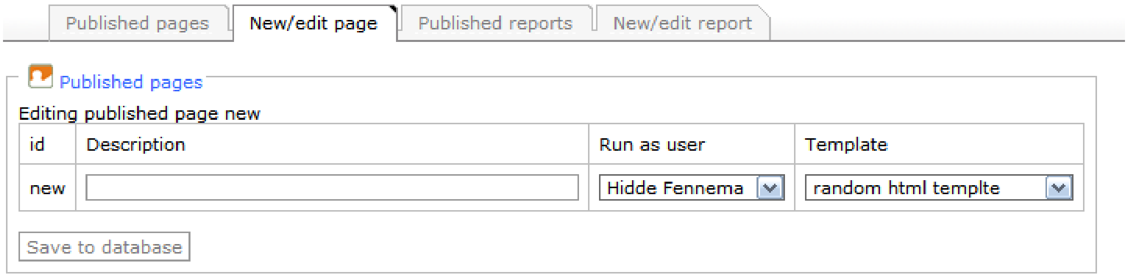
The rich-text editor will now appear; it will show an empty template:



First, give the template a subject. Give it a logical name. Next, enter some text in the main content box containing some tags. Example:



After entering text, click 'Save template to database'. Your template is now ready for use, so the next thing to do is to define a published page which will use this template. To do so, click on the “Published pages”-tab in the administration section and next click on the “New/edit page”-tab:



Add a description and select your template. Also select the user under which credentials the parse action will be ran when publishing the page. It might be wise to create a special user for this!

Save this and click the “Published pages”-tab. You will see your newly added published page in the list:

id	Description	Run as user	Template	Web link	
12	My First Published Page	Website User	Some Template	publish.php?FrDb=A2134860&pID=8008128&eID=[EID]	✗

Make sure you know the entity number of an entity which contains some information (let's say 543) and point your browser to
http://your.normal.crm.address/publish.php?FrDb=A2134860&pID=1334688&eID=534

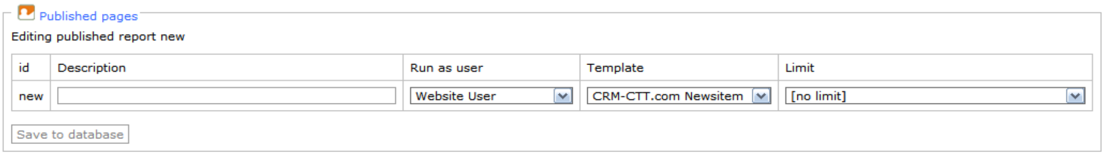
The link in this example will not work on your installation; you will need to copy/paste the link supplied by your own installation. This link can be included in other PHP websites by using a syntax like:

```
include("http://your.normal.crm.address/publish.php?FrDb=A2134860&pID=1334688&eID=534");
```

Using this technique, you can replace certain parts of your website with parsed Interleave entities. Most application servers support inclusion of other web content as well. If you'd like to ee an example, check out http://www.interleave.nl – it runs almost entirely on Interleave as CMS.

Publishing reports

Reports work just like published pages except they publish a set of entities instead of a single one. Using this you can publish a list of parsed entities based on a creterium you can set when defining the report:



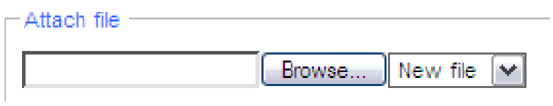
The list of entities to publish can be limited by status, priority, customer, and any drop-down extra field box.

Apart from this, published reports work just like published pages.

28. File versioning

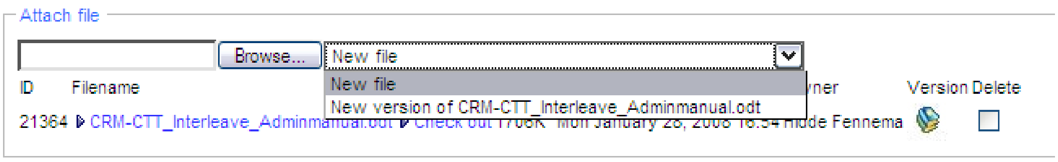
File versioning enables you to attach several versions of the same file to an entity. It is enabled by default and it can be disabled by unsetting the ENABLEFILEVERSIONING variable.

You can see if versioning is enabled in any entity which has a file upload box. When

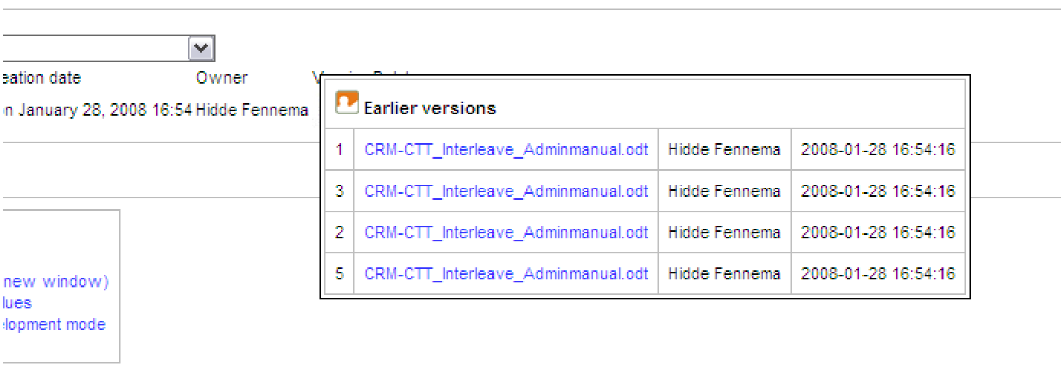


enabled, you'll see an extra drop-down option:

When you add the first file, select “New file” in this box. After saving the entity, you'll see something like this:



If you upload another file, and select “New version of ...” the file will replace the current attachment. To see which versions of a file are available, hover your mouse over the icon:



You can dowload older version by clicking on the filename.

If you delete a file which has multiple versions, Interleave will only delete the most recent version.

29. Using templated dashboards

Using a templated dashboard you can create your own dashboard. These templates work exactly like all other templates, but they use a different list of tag names.

#TODAY#	Today's entities
#RECENT#	Recent entities
#MESSAGES#	Internal messages
#CALENDAR#	Calendar
#PERSSTATS#	Personal statistics
#REPOS#	Repository switcher
#NAV#	Main page navigation pane
#ENTITYSEARCH#	Entity search box
#CUSTOMERSEARCH#	Customer search box
#DASHBOARDOPTIONS#	Dashboard options form
#CLOCK#	Javascript Clock

To enable a templated dashboard, edit the DASHBOARDTEMPLATE setting in the global settings table.

The template section has a page devoted to templates for dashboards.

30. Image thumbnails

By default, Interleave generates image thumbnails of JPEG and GIF images attached to entities. These images are not batch-generated; they are generated when requested by a user. Once created, the thumbnail image is cached.

If you want to batch-generate all thumbnails, use the command-line interface (cmd.php) to do this. When you issue the command “exec db tn” all thumbnails will be created.

The thumbnails will pop-up when you hover over an image filename with your mouse:

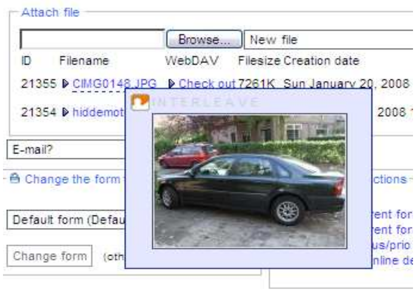


Image thumbnailing can be disabled by unsetting the ENABLEIMAGETHUMBNAILS variable in the main settings table.

31. Flextables : create your own lookup and reference tables

Flextables are self-defined tables. You can use them in three ways:

1. Many-to-one FlexTable, or one-flextablerecord-refers-to-many-entities. An entity can be coupled to multiple records in this FlexTable.

   Use this type to create a lookup table similar to the customer tables. Examples are contact moments, timesheets, events etcetera.

2. One-to-many FlexTable, or many-flextablerecords-refer-to-one-entity. Multiple entities have references to a few records in this table.

   Use this type to create a very funky drop-down field. You can determine the layout yourself. Examples are lists of persons, meeting rooms, available company cars, etcetera.

3. Not referring to any other table

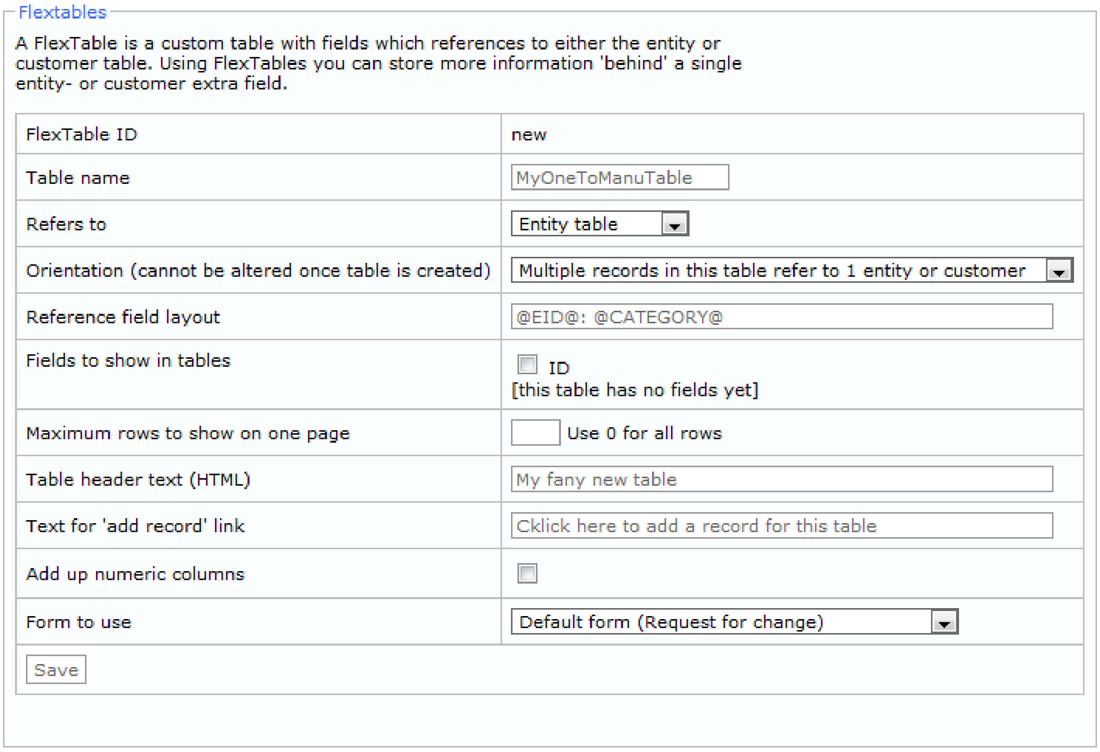
   Use this to just have a table to store information in. This type is not a choosable option – however possible when you select option 2, One to many.

This chapter covers creating the first two types, starting with the first. Before this manual explains in details how to do this, here's a little quick list of the steps:

1. Create the flextable
2. Create extra fields for the flextable
3. Create a template to use with this flextable
4. Assign template to your flextable
5. Alter your entity form to make the flextable field show up

Creating and using a many-flexrecords-refer-to-one-entity table

1. Start with opening the administration section, select tab “Flextables”. Select “Add a new table”. Enter information as follows:



Flextables

A FlexTable is a custom table with fields which references to either the entity or customer table. Using FlexTables you can store more information 'behind' a single entity- or customer extra field.

FlexTable ID	new
Table name	MyOneToManuTable
Refers to	Entity table
Orientation (cannot be altered once table is created)	Multiple records in this table refer to 1 entity or customer
Reference field layout	@EID@: @CATEGORY@
Fields to show in tables	ID [this table has no fields yet]
Maximum rows to show on one page	Use 0 for all rows
Table header text (HTML)	My fany new table
Text for 'add record' link	Cklick here to add a record for this table
Add up numeric columns	
Form to use	Default form (Request for change)
Save	

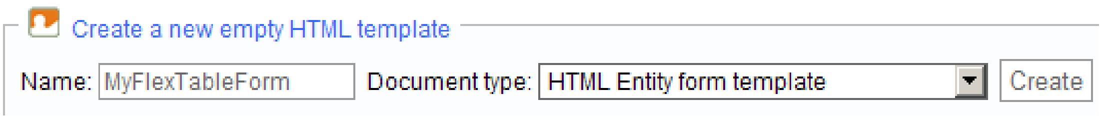
Please note you cannot enter the last two fields correctly yet. Just leave them at their default values.

2. Now, go to the Extra Fields section. You'll see two extra tabs in that section:

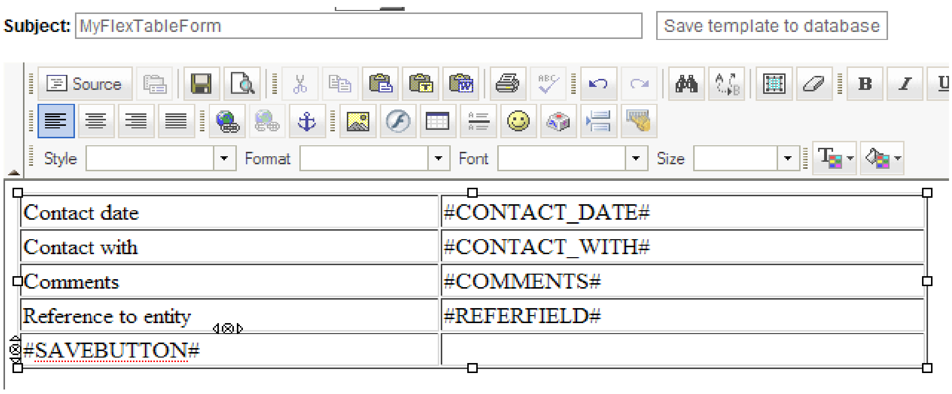
3. Determine which fields you want to use in your brand new table and add them. In this example, the fields “Contact date”, “Contact with” and “Comments” were added:

ID	Order	Type	Name	Occurences	Visible for	Detailed access restrictions	Alias	Required	Delete
18	222	date	Contact date	0	Everybody	None set	CONTACT_DATE	No	✗
19	234	textbox	Contact with	0	Everybody	None set	CONTACT_WITH	No	✗
20	247	text area	Comments	0	Everybody	None set	COMMENTS	No	✗

4. Now that we have our field, we need to create an HTML Form template to be used for this FlexTable. Go to “Templates” and select tab “New” and enter a new form:



5. After clicking “create”, go to tab “Forms”. Cleck “Edit” on the row of your newly created form and enter a valid form for your FlexTable:



Please note the last field (#REFERFIELD#); this field MUST be in your template to use FlexTables with this orientation. Also, don't forget the Save button!

6. Now go back to tab “Flextables” and click “edit” on the row of your FlexTable. In the

id	Table name	Refers to	Orientation	Form template	# Fields	Records	Edit	View
1	MyOneToManyTable	entity table	Many flexrecords refer to 1 entity	MyFlexTableForm	3	0	Edit	View table contents

Table name	MyOneToManyTable
Refers to	Entity table
Orientation (immutable)	Many flexrecords refer to 1 entity
Reference field layout	@EID@: @CATEGORY@
Form to use	MyFlexTableForm (MyFlexTableForm)
Save Empty (truncate) Delete	

form, select the right form to use for this table:

Please note: the “Reference field layout” is not important for a table with this orientation.

7. Now press save and go back to the main FlexTable section. Click “view table contents”.

8. Naturally, the table is empty. Click “Add” to add your first flexrecord. You'll see your newly created form:

Contact date	n/a
Contact with	
Comments	
Reference to entity	7: More logging points
Save	

9. Add your first record. You must refer this record to an entity, because of the orientation of this table:

Contact date	2008-07-29
Contact with	Hidde Fennema
Comments	Nice guy, actually. Told me he made FlexTables for Interleave. I thinks that's gonna work mighty fine!
Reference to entity	68: CRM Manuals manuals
Save	

Please note the little fast-search box behind the reference field; it can be used to filter the drop-down box to values matching your criteria (Internet Explorer will only search, not filter).

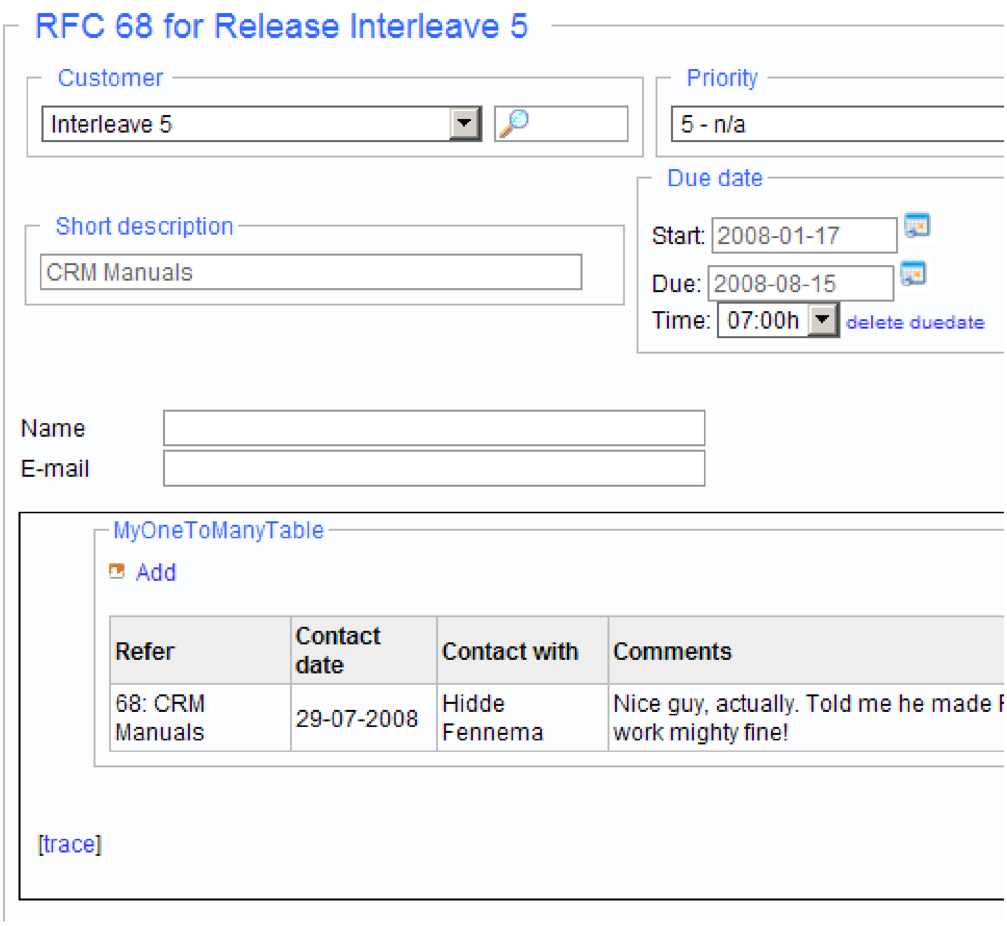
10. After saving, you'll see your table with the first ever record in it:

MyOneToManyTable

Add

Refer	Contact date	Contact with	Comments
68: CRM Manuals	29-07-2008	Hidde Fennema	Nice guy, actually. Told me he made FlexTables for Interleave. I thinks that's gonna work mighty fine!

11. Now, let's make this table show up in your entity form to actually use it. Open your entity template, and place a tag called #FLEXTABLE1# somewhere in your template where there's a little room. Save your template, and open the entity to which you coupled the first record you've added in step 9. You'll see a box containing your flextable, though this time it's filtered to show only records in this table referenced to the open entity: (old screenshot, needs replacement)



12. You can also add a new record to your FlexTable by pressing “Add”. It will automatically be referenced to your currently opened entity.

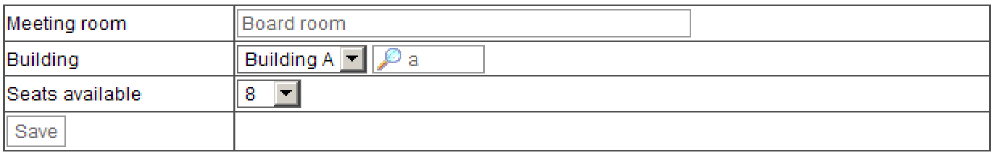
Creating and using a one-flexrecord-refers-to-many-entities table

1. Follow steps 1-5 of the previous instruction, except for three things:
   1. Choose “Multiple entities or customers refer to 1 record in this table” as orientation when adding the table
   2. Add 3 fields called “Meeting room”, “Building” and “Number of seats available”
   3. Leave out the “#REFERFIELD#” tag in your template and match the above fields in your template

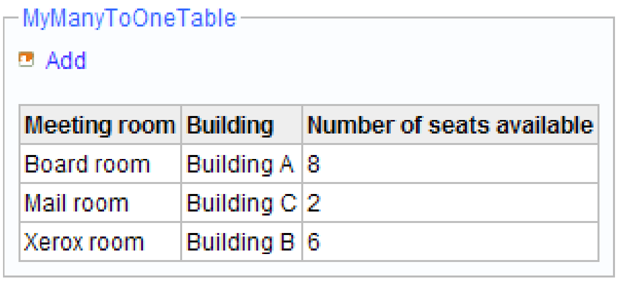
2. Next, go to the Flexttables section and press “Edit” on the row of your FlexTable. Alter the reference field layout as follows:

FlexTable ID	2
Table name	MyManyToOneTable
Refers to	Entity table
Orientation (immutable)	Many entities refer to 1 flexrecord
Reference field layout	@MEETING_ROOM@: @NUMBER_OF_S
Form to use	MyFlexTableForm (MyFlexTableForm)
Save Empty (truncate) Delete	

3. Next, use “View table contents” and than “Add” to add a meeting room to this table:

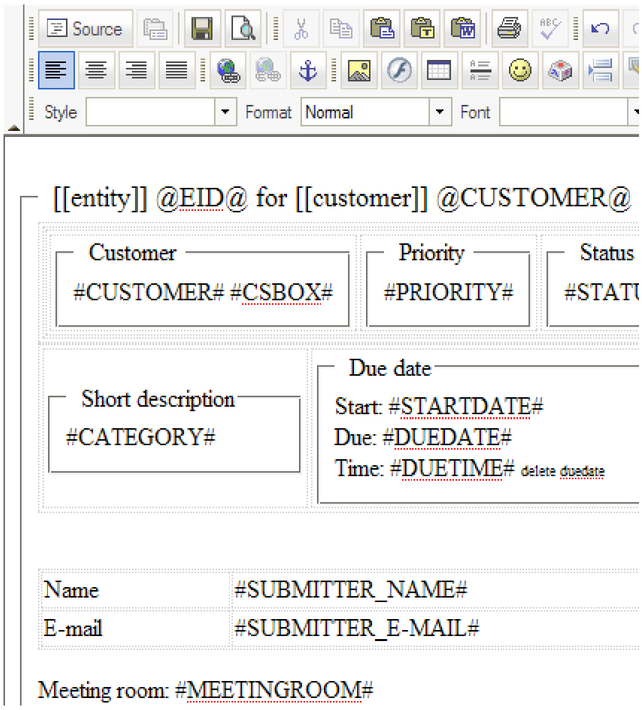


4. Add another two rooms for this example until you have a nice list of rooms:

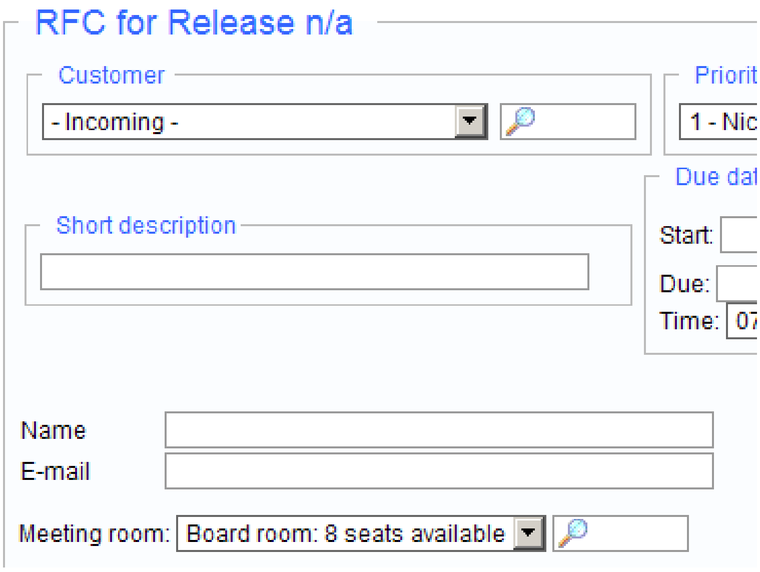


Now go to the Extra Fields section. Add a field of type “Reference to flextable” to your entity table (make sure you don't give it the same name as another field; if you do, you won't be able to use aliases, you will have to use #EFIDxx# tags):

