

About the Project

Firstly some definitions:

- **CRM** stands for Customer Relationship Management and is the software to support your business process to find, get and retain customers. CRM Software Solutions typically consist of modules such as Sales Force Automation, Call Management, and Self Service.
- **ERP** stands for Enterprise Resource Planning and is the software to support your entire business processes. ERP Software Solutions typically consists of modules such as Marketing and Sales, Field Service, Production, Inventory Control, Procurement, Distribution, Human Resources, Finance and Accounting.

Our Goals

The aim of this project is to create a set of CRM/ERP features for tiki, these will include a contact manager, relationship manager as well as various contact based activities such as Calls, Notes and Tasks.

Key Features

- ☒ Completely web-based, no need to install special client software.
- ☒ Manage your contacts and accounts from one integrated web interface. Sales professionals can organize and manage their customers and accounts with ease and powerful functionality.
- ☒ Records and tracks all your communications with your contacts, giving you a more precise history of each relationship, allowing you to extract more information and value from your database.
- ☒ Create custom fields based on relationships,
- ☒ Associate your contacts with various tiki categories.
- ☒ Create Folder in-order to segment you contacts, for example customers, suppliers etc.
- ☒ Easily associate a particular contact with an opportunity using point-and-click functionality.
- ☒ Organize and prioritize your short-term and long-term activities using the to-do and calendar, enter events or to-do items ahead of time and print out your daily to-do schedule and calendar whenever you require it.

The core CRM functions will be built on the contacts module and will leverage form existing tiki features, such as:

- ☒ Calendar module from mose will be used to schedule events for a specific contact or group of contacts.
- ☒ Trackers will be used to track user task and other user defined activities.
- ☒ We also plan to add projects, and products some time in the future.
- ☒ In the future we would also like to use the workflow feature to define the process for creating new contacts, relationship/opportunities etc.

How we plan meet our goals

At the heart of a CRM, ERP and many other groupware solutions are people and companies, therefore we plan to start by building a contacts system, similar in concept to outlook and then build on this with additional CRM functionality.

The Contacts Module

The contacts module will be based on relational entities, where an entity can be defined as a person, or organisation (company, school, family etc). The relationship between entities is M:M in

that a single entity can have relationship with any other entity (for example eSTEVE->rFather->eAaron or eJoe->rEmployee->eSi3-LTD).

Contacts will provide the following key features

- **People**, provides basic address book functionality and will allow you to specify site (public), myContacts as well as group based contact groups. Each person can be assigned to a company using the primary company of the person entity.
- **Organizations/Companies**, provides the ability to define companies, departments as well as the roles (see relationships) people play within that department. The main idea is that a company could use this as the base to a HR module.
- **Relationships**, is used to map relationships between entities (originally department lookup table), these relationships can be Person-2-Person(father of), Company-2-Company (e.g. departments) as well as Company-2-Person or Person-2-Company. This is effectively a lookup table (idSource, idTarget, Cat(cust, supp, user),)
- **Activity** is used to centralize and record the activity of an individual person, company as well as those based on relationships (group of people/companies).

Important Note: Although the activity functionality is key to a CRM it is not deemed part of the contact module/application/feature, but should be implemented as a separate tiki feature. I will probably use trackers for this, although it would be nice to create some kind of shared scheme/table. This would allow me to list all the entries in the table base on my contacts id [Source (e.g. contacts) | Source Record id| Destination (e.g. trackers) | Content Id (tracker 21)]

Current Issues

The addition of relationships make that database design more complex than originally anticipated, which in turn is going to makes csv, vcard and ldap import/export more complex.

How to exploit the functionality provided by the following tiki features from contacts?

Watchers can be used on a object-by-object basis's in-order to allow the user to be notified of changes/updates to that object. Each object may have a number of different events that can be watched for. Events can be emailed to the user or added to their internal message list.

Watches (uid | event | object | hash | title | type | url | email)

ActionLog is used to log the activity of a user

ActionLog (Create | Delete etc) ModifiedOn | PageName | User | IP | comment

Programmed Content can be used by publishers/admin to schedule when a object will appear on the site as content.

ProgCont (pid | contentId | publishdate | data)

NotificationLib provides a means to send an email to a user when an action occurs

Status

The project is really still in the design stage, so please feel free to contribute. We intend to get the core contacts working over the next few weeks, and will start implementing additional CRM features once the contacts module is stable. At this stage is CRM functionality is not part of the tiki CVS, once the feature is functional it will be left to the core tiki developers as to whether they want to distribute CRM as part of tiki.

- ☒ The proposed database schema is virtually complete and is available online for review and comment.

Everyone is welcome to help and make suggestions in whatever way they feel they can.

Road Map

Version 1

- Ldap mappings for standard entities <http://ldap.akbkhomes.com/> (not relationships) Person=OrgPerson, Organization=Org and Department=OrgUnit.
- Each standard entity can be extended with any number of additional user defined fields;
- iCal output used to schedule a task by one person to be performed by another! A contact schema is normalized in the rfc2445 <http://www.ietf.org/rfc/rfc2445.txt> this definition will be supported by tiki calendar by mose.
- Import, VCARD, CSV, LDAP->LDIF, SQL
- Export, VCARD, CSV, LDAP->LDIF, SQL

Version 2

- Create user from contact!
- Delete/remove LDAP entry for this contact and/or its relationships
- Add additional contact-class-tables using phpMyEdit for db and phpMyForm for layout.
- Print, PDF Contacts list, BizCards
- WebMail->Contacts, could be replaced with this module.
- Member list->could be used as a to provide a list tiki site users, by adding the importing the user list and then assigning them to the site group.

Version 3

- Voice tags for each user, this allows the user to simple say "call" followed by "contactname" each user needs to configure these feature.
- Syncing groupware features with Palm, PocketPC, Symbian, etc would be a "nice to have". **Note:** You can do this from version 1 by exporting your contacts from you PDA aware application (e.g. outlook) and importing them using CSV or VCARD.
- Single click publish this contact to ldap server, this can be done manually in version 1 using the export to ldap->ldif.

People & Team Members

Database Schema

This section describes the current database design for the CRM engine. The schema was created using DBDesigner4 which is available from <http://www.fabforce.net/products.php> the XML data file is available [here](#) and can be used to directly create and modify the MYSQL database tables.

The following ERM show the high level relationships between the tables.

modified_by	varchar(200)		Yes	NULL	
name_prefix	varchar(100)		Yes	NULL	
name_first	varchar(100)		Yes	NULL	
name_middle	varchar(100)		Yes	NULL	
name_last	varchar(100)		Yes	NULL	
name_suffix	varchar(100)		Yes	NULL	
name_other	varchar(100)		Yes	NULL	
picture	longblob		Yes	NULL	
dob	int(14)		Yes	NULL	
notes	text		Yes	NULL	
secret_code	text		Yes	NULL	
profession	varchar(100)		Yes	NULL	
employer_name	varchar(255)		Yes	NULL	
employer_code	varchar(32)		Yes	NULL	
account_name	varchar(100)		Yes	NULL	
account_number	int(11)		Yes	NULL	
account_type	varchar(100)		Yes	NULL	
account_status	varchar(100)		Yes	NULL	
recording	longblob		Yes	NULL	
unit_description	varchar(64)		Yes	NULL	
address_street_prefix	varchar(32)		Yes	NULL	
address_street_no	varchar(32)		Yes	NULL	
address_street_name	varchar(100)		Yes	NULL	
address_street	varchar(100)		Yes	NULL	
address_city	varchar(100)