5. Now open your entity form template, and add this field (MEETING_ROOM in this example) to it:

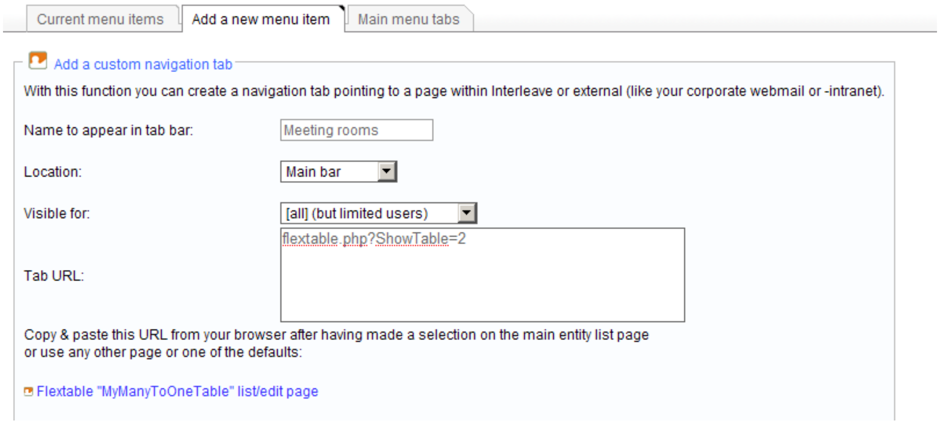

Source
Style
Format
Normal
Font
[[entity]] @EID@ for [[customer]] @CUSTOMER@
Customer
#CUSTOMER# #CSBOX#
Priority
#PRIORITY#
Status
Short description
#CATEGORY#
Due date
Start: #STARTDATE#
Due: #DUEDATE#
Time: #DUETIME# delete duedate
Name
#SUBMITTER_NAME#
E-mail
#SUBMITTER_E-MAIL#
Meeting room: #MEETINGROOM#

1. Go to the “Add” tab in the main tab navigation to add a new entity. You will see your drop-down list in your form. It will have the layout you provided:



Some handy tricks to use when working with FlexTables

- When you want (certain) users to be able to modify the contents of FlexTables directly, assign a menu item to this user:



- You can also use links in any HTML template (like the dashboard, entity or customer templates) to link to the table administration page. For instance, if you add this:

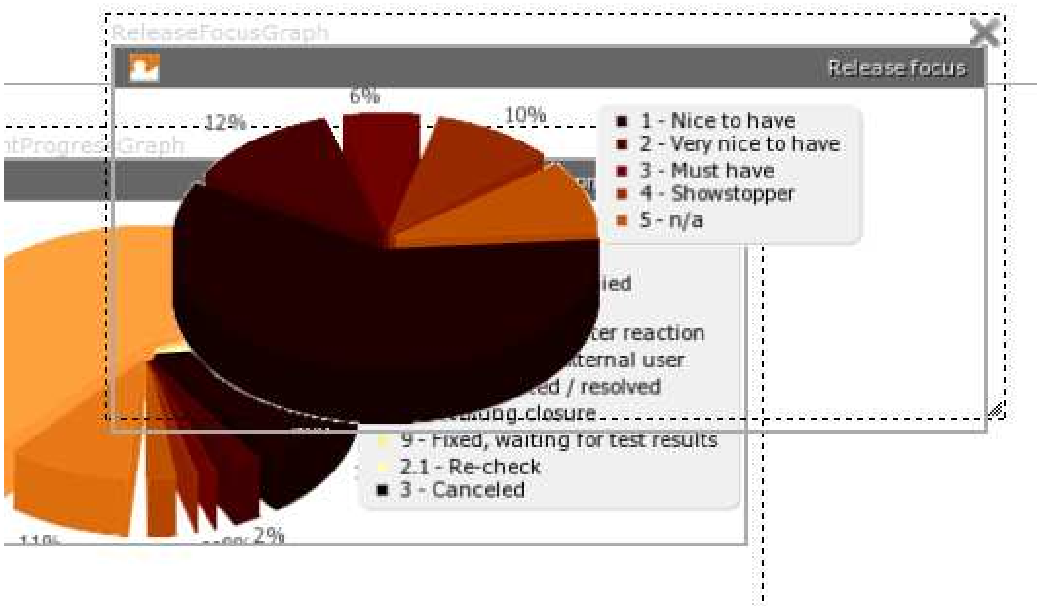
  Administer meeting room list

  .. to the dashboard, users will be able to edit the list of meeting rooms using that link.

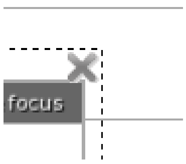
32. HTML/CSS classes

Interleave uses several CSS/HTML classes, of which these mentioned here can be used in forms to add effects to your forms.

- class="draggable"
  Will make the div draggable (when in edit mode)



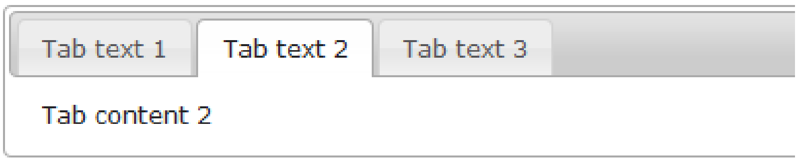
- class="hideable"
  Will make the div hideable (when in edit mode)



- class="tabbed"

```
<div class="tabs" id="your_id">
	<ul>
		<li>
			<a href="#tabs-1">Tab text 1</a>
		</li>
		<li>
			<a href="#tabs-2">Tab text 2</a>
		</li>
		<li>
			<a href="#tabs-3">Tab text 3</a>
		</li>
	</ul>

	<div id="tabs-1">
		Tab content 1
	</div>
	<div id="tabs-2">
		Tab content 2
	</div>
	<div id="tabs-3">
		Tab content 3
	</div>
</div>
```



33. Form directives

Form directives can be used to give a form specific properties to suit your needs. Using these directives you can set or override default values and prevent certain values in drop-down boxes from showing up.

Please note that directives must be used between two dollar-signs on both sides, e.g. $$your_directive$$. Directives are 100% case-sensitive. The directive syntax is split in three parts:

1. The command
   The command can be either DEFAULT or EXCLUDE.

2. The field
   The field can be one of these: "category", "duedate", "startdate", "content", "assignee", "owner", "status", "priority" or "customer" or any extra entity field you might have added. You cannot use extra field aliases in directives; you must use the EFID-syntax, e.g. EFID5.

3. The value
   The value to make default or to exclude. Make sure you use the *exact* value, case sensitive. When using dates, you can use [today] as value (including the brackets) if you want the current date in that field value. Please note that dates **must** be entered in the European format (dd-mm-yyyy). After parsing Interleave will show them localized.

Your directives must be placed **inside** the form – they won't be printed after parsing.

Some examples

```
$$EXCLUDE|STATUS|1 - New$$
$$EXCLUDE|PRIORITY|4 - Showstopper$$
$$EXCLUDE|EFID38|Maintenance$$

$$DEFAULT|EFID38|Security bug$$
$$DEFAULT|CUSTOMER|8$$
$$DEFAULT|DUEDATE|26-12-2011$$
$$DEFAULT|STARTDATE|[today]$$
$$DEFAULT|STATUS|5 - On hold$$
$$DEFAULT|PRIORITY|3 - Must have$$
```

34. The Interleave PHP class

If you want to access Interleave from another PHP-application, it provides the Interleave class. The class file is called “class.interleave.php” and it resides in the root of the Interleave installation directory.

Using this class, you can access any repository and entity. You can create new or edit existing entities. All Interleave business logic like access control, triggers and templates apply.

An example follows on how to use this class

Creating a new entity using class.interleave.php

```
<?php

// Include the class file (you can copy this file, it's stand-alone)

require(“class.interleave.php”);

// Now call it
$Interleave = new Interleave();

// Log in to a repository

// Complete_path  = the local sever path to Interleave
// Reposnr               = the repository number
// User                  = the Interleave user as which to connect
// Pass                  = the password

// NOTE: Do not use the database user, use a standard Interleave user!

$Interleave->ConnectToRepository("COMPLETE_PATH", REPOSNR, "USER", "PASSWORD");

// To load an entity first:

  $Interleave->LoadEntity($entity_nr);

// Functions you can call:

$Interleave->SetCustomer(1);
$Interleave->SetCategory("Test category");
$Interleave->SetOwner(1);
$Interleave->SetAssignee(1);
$Interleave->SetContent("body content");
$Interleave->SetStatus("Open");
$Interleave->SetPriority("Low");
$Interleave->SetDuedate("15-07-1977");
$Interleave->SetDuetime("0800");
$Interleave->SetReadonly("n");
$Interleave->SetPrivate("n");
$Interleave->SetFormID(""); // "" means the default form
$Interleave->SetStartDate("18-02-1981");
$Interleave->SetExtraField("19", "extra field value");
$Interleave->SetDeleted("n");
$Interleave->AttachFile($filename,$filebinarycontent);
```

```
// When done setting all fields, execute :

$Interleave->Execute();

// Print class output (do this only when debugging)

print "Status : " . $Interleave->Status;

// Print resulting (or updated) entity number:

print "Entity : " . $Interleave->EntityID;

// Close PHP
?>
```

35. Troubleshooting / FAQ

There is a few known issues which you can take a shot at:

- **I see warnings like "Notice: Undefined variable: step in ..."**

  The notices about undefined variables are there because you have a rather new version of PHP, which has a high verbosity level by default, which in your case is probably set to 'notice' instead of 'error'. If you modify your php.ini and set the notify level to 'errors only' (or something like that) this problem is gone. PHP can handle undefined variables very well, and I don't get why the latest versions they released have set the notification standard to such a verbose level.

- **I cannot upload files larger then 1 or 2 or x megabytes**

  There are 2 elements which define the maximum size of files you upload next to the Interleave standard of 5 megabytes:

  - The MySQL default setting. Check you MySQL server variables. Probably your MySQL var max_allowed_packet is set to 1 MB. If this is the case, start your mysqld with this option --set-variable=max_allowed_packet=8M or adjust your safe_mysqd script.
  - Your PHP default setting. Check your php.ini and look for the section “Uploading Files”. It will look similar to this:

```
;;;;;;;;;;;;;;;;
; File Uploads ;
;;;;;;;;;;;;;;;;

; Whether to allow HTTP file uploads.
file_uploads = On

; Temporary directory for HTTP uploaded files (will use system default if not
; specified).
upload_tmp_dir = C:\temp

; Maximum allowed size for uploaded files.
upload_max_filesize = 2M
```

Adjust this last option to increase the maximum size for uploaded files.

- **I cannot add files (attachments) and/or insert language packs**

  You probably run Interleave < 1.8 on a Windows box. Upgrade to 1.8.1 or higher.

36. Known issues

- Interleave does not work correctly when using Konquerer as your browser. Tested are IE, Opera, Safari, Mozilla Firefox and Google Chrome. The navigation tabs skew a little when using Netscape.

- The administration section is not multi-lingual – it's in English.

- The "Alarm Settings" dialog box is not fully multi-lingual (its use is deprecated)

- Sometimes Interleave presents you with a "Your session key is invalid" message when you try to log in and it refuses to let you enter. If this is the case, please check your local computer's time settings and make sure it is not set to a date long ago.

- Interleave Is not (yet) compatible with MySQL 5 in strict mode.

Appendix I – Other administrative functions in a nutshell

Configure systems values (ALT-S)

This is the main configuration section. In this section all global settings of Interleave can be adjusted. Each variable is explained in the application, but here's the list:

ADMEMAIL	The administrators email-address.
ADMPASSWORD	Administration password, *NONE* disables the authentication at all.
AUTOCOMPLETECATEGORY	Enter Yes if you would like type-ahead functionality in the category field on the main entity page
AUTOCOMPLETECUSTOMERNAMES	Set this value to Yes if you want a text box wich auto-completes customer names instead of a pull-down menu with all customers.
AUTOINSERTDATETIME	Enter Yes of you would like the date and time information inserted automatically when adding text to an entity.
BLOCKALLCSVDOWNLOADS	Set this value to Yes if you want to block all CSV/Excel downloads for all users except for administrators.
BODY_DUEDATE BODY_ENTITY_ADD	The body of the email which will be sent to an assignee when an alarm date of a certain entity is met. Please read the manual before editing this setting. The body of the email which will be sent when a new entity is added. Please read the manual before editing this setting.
BODY_ENTITY_CUSTOMER_ADD	The body of the e-mail which is send to the customer_owner when an entity (new or existing) is coupled to that customer, and the email_customer_upon_action checkbox in the customer properties is checked.
BODY_ENTITY_EDIT	The body of the email which will be sent when an entity is updated. Please read the manual before editing this setting.
BODY_TEMPLATE_CUSTOMER	The template wich is used when sending an e-mail to a customer (editable by user before sending)
CRONPASSWORD	The password used by the HTTP-GET crond job (duedate-notify-cron.php)
CUSTOMER_LIST_TRESHOLD	The number of customers listed on the main customers page. If this number of customers is exceeded, the list will not appear for bandwidth reasons.
DATEFORMAT	Enter 'mm-dd-yyyy' here to display dates in US format, anything else to display dates in international format (which is dd-mm-yyyy).
DBVERSION	The current database version
DONTSHOWPOPUPWINDOW	No to show the standard javascript popup window in the entity overview, yes to

	disable it and make editing the entity the default action when clicking on the row.
EMAILNEWENTITIES	The e-mail address to which notifications of added entities should be mailed. Leave empty for no notification.
ENABLECUSTINSERT	Set this to yes to enable the [customer] insert functionality, no to keep customers from logging in even if they have a customer account.
ENABLEENTITYCONTENTSJOURNALING	Set this value to Yes if you want a drop-down box in the main entity window to switch to history states of an entity
ENABLEENTITYJOURNALING	Set this value to Yes if you want entity journaling enabled (a link will be added to the main edit entity page)
ENABLEREPOSITORYSWITCHER	Set this option to Yes to enable a user to dynamically switch between repositories in which the same users exist with the same password. No disables this, Admin enables it only for admins.
ENABLEWEBDAVSUBSYSTEM	Yes to enable the WebDAV subsystem, no to disable it
FORCECATEGORYPULLDOWN	Yes to show a pulldown list for the category, no to make it a text box.
HIDECUSTOMERTAB	Set this value to 'Yes' if you want the customer tab only to be visible to administrators
LANGOVERRIDE	Language override. No to let the user be able to choose his or her own language, yes to disable this feature and thereby force the use of the system-wide language chosen hereunder.
LETUSEREDITOWNPROFILE	Set this option to 'Yes' to enable user to change their passwords, edit their full name, and select whether or not they want to receive the daily entity overview email.
LETUSERSELECTOWNLISTLAYOUT	Werther or not to let the user select his/her own list layout
LOGO	Location of your company logo (small, GIF or JPEG). *NONE* disables the logo.
LOGON MESSAGE	This message will be displayed when a user logs in.
MIPASSWORD	Management Information password, *NONE* disables the authentication at all.
MONTHSTOSHOW	The number of months to show in the various calendar appearances.
NAVTYPE	Navigation bar type. Use NOTABS for normal navigation, anything else for tabs
SHOWDELETEDVIEWOPTION	Whether or not CRM should display a menu tab to view the deleted entities. Options are yes or no.
SHOWEMAILBUTTON	Yes to show an extra button to send an e-mail to the assignee when an entity is added or edited, no to disable this option.
SHOWFILTERINMAINLIST	Whether or not to show the filter pulldowns on top of the main entity list
SHOWMAINPAGECALENDAR	Yes to show the 3-month calendar on the main page, no to disable this option.

SHOWNUMOFATTACHMENTS	Whether or not to show the number of attached documents in the main entity lists
SHOWPDWASLINK	Yes to show the PDWAS link in the file list. PDWAS is a Interleave addon which enables you to edit files and directly save them to Interleave without having to upload the file manually.
SHOWRECENTEDITEDENTITIES	0 for no recent list, any number under 20 to show the most recent edited entities on the main page.
SHOWSAVEASNEWENTITYBUTTON	Yes to show the Save As New Entity button, no to hide it.
SHOWSHORTKEYLEGEND	Whether or not to show the ShortKeys (ALT-1..ALT-9) legend on the tabs
SMTPSERVER	The host name or IP-address of your SMTP (outgoing mail) server
STANDARD_TEXT	A list of standard comments which users can automatically insert as a reply in entities. Leave empty for no standard comments.
TIMEOUT	Number of minutes before a user is automatically logged off when there is no activity
TITLE	Will appear almost anywhere
Main language:	System-wide default language

Configure accounts and profiles (ALT-U)

This is where the administrator can add and edit user accounts and user profiles. All items speak for themselves, except one: the “Daily entity overview e-mail”. If this option is set to Yes, the user will receive a daily e-mail containing a list of entities assigned to him or her (when the cron job is enabled). The user is able to adjust this setting, if the LETUSEREDITOWNPROFILE directive is enabled.

Configure language packs (ALT-L)

This is the link to the Configure Language Packs section as described in chapter 3, 4.

Configure repositories (ALT-R)

This is the link to the Configure Repositories section as described in chapter 6.

Configure help topics

This section lets the admin change the help text, and even add help topics. Adding help topics however requires quite a lot op PHP skills, because the links to the help topic will have to be made by hand, directly in the code. This is not recommended.

Edit status and priority values

In this section the admin is able to edit and add status and priority variables as described in chapter 10.

Edit extra fields

In this section the admin is able to edit and add extra fields as described in chapter 8.

Edit extra customer fields

In this section the admin is able to edit and add extra customer fields as described in chapter 9.

Edit categories

In this section the admin is able to edit categories as described in chapter 11.

Edit lists lay-out

In this section, the default lay-out of the entity list and the customer list can be configured. If the LETUSERSELECTOWNLISTLAYOUT directive is enabled, the user can overrule the settings the admin makes here.

View log & stats

In this section the admin can view the log entries, and some user login statistics. You can also download the complete log file here (as CSV), and query the log for specific strings. There's also an option to show errors and warnings. This should be checked on a regular bases, depending on the activity in your repository.

View journals

In this section the admin can view and search through all entity journals. This is quite handy when looking for a specific action made by a user.

View files in database

This will present a list of all files stored in the database and a check will be performed to ensure the file is referenced to an entity. You can also delete files here, as long as the referencing entity is closed and deleted. It is recommended you frequently download old files (for backup) and delete the original from the database to save disk space.

Delete a set of entities

With this function you can give a given set of entities the "deleted" status which causes them not to show up anymore in the main entity list, and even not in the Summary lists unless "include deleted entities" is checked when searching.

View deleted entities

Here you can find the complete list of deleted entities (in Brief Entity Overview-style). You can work with this entities like they were normal entities. To undelete an entity, uncheck the "this is a deleted entity" checkbox.

Delete an entity physically

With this function you can really delete an entity and all its references (like files, calendar entries etc.) This function should only be used if there is an entity with data that messes up statistics. An entity must be logically deleted before it can be physically deleted.

Advanced database query

With this function you can execute an SQL-query straight onto the database. Please use this function with care. This option comes in 2 forms; a wizard-like interface which leads you through several steps and creates a query, and an option to execute a query directly (e.g. you can type the query and execute it). The latter is potentionally dangereous. It only excludes DELETE, DROP and TRUNCATE; all other queries are allowed. (ALTER and UPDATE too!)
To disable the latter function, edit admin.php and uncomment :

```
// $Disable_direct = "1";
```
to
```
$Disable_direct = "1";
```

at the top of the file. Note: you can ONLY disable direct queries, not the wizard queries.

Database integrity check

This function will check your current enabled repository for errors. It will issue a MySQL "OPTIMIZE TABLE" on all tables. Furthermore, it will validate all references. This is very important – the admin should run this function once in a while – it prevents errors due to lost connections, crashed servers, databases etc. Please note: it's best to run this feature from the command-line. See appendix II for more details on this.

Import phonebook records

Here you can import your phone index. If you want to, Interleave can empty the phone index before inserting the new list.

Import / export customers

In this section customers can be imported and exported using character separated files.

Export everything to disk

This function frankly is only useful if you or your company wants to stop using Interleave. Just follow instructions. When done, you'll find a directory structure on your server which is human-readable and contains all data ever stored in Interleave – perfect to continue your work using just your workstation.

Send entity list to all users

This function sends an e-mail to all users who have the "Daily entity overview e-mail" set to Yes in their user profile. This can also be done by the nightly cron-script – this is just to enable the administrator to send it on request.

Appendix II – Command-line (batch) functions

Interleave supports some command-line functions. These functions are designed to be used by the system administrator, mostly for running jobs from the command shell for batch purposes or because these jobs would take too long to run interactively using the web interface.

Interleave offers the following command-line functions:

- Multi-repository administration
- Add and edit entities from the command line (platform-independent)
- Add entities by e-mail
- PDF summary creation of an entire re repository (interactive and batch)
- Mass-importing files (only interactive)
- Checking and optimizing the database (interactive and batch)
- Update the search index table

Multi-repository administration from the command line

Using cmd.php you can administer your multi-repository installation. With this script you can issue maintenancecommands to all repositories at once, thus without having to switch between repositories.

To start the command-line client, enter

```
Linux:      /path/to/php -q ./cmd.php
Windows:    c:\path\to\php.exe -q cmd.php
```

After logging in, issue “show help” on the command line. You will see the command list. All these command apply to all repositories!

Add and edit entities from the command line (platform-independent)

Interleave can be used as a logger for certain jobs on your system. As an example; you could let your backup scripts use Interleave for logging. Interleave in that case handles all e-mails, statistics etc. This way, Interleave could look like this:

Brief log entry overview

ID	Transaction All	Owner All	Assignee All	Status All	Priority All	Category	Due date	last update	Creation date
11	Backup logs	Logger	Hidde Fennema	1 - Error	1 - Normal	Backup Fri, 5 Nov 2004 11:45:52 +0100	05-11-2004	05-11-2004 11:56h.	05-11-2004 11:45h.
12	Backup logs	Logger	Hidde Fennema	1 - Error	1 - Normal	Backup Fri, 5 Nov 2004 22:01:11 +0100	05-11-2004	05-11-2004 22:13h.	05-11-2004 22:01h.
13	Backup logs	Logger	Hidde Fennema	1 - Error	1 - Normal	Backup Sat, 6 Nov 2004 03:00:02 +0100	06-11-2004	06-11-2004 14:53h.	06-11-2004 03:00h.
14	Backup logs	Logger	Hidde Fennema	4 - Warning	2 - Connection timeout	Backup Sat, 6 Nov 2004 14:57:43 +0100	06-11-2004	06-11-2004 15:11h.	06-11-2004 14:57h.

There are numerous options to think of to implement this besides backup logging. Things like file transaction logging, temperature logging, but also letting your e-mail server insert entities directly from a received e-mail into Interleave.

The script handling this, is called “crmlogger.php”, to be found in your Interleave installation directory. To use this script, you need the following:

- The PHP CGI-executable (std. on windows systems and most *nix systems)
- When **not** running on your primary Interleave server you’ll need to copy all Interleave files to your secondary server.

Preparations

Before you can use remote logging, you'll need to add an Interleave logger user. In the "Manage accounts" section you can add a user, let's say "loguser" with password "logpass". Please make sure you set the privileges right:

Privileges

Entities	
Can add new entities	☑
Can see owned entities	☑
Can edit owned entities	☑
Can see assigned entities	☐
Can edit assigned entities	☐
Can see other entities	☐
Can edit other entities	☐
Can add comments to read-only entities	☐
Not allowed to assign or own entities (limited user)	☐

Lay-out	
May select columns in lists	☐
May use filter in lists	☐
Columns to show (entity list)	[use global layout] [select]

Customers	
Can add new customers	☐
Can see owned customers	☑
Can edit owned customers	☐
Can see other customers	☑
Can edit other customers	☐

Administrative tasks	
Can add/edit users	☐
Can add/edit extra fields	☐
Can add/edit triggers	☐
Can add/edit templates	☐
Is an administrator (overrules all above)	☐

Creating a new entity from the command line

To create a new entity from another program, use the following syntax:

```
php -q ./crmlogger.php [reposnr] [user] [pass] [new] ["customer name"] ["category text"]
```

In our case:

```
php -q ./crmlogger.php 0 loguser logpass new "Customer name" "This is a test"
```

*Please note: the customer name **must** exist- and, you can **not** set owner, assignee, duedate etc with this command. It simply only creates the entity. You can set all other items by updating the entity.*

The scripts returns only 1 thing: the entity number of the entity it created. You need to catch this in your script, because you'll need it for further logging. In bash, it could be done like this:

```
#!/usr/bin/bash
CRMEID=`php -q ./crmlogger.php 0 loguser logpass new "Customer name" "This is a test"`
```

The entity number will now be stored in the CRMEID variable in your bash script.

Updating an entity from the command line

As described above, you'll need the entity number of the entity you want to update. Besides that, the user which you supply to the logger script must be owner of the entity.

A basic entity update can be performed as follows:

```
php -q ./crmlogger.php [reposnr] [user] [pass] [entity nr] [action="arg"]
```

In our case:

```
php -q ./crmlogger.php 0 loguser logpass 1 setstatus='1-Open'
```

Or, from the bash script:

```
#!/usr/bin/bash
CRMEID=`php -q ./crmlogger.php 0 loguser logpass new "Customer name" "This is a test"`
php -q ./crmlogger.php 0 loguser logpass $CRMEID setstatus='1-Open'
```

The following type of actions are available:

```
addlog="text" (adds a common text to the entity content)
addlogfromfile="/path/to/file.log" (reads the file, adds the content to the entity)
addfile="/path/to/file.doc" (attaches the file to the entity)
setstatus="status" (sets the status field to the given value)
setpriority="priority" (sets the priority field to the given value)
setowner="owner username" (sets the owner – owner must exist!)
setassignee="assignee username" (sets the assignee – assignee must exist!)
setduedate="duedate" (sets the duedate field syntax: DD-MM-YYYY)
setalarm="alarmdate" (sets the duedate field syntax: DD-MM-YYYY, to the assignee)
setduetime="duetime" (syntax: HHMM e.g. 0930 or 1400 - only whole or half hour (00 or
30))
setdeleted="y|n" (syntax: 'y' for deleted, 'n' for not deleted)
setprivate="y|n" (syntax: 'y' for private, 'n' for not private)
setreadonly="y|n" (syntax: 'y' for read-only, 'n' for not read-only)
```

Use the "--help" argument for more syntax support

Hint: triggers can be very handy if you want other values than the above to be adjusted when a new entity is added.

Add entities by e-mail

Interleave supports inserting entities from an e-mail. This is basically a script which accepts an MIME-encoded message on the standard input, and generates an entity which will be placed in the “Inserted entities” list (or, when you enabled AutoAssignToCustomerOwner, in the main list). Hence, configuration directive “ENABLECUSTINSERT” must be set before using this.

The basic syntax is as follows:

```
# php -q ./email_in.php
```

This will however wait until you manually type in a complete (correct) MIME-encoded e-mail message and issue a CTRL-D (Linux) or a CTRL-Z (Windows). On Linux, you could actually parse an e-mail by saving a complete e-mail (including **all** headers etc.) in a file (let’s say, /tmp/mail.txt) and cat-ting this file through the Interleave parser:

```
# cat /tmp/mail.txt | php -q ./email_in.php
```

This will result in Interleave creating a new entity, and sending a reply to the e-mail “from” address as it was mentioned in your e-mail.

Configuring your mail server

To have Interleave automatically parse e-mail messages, you will have to configure your e-mail server. This function has only been tested with Sendmail, though it should work with many other mail servers too. If you have another mail server running this function, please let us know.

In Sendmail, you’ll have to create an alias (probably in your /etc/mail/aliases file). Create this alias as follows: (this will create an alias called “crm”)

```
crm:  "|/p/t/php –q /p/t/email_in.php [reposnr] logger_user logger_pass new 'Full
customer name'"
```

e.g.

```
crm:  "|/usr/bin/php –q /var/www/html/crm/email_in.php 2 loguser logpass new 'IBM'"
```

The "new" in the line must be there. **Be sure the username and password are log users. If an error occurs in parsing the e-mail, this information could in some occasions be readable by the sender!**

Batch generate PDF Reports

The script “generate_total_pdf_summary.php” will create a PDF summary of all entities in the repository. It will include deleted entities. The syntax is as follows:

```
# php -q ./generate_total_pdf_summary.php
```

The interactive interface will ask you for a repository number, your username, and your password. Be aware, for your password will be displayed in plain text. This, unfortunately, is a PHP limitation.

When you want to create a report in batch (e.g. using cron or similar), you can give all arguments when starting the script from your scheduler, using the following syntax:

```
# php -q ./script.php [reposnr] [user] [pass] [images - Y or N] [path]
```

e.g:

```
# php -q ./generate_total_pdf_summary.php 0 admin adm_pwd y /tmp/
```

Use the “--help" argument for more syntax support.

Mass-import files

When a high number of files needs to be attached to an entity, this script can be used to attach them. The files need to be directly accessible, so they have to be placed in a directory accessible by the file system.

The syntax of this script is as follows:

```
# php -q ./import_files.php
```

The script has no batch option – it’s always interactive so it has to be run manually. Some questions will be asked (username, password, target entity number, and source directory).

Database integrity check

Interleave supports database checking using the administration section. However, it might be a good idea to do this daily or weekly to prevent data loss due to crashes, lost connections etcetera. It's advisable to run this check regularly. The syntax is:

```
# php -q ./checkdb.php
```

Or, less interactive:

```
# php -q ./checkdb.php [reposnr] [user] [pass] [y|n]
```

The last argument (y or n) stands for "automatic repair". If set to "y", unreferenced records will be deleted without confirmation. This is quite safe, though.

Use "—help" for syntax information.

Update the search index table

Do this to update your fast search table. The syntax is:

```
# php -q ./create_search_index.php
```

Appendix III – Server system requirements

You need at least the following to run Interleave:

Software requirements

i. A server connected to an IP network
ii. An installed web server
iii. PHP 4 or 5
iv. MySQL greater than version 3.22.16
v. Preferably: GD library embedded in PHP
vi. Shell (or DOS) -access to your web server (once)

PHP settings

register_globals	: off
magic_quotes_gpc	: off
max_execution_time	: 60 (at least)
memory_limit	: 24MB (128 MB recommended)
allow_url_include	: on
error_reporting	: E_ALL & ~E_NOTICE
safe_mode	: off

MySQL settings

You could consider to upgrade max_package_size when you use large attachments

Webserver settings

WebDAV modules must be switched OFF for the directory in which Interleave is installed.

Interleave has been successfully tested on Linux (Slackware and RedHat AS2.1, AS3.0), but is reported to work on most, if not all, distributions), FreeBSD, MacOS X, SunOS, HPUX, AIX and Windows NT/2000/XP.

Hardware requirements

Minimum hardware requirements:

i. Pentium II+
ii. 256 or more megabytes of RAM
iii. 5 megabytes free space in your web directory
iv. 30 megabytes (at least) free database space
v. Approx. 8k per user session network bandwidth available

When using Interleave for your department, please do not underestimate the system characteristics Interleave requires to run properly. As Interleave is able to search through binary files, the search functions can get slow if your server has little memory or a slow CPU. As an example, we run Interleave with 150 users on an IBM X346, 2 CPU's @ 1,7Ghz with 1024MB of RAM and SCSI discs.

Appendix IV – Acknowledgments

Within Interleave some other open-source products were used – all used code was distributed under GPL or similar license so no copyrights were broken.

- The logo by Marcin and Lukasz
- The mail by Brent R. Matzelle, http://phpmailer.sourceforge.net
- The FPDF library for creation of PDF exports, http://www.fpdf.org
- The three icons above the main text edit box where honestly stolen from Alex King.
- The MS Excel export functionality was based on the code of Spreadsheet::WriteExcel
- HTTP_WebDAV_Server classes made by Hartmut Holzgraefe hholzgra@php.net
- The Italian translation by Giovanni Costantini, Italy
- Lots of fixes and ideas of Cheyenne Greatorex
- Lots of other people translated Interleave, though I've lost track of all names. If you're one of them, don't by shy and claim your fame.

Next to that, many thanks to all people at work for their feedback, positive or negative, aware or non aware, since 1999:

Ellen vE, Edward vH, Jeroen W, René E, Nathalie V, Niklas A, Richard L, Linda IG, Bert K, Peter V, Mart vL, Riette H, Edwin S, Herman K, Bart R, Nicole L, Roderick H, Ramon T, Hans H, Ernst G.

Special thanks go out to my partners in crime: Jeroen v.d. H. and Wouter d. J. Their feedback was and is crucial to this project.

Appendix V – Hints when altering Interleave's PHP-code

When you want to change things to CRM yourself, you probably have some idea to improve Interleave. So, first of all, check some things (mainly by sending me an email) :

- Isn't the functionality you want already on the development list?
- Am I (Hidde) interested in putting your contribution to the main development branch?
- Didn't somebody else already write the code?

Next to this, when developing on Interleave, know how. Most development aids are to be found in the getset.php file, on the top:

```
$GLOBALS['logqueries']    = false;   // logs all queries
$GLOBALS['logtext']       = false;   // logs all comments
$GLOBALS['query_timer']   = false;   // logs slowest SQL query
$GLOBALS['qlog_onscreen'] = false;   // displays pop-up containing log
$GLOBALS['ShowTraceLink'] = false;   // displays qlog trace link at end of page
```

For almost all of these nifty features, you'll need a file called "qlist.txt" in your Interleave installation directory, which is writable by the webserver. The "logtext" feature is by far the most important, it'll generate nice output about what Interleave is doing when a page is parsed:

```
/index.php 06-03-2005 16:28:32s (Development 2.6)
REM: (nousr) : Extracted 2 variables to symbol table.
REM: (hidde) : LoadLanguage:: Loading language ENGLISH hard-coded (437 tags)
REM: (hidde) : LoadLanguage:: Default language from database is ENGLISH
REM: (hidde) : LoadLanguage:: Language ENGLISH not loaded - it is already in memory
REM: (hidde) : LoadLanguage:: User language selection is overridden - YES
REM: (hidde) : LoadLanguage:: User-preferred language not loaded - it is system default
REM: (hidde) : LoadLanguage:: Mask is CRM-DEV-MASK (not loaded yet)
REM: (hidde) : LoadLanguage:: Loading mask CRM-DEV-MASK (18 tags)
REM: (hidde) : GetUserName:: hit 1 CACHE GetUserName getset 1 Hidde
REM: (hidde) : GetUserName:: hit 2 CACHE GetUserName getset 1 Hidde
REM: (hidde) : IsAdminstrator:: This is an admin allright
REM: (hidde) : GetClearanceLevel:: hit 3 CACHE GetClearanceLevel 1  administrator
```

When asking programming-related questions, be sure always to include the trace like shown above.

Appendix VII – Writing your own modules

What is a module?

A module is a piece of PHP-code which can be written by you. It will be executed by Interleave when called. The tabbed navigation will be added on top automatically. All Interleave internal functions and constants are at you disposal. With modules you can create your own add-on for Interleave without altering actual code. This is way better than altering Interleave's source code because your changes will get lost with the next version upgrade. Module code will always be preserved.

Syntax

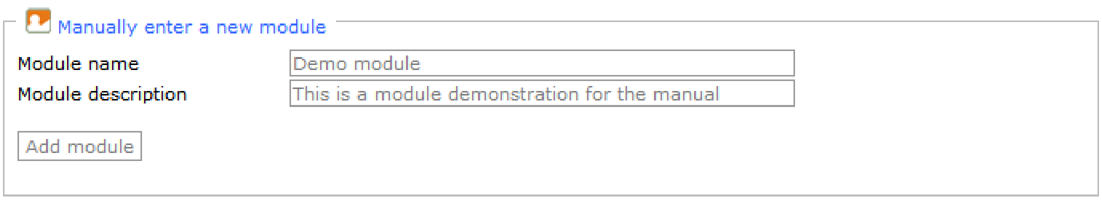
When writing modules you just use standard PHP. This chapter will not cover the coding itself. We just assume you know what you're doing.

All Interleave functions are available just like when altering the source code itself. Functions like AddEntity, AddMessage, mcq, db_GetRow, SimpleMail, ProcessTriggers, qlog, log_error etc. Through the use of PopStashValue and PushStashValue you can pass information to other pages. For example; if you write your own page which creates a query you want to use for an excel export, put the query in stash and pass the page to csv.php?query=x&printall=1&submitted=1&stashid=**XX** to create an Excel export based on your very own query.

The stash is not used in a very consistent way so some reverse engineering might be required.

Creating your own module – a simple example

Go to Admin → Main → Modules → Add a module using the web interface



After filling in the fields, click "add module". When the module is saved, go the the "Available modules"-tab. You'll see your new module there:

Installed modules

mid	Name	Description	Size	Added by	Added on	Last run date	Last run result	
33	Demo module	This is a module demonstration for the manual	228 bytes	Hidde Fennema	Thu, 26 Jul 2007 21:41:39	Thu, 26 Jul 2007 21:58:52	OK	Run Edit Download

Click “edit” to open it. The code box will contain some default code:

Editing module 7

```
<?php
// This is a default module file.
// Edit it the way you like. The tab navigation will come free with all modules
// and all global settings and database connections are at your disposal.

// If this module is ran by a trigger, the entity ID is in $eid.

print "This module works.";

// Don't use the EndHTML() function, it will be added while processing your module.
?>
```

Now just start entering some PHP-code:

Editing module 7

```
<?php
// This is a default module file.
// Edit it the way you like. The tab navigation will come free with all modules
// and all global settings and database connections are at your disposal.

// If this module is ran by a trigger, the entity ID is in $eid.

print "This module works.";

print "And I understand PHP! Hello world!";

// Don't use the EndHTML() function, it will be added while processing your module.
?>
```

Now click “Save”, and head back to “Available modules” and hit the “Run” link on the row of your module. If all worked out well, you will see the standard tab navigation and the output you might have expected.

Referring to your module

When you eventually created a working module, there is several ways to run it. If it's an administrative module, just use the admin interface. If it's for users, you can add a link on the main page or in some entity template like this:

```
<a href='modules.php?action=run&mid=[MODULEID]'>Run module</a>
```

Next to that you can also create a navigation tab which refers to the same link.

Appendix VIII – Donations

Donations are rare. Even though I'm quite certain that more than 5,000 companies are using Interleave daily, I'm not receiving much donations. To keep motivated, sometimes a donation helps, although I get the most out of (positive) personal reactions.

SourceForge provides a method for donating, using (all payment methods supported by) PayPal. This method is preferred, because a part of any donation goes to charity, and a part will be donated to the open source movement (both 5% if I'm correct). Besides that, your donation will, if you wish, show up on the Interleave project page. See https://sourceforge.net/donate/index.php?group_id=61096 for the CRM donation page.

Change log

The change log is included in this manual for search purposes; it can be used in conjunction with CTRL-F to check if the item you're looking for has been subject to change.

```
INTERLEAVE CHANGELOG
(ALSO CHECK "UPGRADING" FOR UPGRADE ISSUES & REMARKS)

Interleave [ http://www.crm-ctt.com - info AT interleave DOT nl ]
(c) 2001-2009 Interleave Inc.

2010/05/07 - Version 5.4.2 (bug fixes, feature enhancements, maintenance)

Major:
- Flextable record deletes are now logical (e.g. no longer physical)
- Interleave now supports MS Excel 2007, MS Word 2007, and all OpenOffice formats as template source
- A new chart-interface was added making it easier to create your own charts
- Interleave's output HTML is now xhtml 1.0 strict (check your templates!)
- The calendar popup is replaced by a new fancy date selector (thanks George!)

1392     Feature request  7 - Implemented / resolved        Add xhtmllize of all language text to
upgrade
1391     Bug              1 - New                           New date picker returns error when
selecting an 31st day
1390     Bug              4 - False claim / denied          Can't add drop down field values on the
fly
1388     Feature request  7 - Implemented / resolved        Fix e-mail header, content type and CSS
1387     Feature request  7 - Implemented / resolved        Remove id from buttons and add incremental
id to checkboxes
1384     Bug              2.1 - Re-check                    Re-Check Queries for Customer-Table
1383     Feature request  7 - Implemented / resolved        Remove calendar, add jQueryUI DatePicker
1382     Feature request  7 - Implemented / resolved        Remove overlib, replace with jQuery Tools
Tooltip
1381     Feature request  2 - In progress                   Remove all IFRAME's (replace with OBJECT)
1380     Feature request  7 - Implemented / resolved        Make Interleave xhtml strict compat
1379     Feature request  7 - Implemented / resolved        Add search-through-modules option
1376     Feature request  7 - Implemented / resolved        Remove hard-coded customer form
1375     Feature request  7 - Implemented / resolved        Ignore filters in main list when searching
1371     Feature request  7 - Implemented / resolved         Encode ampersants the right way and
remove double_encode from htme()
1370     Feature request  7 - Implemented / resolved        Give required fields a specific class
1369     Feature request  7 - Implemented / resolved        Global CSS include
1368     Feature request  2 - In progress                   Replace all document.formname.field
occurrences with document.getElementById(field).
1364     Bug              7 - Implemented / resolved        JS Order
1363     Feature request  7 - Implemented / resolved        Download language pack error
1361     Feature request  7 - Implemented / resolved        Add option to evaluate code inside
CheckEntityAccess
1360     Feature request  7 - Implemented / resolved        5.4.2 SQL Queries
1355     Feature request  7 - Implemented / resolved        Add logical delete to flextables instead
of physical
1354     Bug              7 - Implemented / resolved        email_in drops attachments
1353     Bug              7 - Implemented / resolved        when adding a customer ENTITYFORMCACHE is
not cleared
1352     Bug              7 - Implemented / resolved        Priority update trigger displays wrong
message in journal
1349     Question/remark  7 - Implemented / resolved        Problem with export buttons
1346     Feature request  7 - Implemented / resolved        Add template-parse support for MS Excel &
Word 2007 and OO Calc & Writer
1345     Feature request  7 - Implemented / resolved        Calculate only(!) Numeric Fields
1344     Feature request  7 - Implemented / resolved        Pass-Along EIDs to Module from List
1343     Feature request  7 - Implemented / resolved        Add Enable/Disable Functionality To
Triggers
1340     Feature request  7 - Implemented / resolved        Better images, more image types, option to
save images, images based on query and based on PHP code
1336     Bug                          7 - Implemented / resolved        Drop-Down based on Customer LoV
1335     Bug                          7 - Implemented / resolved        RTF Upload doesn't work
1333     Bug                          7 - Implemented / resolved        To upgrade all 5.3.2 databases to
version 5.4.0 click here.
1332     Question/remark  7 - Implemented / resolved        PHP Zip compiled - Error (not found)
during install
1330     Feature request  7 - Implemented / resolved        Add trigger journaling
1329     Feature request  7 - Implemented / resolved        Images based on (secure) SQL query
```

1328 Bug 7 - Implemented / resolved Add file-box doesn't work on *new* flextable records
1327 Feature request 7 - Implemented / resolved Set dashboard layout like mine for all users -option
1326 Feature request 7 - Implemented / resolved Drag and drop items (mainly on dashboard)
1325 Bug 7 - Implemented / resolved CSV semicolon-separated export broken (comes out empty)
1322 Feature request 7 - Implemented / resolved Add year selection in date filter, like: 2008, 2009, 2010
1320 Feature request 7 - Implemented / resolved Fix session expire at midnight
1319 Bug 7 - Implemented / resolved Summary page
1318 Feature request 7 - Implemented / resolved Setting SHOWTABLEHEADEREVERY to "0" should disable this function
1316 Feature request 7 - Implemented / resolved Add ShowNumOfAttm to personal list setting instead of GLOBAL
1315 Feature request 7 - Implemented / resolved Align numeric values on the right side in all table columns
1314 Bug 7 - Implemented / resolved Add up of only empty fields results in "n;" at the bottom of the list AND show empty instead of 0,00
1311 Feature request 7 - Implemented / resolved Show message on login screen when cookies are not accepted by the browser
1281 Bug 7 - Implemented / resolved Saveasnewbutton and autosave
1272 Feature request 7 - Implemented / resolved Management information report for selectable month
1259 Feature request 7 - Implemented / resolved Disable e-mails after entity change
1244 Feature request 7 - Implemented / resolved Add configurable Tabindex to All Fields
1243 Feature request 7 - Implemented / resolved Priority, Status and Categories order
1172 Feature request 7 - Implemented / resolved Add flextable columns to ShowEntityList

2010/01/26 - Version 5.4.1 (major feature enhancements, major maintenance)

Major:
- New smart file indexing method with support for *a lot* of file types
- Improved file-list incl. icons, thumbnails and local search
- Improved search mechanism
- New fail-over incremental fix routine
- Calender makeover
- New recent- and due-today lists
- Columns and filters are now remembered per-list
- Database integrity check improved
- Templates isolated from binary attachments (faster, more secure)

1307 Feature request 7 - Implemented / resolved Make entity list filters display on all entity list occurrences
1306 Feature request 7 - Implemented / resolved Add option to edit HTML templates in code-mode when they contain PHP
1302 Bug 7 - Implemented / resolved Customer column list global layout not working anymore
1301 Feature request 7 - Implemented / resolved Replace RECENT and DUE-TODAY list with standard function
1300 Feature request 7 - Implemented / resolved Introduce loglevel CACHE, INFO, WARNING, ERROR and DEBUG
1298 Feature request 7 - Implemented / resolved Add templates to configuration snapshots
1297 Feature request 7 - Implemented / resolved New incremental synchronization method
1296 Feature request 7 - Implemented / resolved Isolate templates in separate table
1295 Feature request 7 - Implemented / resolved New file list with search box and mini-thumnails
1294 Feature request 7 - Implemented / resolved Add e-mail parsing option using triggers
1280 Feature request 7 - Implemented / resolved Very intelligent file index method
1278 Feature request 7 - Implemented / resolved Interleave 5.4.1 database queries
1276 Feature request 7 - Implemented / resolved Let ENTER submit login form and customer search form
1275 Feature request 7 - Implemented / resolved Install procedure makeover
1274 Bug 7 - Implemented / resolved flextable relation change
1273 Feature request 7 - Implemented / resolved entering date manually in summary
1271 Bug 7 - Implemented / resolved filter on client list
1270 Feature request 7 - Implemented / resolved Filter on date ranges
1268 Feature request 7 - Implemented / resolved Show table header every XX rows
1267 Bug 7 - Implemented / resolved deeplink problem
1264 Bug 7 - Implemented / resolved Force to download a .js file after editing a exiting entity
1262 Feature request 7 - Implemented / resolved Add AssigneeGroup and OwnerGroup to entity list layout
1261 Feature request 7 - Implemented / resolved Add "required field" on Extra field type Reference to Flextable
1260 Feature request 7 - Implemented / resolved Extension of Templating Variables
1256 Bug 7 - Implemented / resolved PB search doesn't search through customer names
1251 Question/remark 7 - Implemented / resolved The PHP variable "allow_call_time_pass_reference" is disabled (0). This will not work.
1248 Bug 7 - Implemented / resolved rtf report to long

```
1247     Bug                       7 - Implemented / resolved        customer_contacts type field empty
1245     Bug                       7 - Implemented / resolved        Typo in user and group Rights
1224     Bug                       7 - Implemented / resolved        login screen problem after upgrade
to 5.3.2
1184     Feature request  7 - Implemented / resolved        Calendar redesign + i18n
```

2009/11/10 - Version 5.4.0 (major feature enhancements, major maintenance)

Major:
- Database EAV Model will be converted to row/column model during upgrade. Check the UPGRADING file for details.
- This release is much faster because of the new database model. Besides that, almost everythigng was revised, improved. A lot of old code was deleted.

```
1242     Bug              7 - Implemented / resolved        Single quotes in mail subject are
displayed as htmlentity, so ' becomes '
1241     Feature request 7 - Implemented / resolved        Completely rebuild entity, customer and
flextable sreach routines
1240     Bug              7 - Implemented / resolved        Flextable AddUp doesn't take
MaxRowsPerPage into account
1239     Feature request 7 - Implemented / resolved        Rebuild complete customer page / search
routine and add pagination
1238     Feature request 7 - Implemented / resolved        Add "remove table row on failed condition"
to Extra Field conditions
1237     Bug              7 - Implemented / resolved        Category is passed twice through mres when
adding to journal &
1236     Feature request 7 - Implemented / resolved        Migrate from EAV model to row/column model
1235     Feature request 7 - Implemented / resolved        Flextable navigation improvement (sorting,
pages etc)
1232     Feature request 4 - False claim / denied   Entity list filter
1217     Feature request 7 - Implemented / resolved        5.3.3 Ugrade queries
1208     Bug              7 - Implemented / resolved        Double queries in replication
1205     Question/remark 7 - Implemented / resolved        Export function is not working in 5.3.2
1198     Feature request 7 - Implemented / resolved        arrows on entity form
1182     Feature request 7 - Implemented / resolved        Add CUSTOMERLIMIT wildcard method
1121     Feature request 7 - Implemented / resolved        Add option to delete a whole template line
when an extra field condition fails
1176     Feature request 7 - Implemented / resolved        Remove autofilter default from Excel2007
exports
1221     Bug              7 - Implemented / resolved        Installation crashes after the Step 4
[fix:install.php:line1135: remove ` at pos83 )
1006     Feature request 3 - Canceled                       Published images
1234     Feature request 7 - Implemented / resolved        TCPDF and PHPExcel Library updates
1233     Feature request 7 - Implemented / resolved        Trigger page redesign
1231     Bug              7 - Implemented / resolved        Trigger: entity change by not assignee not
work
1230     Feature request 7 - Implemented / resolved        Shortcut Description for Safari (OS X)
1229     Feature request 7 - Implemented / resolved        Template page redesign
1228     Feature request 7 - Implemented / resolved        Add in-line PHP code support for all
templates
1227     Feature request 7 - Implemented / resolved        Update richt text editor / add CSS support
1226     Feature request 7 - Implemented / resolved        Add ALLOWEDADDFORMS to user/group profiles
1223     Bug              7 - Implemented / resolved        User activity graphs broken
1222     Bug              7 - Implemented / resolved        Flextable form cache not saved as REF
1220     Feature request 7 - Implemented / resolved        Add group option "require customer limit"
1219     Feature request 7 - Implemented / resolved        Extra fields page redesign
1218     Bug              7 - Implemented / resolved        "Change password on next logon" checkbox
DNGN
1216     Feature request 7 - Implemented / resolved        Add option to sort file list on attach
date instead of alphabetic
1215     Feature request 7 - Implemented / resolved        Custom shortcut keys using F1 - F12 keys
1214     Question/remark 7 - Implemented / resolved        Completed request are still displayed in
Dashboard when due date is set.
1212     Feature request 7 - Implemented / resolved        virtual machine for 5.3
1210     Question/remark 7 - Implemented / resolved        how to create an sales order
1209     Bug              7 - Implemented / resolved        [add record] / LISTOFCONTACT errors
1207     Feature request 7 - Implemented / resolved        Conditions on flextable fields (PNB/HM)
1206     Bug              7 - Implemented / resolved        No export of CONTENTS
1203     Bug              7 - Implemented / resolved        sql bug when creating new repository
1202     Question/remark  7 - Implemented / resolved        Formatting does not show in my forms
1200     Bug              7 - Implemented / resolved        html tag BR on newline in main
1197     Feature request 4 - False claim / denied   trigger action: e-mail to customer
1196     Bug              7 - Implemented / resolved        Extra Field with Umlaut not working
1195     Feature request 7 - Implemented / resolved        Show past 1,2 or 3 months in calendar next
to the months to come
1193     Bug              7 - Implemented / resolved        "Clear filter" link not always working
1192     Bug              7 - Implemented / resolved        Undefinded function in main list when
using customer numeric fields in list
1183     Bug              7 - Implemented / resolved        Last Update date/time does not change on
diary update
```

1160 Feature request 4 - False claim / denied Add logical NOT to trigger condition
1087 Feature request 7 - Implemented / resolved Remove AUTOCOMPLETECUSTOMERNAMES
971 Feature request 4 - False claim / denied Time field and time culculation
590 Feature request 4 - False claim / denied Add radio form elements (horizontal and vertical)

2009/08/02 - Version 5.3.2 (major feature enhancements)

Major:
- You can now create your own menus based on HTML templates
- You can now create your own tab-menus
- The Excel report download dialog was completely rewritten (and thus improved)
- List layouts for Excel exports can now be bookmarked
- Add authorization option on extra field value (user selected in field XX must have value YY to have access)
- Calendering options added (extra field "Booking calendar" and "Calendar planning group") (very nice!)
- Configuration restore point functionality added (only snap-shot copy of settings or complete database)
- Password complexity check & minimum password complexity checking
- WebDAV support removed

1194 Bug 7 - Implemented / resolved Extra field type LIST OF CUSTOMERS doesn't return correct value when parsed
1193 Bug 7 - Implemented / resolved "Clear filter" link not always working
1192 Bug 7 - Implemented / resolved Undefinded function in main list when using customer numeric fields in list
1191 Bug 7 - Implemented / resolved Line 2493 in Functions.php containst substr count error
1190 Feature request 7 - Implemented / resolved Volume caching
1189 Feature request 7 - Implemented / resolved Add option to DENY flextable record access next to read-only access
1188 Bug 7 - Implemented / resolved trigger.php - Line 144 - owner boss missing 's'
1187 Bug 7 - Implemented / resolved Menu item access restrictions popup opens for wrong field
1186 Feature request 7 - Implemented / resolved Add property "Is raw HTML" to extra fields
1185 Bug 7 - Implemented / resolved rtf attachement is unknown type in e-mail
1179 Feature request 7 - Implemented / resolved Add Excel download icon to download flextable with all fields
1177 Feature request 7 - Implemented / resolved Add STANDING tag for Excel spreadsheats
1173 Bug 7 - Implemented / resolved Spelling error in functions.php looks for non-existent file
1171 Feature request 7 - Implemented / resolved Add option to download database SQL dump
1170 Bug 7 - Implemented / resolved Entities List doesn't display UTF8 symbols correctly
1169 Feature request 7 - Implemented / resolved Add flextable support to generate-images page
1168 Feature request 7 - Implemented / resolved Add plotting against duedate, startdate and closedate in graphs
1167 Feature request 7 - Implemented / resolved Remove WebDAV support
1165 Feature request 7 - Implemented / resolved Add calendar planning group
1164 Bug 7 - Implemented / resolved Entity locking broken when using SQL field or module on form
1163 Bug 7 - Implemented / resolved Attaching a file with "error" in the name causes troubles
1161 Feature request 7 - Implemented / resolved Add (client-side) password complexity test w/ enforcement
1158 Feature request 7 - Implemented / resolved Add restore points and restore method for all settings
1155 Feature request 7 - Implemented / resolved display button name instead of ButtonPress6 in trigger overview
1154 Feature request 7 - Implemented / resolved Add page orientation to PDF reports
1151 Feature request 7 - Implemented / resolved Add reverse calendar use option
1149 Feature request 7 - Implemented / resolved Add A NAME= anchors to all fields
1147 Feature request 7 - Implemented / resolved Add extra field type "planning"
1145 Feature request 7 - Implemented / resolved Add flextable property "default sort field"
1144 Feature request 7 - Implemented / resolved Add option to always start in the same form
1143 Feature request 7 - Implemented / resolved Add option to show the field value read-only if an EF condition fails
1140 Feature request 7 - Implemented / resolved Add access control by extra field (of type user-list) for flextable records
1139 Feature request 7 - Implemented / resolved Make it possible to not show the record ID in flextables
1138 Feature request 7 - Implemented / resolved Add tags RWONLY/ENDRWONLY and ROONLY/ENDROONLY
1137 Feature request 7 - Implemented / resolved Assignee & owner reset after edit by limited user
1136 Feature request 7 - Implemented / resolved Add extended privilege "EF of type user-list" must contain value [current user]

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1132     Feature request 7 - Implemented / resolved         Add immediate validation to e-mail and
numeric fields
1131     Feature request 7 - Implemented / resolved         Implement browsearray support in recent
items list
1130     Feature request 7 - Implemented / resolved         Add possibility to change a group name
1129     Feature request 7 - Implemented / resolved         List of items in previous list tag for
forms and templates
1128     Feature request 7 - Implemented / resolved         Upgrade PHP::Excel2007 library to version
1.6.7
1127     Feature request 7 - Implemented / resolved         Upgrade TCPDF library to PHP4/4.6.014
1126     Feature request 7 - Implemented / resolved         Completely revise CSV/Download system
1125     Feature request 7 - Implemented / resolved         Add database caching to templated menu to
improve performance
1122     Feature request 7 - Implemented / resolved         Add privilege 'Deny access to all
journals' to user and group profiles
1120     Feature request 7 - Implemented / resolved         Add group use in trigger & extra field
conditions
1119     Feature request 7 - Implemented / resolved         Add option to use an html template as
navigation bar
1118     Feature request 7 - Implemented / resolved         Add 2 simple custom menu tab styles
1115     Bug              7 - Implemented / resolved        Phone book query error
1175     Bug              7 - Implemented / resolved        Due dates in trigger defaults to "01-01-
1970" when duedate is set to > 0 days
1159     Bug              7 - Implemented / resolved        AutoSave somehow doesn't drop formcache
1157     Feature request 7 - Implemented / resolved         Add a lot of missing language tags
1141     Bug              7 - Implemented / resolved        Duedate changes not all working
1135     Bug              7 - Implemented / resolved        Extra field type "comment" doesn't work
anymore
1134     Bug              7 - Implemented / resolved        Mandatory start date isn't remembered when
re-opening the req. std. fields section
1124     Bug              7 - Implemented / resolved        RTF templates shows raw RTF code
1116     Bug              7 - Implemented / resolved        Table columns add-up visible even when
disabled
1107     Bug              7 - Implemented / resolved        Message initiated by a trigger could
display later on in some other user's session
960      Bug              7 - Implemented / resolved        Alphabetical sorting of EF value doesn't
seem to work
1176     Feature request 7 - Implemented / resolved         Remove autofilter default from Excel2007
exports


2009/06/01 - Version 5.3.1 (maintenance release)

Major: CSS (style sheets) are no longer automatically added to e-mails, so test the layout!

1105     Feature request  7 - Implemented / resolved        Remove default stylesheet from e-mails
1108     Feature request  7 - Implemented / resolved        Show CSS template in templates list
1112     Feature request  7 - Implemented / resolved        Replace all annoing color pop-ups with an
icon
1110     Feature request  7 - Implemented / resolved        Add custom tab navigation bar (assignable
to user/group)
1100     Bug              7 - Implemented / resolved        Disabled assignee
1106     Bug              7 - Implemented / resolved        Main list filter dropdown of Multiselect
Field contains serialized data
1109     Bug              7 - Implemented / resolved        Specified key was too long; max key length
is 1000 bytes
1113     Bug              7 - Implemented / resolved        Reference to entity not found when sending
e-mail to customer
1114     Bug              4 - False claim / denied  SAVEASNEWBUTTON to be fixed (could not recreate)


2009/05/26 - Version 5.3.0

Major:
- The hardcoded customer form is gone. The upgrade procedure will replace it with
  a new templated form - which ofcourse looks exactly the same as the current one.
- A lot of new flextable stuff
- Big performance improvement

Please also read all 5.2.0 items. Since 5.2.0 was never officially released, all
new functionality and bug fixes of 5.2.0 also apply to this version.

1103 Feature request      7 - Implemented / resolved        Add option to find & replace all aliases
in templates and modules on extra field name change
1101 Bug         4 - False claim / denied  #DELETEBOX# doesn't seem to work (double add - see #1082)
1099 Feature request      7 - Implemented / resolved        Add FlexTable option to add and edit
records in popup when working from within an entity form
1098 Feature request      7 - Implemented / resolved        New trigger: display template (and thus
interrupt navigation)
1097 Feature request      7 - Implemented / resolved        Put in 15px margin when all tabs are
disabled
```

1096 Bug 7 - Implemented / resolved After saving entity (with all tabs disabled) an empty page is shown
1095 Feature request 7 - Implemented / resolved Remove "Upload!" button, the upload element is AJAX/Autosubmit anyway
1094 Feature request 7 - Implemented / resolved Add option to make multiselect fields mandatory (required)
1093 Feature request 7 - Implemented / resolved Add option to hide all export icons on main list (per profile or group)
1092 Feature request 7 - Implemented / resolved Add option to hide all usernames (based on profile or group)
1091 Bug 7 - Implemented / resolved Trigger list displays custom date trigger incorrect
1089 Feature request 7 - Implemented / resolved Make module name and description editable
1088 Bug 7 - Implemented / resolved Add UNFORMATTED_DATE to tags for trigger use
1086 Feature request 7 - Implemented / resolved Always remember from which entity the user came when using with flextables
1085 Feature request 7 - Implemented / resolved Being able to show, run and edit modules from cmd.php
1084 Bug 7 - Implemented / resolved Multi-select boxes don't work on customer table
1083 Feature request 7 - Implemented / resolved Customer popup instead of pulldown
1082 Bug 7 - Implemented / resolved No changing of deleted-field with autosave
1080 Bug 7 - Implemented / resolved Entity extra field colors don't work
1078 Feature request 7 - Implemented / resolved Inactive users in summary
1076 Feature request 7 - Implemented / resolved Add index on CRMentity.parent
1075 Bug 7 - Implemented / resolved Editing of menu items is unpredictable
1074 Feature request 7 - Implemented / resolved Sort flextable referfields on value instead of ID
1072 Feature request 7 - Implemented / resolved Form directives
1070 Feature request 7 - Implemented / resolved Add triggers "Run every Monday" .. "Sunday"
1068 Feature request 7 - Implemented / resolved Remove all local number_format calls and replace them with FormatNumber function
1067 Feature request 7 - Implemented / resolved Make 'add flextable record' linktext customizable
1066 Feature request 7 - Implemented / resolved Queries for 5.3.0 upgrade
1065 Feature request 7 - Implemented / resolved Add possibility to NOT print the logo on PDF reports
1064 Feature request 7 - Implemented / resolved Add "sum of column" for flextables
1063 Bug 7 - Implemented / resolved Form elements do not get disabled on read only form
1061 Feature request 7 - Implemented / resolved Gravatar(.com) support for profile images
1057 Feature request 7 - Implemented / resolved Filter fields already in template out of ALL_EXTRA_FIELDS
1056 Bug 7 - Implemented / resolved Module use_stats needs updating
1053 Feature request 7 - Implemented / resolved Massupdate improvement
1048 Feature request 7 - Implemented / resolved RFC2822-Compliant Email Address Validation
1027 Feature request 7 - Implemented / resolved Flex table in PDF document
1023 Bug 7 - Implemented / resolved AUTOCOMPLETECUSTOMERNAMES doesn't work in Firefox
953 Feature request 7 - Implemented / resolved Disable hardcoded customer form and fix some customer table problems
944 Feature request 7 - Implemented / resolved SQL Query field type not working
885 Feature request 7 - Implemented / resolved FlexTable use with customer table (complete it)
750 Feature request 7 - Implemented / resolved Recurring entities
1055 Bug 7 - Implemented / resolved Module page doesn't not show

2009/03/26 - Version 5.2.0

Major:
Extra fields (type drop-down) can now be assigned colors also (entity, customer and flextable fields)
Added a dial gauge (needs a module to operate)
Added traffic lights (needs a module to operate)
It's now possible to attach files to flextable records
Multi-select extra field type added
Customer and flextable extra fields can now also have conditions

1054 Bug 7 - Implemented / resolved ARROWS are broken
1035 Feature request 7 - Implemented / resolved Re-introduce FILELIST next to FILEBOX
1051 Feature request 7 - Implemented / resolved All list icons (Excel, PDF etc) should export whole list, not the current view
1050 Feature request 7 - Implemented / resolved Add trigger condition options for customer extra field values
1049 Feature request 7 - Implemented / resolved Make trigger conditions possible on customer extra fields as well
1047 Feature request 7 - Implemented / resolved Replace quick drop-down search function
1046 Feature request 7 - Implemented / resolved Order detailed acces restrictions by username instead of userid
1045 Bug 7 - Implemented / resolved Number of results in customer table is sorted as well

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1044 Bug                  7 - Implemented / resolved       Non existing customer in LIMITTOCUSTOMERS
-> change
1041 Feature request      7 - Implemented / resolved       Add a filter box on the trigger page
1040 Feature request      7 - Implemented / resolved       Multi-select checkbox option (for
flextable and for regular drop-down)
1037 Bug                  7 - Implemented / resolved       Error in list count and number of items
1036 Bug                  7 - Implemented / resolved       URL popup link doesn't work when using
flextables
1034 Feature request      7 - Implemented / resolved       Remove end-of-report message on CSV
exports
1033 Feature request      7 - Implemented / resolved       Make sure the FastSearch boxes are out of
the taborder!
1032 Feature request      7 - Implemented / resolved       Please remove comma (",") from valid
numeric characters
1031 Feature request      7 - Implemented / resolved       Percentages of management information are
all zero
1026 Bug                  7 - Implemented / resolved       Search function does funny things
1025 Bug                  7 - Implemented / resolved       Customer incorrectly reported as inactive
for limited user
1024 Bug                  7 - Implemented / resolved       Lmited user can add comments to deleted
entity
1021 Feature request      7 - Implemented / resolved       User/group option to disallow change of
owner and/or assignee field
1020 Bug                  7 - Implemented / resolved       Autosave prevents flextable record delete
1019 Bug                  7 - Implemented / resolved       Trigger value changes when editing
1018 Feature request      7 - Implemented / resolved       New trigger - entity changed by non
asignee
1017 Bug                  7 - Implemented / resolved       dontshowpopupwindows doesn't work anymore
1015 Bug                  7 - Implemented / resolved       Calendar seems broken in weekview
1014 Feature request      7 - Implemented / resolved       Dial gauge
1012 Feature request      7 - Implemented / resolved       Extra field type "just like that other
field"
1011 Feature request      7 - Implemented / resolved       Traffic light w/ conditions
1010 Feature request      7 - Implemented / resolved       APC Caching (support tested only)
1009 Bug                  7 - Implemented / resolved       Unknown column 'CRMtriggerstriggers.tid'
in 'field list'
1007 Feature request      7 - Implemented / resolved       Add option to disable administrative
request form
1005 Feature request      7 - Implemented / resolved       Add autocomplete="off" to most forms
966  Bug                  7 - Implemented / resolved       Status field contains international
characters
945  Feature request      7 - Implemented / resolved       Visibility of menu items enhancements
936  Feature request      7 - Implemented / resolved       Being able to attach files to flextable
records
749  Feature request      7 - Implemented / resolved       New extra field type value/color

2009/02/14 - Version 5.1.1

Major:
- Entity fields can now be autosaved (default: yes)
- Flextable fields can now be autosaved (default: yes)
- Excel 2007 file format support (default: 2007, when upgrading: 2003)
- Automatic escalations (perticularely useful for SLA's) (check UPGRADING!!)
- New PDF engine
- New graph engine and create-your-own-graphs interface

1002 Bug                  7 - Implemented / resolved       User profile button bug
1001 Feature request      7 - Implemented / resolved       Improve dropdown search
1000 Bug                  7 - Implemented / resolved       Type "text" is WAY to short for "CLLEVEL"
999 Bug          7 - Implemented / resolved       recently opened entities does not seem to get
updated
998 Bug          7 - Implemented / resolved       mres error in stats.php
997 Bug          7 - Implemented / resolved       Trigger conditions must be deleted when deleting
trigger
996 Bug          7 - Implemented / resolved       Deleted extra field buttons are still displayed in
triggers
995 Bug          7 - Implemented / resolved       Semicolon mashes up CUSTOMERLIMIT
994 Feature request       7 - Implemented / resolved       New graphs and make-graphs-yourself-
interface
993 Feature request       7 - Implemented / resolved       Add triggers for extra field dates
991 Feature request       7 - Implemented / resolved       Trigger condition: output of module XX
must be TRUE or NOT TRUE
990 Feature request       7 - Implemented / resolved       New HTML PDF parser & new std. PDF report
989 Feature request       7 - Implemented / resolved       Excel 2007 export support
986 Bug          7 - Implemented / resolved       Euro character (and others) are mangled by autosave
983 Feature request       7 - Implemented / resolved       New syntax highlighting PHP editor for
modules
981 Bug          4 - False claim          Auto-resize pulldown with user add option (+) empties when
updated
980 Feature request       7 - Implemented / resolved       Computed fields for flextables
979 Feature request       7 - Implemented / resolved       Deeplinking made possible again
```

978 Bug 7 - Implemented / resolved Typo's
977 Bug 7 - Implemented / resolved Customer name not visible in Excel export
976 Feature request 7 - Implemented / resolved "Forgot your password?" option on logon page
975 Bug 7 - Implemented / resolved Very detailed access permission problem
974 Bug 4 - False claim Adding values to dropdown in flextables error
973 Feature request 3 - Canceled Add cell phone number field and widthen other fields in contacts table
972 Bug 7 - Implemented / resolved Return to correct list after using MassUpdate
970 Bug 7 - Implemented / resolved Rich text field & textarea not editable in FlexTable
968 Feature request 7 - Implemented / resolved Add flexrecord link back on select record form
966 Bug 7 - Implemented / resolved Status field contains international characters
965 Bug 7 - Implemented / resolved urgent message on file upload box
964 Bug 7 - Implemented / resolved group edit requires admins bless
963 Bug 5 - On hold Extra field always required
962 Bug 4 - False claim Could it be autosave doesn't work when the field WAS empy but is filled
961 Bug 7 - Implemented / resolved user editable drop-down extra field
960 Bug 4 - False claim Alphabetical sorting of EF value doesn't seem to work
959 Bug 4 - False claim Replicate customer table error
958 Feature request 7 - Implemented / resolved Flextable import by SQL query
956 Feature request 7 - Implemented / resolved Flextable enhancements RTF and Form
954 Feature request 7 - Implemented / resolved Adding files must also be possible when adding new entities
952 Feature request 7 - Implemented / resolved Import spreadsheet into flextable in one action
951 Feature request 7 - Implemented / resolved Charset Awereness for Excel exports
950 Bug 7 - Implemented / resolved PDF Reports not working
949 Bug 7 - Implemented / resolved count of deleted entities above main table is incorrect
948 Feature request 7 - Implemented / resolved term "group" is not consistently used (as in "Users & profile")
947 Bug 7 - Implemented / resolved "You cannot log in as another administrator" message in error
946 Bug 7 - Implemented / resolved limited user sees number of customers
943 Bug 4 - False claim Todo buildup wrong
941 Feature request 7 - Implemented / resolved Being able to hide the entity add tabs
940 Bug 7 - Implemented / resolved customer is inactive -> not when entity eid is _new_
935 Feature request 7 - Implemented / resolved Auto-save also for FlexTable forms
934 Feature request 7 - Implemented / resolved Add parsing of entity and customer to flextable with many-to-one orientation
933 Feature request 7 - Implemented / resolved Support for processing any ASCII template
931 Bug 7 - Implemented / resolved Daily e-mail wasn't send
930 Bug 7 - Implemented / resolved RECEIVEDAILYMAIL setting doesn't show up correctly
929 Bug 7 - Implemented / resolved Diary field doesn't work when user has no right to default entity form
927 Feature request 4 - False claim Flextable inside Flextable
925 Bug 7 - Implemented / resolved Line error in Edit.php - Track changes (journal error)
924 Feature request 1 - New Queries for 5.1.1 upgrade
923 Bug 7 - Implemented / resolved Double database close (Admin -> View journal)
922 Feature request 7 - Implemented / resolved Auto-save entity form values in the background

2008/11/17 - Version 5.1.0

Major:
- Total rebuild of user/group access control (read UPGRADING file carefully!)
- Extra fields and triggers can now have conditions and display messages
- Lots of AJAX technology embedded for better usability
- Rebuild the main list
- FlexTables are vastly improved
- All open of bugs fixed

637 Major feat. enh. 7 - Implemented / fixed Mobile device interface
655 Minor feat. enh. 3 - Canceled OpenID Support
702 Feature request 3 - Canceled Request - Reports Top20 Users in last 30 day
705 Bug 7 - Implemented / fixed Filter in category list not OK
706 Bug 7 - Implemented / fixed @ sign in excel export produces "Sintactic error: , lookahead: , current char: 0"
714 Feature request 7 - Implemented / fixed Auto logout is annoying when using Interleave in multiple windows
717 Bug 7 - Implemented / fixed User section errors and Bugs
724 Minor feat. enh. 7 - Implemented / fixed Make "all can see" option for extra field detailed access restrictions

736 Minor feat. enh.   7 - Implemented / fixed   make extra "menu items" editable
738 Minor feat. enh.   7 - Implemented / fixed   make it possible to display contents of journal
inside entity form
751 Minor feat. enh.   7 - Implemented / fixed   make size of category text box adjustable
756 Bug   7 - Implemented / fixed   query error when switching to current repository
765 Feature request   7 - Implemented / fixed   let each entitylist (main, deleted and added) have
its own remembered filters
779 Feature request   4 - False claim   why are filters disabled in personal tabs?
791 Bug   7 - Implemented / fixed   rich text fields do not get disabled when form is
readonly
794 Bug   7 - Implemented / fixed   Select date in past doesn't work
802 Major feat. enh.   5 - On hold   entity form with prefilled values by url
841 Minor feat. enh.   7 - Implemented / fixed   Add NOT-option also to summary page
843 Med. feat. enh.   7 - Implemented / fixed   Auto-compress files of old entities and old
versions of files
844 Major feat. enh.   3 - Canceled   Inline edit extra drop-down fields
845 Maintenance   2 - In progress   Queries for 5.1 upgrade
847 Med. feat. enh.   7 - Implemented / fixed   Add option to update rtf template
848 Minor feat. enh.   7 - Implemented / fixed   Check for something else then filesize when looking
for config file
849 Med. feat. enh.   7 - Implemented / fixed   Make multiple select filters out of all pull down
fields
851 Maintenance   7 - Implemented / fixed   Change AUTOCOMPLETECATEGORY make up
853 Med. feat. enh.   7 - Implemented / fixed   Paginate search results [clip list at 500]
854 Bug   7 - Implemented / fixed   making an entity its own parent puts Interleave in
a endless loop
855 Med. feat. enh.   7 - Implemented / fixed   Add conditions to triggers
857 Bug   7 - Implemented / fixed   No HTML Close ">" for <img src=
858 Minor feat. enh.   7 - Implemented / fixed   Add option to run modules from command line
859 Bug   7 - Implemented / fixed   Don't insert a new session when a session already
exists
860 Bug   7 - Implemented / fixed   "Create an entity for each customer which doesn't
have one yet" doesn't show all my forms
861 Feature request   7 - Implemented / fixed   add "mass update ONLY for admin" option
862 Feature request   7 - Implemented / fixed   Improve file upload mechanism
863 Bug   4 - False claim   "Trigger not added, it exists already!" error when
changing a trigger
864 Bug   7 - Implemented / fixed   Edit Contact Code Error
865 Bug   7 - Implemented / fixed   STARTDATE not available in entity template
866 Maintenance   7 - Implemented / fixed   Sending e-mail using "e-mail users" is not logged
(journaled)
867 Feature request   7 - Implemented / fixed   Extra field conditions (only show field when...)
868 Bug   7 - Implemented / fixed   Row add-up not correct when using filters (NDI)
869 Security   7 - Implemented / fixed   Add security to STASH thingy
870 Bug   7 - Implemented / fixed   Don't search when only tabbing through fast-search
box
871 Maintenance   7 - Implemented / fixed   Total rebuild of privileges and user/group mgt.
routines and pages
872 Bug   7 - Implemented / fixed   IE Runtime Error when searching using summary page
873 Bug   7 - Implemented / fixed   Check e-mail inbox - contains Bug in tabsbar
874 Bug   7 - Implemented / fixed   What's with the "Add RFC" link on the customer
page?
875 Bug   4 - False claim   Login page repository doens't always show (IE)
876 Bug   7 - Implemented / fixed   Dropdown List doesn't refresh when adding multiple
values
877 Bug   7 - Implemented / fixed   Use trigger to update diary field
878 Maintenance   7 - Implemented / fixed   Fix SPAN drop-down boxes in main entity list
879 Bug   7 - Implemented / fixed   EID sorting doesn't use Ajax
880 Major feat. enh.   7 - Implemented / fixed   Google dashboard gadgets
881 Bug   7 - Implemented / fixed   Add-record link doesn't show with flextables
882 Bug   7 - Implemented / fixed   js Error in IE when lookup up users
883 Bug   7 - Implemented / fixed   "Description" and EID header in list must not be
link, place image before
884 Bug   7 - Implemented / fixed   Pop-up report i.c.w. MassUpdate produces only one
report
886 Maintenance   7 - Implemented / fixed   MySQL STRICT_ALL_TABLES mode support (expirimental)
887 Feature request   7 - Implemented / fixed   Excel export for flextables
888 Bug   7 - Implemented / fixed   Sort on creation date doesn't work
889 Bug   2 - In progress   Remove all references to help.php
891 Bug   7 - Implemented / fixed   "0" (zero) does not get saved to a extra field
901 Bug   4 - False claim   When resetting all detailed access restrictions
Interleave still reports them as active
904 Feature request   7 - Implemented / fixed   Make attach RTF default NO with customer reporting
905 Feature request   7 - Implemented / fixed   Add support for configs with no repos# [0]
906 Bug   7 - Implemented / fixed   Phone number isn't saved with contacts
907 Feature request   7 - Implemented / fixed   ARROWS must use ajax as well (on list) and fix
pafination bugs
908 Feature request   7 - Implemented / fixed   Columnstoshow setting per list
909 Bug   7 - Implemented / fixed   IP-source verification prevents use of cmd.php
913 Feature request   7 - Implemented / fixed   Make selected customer contact available in entity
templates

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914 Bug          7 - Implemented / fixed   Diary field doesn't work with flextables
915 Feature request       7 - Implemented / fixed   Popup link (with flextables refs) should have
select functionality
916 Feature request       7 - Implemented / fixed   Add pagination to flextable (setting per table)
917 Bug          7 - Implemented / fixed   List is empty when PaginateMainEntityList==0
918 Feature request       7 - Implemented / fixed   Add refer-list tag for FlexTable forms
919 Feature request       7 - Implemented / fixed   Flextable speedup (caching of flextable forms)
920 Feature request       7 - Implemented / fixed   Flextable record journaling


2008/09/10 - Version 5.0.1
Several bugfixes from 5.0
Added conditions to triggers making them even more flexible

2008/08/15 - Version 5

Major:
- Flextable
- Drop-down fast search boxes
- Drop-down fields add-value option for users

570 Bug                   7 - Implemented / fixed   Dashboard time notification incorrect after
midnight
621 Bug                   7 - Implemented / fixed   html in emails not escaped
661 Bug                   7 - Implemented / fixed   disabled textarea scroll
662 Bug                   7 - Implemented / fixed   CheckCustomerAccess security error
664 Bug                   4 - False claim           Menu item placement bug
693 Maintenance  7 - Implemented / fixed   suggested config.inc.php is incorrect after adding
repository
696 Maintenance  7 - Implemented / fixed   Strip all references to CRM-CTT
697 Bug                   7 - Implemented / fixed   Negative value numeric extra fields
698 General               2 - In progress           Database queries for 5.0 upgrade
699 Feature request       7 - Implemented / fixed   Templates per user and per profile
700 Feature request       3 - Canceled                      Google Earth integration
701 Feature request       3 - Canceled                      replace delete checkbox with delete button
703 Bug                   7 - Implemented / fixed   Fix Language Tag Display Mode
704 Bug                   7 - Implemented / fixed   Menu item hiding goes wrong
707 Minor feat. enh.      7 - Implemented / fixed   New method for changing contents of dropdown extra
field
708 Maintenance  7 - Implemented / fixed   check for correct php version during install or upgrade
709 Bug                   7 - Implemented / fixed   use getcwd() instead of $_SERVER['SCRIPT_FILENAME']
to retrieve working directory
710 Maintenance  7 - Implemented / fixed   remove php5 functions from source
711 Bug                   7 - Implemented / fixed   entityformcache is not emptied when entity is
unlocked (same as rfc 627)
712 Bug                   7 - Implemented / fixed   Files attached to emails are not saved
713 General               7 - Implemented / fixed   Mass_Update only available for admins and full-
access-all-entities accounts
715 Bug                   7 - Implemented / fixed   cannot unset "all" status and priority values when
editing a profile
716 Minor feat. enh.      7 - Implemented / fixed   Triggers to add
717 Bug                   2 - In progress           User section errors and bugs
718 Bug                   7 - Implemented / fixed   qog() in functions.php on line 11472
719 Bug                   4 - False claim           entity_add Miscellaneous trigger duedate_set days
14 doesn't work
720 Maintenance  7 - Implemented / fixed   "FILELIST#" should be "# FILELIST #"
721 Bug                   7 - Implemented / fixed   Full access though only see/edit own assigned
entities" in a profile doesn't work
722 Maintenance  7 - Implemented / fixed   Unclear help text on user/profile pages
725 Bug                   7 - Implemented / fixed   sort on lastchange in main entity list doesn't work
726 Bug                   7 - Implemented / fixed   entity not unlocked when logout is used
727 Bug                   7 - Implemented / fixed   "User-list of all CRM-CTT users" is not disabled
when form is readonly
728 Maintenance  7 - Implemented / fixed   don't use popups which are blocked on most pc's
729 Feature request       7 - Implemented / fixed   PARENTBOX doesn't display on all user CLLEVEL's
730 Maintenance  3 - Canceled                       upgrade.php offers to upgrade an incorrect version
731 Minor feat. enh.      3 - Canceled                      "Be this user" also for admin accounts
732 Minor feat. enh.      7 - Implemented / fixed   Need an option DISABLE_ENTITY_FORMCACHE
733 Maintenance  7 - Implemented / fixed   prevent non safe_mode admins from running sql queries
735 Bug                   7 - Implemented / fixed   HIDECUSTOMERTAB to yes hides it for admins as well
737 Bug                   7 - Implemented / fixed   filetype "mage/gif" and "mage/jpeg" in CRMbinfiles
739 Bug                   7 - Implemented / fixed   last change of entity updated on upgrade
740 Bug                   7 - Implemented / fixed   session table not updated due to incorrect
upgrade.php
742 Minor feat. enh.      7 - Implemented / fixed   Sticky entity save
744 Bug                   7 - Implemented / fixed   computation returns error in formula on empty
string
745 Feature request       7 - Implemented / fixed   Add multiple attachments to single triggermail
746 Bug                   4 - False claim           Fix javascript error on login page
747 Bug                   7 - Implemented / fixed   Bug in Edit.php
```

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748 Bug                  3 - Canceled                      when deleting a user I receive a file
download prompt for admin.php
752 Minor feat. enh.     3 - Canceled                      add extra field type "list of NON limited
CRM-CTT users"
753 Bug                  7 - Implemented / fixed   extra field type text area default width is
"$result = ;"
754 Bug                  7 - Implemented / fixed   HIDECUSTOMERTAB also hides for admin
755 Maintenance   7 - Implemented / fixed   changes to form are not saved when subject is not specified
757 Minor feat. enh.     7 - Implemented / fixed   Change sort order of attached files
758 Bug                  7 - Implemented / fixed   Slashes are addes when I download a language pack
759 Minor feat. enh.     7 - Implemented / fixed   make extra field aliases work on customer forms as
well
760 Minor feat. enh.     7 - Implemented / fixed   add total count for numeric computed extra fields
on main list
763 General              7 - Implemented / fixed   adding a user takes 2 minutes (really!) and
overloads my server
764 Feature request      4 - False claim           add option to let limited users see deleted
entities
766 Bug                  7 - Implemented / fixed   extra customer field headers are not displayed in
Excel export
767 General              7 - Implemented / fixed   don't echo the database host in window.status
768 Security             7 - Implemented / fixed   gantt entity access security issue
769 Bug                  4 - False claim           problem with extra field type checkbox
771 Bug                  7 - Implemented / fixed   cust-insert overwrites ALL content
772 Feature request      7 - Implemented / fixed   please add only_one_trigger_mail_per_update var
773 Maintenance   4 - False claim           remove 380 bla's ;-)
774 Security             7 - Implemented / fixed   Security Bug
775 Bug                  7 - Implemented / fixed   Database values not set correctly on save
776 Bug                  7 - Implemented / fixed   Default form has special status - it shouldn't
778 Bug                  7 - Implemented / fixed   user agent not escaped in uselog -> produces sql
error
780 Minor feat. enh.     7 - Implemented / fixed   incorrect tab is highlighted when using personal
tabs
782 Major feat. enh.     7 - Implemented / fixed   Run modules inline with Entity parse
783 Bug                  7 - Implemented / fixed   repository swicther on dashboard does not work
784 Maintenance   7 - Implemented / fixed   don't display repository selector on inlog page when
there's only ONE repository
785 Bug                  7 - Implemented / fixed   E-mail pop-up doesn't send e-mail
786 Feature request      7 - Implemented / fixed   Make it possible to resync only compromised
table(s)
787 Bug                  7 - Implemented / fixed   count incorrect when filter on customer extra field
on main entity list
788 Minor feat. enh.     7 - Implemented / fixed   also run modules on dashboard
789 Minor feat. enh.     7 - Implemented / fixed   allow users to have different dashboards
790 Minor feat. enh.     4 - False claim           add option to send message to ALL users
792 Minor feat. enh.     7 - Implemented / fixed   make dashboard a languange tag
793 Bug                  7 - Implemented / fixed   customer extra fields are not deleted, when emptied
and saved
795 Minor feat. enh.     7 - Implemented / fixed   Phonebook -> contact list (link to customer)
796 Feature request      7 - Implemented / fixed   allow loginusers to have both a profile AND
limittocustomers
797 Feature request      7 - Implemented / fixed   add option FORCE USER TO CHANGE PASSWORD ON NEXT
LOGIN
798 Major feat. enh.     7 - Implemented / fixed   Customizable PDF reports
799 Maintenance   7 - Implemented / fixed   ERROR - No template received! when empty e-mail address
800 Feature request      7 - Implemented / fixed   do not auto shorten dropdown extra field values to
27 characters
801 Feature request      7 - Implemented / fixed   add extra field type "user list of all CRM-CTT
users in profile MYPROFILE"
803 Minor feat. enh.     7 - Implemented / fixed   Update triggers when updating status and prio var
names
804 Minor feat. enh.     7 - Implemented / fixed   Add IP-source address security option
805 Bug                  7 - Implemented / fixed   Bug with custom forms when adding an entity
806 Feature request      7 - Implemented / fixed   Show parent box on new entity form
808 Security             7 - Implemented / fixed   Switching repositories should always bring you to
dashboard
809 Security             4 - False claim           Add SafeModeInterruptCheck to cmd.php
810 Bug                  7 - Implemented / fixed   Also trigger entity_change when using MassUpdate
811 Feature request      3 - Canceled                      Extra field dropdown value sort
812 Minor feat. enh.     7 - Implemented / fixed   Add PAGEBREAK option tag to PDF and RTF report
templates
813 Bug                  7 - Implemented / fixed   Version language tags not inserted somehow
814 Bug                  7 - Implemented / fixed   Don't update timestamp in entity table on status or
priority var change
815 Major feat. enh.     7 - Implemented / fixed   generate better filenames in attachments
816 Major feat. enh.     7 - Implemented / fixed   Make option to limit the width of extra field drop-
down boxes
817 Major feat. enh.     7 - Implemented / fixed   Make optional search boxes for long drop-down
fields
818 Minor feat. enh.     7 - Implemented / fixed   Add a fast-search-filter box to the parent select
drop-down
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819 Minor feat. enh.   7 - Implemented / fixed   Add optional fast-search boxes for customer, status, owner, priority and assignee
820 Major feat. enh.   7 - Implemented / fixed   FlexTables: user-creatable tables, one-to-many and many-to-one
821 Bug   7 - Implemented / fixed   Trigger to mail address in extra field malfunctions
822 Major feat. enh.   7 - Implemented / fixed   Running modules with user rights
823 Bug   7 - Implemented / fixed   Add default extra field values, even if the field is not in the form
824 Minor feat. enh.   7 - Implemented / fixed   "Virtually press button BUTTONNAME" in MassUpdate
825 Bug   7 - Implemented / fixed   Quotes and "HTML chars" && get HTMLSPECIALCHARS in mail subjects
826 Minor feat. enh.   7 - Implemented / fixed   Add trigger to mail Admin Action Requests
827 Mediate fe. enh.   7 - Implemented / fixed   Add 'add-value' option for users for drop-down lists
829 Minor feat. enh.   7 - Implemented / fixed   Add 'detailed access restrictions' popup links to main extra field list
830 Feature request   7 - Implemented / fixed   Widthen filter fields only when clicked
831 Bug   7 - Implemented / fixed   Click the envelope behind user address... doesn't work (see eid 805)
832 Mediate fe. enh   3 - Canceled   Open files directly with WebDAV
833 Major feat. enh.   7 - Implemented / fixed   Don't accept weird formatted dates
836 Maintenance 7 - Implemented / fixed   Make language tag of "You have lost your exclusive write lock for this entity" message
837 Feature request   7 - Implemented / fixed   Set default exclusive lock to 1 hour instead of 10 minutes
839 Minor feat. enh.   7 - Implemented / fixed   Make PDF report select popup the correct size
840 Maintenance 2 - In progress   Make installable 5.0 beta build
842 Mediate fe. enh.   7 - Implemented / fixed   Breadcrum trails

2008/02/11 - Version 4.3.0

4.3.0 Major change list (by category)

676   Minor feature enhancement 7 - Implemented / fixed   allow admins to take over user accounts
660   Minor feature enhancement 3 - Canceled   sort triggers
655   Minor feature enhancement 2 - In progress   OpenID Support (disabled in the code for now)
654   Minor feature enhancement 7 - Implemented / fixed   Gantt charts & implementation of "start date" field (incl. period selection)
650   Minor feature enhancement 7 - Implemented / fixed   Update index for single entity on entity add
641   Minor feature enhancement 7 - Implemented / fixed   Diary field export in RTF, PDF, Mail needs fixing
685   Major feature enhancement 7 - Implemented / fixed   Refer incoming mail to entities (!!!!)
653   Major feature enhancement 7 - Implemented / fixed   Templated dashboard
651   Major feature enhancement 7 - Implemented / fixed   Image thumbnails!
649   Major feature enhancement 7 - Implemented / fixed   File versioning
642   Major feature enhancement 2 - In progress   Add organizational structure to user management
637   Major feature enhancement 2 - In progress   Mobile device interface
677   Maintenance   3 - Canceled   login page VERY SLOW (because of openid?)
674   Maintenance   7 - Implemented / fixed   manual typo
673   Maintenance   7 - Implemented / fixed   no <title> on main page
667   Maintenance   7 - Implemented / fixed   error in CHANGELOG file?

666   Maintenance   7 - Implemented / fixed   short open tags not universally used
658   Maintenance   2 - In progress   Logo changes on entity change and "Save?" popup works again
657   Maintenance   3 - Canceled   duedate manual cleanup

635   Maintenance   7 - Implemented / fixed   change default text "save to database" to "save"
633   Maintenance   7 - Implemented / fixed   Queries to be run for 4.3.0
629   Maintenance   7 - Implemented / fixed   Remove all addslashes stripslashes, htmlentities and custom ereg_replace stripslasg functions
656   Maintenance   7 - Implemented / fixed   New directory structure

647   Maintenance   7 - Implemented / fixed   Language section makeover

632   Maintenance   7 - Implemented / fixed   use consistent INT datatype in database
631   Maintenance   7 - Implemented / fixed   modify CRMcustomaddons.type to enum

571	Feature request	3 - Canceled	Denied: "Your entity was saved" message.
683	Feature request	7 - Implemented / fixed	Make is possible to switch off the calendar
678	Feature request	7 - Implemented / fixed	Full access rights for owner and assignee
671	Feature request	7 - Implemented / fixed	mass update extra fields also on checkboxes
659	Feature request	7 - Implemented / fixed	MASS_UPDATE also on extra fields
577	Feature request	3 - Canceled	Clear filter link on main entity list
569	Feature request	5 - On hold	Connectie; pconn vs conn.
636	Feature request	7 - Implemented / fixed	use variable language tags
652	Feature request	7 - Implemented / fixed	Allow TEXTAREA content in main entity list
628	Feature request	7 - Implemented / fixed	Trigger to send internal message
614	Feature request	7 - Implemented / fixed	"you've lost exclusive write access" popup even when you don't have write access
626	Feature request	7 - Implemented / fixed	Make all tabs hideable regardless of rights
584	Bug	3 - Canceled	Trigger not working for set duedate (thanks Ravenous)
574	Bug	3 - Canceled	Entities without duedate do not appear in list (limit-to-cust-num users) (couldn't re-create)
568	Bug	3 - Canceled	Statusses show when they shouldn't
567	Bug	3 - Canceled	Form cache issue
687	Bug	7 - Implemented / fixed	Priority not appearing in field-chosen export
682	Bug	3 - Canceled	User gets kicked instead of Access Denied message
681	Bug	7 - Implemented / fixed	"Print to default printer" popup box closes whole screen when done
680	Bug	3 - Canceled	problems with "date" field in GetSingleExtraFieldFormBox function
679	Bug	7 - Implemented / fixed	problems with ALLOWEDSTATUSVARS & ALLOWEDPRIORITYVARS fields in upgrade from 3.4.2 to 3.4.3
675	Bug	3 - Canceled	sql error on search
672	Bug	7 - Implemented / fixed	Uploaded files (install routine) don't work
669	Bug	7 - Implemented / fixed	bug in readln
668	Bug	7 - Implemented / fixed	Errors on edit-user page
662	Bug	3 - Canceled	CheckCustomerAccess security error
648	Bug	7 - Implemented / fixed	Language tags missing from default install
645	Bug	7 - Implemented / fixed	crmlogger.php cripples failover
644	Bug	7 - Implemented / fixed	Value field not visible when updating an extra field (triggers.php)
643	Bug	7 - Implemented / fixed	HTML In Excel duedate
627	Bug	7 - Implemented / fixed	entityformcache is not emptied when entity is unlocked
619	Bug	5 - On hold	sort order main entity list is different from sort order in # ARROWS #
616	Bug	7 - Implemented / fixed	Non existent stylesheet in fckconfig.js
602	Bug	9 - Fixed, waiting for test	When sorting on OWNER, something goes wrong with owner display in main llist
663	Bug	7 - Implemented / fixed	security: use mt_rand instead of rand
640	Bug	7 - Implemented / fixed	missing mres in customer.php search
639	Bug	7 - Implemented / fixed	Sorting on creation date doesn't work
630	Bug	7 - Implemented / fixed	Wildsearch doesn't find everything
622	Bug	7 - Implemented / fixed	CHECKFORDOUBLEADDS doesn't work
615	Bug	7 - Implemented / fixed	Problems with data import routine
625	Bug	7 - Implemented / fixed	Dropdown fields as long as longest value - need clipping

624 Bug 7 - Implemented / fixed Personal language not loading (fixed in build 20071205 of 4.2.0)
623 Bug 7 - Implemented / fixed Extra fields don't show in customer form (fixed in build 20071205 of 4.2.0)
617 Bug 7 - Implemented / fixed some colors in priority field make pdf export crash (fixed in build 20071205 of 4.2.0)
000 Minor feature enhancement 7 - Implemented / fixed duedate-notify-cron.php can now also be ran from the command-line

2007/12/02 - Version 4.2.0

4.2.0 Major

From this release on, CRM-CTT is called "CRM-CTT Interleave".

4.2.0 New features

- Replaced all PHP short open tags <? to long open tags <?php for better support
- Added command "exec sync repair" to cmd.php interface. With this command you can repair (and create (!!!)) fail-over copies of your database. No more file copies!
- Improved sync mechanism. It can now handle two queues filled with sync records.
- New extra field type called "diary" was added. With this field you can add lines with comments even without saving the while form. Very handy for entities which receive frequent textual updates by several users. (idea by snowboarder04, thanks)
- New tag for customer forms: #NUM_OF_ENT#. This displays the number of non-deleted entities belonging to the customer you're editing.
- The character set is now also sent as header, not only as META-tag (thanks www.esautomatisering.com)
- Error and warning messages in the admin inbox now have a more readable subject
- SAFE_MODE: When this global setting variable contains one or more userid's, other admin-users will not be able to perform OS-dangerous functions like all eval'd things, deleting repositories etc. Very useful if you want your functional maintainer to be admin but still keep everything safe, especially things that can potentially damage your server or compromise security. Highly recommended for all hosted multi-user installations.
  installations containing more than one administrator. (thanks www.esautomatisering.com)
- Online development modus: puts links on forms, enables inline edit mode and enables the trace-link. Only per-session, not global.
- Lots of new eyecandy (some only visible in Firefox)
- New trigger action: you can now use triggers to set data to another field.

4.2.0 Bugfixes & feature requests

n/a Bug 7 - Implemented / fixed Status and priority variables don't show up on new installations (thanks Mechiel A.) -> fixed, yet to test
n/a Bug 7 - Implemented / fixed New sync doesn't remember that slave db is down
n/a Bug 7 - Implemented / fixed Hyperlink to attachment in PDF documents don't work
n/a Bug 7 - Implemented / fixed forms checked as "not to appear on add-entity forms list" did appear on the dashboard. Thanks Theo, SF Forum.
n/a Bug 7 - Implemented / fixed phonebook inserts were not escaped. Thanks seanac, SF Forum.
n/a Bug 7 - Implemented / fixed The journal displayed the first username incorrect (thanks www.esautomatisering.com)
n/a Bug 7 - Implemented / fixed Using singlequote in entity # search field caused error (thanks www.esautomatisering.com)
n/a Bug 7 - Implemented / fixed When importing entities, the type was not set (thanks www.esautomatisering.com)
n/a Bug 7 - Implemented / fixed Templates (when reporting) were not sorted (thanks www.esautomatisering.com)
n/a Bug 7 - Implemented / fixed Password queries weren't always properly escaped resulting in errors
604 Bug 7 - Implemented / fixed Dashboard caused javascript error when using fastsearch
592 Feature request 7 - Implemented / fixed Added @ TIME @ to tags for use in triggers (for Stefan)
591 Feature request 7 - Implemented / fixed It's now possible to add a trigger that updates another extra field
588 Feature request 7 - Implemented / fixed Highlight focussed field
587 Bug 7 - Implemented / fixed Fix message display
585 Bug 7 - Implemented / fixed Escape errors: e and eid get variables not always encoded
579 Feature request 7 - Implemented / fixed On the CSV page, extra fields can now be selected individually for download
576 Feature request 7 - Implemented / fixed Remove location element from extra fields (no longer needed)
575 Feature request 7 - Implemented / fixed Extra fields can now be referred to using human-readable aliases instead of numbers
573 Bug 7 - Implemented / fixed Fixed: Language settings aren't remembered
572 Bug 7 - Implemented / fixed Security: non-active customers can be edited by lim-to-cust users
582 Feature request 7 - Implemented / fixed super admin account maken voor shared hosting accounts
580 Bug 7 - Implemented / fixed Hotlinking to login doesn't work anymore

```
578   Feature request 7 - Implemented / fixed  Manual updates
564   Feature request 7 - Implemented / fixed  New trigger action available: action 1|2|3|5|10|14|21
days before duedate
565   Feature request 7 - Implemented / fixed  Diary-field
581   Bug             7 - Implemented / fixed  mres in cust-insert.php
599   Bug             7 - Implemented / fixed  First date in reporting page doesn't save
601   Bug             7 - Implemented / fixed  Weird stuff happens when main content box is focussed
600   Bug             7 - Implemented / fixed  Singlequote in category caused calendar error
589   Feature request 7 - Implemented / fixed  New: online development modus.
586   Bug             7 - Implemented / fixed  Bugje messages
613   Bug              7 - Implemented / fixed  RSS Feed query error when selecting deleted<>'y'

584   Bug             3 - Canceled             Trigger not working for set duedate (thanks Ravenous)
(coulnd't re-create)
571   Feature request 3 - Canceled             Denied: "Your entity was saved" message.
568   Bug             3 - Canceled             Statusses show when they shouldn't (they should show)
567   Bug             3 - Canceled             Form cache issue (maybe later)
574   Bug             3 - Canceled             Entities without duedate do not appear in list (limit-
to-cust-num users) (couldn't re-create)
```

2007/08/20 - Version 4.1.0

4.1.0 New features

Forms

- Form-forcing (4.0.1): it's now possible to force the use of a form for a user. Regardless of which form the entity was composed in,
the user will always see the entity in the this forced form.
- It's now possible to create forms with the @CUSTOMER@ tag instead of the #CUSTOMER# tag. With this form you can only
edit existing entities. This improves load time on existing entities because the customer pulldown list won't be loaded. (thanks Ben)
- Added a drop down box called "Show this form on the add-entity menu" to the edit-form-template page. Set this field to "No" to avoid
the form from showing up at the add-entity menus.
- Added #ALARMDATEPOPLINK# tag to template parser
- Added template tags @XONLY@/@ENDXONLY@ and @NEWONLY@/@ENDNEWONLY@. This enables you to add (blocks of) text to templates which will
only be shown on new or just only on already existing entities.
- Added @INFO@ - @ENDINFO@ tags; text between these tags will popup (the Info image will show statically in the form) enabling
you to add comments to forms without loosing too much space on your form.

Layout

- New dashboard (4.0.1 + improvements) This one is actually functional. It's cached for fast page loads and the user can use filters to have the dashboard
show only the entities he/she's interested in.
- Funk-a-nized some screens with the use of Thickbox, including the logon page and almost all popups.
- The user ID is now also visible on the edit-user page (thanks DionV)

General new functionality

- The fail-over management now allows the admin to delay synchronisation and has some other new handy stuff.
- Added "Save as attachment" checkbox to send-email-to-other-users page. This lets you save the e-mail as an attachment to
an entity.
- Added date format type "yyyy-mm-dd".
- Attachments like images can now also be published (add '&AttID=[num]' to URI)
- Added option to add $auto_login_cmd_user and $auto_login_cmd_pass to config.inc.php for easy running cmd.php.

Internal

- This version is 100% PHP5 compatible!
- More improvements regarding fail-over databases.
- After realising the failover database isnt't responding, CRM-CTT shuts down synchronisation CONFIGURABLE minutes (default
30) to avoid slow page loads.
- publish.php now also synchronises the database if applicable.
- Smart published report caching; large published reports are now very, very much faster
- Check added to login routine for whitespace in config.inc.php (thnx Noga Zitiyat)
- Added support for using non-persistent connections. To use, add a $method[REPOSNR] array element to each configuration segment. Fill this
array element with "connect" to use regular connects. Any other value (or none at all) will make CRM-CTT use persistent connections.
- Some performance improvements.

- When a user is working through HTTPS, he/she will not be posted back to HTTP when using non-secure repositories (thanks ES Automatisering)
- Added commands "exec sync release" and "exec sync unlock" to cmd.php
- Added command "time [other command]" to cmd.php to time the command execution
- Added commands "set pcon off" and "set pcon on" to cmd.php (switch persistent connections on/off)
- In cmd.php, you can now also use "x" and "sh" for "exec" and "show"
- Total rewrite of database connection methods and functions

Hacking CRM-CTT (debug & development functions)

- Better qlog/tracelog end-of-page reports.
- Added disable_all_cache option to config-vars.php for easy troubleshooting/development.
- Trace logs now also show file, function and line number
- SQL errors now also show complete function backtrace
- Added config-vars.php option ShowFunctionTrace which adds a complete function trace to each QLOG statement

Documentation

- The manual was updated.

Triggers

- New trigger action: set duedate to today|tomorrow|2d|3d|4d|5d|6d|1wk|2wks from now.

Extra fields

- Improved the calculated extra fields option. All fields can be used now, not only numeric fields.

4.0.1 -> 4.1.0 Bug fixes:

- Bug fixed: SQL query extra field is not saved
- Bug fixed: Message "this incident has been logged" replace with language tag custdelexplain (thanks ES Automatisering)
- Bug fixed: Escape error in search routine (thanks ES Automatisering)
- Bug fixed: Extra fields have default value "no"!
- Bug fixed: RemoveLocks() wasn't called on logout (thanks Jeffrey)
- Bug fixed: Cache of parent, sisters and child entities wasn't cleared on entity save
- Bug fixed: Form-id was set to 0 (zero) when importing entities instead of the default form number (thanks DinV)
- Bug fixed: Sorting by due-date didn't work
- Bug fixed: Several date fields didn't format correctly (thanks Gladys)
- Bug fixed: Setting FAILOVER_CACHEONLY was deault set to "Yes", should be "No" (thanks ES Automatisering)
- Bug fixed: Email-users popup needs comma in front of address
- Bug fixed: Hidden users still show up in the filter pulldown list on the main page (and probably also the summary search form)
- Bug fixed: Searching for a phrase with a singlequote in it resulted in a query error (thanks ES Automatisering)
- Bug fixed: MySQL connection was not closed when done parsing.
- Bug fixed: Select email owner/assignee/customer/all box didn't work very well (thanks Steve)
- Bug fixed: Sorting the main list is remembered again (thanks Steve!)
- Bug fixed: The ad-hoc e-mail-all-users-their-assigned-entities list had some errors
- Bug fixed: Last login and total no. of logins of users wasn't displayed correctly
- Bug fixed: File owner displayed as number not name (thanks anon. SF.net user)

- Bug not fixed: The login screen doesn't work with 1 repos on failover db (couldn't be re-created)
- Bug not fixed: Count of messages not ok (esp. with limit-to-customer-number settings)
- Bug not fixed: When a summary search didn't return results and the report method is management information, an error occurs (thnx anon. SF.net forum user)

2007/05/13 - Version 4.0.1 (Service Release)

Version 4.0.1 is a minor release. It fixes some (small) bugs and brings some new functionality. However a small release, upgrading is recommended.

4.0.1 New features:

- New dashboard!
- New extra field type: computation. Using common math formulas this (read-only) extra field can be given a value based on values entered in other (numeric) extra fields. The syntax is just PHP.
- Better handling of failover database
- A language tag called "addyourcommentshere" was added. It will be printed above the #COMMENTBOX# tag.
- Increased size of CRMstatusvars(varname), CRMpriorityvars(varname), and CRMentity(status, priority) so
it can now hold more cirillic chars (thanks Vadym)
- Introduce views: users seeing entities in different forms (form-forcing) Per user or profile a "force form"

variable can be set. The user will always see entities in THAT form, regardless on the form bound to the entity.
(this is a very handy feature)

4.0.1 Bug fixes

- Bug fixed: unserialize() expects parameter 1 to be string, array given (replace to @unserialize)
- Bug fixed: crmlogger.php somehow garbles the failover (entities are not added in right order)
- Bug fixed: message language tags aren't installed on new installations!
- Bug fixed: user activity graphs (journal & log) had incorrect dates
- Bug fixed: due to a bug in MySQL sometimes tables get corrupted when they have a FULLTEXT index. As CRM-CTT didn't use these indexes, they are dropped (thanks to www.esautomatisering.com).

2007/04/02 - Version 4.0.0

4.0.0 Changes:

Cool new stuff (release highlights):

We would like your feedback about this new stuff: http://www.crm-ctt.com/feedback.php. Just do it! Please?

- Module and patch support (also on-line real-time patch/module installation)
- Added CMS Functionality. CRM-CTT is now able to publish pages and reports to your website. Check the manual for more details.
- Internal messaging: users can now send messages to each other and to administrators.
- Added cmd.php. This is the new general use CRM-CTT command line client. All administrative functions can be run using this script. Try php -q ./cmd.php.

Generic changes:

- The Repository switcher on the main page does not show the number of entities in other repositories anymore. Counting those takes too much time decreasing performance dramatically.
- PDWAS support is dropped
- Fast index searching (ENABLEINDEXEDSEARCHING). Indexes your entities to find words faster. Falls back
on normal search method when the word is not found.
- Title on main page now changes when a different repository is selected
- New (expirimental) menu style: check global system values, NAVTYPE.
- "Request administrative action" message windows shows when access denied happens to a user.
- User-accounts can now be excluded from the owner and assigee list.
- Total rewrite of the search routine. Summary.php is now much better (and faster)
- Added option to skip default searching through attachments (DISABLE_BINARY_SEARCH)
- Vastly improved the GetAverageEntityAge function. This speeds up logging in dramatically.
- Added check for PHP memory to install routine (at least 16M)
- Added recent edited entity list to "Entities" menu when using pulldown NAVTYPE.
- Slightly different default colors

Extra fields:

- LOV Fields are now displayed correctly on entity custom forms
- Added extra fields type: SQL Query as extra field dropdown input
- Detailed access restrictions: when 'alter' priv is admitted, assume 'read' priv. Saves 50% on mouseclicks

Invoices:

- Added @INVOICE_START_DATE@ and @INVOICE_END_DATE@ as RTF Invoice tags

Triggers:

- A trigger "pop-up report" was added which can be coupled to a button. This way you can have RTF-reports
popping up when a users presses a button
- Added triggering on entity_new and entity_change to crmlogger.php
- Triggers can now be bound to a specific form (or all forms)

4.0.0 Change requests:

```
- CR Denied  : [templates]   Use of language tags from database in templates (not useful enough)
- CR Done    : [triggers]    Button press pops up parsed template (became a trigger)
- CR Done    : [extrafields] SQL Query as drop-down field data
- CR Done    : [generic]     Replace HTMLENTITIES with CHARSET specification (thanks Oded)
- CR Done    : [generic]     Make users "non-assignable" etc. Checkbox was made in user profile.
- CR Done    : [triggers]    Make triggers fire only on certain forms
- CR On hold : [generic]     Create cllevel in which rooae-users can also edit their own customers
[next version]
```

3.4.3 / 4.0.0-RC1 Bugs:

- Bug fixed: Information is visible in drop-down menu under > more link on summary page
- Bug fixed: Command-line use with windows didn't work really good. Fixed.
- Bug fixed: Default extra field value doesn't re-appear when editing extra field
- Bug fixed: Auto-create entities does not create right form value (form can now be chosen)
- Bug fixed: Locked entities show up emtpy (fixed, and unknown entities will no longer show an empty form but a message)
- Bug fixed: Attach from WebDAV link doesn't appear due to form caching (drop cache at every access to folder)
- Bug fixed: Extra field values don't show up on the summary page brief list
- Bug fixed: NOBARSWINDOWS doesn't seem to work anymore (it DOES work actually)
- Bug fixed: Triggers edit by misc triggers doesn't word -> fixed
- Bug fixed: Statistic buildup of cached published reports went wrong.
- Bug fixed: A bug in crmlogger.php; the owner wasn't saved right.
- Bug fixed: In some MySQL versions the PDF report didn't work when mailed by a trigger. (thnx jeffrey04)
- Bug fixed: Fixed a bug which prevented extra fields from showing up when using the summary page to search for deleted entities.
- Bug fixed: Extra field date popup was broken.
- Bug fixed: Filenames with spaces are garbled when downloading.
- Bug fixed: When selecting allowed status and priority values, the "all" box was automatically checked when only one status or prio was selected (thanks jeffrey04)
- Bug fixed: trying to download a PDF-summary from the main entity list generated an SQL-error and no PDF-report. (thanks anon. SF forum user)
- Bug fixed: Searching for "due today" and "overdue" doesn't work
- Bug fixed: Email_in.php has errors
- Bug fixed: When having only 1 form, a 404 appears when trying to add an entity (using NAVTYPE "drop-down")
- Bug fixed: The entity activity graph showed 1970 dates

- Bug not fixed: Read-only all entities: rich text box is not readonly! (too bad, left it this way, we call it a feature for it cannot be saved anyway)
- Bug quickfixed: Read-only all entities: paginate doesn't work (disabled pagination for that profile)

4.0.0 Specific known issues:

- Issue: crmlogger.php somehow garbles the failover (entities are not added in right order)

25/10/2006 - Version 3.4.3 (WARNING - important stuff ahead!)

Important:

WITH 3.4.3 FORMFINITY WILL BE DEFAULT. IF YOU STILL USE THE HARD-CODED
DEFAULT ENTITY FORM YOU _WILL_ NOTICE A LOT DIFFERENT THINGS!

In short:
1. The 3.4.3 upgrade routine adds an HTML form which is very similar to the current default form. But; it's not the same, so it will look a little different.
2. Magic quotes must now be OFF instead of ON!
3. When you encounter problems, especially with form contents, first empty the entity form cache and let me know where you had trouble.

>>> TEST THIS RELEASE BEFORE UPGRADING YOUR PRODUCTION DATABASES <<<

Stunning

- Master/Slave database support. Increase your availability and backup quality!
- FormFinity is now default

Triggers

- Triggers can now be edited (whooho!)
- Comments can now be added to triggers (thanks 2 anonymous sf.net user) .
The main trigger list will be sorted based on this comment field.
- Triggers can be disbled temporary (for admin-own sessions only)

Forms/templates

- Escape bugs are fixed
- New admin function: mass migrate entity forms
- Entity age is now available as template tag (Pizentios)
- Template tags OWNER, ASSIGNEE, SAVEBUTTON are not mandatory anymore in custom made forms
- Arrows and lock icon will also appear now on custom made forms
- Tags DELETEBUTTON and EMAILOWNERCHECKBOX were added to custom made customer forms
- The crmlogger.php plugin will now use the default form
- The default form cannot be deleted
- Parsed templates are now cached (extensively)
- Tags @OPENDATE@, @LASTUPDATE@ and @LASTUPDATEBY@ added to tag list

Extra fields

- The Extra field inline edit mode now also works with custom HTML forms

Misc

- Added global directive PAGINATEMAINENTITYLIST which, when given a number, will devide the main entity list into pages (!!!)
- Mass-update possibility on main list (directive Mass_Update, disabled by default)
- It's now possible to define which statusses and priorities a user(-group) may use
- parentbox sorting to EID instead of category [mattclare]
- Check.db now also checks for duplicate extra field records
- "Last login at" and "Total logins" added to user management page
- Cascading Style Sheet (CSS) elements will now also be included in HTML e-mail messages
- Funk-a-nized the manage repositories section
- Added section "Actions" to main admin page
- Added function "E-mail all users" to "Actions" section on main admin page
- The duedate_notify_cron.php script also synchrosises the fail-over database
- Added global directive ONEENTITYPERCUSTOMER. Once enabled, only one entity per customer may exist. For Natasja.

Bug fixes

- Bug fixed: Save as new now remembers form id
- Bug fixed: History dropdown not working in Firefox
- Bug fixed: Customer de-activation works again
- Bug fixed: BUG in RSS page
- Bug fixed: De-acivating customers works again
- Bug fixed: Lock icon in main entity list is restored
- Bug fixed: #COMMENTBOX# will appear now also when the user is an OORO user
- Bug fixed: Dropdown based on customer LOV works also on custom made forms
- Bug fixed: Save as new entity works again
- Bug fixed: The sort routine on the main list is finally okay

23/05/2006 - Version 3.4.2

New features

- Text area's can now also contain rich text (see extra fields section)
- New feature: NOBARSWINDOW. When enabled, opens CRM-CTT in a full-screen window without menu- and address bars.
- A new report method was added to the summary page: management information. When using this report method, you'll end up in the management information section, where everything you'll see will be filtered based upon the query you made on the summary page.
- The upgrade script can now also be ran from the command line (see manual)

Performance

- Reduced the size of the main list output. Gain about 40% (on large pages) by using more CSS and javascript (thanks to ES Automatisering).
- Deleted obsolete functions printeditform() & printeditform2(). Gain about 160KB in package size.

Lay-out/cosmetics

- Replaced the WYSIWYG editor
- Improved the trigger interface
- The templates admin page is now tab-ized
- Some tooltip hints in the extra fields page were added

Extra fields

- Custom created buttons which only trigger triggers. You can now add buttons, which save an entity and execute some defined triggers. Cool option; you can combine the advanced access rights possibilities of an extra field with a form element (which is cool, trust me). Other triggers will also fire when appropriate, but the button trigger will fire last. If no value in a form is altered, only the triggers attached to the button will fire. This way you can create workflow bypasses for specific users or groups.
- New extra field type: rich text area. This will show a rich text editor so rich text can be stored in CRM-CTT. Copy-pasting from applications like Word works perfect. Please do mind that the content will be saved as HTML, so when you offer this field for exports, it will export HTML code.
- New extra field type: checkbox (by popular demand)
- Text area extra fields can now be sized
- Text area extra fields can now have the clock-icon to insert date and time printed above them

Misc

- Next to the administration manual, there's now also a "configuration and management essentials" document
especially for non-technical users.
- Bug not fixed: cache problem (customer field filter in main entity list) (couldn't reproduce this)
- Replaced the 3.4.0 -> 3.4.1 upgrade routine. On very large tables (>1GB) it was killed by the kernel because it consumed
too much memory. The new routine is slower, though more memory-efficient.
- The init page with the green moving gif will never be visible for more than 20 seconds even if cache buildup was
unsuccesfull.

Custom HTML forms

- Save as new entity-button for custom made forms (varuss@sf)
- Add-text-only box for custom made forms

Bug fixes

- Bug fixed: Main entity list: Sortable by each field (links were not shown)
- Bug fixed: Export Excel customers: list-of-crm-users displays as number, not names
- Bug fixed: SQL error when customer fields are used as filter in main list
- Bug fixed: Vanished values in main list when showing customer field of User-List type
- Bug fixed: management.php form-id saved wrong
- Bug fixed: deleted users will no longer be exported
- Bug fixed: LoV-extrafield in dropdown "more" list shows serialized array
- Bug fixed: WebDAV check should be HTTPS-only compatible (Joaquim)
- Bug fixed: inserted entities don't show extra field values (thanks to Gert) (3.4.1 patch on request)
- Bug fixed: Language pack display on new installations shows 'PACK' as language pack
- Bug fixed: Clicking "add a record" from customer page doesn't work with self made forms

26/02/2006 - Version 3.4.1

Performance

- Extensive intelligent caching routines added. To be switched on (default) or off by
altering global directive USE_EXTENDED_CACHE. This method may gain performace im-
provements up to 80%. When this function is enabled, you'll see a CRM-CTT logo and
an animated GIF image when you log on or switch repostories. When you see this, CRM
is building your cache arrays. It takes a little time but believe me, it's very use-
ful in most cases. To test if your database is faster with EXTENDED_CACHE enabled, run
"php -q update_cache.php -c MYSQLDATABASENAME" on the command line.
- Binairy data is now stored in a tertiary table. Faster, but it makes the upgrade routine
a little heavy this time.

Extra fields

- Per-user and per-group access rights definition for extra fields (cool option!)
- Box sizes can now be set for numeric and text fields (e.g. not for textareas)
- New extra field type: "List Of Values". This is a field (type textbox) which can
hold multiple values.
- New extra field type: "Drop-down based on customer list of values" (entity only). This
type will present a drop-down box, filled with values based upon an extra customer
field of type "List of values". (cool option!)

Forms & templates

- You can now also create your own (summary page) HTML-reports. Thanks to hakansoyler@sf
for bringing up the idea. (cool option!)
- Under the main edit screen, a pulldown box is presented to switch the entity to
another form type (admins only)
- Customer edit screens now contain the RTF-report icon, and it is also available
as template tag.
- Attaching files from WebDav is now also possible with custom made forms

Triggers

- New trigger available: on event XX set form-id of the concerning entity to YY

Security & user accounts

- New clearance level: "full access though only see own assigned entities". This
user is the same as the "full access though only edit own assigned entities" except
that this new user cannot see any other entities than the ones assigned to him/her.
- Personal list layout settings are now stored in the database instead of in a cookie.
- Custom navigation tabs can now be assigned to profiles (next to users)
- Custom navigation tabs can now also show any of your HTML templates

Administrative

- New admin item (system configuration) : show trace link. Using a cookie you can now enable the trace link (with log info) only for yourself (e.g. without bothering other users with it)
- Entity double-add-within-the-hour checking is now configurable (though still on by default)
- Updated manual

Management information

- Added section "Form breakdown" to the "Quick summary" management information section

Bug fixes

- Bug fixed: when FormFinity is switched off, form-access-checking is disabled now to avoid the nobody-can-see-any-entity-bug.
- Bug fixed: the calendar sometimes showed entities which shouldn't be visible
- Bug fixed: single-entity-invoicing icon works again
- Bug fixed: adding entities from e-mail is now FormFinity-compatible (thanks to Edwin)
- Bug fixed: EntityRelations select box now looks normal in custom made form
- Bug fixed: Exchange HTML-emails now are stripped (HTML is stripped off)
- Bug fixed: calendar shows no red duedate links in next months, only current
- Bug fixed: Priority isn't saved when a limited user adds an entity in a custom made form
- Bug fixed: The AutoComplete list sometimes contained categories of entities the user is not allowed to see.

11/01/2006 - Version 3.4.0 (a lot of items, so this time we've put in some structure)

Important changes for administrators

- Clearance level change: when a user has CLLEVEL full-access-own-entities, he/she will from now on also be able to add entities unless specifically denied in user profile or group profile.

Stunning (general new functionality)

- FormFinity - Entities can now have their own HTML-forms. Users (and profiles) can be authorized to use only a specific set of forms. When a user with rights to multiple forms wants to add an entity, he/she gets to choose from the available forms. The resulting entity will always show up in that form. Now it's really possible to use CRM-CTT for helpdesk tickets and coffee orders at the same time!
- A new export-icon was added to the main entity list. Next to the usual MS Excel-icon there's a new one showing 2 excel icons. This icon, when clicked, will export the list with the fields you're viewing in your main list immediately without asking you which fields to export.
- The main entity list filter boxes FINALLY work correct and fast! (whooho)

Extra fields

- Custom made forms can now have hidden (extra) fields containing pre-defined values.
- New extra field type: numeric. This field can only have a numeric value; the user will not be able to save an entity when it contains anything other than a number. Numeric fields are added up by default on the main entity list. This can be switched off by disabling global directive DISPLAYNUMSUMINMAINLIST.
- New extra field type: User-list. This fields will be presented as a drop-down list containing the users in CRM-CTT. This field can in turn be used for triggers (see below). It can contain all admin users, all limited users, or all users.

Forms & templates

- HTML Forms can now have hidden extra fields containing values. With this you can make sure that when a specific form is used, you can set some values without bothering the user with it.
- Added HTML Form tag #PARENTBOX# to display entity parent-child information and select box
- Customer forms can now also be templated (few words, lots of work :))

Triggers

- New trigger available: on event xx extend duedate with 1|2|3|4|5|10|20|30 days.
- New trigger available: on event xx set assignee or owner to value selected in extra field yy (which must be of type 'user list').
- New trigger available: on event xx e-mail the person selected in extra field yy (which must be of type 'user list').
- New trigger available: fields which are not of type drop-down fields, can now also be used for creating triggers, though only to_value [something else], not specific values.

Security (related)

- When an "Access denied" message is shown, a [trace] link is printed behind it. Clicking it will show the qlog trace for the page the user is viewing.
- Customer access check layer; just like entities, CRM-CTT now always checks a user's access to a customer. This makes CRM-CTT a little slower, but more secure and more consistent.

- Authorisation models (CheckEntityAccess & CheckCustomerAccess) now also apply to management information section.
- Improved security.
- Better customer journaling.
- From now on, Invoice Cost and Invoice Qty. fields will be checked to see if the user submitted numeric values. The user will not be able to save an entity when it contains anything other than a number.

Debug

- Added getset.php debug-help ShowTraceLink. When set to 'true', a [trace] link is printed at the end of each page, which when clicked shows the qlog trace for that page

Misc

- Base infrastructure for user-to-user messaging was build, but not yet made visible/active
- Updated PHPMailer classes to latest version
- Manual was updated, and more than 40 spelling bugs were "fixed" :)
- Deleted flag bitmaps from jp/ directory. Package is now 1,5 MB smaller.
- Updated build script. A nightly CRM-CTT development snapshot can now be downloaded from the project download directory.
- Next to normal builds, MAX builds are new. These builds are the same as the default builds, except that all debugging information (qlog entries) is removed from the source code. For very heavy installations (or very slow hardware) use this version. Please note that when you encounter a problem, you'll need to have default (e.g. non-MAX) installation to get any debug information.
- MySQL 5.x compatibility (experimental, but tested and found to work)
- PHP 5.x compatibility (experimental, but tested and found to work)
- Mail me if you've read this far so I know I don't put all this effort in the CHANGELOG for nothing :)

11/12/2005 - Version 3.3.2 rev1.

- Custom made entity add and edit forms now also work OK for limited users
- Little cosmetic change to the customer edit form (less icons)
- A unified email FROM-address can now be set (in this version only in getset.php, line 68, set $GLOBALS['UNIFIED_FROMADDRESS'] = "you@your.address.com", in future releases this will be a global setting). This one is especially for Ryan.
- ENABLEENTITYLOCKING is now set to 'Yes' by default

04/12/2005 - Version 3.3.2

- Expirimental LDAP support
- Entity parent/child support (expirimental). By enabling the global setting ENABLEENTITYRELATIONS (and optionally HIDECHILDSFROMMAINLIST) you can relate entities to each other.
- Extra drop-down field lists can be be sorted (on request)
- RSS Support. The administrator is now able to define an unlimited number of RSS feeds based on SQL queries (examples are given). The result of the query, will always be matched against the user's rights - e.g. the authentication model is still applicable when viewing RSS fields.
- Users can now be limited (by user or profile) to working with only a given list of customers. All other entities will be hidden.

20/08/2005 - Version 3.3.1 (important, major bug fix!)

- Major 3.3.0 fixed. When using templated entity forms, all extra field values which you did *NOT* place in your form will be deleted when you save it. This also happens on normal forms when the user is not entitled to see al fields - the field values the user cannot see will also be emptied on save.
- Three triggers added: entity_add, entity_edit and entity_edit_checkbox

14/08/2005 - Version 3.3.0

- Templated entity forms! The entity forms can now be designed to meet your demands. Using the known HTML-editor, you can model the forms using the same tags as you use for other templates. There are four types of entity forms which you can create yourself:
1. The entity add form for full-access users
2. The entity edit form for full-access users
3. The entity add form for limited users
4. The entity edit form for limited users

- HTTP Realm (BASIC) authentication is now supported. When a user is authenticated already by the webserver, CRM-CTT will assume this is correct, and let the user in. This will only work when a) the user indeed has an CRM-CTT account and b) the CRM-CTT configuration directive AUTH_TYPE is set to "HTTP REALM". This feature should only be used in installations which are not connected to the big bad internet.
- User profiles now exist. Profiles can be created, and users can be coupled to such a profile.

- Configuration directive BODY_LIMITEDHEADER enables you to create a little HTML-header for the limited interface
- Configuration directive BODY_URGENTMESSAGE enables you to display a message above each (full-user) page.
- When using extra fields with default values, the records containing these values will now be created immediately for each entity or customer. This is much better for statistics.
- Added tooltips in the administration section. They can be disabled by disabling the SHOW_ADMIN_TOOLTIPS directive in the main admin section.
- Added a search box for the Global System Values section
- MASSIVE performance improvement for repositories with much extra fields
- Extra fields can now be emptied (thanks to Cheyenne) -> update, feature disabled!
- The order in which triggers are processed is now OK - a trigger will always work with the new values (also thanks to Cheyenne!)

02/07/2005 - Version 3.2.0 (2nd release)

- Fixed a little "save and close" bug on the summary page
- Fixed limited interface

26/06/2005 - Version 3.2.0 (E-mail integration and more)

- Incoming (read-only) e-mail box over POP3 support (personal + system-wide)
- Fixed a WebDAV bug - files with singlequotes no longer crash the database query
- Added a misc trigger which when set can mail to users when the due date (not the alarm date) is reached, request from forum (Pabloquintana, Fabrice)
- Refurbished the install routine
- Double entity add check now also on limited inserts of entities
- Under water: all edit screens now use the same function - this makes all edit screens consistent and recognisable.
- The administrator is now able to add customized navigation tabs linking to a specific page witin CRM or external webpages which will be displayed in a frame to the CRM-CTT navigation tabs will still be visible
- Lots of bugs fixed in the invoice routine
- When selected from the main list, the entity page now contains two arrows which can be used to navigate trough the search results.
- The layout of the add entity form for limited (insert-only) users can now be adjusted. The admin can choose wether the limited user is able to set the status, priority and duedate (by hiding or showing the field)
- When a different report method is chosen when requesting a bookmarked selection, this method overrules the bookmarked one; this enables the user to request a PDF, RTF or CSV export whilst the bookmark was saved reporting method "brief" or "verbose".
- The (old) "doesn't belong here" and "waiting for somebody else's action" fields are now disabled by default. For compatibility reasons they can be enabled using the USEWAITINGANDDOESNTBELONGHERE directive.
- PDF Exports now have a reasonable name
- Fixed a VAT calculation bug in the invoice routine, only occurring when values are entered including VAT (thanks to Philippe)

24/04/2005 Version 3.1.0 (small database adjustments, feature enhancements)

- Totally redesigned administration page. Let me know what you think.
- Users can now also imported using plain-text CSV sheets
- Extra fields can now be given a default value
- Summary page searches can now be bookmarked
- Authenticated SMTP servers are now supported
- The mailer type is now configurable; can be either Sendmail (using the command line), mail (using the native PHP function) or smtp (using a network connection to your or your provider's SMTP-server)
- Refurbished the triggers page. It's more readable now.
- Added 3 new event trigger options: stop-clock, start-clock, and reset-clock
- Added extra field breakdown in the quick summary (management information)
- Fixed an error which can cause a loop when having logtext set to "true".
- Fixed cookie problem - username and password will now always be remembered and the main list layout will be displayed correctly
- Added support for exporting and importing the global settings table
- Added support for exporting and importing extra field definitions
- Read-only users will no longer lock an entity
- Fixed: Colorpicker popup wont close
- Fixed: invoicing with VAT-inclusive amounts (template issue: use LVAT i.s.o. VAT!)

10/04/2005 Version 3.0.0 (major update, templates will have to be re-written)

Please mind: this version implements a complete new way of managing extra fields. This affects the user experience, and the upgrade routine is pretty heavy. It will take care of all conversions to be done. The way it's implemented now makes CRM-CTT much more flexible for future enhancements.

Before upgrading, please check your unreferenced extra fields. After upgrading, fields which are already unreferenced in your current 2.6.2 installation cannot be restored. To

```
avoid this, restore your unreferenced fields before upgrading, and delete them again
afterwards.

>| Because of the extra field change, you will have to edit all templates which use extra
>| fields values because the reference will be changed. Also, you'll need to re-set your
>| main entity and customer list layout (if you had any extra fields in it)

This version will display a (blocking) error message when you are running on 3.0.0 software
using an 2.6.2 database (and vice-versa!). You (the administrator) will have to upgrade
before users can access the system.

Test this release on a backup repository before upgrading your production system!

- The extra field subsystem was completely revised. When upgrading,
take extra care. See the UPGRADING file for details.
- Added support for required default and extra fields (!!!)
- Adding and editing of extra fields is now done using a menu instead
of a syntax like "TB_name" or "DD_name|option1|option2". Next to
that, extra fields can now have any name you like - special
charactes like commas or quotes are now allowed.
- Extra fields can now be placed on 4 places on the main edit entity page
- Added a configuration option 'REQUIREDDEFAULTFIELDS' which enables you
to set some standard fields to "required"
- Added a configuration option 'FORCEDFIELDSTEXT': the message which is
prompted when a user did not fill in all required fields
- Added 2 extra field types: "comment" and "hyperlink". Using the first,
you can add comments in your list of extra fields to tell the
user something. The comments are based on HTML templates in your
database.
- Extra fields can now be hidden from non-full access users, like
customers, - and, additionally, to all users but administrators.
When this is enabled, it will only show up with user having a "full
access" or "administrator" clearance level.
- An extra field type "invoice cost including VAT" was added. This enables
you to enter values which already include the VAT cost. The invoicing
routine will still break down the costs.
- Default and extra customer fields can now also be shown in the main
entity list. The extra fields can also be used as filters, but be
aware; filtering on extra customer fields in your main enity list
is sloooow and will generate quite heavy server load. You might want
to restrict this. Customer fields in the main entity list will show
up in blue.
- Added configuration option ENABLEENTITYLOCKING which, when enabled, locks
an entity (for max. 10 minutes) when somebody opens an entity edit screen.
This is to prevent two people from editing the same entity at the same time.
- Added the possibility to summarized fields in invoices. For instance, a
tag named @SUMEFID123@ will print the sum of extra field 123 of the
entities used to generate the invoice.
- Added "extra field inline edit modus". Works just as the language
tag display modus. All extra field names become links (only for the
current session) so you can edit the layout of your entity field
better.
- Four styles (colors) can now be chosen: the default foreground color,
the background color, the form element color, and the fieldset
legend color. Embedded as configuration directives DFT_FOREGROUND_COLOR,
DFT_PLAIN_COLOR, DFT_FORM_COLOR, and DFT_LEGEND_COLOR.
- The main font face and font color can now be alteren (DFT_FONT and
DFT_FONT_SIZE)
- Added two more event triggers; "Limited user adds an entity" and
"Limited users updates an entity".
- Improved the week calendar
- Due dates in the past will now also show up in the main page calendar
- HTML E-mail are better (better HTML layout)
- Added "import entities" function to the administration section (!)
- Added possibility to check if a customer already exists when adding
a new customer (for Dick and Nicolaas)
- All colors and fonts can be adjusted now (admin -> system config)
- Added on-screen logging mode for administrators
- Added a separated cache table and better cache housekeeping
- Fixed garbled dates (in list, edit screen, PDF, CSV) when using a
windows MySQL server
- Added a Russian language pack to the project site

14/03/2005 Version 2.6.2

- This version supports the use of different types of character
encoding in your language pack. The default is still ISO-8859-1,
but if you add a language tag to your language pack called
"CHARACTER-ENCODING" (in capitals, without the quotes)
containing the correct value, CRM-CTT will use this to override
the default encoding. (e-mail is not yet covered)
```

- Event trigger options were vastly expanded; next to sending an e-mail it's now also possible to (un)delete an entity, set it to read-only or -write or update the status, priority, owner or assignee on any field value change event. Read: workflow!
- The e-mail_in script, which can be used to insert entities via e-mail, is no longer beta. It now also fully supports triggers and auto-assignments of entities to the owner of the customer.
- Triggered e-mails can now be configured to also attach a report (an RTF report or the default PDF report)
- Fixed a bug which caused extra fields to be parsed wrong when using field numbers instead of names
- Fixed a little age culculation bug
- The customer id (CID) can now be used for searching a customer and it can be used in templates (@CID@).

06/03/2005 Version 2.6.1 - SR1

- In all read-only profiles the second entity text box (allowing read-only users to add text) were added back to the screen.
- When parsing a single entity invoice, all entity fields in the whole template get parsed, instead of only the fields enclosed by the @REPEAT@ and @ENDREPEAT@ tags. The latter is still the case when parsing invoices based on more than one entity.

27/02/2005 Version 2.6.1

- ** Experimental support for PHP installations without having PHP configuration directive REGISTER_GLOBALS set to 'On'.

CRM-CTT should now also work correctly without this dangerous setting enabled, though testing is required. Any volunteers out there?

Meanwhile, for production usage, it's still advised to have the setting set to 'On'.

- 2.6.1 fix1 updates: some profile bugs were fixed, and, more important, in all read-only profiles the second entity text box (allowing read-only users to add text) were removed.

- The main entity list now supports filtering on status and priority in a NOT-way; like all but having status "Open". This can be switched on and off using the DISPLAYNOTOPTIONINFILTERS directive in the Change Systems Values section
- The main entity list now shows the number of found entities in the fieldset title
- Added support for numbered template tags instead of the full extra field name
- Incoming entities can now be assigned to the customer owner automatically. This bypasses the "Incoming entity" list. To enable this, set configuration directive AUTOASSIGNINCOMINGENTITIES to 'Yes'
- RTF Reports are now streamed to the browser (instead of building the whole report in memory first). This decreases server-side memory usage *a lot*
- In the management information section, clicking on the customer name now brings you to a more detailed screen containing specific statistics for that customer
- RTF Mailmerge functionality based on a selection was added to the customer page
- The fixed fields in the customer list can now be used for sorting
- Extra fields can now be placed (all at the time, not per field) on either the top (just above the contents textarea) or at the "normal" place, just above the file list. This can be cofigured using the EXTRAFIELDLOCATION directive in the Change Systems values section
- Added trigger support to crmlogger and email_in
- Triggered e-mails were attached by default; this can now be chosen
- Sorting the entity list now also works in the limited interface
- Fixed a little mail-merge bug causing customer e-mail merge subjects not to be parsed

30/01/2005 Version 2.6.0

--- WARNING: This version includes new language tags. A new
     English language pack is distributed with it,
     and when upgrading, your English pack will be
     upgraded. All other languages now need an update.
     The Dutch language pack is alread up-to-date, but

all other packs need to be completed. Please, please send me your updated language pack, so I can place it on the project page for other users.

- A new CRM-CTT logo is implemented in this version, thanks to the effort of Marcin and Lukasz. Please let me know what you think!
- Custom-made entity (RTF) reports are now fully supported. (!)
- Triggers on entity change actions are now supported. The administrator is able to set a triggered event on almost all possible entity changes. The e-mails which are sent as result of a triggered event are automatically attached to the concerning entity and, if appliccable, the customer dossier
- HTML Templates can now be uploaded and edited in the templates section of the administration section. These HTML templates are used for triggered events and for the mailmerge
- E-mail merges can now be performed from the customers page.
- E-mail merges can now be performed on any custom customer field (EML_*)
- The summary search function was totally re-written. It is a little bit slower now, but much better. Selecting multiple extra fields in the search query now works.
- An option "Generate entity report" was added as a display method on the summary page
- The main entity list now has three icons in the top-right corner: PDF, CSV (excel), and entity report export. These exports are automatically based on the currently displayed list of entities
- A check was build in to make sure an entity is never added twice
- The customer search funtion was replaced by the routine of summary page. This means that multiple extra fields can be used for filtering, and that customer dossier attachments also will be searched through. It's a little slower now. To avoid slow searching on simple queries, a second box was added which only searches for customer names
- All extra fields can now be used in all templates (RTF and HTML). A link called "List of valid template tags" was added to the main admin page. It will show a list of all available tags based on hard-coded tags and the extra fields in your installation.
- A setting called PDF-ExtraFieldsInTable was added; this lets you control the way extra fields show up in a PDF report. When this setting is set to "Yes", extra fields will be printed in a table. Otherwise, each extra field will be printed on its own line (like in earlier versions).
- When exporting entities (in PDF or CSV/Excel) more customer data than just the name will be printed. In the PDF it's hardcoded only the contact name, phone and e-mail, in the list exports it will contain all fields (and extra fields).
- Two more control options were added to the user profiles: Show customer tab and show deleted entities. These tabs can now also be controlled per user (and still also global)
- Customer exports based on a query doens't crash anymore when having selected many customers; the query is now handed over to the export handler via the database instead of the old POST/tempfile construction. This is faster and more safe.
- The DIV showing customer info on the main edit entity page now contains another DIV which displays the attached files.
- A configuration option called EnableSingleEntityInvoicing, which enables a user to generate an invoice over a single entity. An icon (MS Word-style) will be shown on the main edit entity page when this feature is enabled. Everybody can use this function.
- MAJOR performance improvements by adding more indexes
- Some calendar performance updates were implemented
- Fixed the "The image xxxxx.php cannot be displayed, because it contains errors" bug when using CRM-CTT in Firefox.
- Fixed a bug causing extra fields not being saved when saving an entity for the first time.
- Fixed a bug which made it impossible to edit extra customer fields
- The manual was updated
- Double-insert check on entities added

31/12/2004 Version 2.5.3

- Customer dossiers can now also have file attachments
- The PDF export routine for customers is now *much* better (=useful)
- Added a configuration item called "ForceSecureHTTP" which enables the admin to have CRM-CTT automatically redirect users to the HTTPS:// equivalent of the URL he/she is using when it's not HTTPS already. Naturally, your webserver must be configured to do this. On the logon page, secure repositories are marked darker in the dropdown list.
- A message can now be displayed on the main page (directive

BODY_MainPageMessage in the "Change Systems Values" admin section)
- Added 5 extra statistics (online and in the PDF report) :

Top 20 entities (based on journal)
Top 20 Users (based on journal (=actions))
Top 20 Users (based on uselog (=every click))
Top 20 slow open entities
Top 20 slow deleted entities

- Extra customer fields are can now also be ordered
- All PDF tables of content are replaced by PDF-supported bookmarks (which will display in the left pane in Acrobat)
- A new extra field type was added: DATE_ Fields prefixed with DATE_ will show up as a date field (and pop the calendar when clicked)
- The 'Edit Extra Fields' admin sections were improved
- Invoicing now supports 2 types of invoices: one with a static VAT percentage summed at the bottom, and one capable of generating invoices with multiple VAT percentages. The latter one requires new tags to be used in the template, after upgrading to 2.5.3 two new example templates will be available in your installation.
- When invoicing, the IHS_ (invoice hours spent) is no longer required. If the extra field is not there, or if it just isn't entered, the invoice routine will default this value to 1. Wether or not it appears on the result invoice, is up to the template.
- Invoice numbers now work. It's a 6-digit number (when needed prefixed with 0's) which auto-increments. A prefix for this number can be set using the administration section. (change systems values)
- When invoicing, the customer journal is now kept up-to-date, and the concerning (individual) invoice can also be attached to the customer when requested, even when generating a complete multi-customer invoice.
- When mailmerging, it's an option to attach the individual documents to the customer dossier (for archive purposes)
- EID's of deleted entities now appear in red in the main and brief lists
- Added the age/duration field as an option to the lists (sortable)
- The main page now also displays recent entities in color in Firefox
- Journals are now sorted by log id instead of the timestamp (which is better)
- Fixed a bug causing extra fields longer than 20 chars to generate an error when saving a second entity
- Fixed a bug causing entities to be saved w/o a customer when the customer list was used to create the entity from
- Fixed a bug in the managemen information (waiting entities and 'entities that don't belong here are now displayed correct)
- Fixed a bug which deleted a little too much journal entries
- Fixed a little bug in the customer search function
- Fixed a bug which kept the duedate alarm subject the same within one cycle
- Fixed a little bug in crmlogger.php - the "waiting" value was not set to 'n' when adding a new entity

05/12/2004 Version 2.5.2

- Invoice and mailmerge support based on RTF templates added. CRM-CTT is able to create invoices and mailmerges based on RTF-format templates. See the manual for more details.
- Added a plug-in which can be used to insert entities into CRM-CTT from e-mail. An example for a Sendmail MTA is included in the manual. The script is called email_in.php; it's able to process attachments, and will send a nice (configurable) reply to the sender. E-mails inserted into CRM-CTT will appear on the "inserted entities" list. For now, this plug-in has beta status.
- Added a "database cleanup" function which enables admins to physically delete a set of entities (by logical delete date) to reduce used disk space and increase performance
- Added a setting called "MAINPAGELINKS". You can now display some links on the main page.
- Extra fields can now be ordered
- The "inserted entities" list now has a delete button which enables administrators only to physically delete the inserted entity (without any form of confirmation that is!)
- E-mail subjects can now be adjusted in the main administration section:

- SUBJECT_NEW_ENTITY
- SUBJECT_CUSTOMER_COUPLE
- SUBJECT_UPDATE_ENTITY
- SUBJECT_ALARM
- SUBJECT_EMAILINSERT_REPLY

The usual tags can also be used in these subjects, except for @CONTENTS@.

- Changed the date/time/user insert function from 2 lines to 1
- Added support for setting alarm dates using crmlogger

- crmlogger was not logging the "closeepoch" when setting an
entity to "deleted" - this garbles statistics
- Fixed a duration/age bug when exporting excel sheets
- Fixed some week detail calendar bugs (private entities won't show up anymore)
- Fixed a bug in the management information PDF wich caused the "entities
closed this week" (and month) to always be 0.
- Fixed a bug in the function which creates WebDAV links. WebDAV now also works
over a secure (HTTPS) connection.
- Fixed a bug in the PDF management information. The "entities opened this week"
and "entities opened this month" values were always shown as 0

07/11/2004 Version 2.5.1

- Added a console logger (crmlogger.php) which enables you to add
and edit entities from your Windows or Linux (UNIX) command prompt.
This method can thus be used for (e.g.) logging your backup script
results or, with a little configuration of you mail server, make it
possible to e-mail directly into CRM. All this is covered in the
manual, so please read that first.
- Added week calendar and entity duetime scheduling.
By clicking the week number in the calender,
the user will get a week overview of that week. This works in all
calendar appearances but the alarm date calendar; alarms still
can occur only once a day (not ok? let me know plz)
- Navigation tabs "Add", "Entities", "CSV", "PB" and "Summary" can
now be blocked on a system level, but also blocked or unblocked
per user user profile. You now have total control. :)
- The creation date can now also be shown in the main entity list
- It's now possible to on-line copy a customer database from another
repository to the one you're working in. This is quite handy when
you want to share customers between mulitple repositories. One repository
must be master, while the other will be slave.
- Added an extra field type for e-mail addresses: use "EML_" as prefix. When
clicked, a CRM-CTT screen for emailing will occur (e.g not the default system
mail client)
- Fixed a bug in the management information wich caused the "entities
closed this week" (and month) to always be 0.
- The customer can now also be e-mailed from the main edit enitity page
- The e-mail link in the phonebook now points to a CRM-CTT e-mail screen
instead of the "mailto:" link
- Fixed a bug causing the tabs to highlight incorrect when having
HIDECUSTOMERTAB set to on (and using CRM as a non-admin user).
- The creation date in the main entity list is now displayed in 24-hour format
- Fixed a (non-critical) bug in the "Import language pack" function

17/10/2004 Version 2.5.0

- Revised the "Check database" function. It now also has a command line
interface (to run it daily or weekly using cron) and it checks more tables
for consistancy
- Updated the manual. An appendix explaining to use of command-line scripts
has been added
- Added the option to let every update of a specific entity be mailed to the
owner or the assignee of that entity
- Added configuration setting for the temporary filespace location
- Added an option to let the duedate notify script also check for due dates
(and thus email alarms) on already deleted entities (directive ALSO_PROCESS_DELETED)
- Added a 'private' checkbox to each entity. When set to private, nobody
else will see this entity; only the owner and the assignee will see it
- Added an option to only view today's log messages

19/09/2004 Version 2.4.6

- Added a print-icon on the main edit entity page, which when clicked
opens a window which immediately prints the PDF summary.
- Added functionality for importing and exporting user-accounts, which
is handy when cloning repositories.
- When FORCECATEGORYPULLDOWN is set to Yes, the summary page displays a
filter box for the category (request #369)
- Added duration and age reporting to all exports and summary pages (age
when the entity is not deleted, duration when it is deleted) Please mind;
this information will only be available when an entity was added in CRM
version 2.4.6 or higher.
- Added support for pre-defined entity comments. This way the admini-
strator can define some lines of text (like "I'm on it" or "Done") which
can be easily inserted into the body of an entity by the users. This is
obviously for lines of text which are often the same. The option to
configure this can be found in the Change Global System values section
under directive "STANDARD_TEXT".

- The summary page now also remembers the extra fields searched in the previous search and displays this again when the form returns. Also, the "More" tab will remain open.
- Adjusted the PDF report - the extra fields no longer display in a table; they're just printed (wordwrapped). This fixes the wrapping problem when having large values in your extra fields. Thanks to Steve Mueller.
- Made the customer page main list treshold configurable. Before, CRM-CTT didn't display the list if it was longer than 150 customers, for bandwith reasons. This number is (out of the box) still 150, yet it can be configured in the Change Global Systems values section under directive "CUSTOMER_LIST_TRESHOLD".
- Updated the layout of the account management page
- Fixed a WebDAV bug
- The manual was updated
- Little layout bug fixed in cust-insert.php and management.php

05/09/2004 Version 2.4.5

- Fixed a little bug in management.php
- JavaScript error in cust_insert.php fixed
- More trigger options added - an owner or an assigne is now able to select to receive e-mail updates every time the entity is edited
- A higher-than-i-liked number of little (buried deep-down) bugs fixed in:
- The management interface
- The limited interface
- The check-db routine
- The edit status and priority variable routines
- The installer
- Some e-mail functions were optimized
- Added an administrative option to block all Excel and PDF export functions for non-adminisrative users

30/08/2004 Version 2.4.4 (feature addons, no database changes)

- Added more navigation shortkeys. Press ALT-H to see them.
- Added a little icon to the tab header bar for switching between repositories.
- Fixed a little bug in the original ShowRepositorySwitch routine
- Improved the "Change systems values" section
- Replaced the HTML editor
- Some escape bugs fixed

22/08/2004 Version 2.4.3 (feature addons)

- Users can now switch dynamically between repositories, if their account information (username/password) is consistant. As always, the administrator can disable this feature, or set it to only show when the user is an admin. The repository switcher appears on the main page and on the admin page.
- The due_notify now can also send an e-mail containing all the receipients non-deleted entities (both HTML and text)
- Users can now edit their own profile (full name, password, daily entity mail subscription). This can be disabled in the administration section (directive LetUserEditOwnProfile)
- The administrator can send an entity list mail to all users manually (admin section)
- Improved the routine which pops up the calendar (it now only comes once)
- Improved the routine which auto-inserts the date and time
- Major code cleanup
- 2.4.2 error with temporary files location fixed
- New build procedure (lots of work, but you won't mention :))

12/08/2004 Version 2.4.2 (2.4.1 bugfixes, minor feature addons)

- Added the configuration directive AutoInsertDateTime (default = Yes (!)) - with this option you can enable auto-insertion of date and time when a user adds text to an entity
- Fixed the "id=" bug.
- Fixed the "non-writeable content field with read-only-assigned entities" bug
- Fixed the double escape bug in the customers table. Comment fields in this table containing an ' are now processed ok
- On the summary and customer pages, extra fields can now also be selected as filters (!)
- A database maintenance option was added in the admin section. This function optimizes all tables (mysql: OPTIMIZE TABLE), repairs them, and it checks all references of customers, extra fields, and files.
- PDWAS links on main page were removed

20/06/2004 Version 2.4.1 (2.4 bugfixes, performance)

- Added a lot of caching routines to decrease the number of database queries needed to process a page. For instance, the main page uses around 20 queries less then before only due to caching. Large PDF reports are significantly faster.

- The category field can now also be auto-completed based on category fields already in the database. It's not forced to select a value which already exists; the user may still enter any value. As this is only handy and never blocking, this option is set to "Yes" by default.
- Added a "Save as new entity" button to the main edit entity page, which is only displayed when the "ShowSaveAsNewEntityButton" directive is set in the administration setting. Default is "Yes".
- The customer database and page is much better. When searching, extra fiels are also searched through. The list lay-out can now be configured in the administration section in the same way the entity list can be configured. The result of a search can now be exported.
- Image file inclusions are now done using temporary file storage instead of fetching the image using HTTP.
- Added enhanced error checking and (when chosen) automatic submission of SQL errors directly into the Development repository at http://crmstage.it-combine.com or via e-mail.
- Links in the TOC of PDF reports now work again
- The main list can now also be sorted by duedate
- Command-line tool added to generate a PDF report for all entities. This command can also be used for batch generating reports (e.g. using cron). Syntax: php -q ./generate_total_pdf_summary.php - use --help for usage instructions.
- Rebuilt the "view log" function. You can now query the log for any text, or filter all warnings and errors.

23/05/2004 Version 2.4.0 (WebDAV, International dates, improved flow, +features)

- Added an option to disable the customers page for non-administrative users (directive HideCustomerTab). If set, the tab "customers" will disappear (for non-administrators) and the page will be inaccessable (also when deeplinked). Also, when set, the phonebook will not display information from the customers table. The only way for a normal user to see the customer information, is to click on the dropdown arrow on the main entity screen. He/she will never be able to get a list of all your customers for export purposes.
- The filter and sort variables in the main entity list are stored when using them, and if the next time the list is shown no filter and/or sort options are supplied, CRM retrieves the old filter and sort variables and shows the list exactly the way the user last viewed it. CRM remembers the difference in sorts and filters between the main and the deleted entities lists.
- If an entity was accessed via the main list, after saving it CRM will bring the user back to the list. Same goes for the summary list.
- Date format support. You can now choose between MM-DD-YYYY (USA) and DD-MM-YYYY (rest o/t world). Set DateFormat in Systems Values section.
- All priority and status pulldown boxes are now colored
- All e-mails (entity and customer) are now logged in the appropriate journals (sometimes only in the entity journal, sometimes in the customer journal, sometimes in both)
- The main page recent and "today" list have status and priority in color
- The PDF export are much, much better (including extra fields and colored status and priority variables)
- When e-mailing, the EntityContents.txt file was replaced by the PDF report of the concerning entity
- In the main edit entity window, ALT-S saves the entity
- Status and priority colors now also appear in the HTML e-mails
- Added an admin function which exports the complete working repository to disk in a directory/file structure
- WebDAV Support. WebDAV a.k.a Webfolders is a method to access files over the HTTP protocol. The expirimental PDWAS system works great, though WebDAV works using a standard protocol. The advantage of PDWAS is that it works with all types of applications, where WebDAV only works with applications which support the WebDAV protocol. Most office applications support WebDAV however, like MS Office, OpenOffice, and KDE even has an protocal handler for it (webdav://). The best part of CRM WebDAV support lies in the fact that, as all things in CRM, it's completely built in PHP using the HTTP_WebDAV_Server classes made by Hartmut Holzgraefe <hholzgra@php.net>. Hartmut; Thanks!
The CRM Adminmanual is updated. Please read the WebDAV section on more information on how WebDAV is used in CRM. Please be aware that you need at least PHP 4.3.0 in order to use WebDAV.
** Please mind ** CRM-CTT ships with WebDAV subsystem disabled.
- Changed the "Journal", "PDF Report" and (for the 2.4 pre1 users) WebDAV text links on the main edit entity pages to icons.
- Added activity graphs to entity PDF reports
- Added a little icon on the main entity screen which when clicked spawns a little window showing the activity graph of the concerning entity.
- Automatic session management (expired sessions are cleaned up better)
- Enhanched security (I'm not going to tell what; it's not critical)
- The field length of custom field *names* was expanded from 240 chars to LONGTEXT.

```
- Fixed alarm date screen - USA date now also works

Fixes:

- 358 fixed - Critical    - Extra fields not saved on first save
- 351 fixed - High        - after editing from main list, return to list
- 352 fixed - High        - Remember last sort
- 326 fixed - High        - Being able to hide custom fields in customer screen
- 362 fixed - High        - ALT-S to save an entity
- 278 fixed - Medium      - Date format
- 300 fixed - Medium      - Add customer owner
- 314 fixed - Medium      - Link on customers page to list of entities of that customer
- 317 fixed - Medium      - List of links to Language packs to automatically install
- 350 fixed - Medium      - custom fields too narrow
- 320 fixed - Medium      - Make e-mail to customer an internal link
- 355 fixed - Medium      - Add PNG stat images to PDF report (mansum and normal)

28/03/2004 Version 2.3.0

- Customer journaling added partially. The journal logs adding a customer
and joining an entity to a customer
- Customer owner added, with an option to e-mail the owner when an entity
is joined to that customer
- It's now possible to add a user with the same name as a previously deleted
user, as long as the previous user was deleted with CRM 2.3.0 or higher.
When you're in need of a script or intructions on how to physically delete
users deleted with CRM <2.3.0, please send me an e-mail.
- CRM_PDWAS Added (EXPIRIMENTAL). PDWAS means Pretty Dirty Web Authoring
System. It's a Windows installer which enables you to open a file
(e.g. Excel, Word) directly from CRM, and when you close your application
the file will be automatically uploaded to CRM and joined to the entity
which it came from as a new file. READ THE MANUAL BEFORE USING PDWAS. There
is a specific manual for PDWAS included in the distribution. PDWAS is
DISABLED by default. Enable the ShowPDWASLink directive to enable it.
- The main entity list can now also be sorted by EID
- 327 High BUG: Help windows dont show up [fixed]


07/03/2004 Version 2.2.0

- Added an option to install language packs directly from the CRM project
page - please note that your server needs to be able to reach the web
if you want to use this function.
- Added mail to {everybody} functionality. One can now mail the owner, the
assignee, the customer, and (if selected) any other user of your CRM
installation.
- When deleting an entity, the 'closedate' field is now always set
- Adjust sort order of fieldsets in main edit entity screen; custom fields
are now displayed above files
- Added a link from the [customers] page to the list of entities coupled to
that customer


01/03/2004 Version 2.1.0 (focus: +clearance level, +features, +security, +performance)

- The administrator is now able to choose the global colums configuration
to show in the several entity lists, including extra fields(!). When
enabled (LetUserSelectOwnListLayout), the user can override this
with his/her personal preference (stored in a cookie). In the management
and cust-insert modus the user cannot override, ofcourse.
- Performance improvement. An entity main page list containing 27
entities now executes 70 MySQL instead of over 140, and when
switching on showing the number of attachments, the page is
about 324% faster! (indexing helps!). Searching trough binairy
documents (Word, Excel etc) is also dramatically faster.
- A link on the main page "User Name's dashboard" which links to
a page with a clear overview of own entities, assigned entities,
calendar, and recent entities.
- New clearance level; based on te customer-insert-user, but then
with an option to let this user see the contents of the entities
add by him/her and add comments to those entities like in the
restricted interface (management.php).

So, we had clearance level:

Insert-only customer-user

Which now is:

Insert-only customer-user unable to read contents of added entities
+  Insert-only customer-user able to read contents of added entities
```

Please note: the second user can see both unassigned AND assigned entities he/she has inserted (or are entered otherwise) as long as those entities are attached to the [customer] to which the insert-only user is coupled!

- Security improvements regarding PDF exports. Mail me if you want any details on this.
- Rewrite of upgrade procedure - from 2.1.0 and higher it's much more database-safe and more user-friendly.
- Improved the import_files.php script - had a bug and was slow. A test proved that loading over 20,000 files into CRM is no problem: "Total 36962042 bytes (approx.35 MB) in 20,596 files." The syntax for this script still is $ php ./import_files.php or c:\php\php.exe import_files.php (from the command line that is!)
- A new German language pack (thanks to Thomas Kaminski)

22/02/2004 Version 2.0.0 (please read - security related issues)

Proudly announcing version 2.0 of CRM

Since even the Linux Journal wrote an article about CRM, it becomes even more challenging to keep everybody happy with it. Over the last two years I've received many thousands reactions, feature requests, and bug reports. Some questions considered functionality buried so deep down in the "basement" that I too had to check what it was and how it worked again. Very nice to see that people are really using the product to the maximum of its extend. One reaction I remember very good was about the customer overview page: "I've imported around 5000 customers into CRM and the customers page becomes a little hard to work with. Can you improve this?". When I designed CRM, and we first started to use it, we had around 25 customers registered in it. :)

With version 2.0 a new lay-out is introduced. This lay-out has been chosen to make it more intuitive to work with, and more recognisable.

I'd very much would like to know what you think about the new style, so please, please send me feedback - I cannot improve CRM without feedback. So, please send your opinion to hidde AT it-combine.com.

Also regarding the lay-out: be sure to test version 2.0 first. Apart from the database version number nothing has been changed in the data-model so you can safely use the new code against your old database (but don't forget to run upgrade.php later on if you start really using 2.0)

In 2.0 lots of feature requests are implemented, though not all. Refer to http://crmstage.it-combine.com (user CRM, pass crm, repos. Main Devel.) for a list of things to come in 2.1.

- SECURITY RELATED: An administrative option was added to execute custom-made queries. This option comes in 2 forms; a wizard-like interface which leads you through several steps and creates a query, and an option to execute a query directy (e.g. you can type the query and execute it). The latter is potentionally dangereous. It only excludes DELETE, DROP and TRUNCATE; all other queries are allowed. To disable the latter function, edit admin.php and uncomment '// $Disable_direct = "1";' to '$Disable_direct = "1";' at the top of the file. Note: you can ONLY disable direct queries, not the wizard queries.
- Added a new Clearance Level: "Full access though only edit own assigned entities" this user is able to read *everything*, though can only edit his/her own assigned entities (but cannot change the owner, assignee, or [deleted] status). He or she can view customers, though not edit or add them. He/she is also unable to add entities. This clearance level should actually be the main operating level for non-managing assignees.
- Added command-line interface for uploading files into CRM. You need to have an administrative account to use it. With this tool you can attach the contents of a local (server that is) directory to a specific entity ID. Syntax: php import_files.php.
- Shortcut keys to the tabs (ALT-1 .. ALT-0) added with an option to show these numbers on the tabs (ShowShortKeyLegend).
- Added config option ShowFilterInMainList - when setting this to yes drop-down boxes will appear at the top of the main entity overview list so the list can be filtered. Very handy.
- Added config option DontShowPopupWindow - when setting this to yes the pop-up menu in the main entity list will not appear anymore but instead, when clicking on the row, you will be brought to the main edit entity screen immediately
- You can now click Prev and Next in the calendar
- Added an icon to insert time/date/username into textbox on main edit entity form, as well as two icons to de- or increase the text box size.

- When exporting customers, the extra fields are now also exported
- Native Microsoft Excel exports now possible (with nice colors) - you need
the PEAR libs to use this function -> http://pear.php.net/
- Fixed little bug in 'create new repository' function
- Fixed little journal bug (wrong e-mail address displayed)
- 259 Critical BUG: error when only searching for a specific assignee
- 294 Critical BUG: Read-only-all profile broken
- 262 Critical BUG: Mainpage cal days <10 in month dont show
- 256 Critical BUG: Accounts Edition
- 259 Critical BUG: ERR where Summary of entities is requested where Owner = "all" and Assignee <>
"all"
- 264 Critical BUG: AutoCompleteCustomerNames broken
- 222 High Calendar adjustments
- 244 High Being able to disable a customer
- 261 High Radically change design
- 286 Medium BUG: Setting an entity to RO when adding a new one doesn't work
- 248 Medium BUG: Also search filenames of which contents is ignored (e.g. JPG)
- 251 Medium BUG: Extra fields dont show up on incoming entities
- 254 Medium Being able to disable rich text editing
- 267 Medium Make extra customer fields exportable
- 283 Medium BUG: History drop-down box keeps repeating date
- 250 Low 1.9.4-1.9.5
- 289 Low BUG: NOTABS navigation home page screwed
- 246 n/a Restyle limited interface
- 260 n/a BUG: Disabling a cust must set "No" in database,

23/01/2004 Version 1.9.6 (mainly bug fixes - important bug (#256) fixed)

- Customers can now be disabled - disabling a customer means that
when disabled, a customer can no longer be selected in ONLY the
add and edit forms of CRM. When searching, the disabled customer
WILL appear, as it will also appear for insert-only users (e.g.
disabling just a customer won't disable an insert-only account)
- Deeplinking to entities or summary pages now is possible. A non-
logged in user will be presented with a login page, though the
original URL deeplink will be preserved
- The installer now checks for register_globals
- The insert-only interface got a makeover
- File downloads (views) are now also mentioned in the journal
- Bug #248 Fixed: Also search filenames of which contents is ignored
- Bug #251 Fixed: Extra fields dont show up on incoming entities
- Bug #256 Fixed: Error in account edit function
- Bug in installer fixed thanks to Jamie (j-me) - the configuration
directive BODY_ENTITY_EDIT was not created using the last versions
of install.php. This is fixed, and the upgrade procedure of 1.9.6
checks if the field exists, and if not, creates it.

11/01/2004 Version 1.9.5 (important changes included, please read!)

- Important- please note! insert-only users can now also see
the list of entities they (or others using the same account)
have added earlier. Please check if this matches your wishes.
- Added more journal entry points
- Adjusted calendar - dates in the past can now also be selected
- View Journals option added to administration page
- Added support for custom text-boxes using TB_ syntax similar
to the TB_ customer fields syntax
- Entity contents journaling support; Option added to show a
drop-down box wich contains the timestamps of all changes to
an entity; the user can roll back as far as desired. This option
is always enabled, though only displayed if system directive
EnableEntityContentsJournaling is set to "Yes" - which it is
by default. Thanks to Kaveh Goudarzi <kaveh AT arkasoft DOT KOM>
for the patch!
- Numerous layout improvements
- The "Active" option for accounts is gone - now, when deleting an
account, the account is actually set to inactive. Accounts cannot
be physically deleted anymore but an inactive account will not show
up in the login accounts management section. The account could be
re-activated directly in the database, by setting "active" from "no"
to "yes". CRM is not going to provide this option.
- Notification when en entity is changed - as soon as a value in the
main edit entity page is changed, the user is notified. Also, when
leaving the page without saving, the user will be promted and asked
if the changes should be saved.
- Customer e-mail address on main edit entity page now is a mailto: link
- Customer address and remarks on main edit entity page now also show
line breaks
- If customer home page exists, but isn't prefixed with http://, CRM
adds this to make the link work
- Security improved (please mail if you need details on this)

- Bug #216 Fixed (SetCustomer when having autocomplete on)
- Bug #230 Fixed (Contact e-mail doesn"t display in entity edit pulldown arrow window)
- Bug #235 Fixed (Owner & Assignee always same in update email)
- Bug #226 Fixed (Show category value in main edit entity window)
- Bug #227 Canceled - we couldn't reproduce this problem
(Number instead of name in e-mail)

07/12/2003 Version 1.9.4 (feature addons, bug fixes)

- Entity journaling support. The complete history of changes
(when, who, and what) now can be viewed.
- Added an option AutoCompleteCustomerNames which enables
the auto-complete customer text-box on the main edit
entity page (instead of the customer pulldown box).
- Added an "add entity to this customer" link on the
customer page (request #207)
- Added a "entities due totday" select option in summary
page "due date" pulldown menu (request #200)
- Improved file sorting on main edit page (oldest first)
- PDF Export of customers option added
- Manual updated
- Bug #197 Fixed (Main Page Calendar Entities)
- Bug #188 Fixed (Test CRM in a db without any TBLPRFX set to CRM*)
- Bug #191 Fixed (Duedate notify error)
- Bug #185 Fixed (ereg_replace enters for BRs when showing TB_ boxes)

23/11/2003 Version 1.9.3 (major code changes, feature addons)

- Table prefix support: MySQL tables now can
be prefixed with any characters you like. This
makes multiple repositories within 1 MySQL
database possible.
- Popup list over calendar on main page
now shows more information (added customer
and status)
- Added custom TEXTAREA type fields (only
in customer database). Field prefixed
with "TB_" will now be textarea's in which
enters (linebreaks) can also be used.
- Added an edit button in the [customer]
detail overview (under the arrow) on the
main edit page (feature request #174)
- Recent edited items list on main page
option added (ShowRecentEditedEntities)
- Dropdown arrow on entity edit page now only
shows available [customer] information, and
does not show empty fields anymore
- Better error handling
- Bug #156 fixed (multi-receipients alarm bug)
- Bug #175 fixed (link to [customer] web page)
- Bug #173 fixed (extra fields must be unique)
- Bug #172 fixed (faulty window.close in main screen)

19/10/2003 Version 1.9.2 (feature addon, minor changes)

- Categories are now configurable and when
configured they will appear in a drop-down
list
- Administration page revision
- Main page calendar now only shows entities
which are not deleted
- Link style is now consistant and recognisable
- Management interface list is now also sortable
- Main page language adjustment
- Standard menu items removed from main page
- Bug #142 fixed; inserted entities with an
attachment are now handled ok
- " and ' bug in main page calendar fixed (#147)
- HTML summary is now correct (had some errors)
- NOTABS navigation style updated
- Manual updated

12/10/2003 Version 1.9.1 (minor changes)

- Added an option to show a three-month
calendar overview on the main page
- PDF reports are now created using FPDF,

```
all characters show up right now, and
the reports are much prettier
- Bug 140,105,134,136,135 and 118 fixed (see below)
- Customers can now be imported and ex-
ported
- Customer main names can now also be adjusted

Fixed bug list:

140 BUG: Summary also searches deleted items when
 not asked to do so
105 BUG: Close window when deleting file
134 BUG: extract $_REQUEST in help
136 BUG: handle_error() in install.php
135 BUG: Prio var resets to default in summary page
118 BUG: diacritical chars in PDF-export


05/10/2003 Version 1.9.0 (major changes)

Please note: the CRM global usage structure has been
changed for this version. The standard status
variable "close" is not interpreted anymore since
status variables are now configurable. The upgrade
procedure handles this, however it requires a
little "getting used to" if you are used to using
former versions of CRM.

- Added the option to send the assignee an e-mail
when an entity is added and assigned to him/her
or when one of his/hers entities is updated
- Total customer administration and navigation
revesion
- Fixed a language bug in the calendar
- Backup and restore functionality added (can also
be used for cloning repositories)
- Status and priority variables can now be changed
in name and color
- The text search function now also search trough
extra field values
- PDF-reports now are multi-lingual
- Improved search status popup window
- Better error handling
- Several bugfixes


06/09/2003 Version 1.8.2

- Communicated queries (from summary to csv page) now
are coded and unreadable
- Added a pop-up window when searching for random text
strings. The window closes automatically when the
search is ready.
- Added the possibility to mark an entity as "read-only"
for users who are neither owner nor assignee. When this
box is checked, attached documents are also protected to
being read by a read-only user.
- When searching, binairy attachments now will also be
searched. e.g. all text in a Word document will be
matched case-IN-sensitive, though binairy (executable)
files and images will be skipped. Works really well.
- Fixed a bug when physically deleting an entity
- The phonebook now searches also in the [customer]
contact data
- PDF reports and exports now are lined out, though the font
type now is Courier, which in turn is not really pretty
- Increased the width of the overlib popup windows
- 2 languages added for download (Brasilian- Portuguese
and French)
- Little link bug fixed (lan_entries to lan_entries.php)
(this did work on the test systems)
- Some spell corrections in the English pack file
- Standard supplied language packs now only display
the language name in the native language instead
of showing it in Englisch (i.e. Frech became Francais)
- Updated a deprecated directive in install.php which might
have caused warnings when installing on a very new PHP
installation (mysql_create_db() -> "SQL CREATE DATABASE")
- Added a user type which can view all entities, not only
his/her own. New user type is called "Read-only all entities"
- When an entity is added, the standard owner now is the
```

the user which adds the entity.
- Improved session deletion when logging out
- Bug #85 fixed
- Added a check_config function to check for double configuration
entries.

30/06/2003 Version 1.8.1

- Complete mail subsystem revision (containing:)
- Email bodies are now editable
- When an add-entity alarm email is sent, the
entity contents and attached documents are
now mailed also as attachments.
- Fixed a bug in duedate-notify-cron.php
- The SMTP server to use now is configurable
- Extra error handling added for cookie errors
- Inserted entities can now also be deleted
without being assigned/owned first
- Now used array $_FILE for uploads instead
of $userfile (this fixes the windows
upload bug)
- Admin's can now only alter repositories in
which they have an admin account

20/06/2003 Version 1.8 stable (major issues included)

- All 7 items from 1.8-pre1 (including 2 majors)
- Major: Customer insert subsystem added. This adds the
possibility for [customers] to add entities by them-
selves. (by coupling a certain user to a customer)
- Security issue entity #46 fixed (see devel CRM for details)
- Two more appearences of "Edit Extra Fields" removed
- Clearance level method adjusted (the 'limited' and 'administrator
bullets when managing users are gone)
- Some of the tables in the main view can now be sorted. It
concers "status","priority","category" and "customer".
- Lots and lots of logging points added.
- Flatlogging disabled (only actions are logged, not all hits)
- Option to empty the session table added in the repository
management section
- Option to download the log in CSV added in the View logs
& stats section
- Administration page modified (it now looks better and
is more consistant)
- Some security enhanchments (no alarming issues)
- Statistics page dramatically reduced. Only activity sta-
tistics are shown, all other graphs were removed.
- The edit page for restricted users (read-only own entities) now
is also multilingual
- Manual updated
- Little fixes to install and upgrade procedures

04/06/2003 Version 1.8-pre1 (major issues included)

- Major: "login users" and "owners/assignees" are now merged.
- Major: Complete Extra Field Management interface added, extra
fields are now consistant and 100% safe to work with (they
were safe to work with already but now it's also understandable)
- Option added to empty the phonebook before importing new data
- The first installed user (during installation procedure) is
now directly an administrator. Users with only the right
admin password cannot grand administrative rights to
themselves or other users anymore.
- Custom fields are now displayed in the regular edit window
which also means that the "Edit extra values" option is
removed on various locations
- Added option to edit an entity in the main window when using
the popup window in the main entity list
- PDF manual added (draft state)
- Installer procedure adjusted (better checks)

06/05/2003 Version 1.7d

- PDF exports of your phonebook now works again
- Added a configuration option to adjust the number of months which are chown
in the various calendar appearences.
- Cookie timeout problem handled
- Added "owner" tag when listing files
- Owners/assignees can now be deleted given they have no entities connected to them

04/02/2003 Version 1.7c

- Added epoch values in links to prevent page caching when using a Microsoft proxy (e.g. ISA) (mentioning ISA because is keeps caching no matter what is in your (pragma) source)
- Fixed a bug which prevented a newly added entity to show up on the summary page (sorting problem)
- "Tag display mode" added in the language management module. When switched on, all language identifitaction tags are displayed with the values. Very handy when translating CRM.

21/01/2003 Version 1.7b

- Little CSV download bug fixed

14/01/2003 Version 1.7a (clean installs only, do not upgrade!)

- Windows login bug fixed

29/12/2002 Version 1.7 stable (clean installs only, do not upgrade!)

- Language pack management
- Multi repository support (add/remove entire databases)
- E-mail notification when adding a new entity (still limited, though)
- Possibility to install CRM without creating a main database first
- Multilingual support
- Translation module
- Extended PDF support
- Support for custom entity fields (!)
- Enhanched translation module
- Enhanched navigation
- Enhanched administration module
- Some iconisation
- Link fixed in summary short view mode
- Character escape bug fixed
- Language masks for easy adaption of the language set
- Language selection override from admin menu

09/11/2002 Version 1.7 prerelease 2 (clean installs only, do not upgrade!)

- Everything from 1.7pre1
- Support for custom entity fields (!)
- Language selection override from admin menu
- Enhanched translation module

20/10/2002 Version 1.7 prerelease 1 (clean installs only, do not upgrade!)

- Multilingual support
- Translation module
- Extended PDF support
- Enhanched navigation

26/08/2002 Version 1.6 stable (major issues included)

- Fixed to-complex-to-mention bug in users.php
- Fixed a bug in edit.php. When typing a category name with a single quote (') in it, the SQL query returned an error. I forgot to escape it.
- I Visio'd a diagram to explain how the user thing works. Available at http://www.it-combine.com/crm
- Added PDF report support for several functions. You can get a PDF summary of an entity, and you can download the management information in PDF-format.
- A simple but very efficient phonebook was implemented. It can also be exported to PDF.

- IT IS RECOMMENDED that you install this version 'clean' e.g. do not upgrade an older version. The install
procedure however SHOULD handle an upgrade quite well, though it was never thoroughly tested.

14/08/2002 Version 1.6 (pre-release) (major issues included)

- Instead of the C | E | A | D links, there is now a pop-up quickmenu. This works much better, though it probably limits the number of browsers in which this works. This hasn't been tested yet, though
- Adjusted the colors to more readable values
- Added a config option for a login message which will be displayed when a user logs in
- Dramatically improved the log routine. User adds, edits and modifications will now also be logged. Every click a user makes was already logged, though from now on the used account name is also saved to the database
- The upgrade procedure handles the database changes
- Added the option to grant administrator priviledges to a login account. The user who owns such an account will not be promped for a password when entering the 'Administration'-section
- MAJOR:

- Limited login accounts now MUST be named after a username which resides in the main users table. When a limited login account is created for a perticular user, the name of this user cannot be changed in the main users list untill the limited account is deleted.

- When logging on as a limited user, you are no longer prompted to select your name from the presented list of NON-..-members. Instead, limited accounts, as discribed ealier, MUST MATCH wich a user in the main user list (or: a user to whom entities can be assigned).
The limited user will immediately see his or her open entities after logging on. The possibility of marking a user as a member now is useless, and therefore removed.

These 2 points mark the completion of the user-thing makeover. The user administration is now almost 100% the same as you're used to in most applications.

10/07/2002 Version 1.5f

- Fixed a bug in the duedate-notify script. It had a hard-coded testsite URL in it.
- Fixed a bug in the calendar. It generated 2 warnings when showing a month in the next year.

02/07/2002 Version 1.5e

- Fixed a little summary bug in the statistics code.
- Removed the outdated manual

29/06/2002 Version 1.5d

- Changed database structure for CRMloginusers.password from "NOT NULL default ''" to "default NULL" hoping to solvee the "Column password cannot be NULL" problem
- Increased the dimensions of the TEXTAREA used when editing an entity
- Added a config option for the auto-logoff-timeout
- Completed work on auto-appearing calendar. One can only insert a date using the calendar, whilst after that there also is an extra server-side date validation

When upgrading: version 1.5d comes with an added config option - see the UPGRADING in the tarball for details

18/06/2002 Version 1.5c

- Revised date validation (worked only on IE, now in all browsers)
Thanks to David Blandel
- Fixed little bug with [alarm settings] also showing when adding a new enitity. This is illegal because an alarm is connected to an enitity by its entity id, which is not yet set when adding a new one.

15/06/2002 Version 1.5b

- Added date validation to "Due date" and "Alarm date" forms
- Added the option to try to write the config file from within the installer procedure.

14/06/2002 Version 1.5a

- Major update. Added install.php install script which takes care of almost all installation stuff
- Updated documentation

13/06/2002 Version 1.4a

- Documentation updated
- Added section 'manage accounts' in the admin section to update account type, passwords, and create new accounts
- Only hard-coded account left is debug, 'management'-type accounts now go under the 'limited' profile
- Site statistics code fixes
- Some grammar fixes

When upgrading: version 1.4a comes with a little database structure change!

11/06/2002 Version 1.3d

- Freshmeat release

05/05/2002 Version 0.99

- Fist major production usage

04/05/2002 Versions prior to 0.99 (starting 1999)

- Testing, building etcetera. Never released.

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- END OF CHANGELOG -
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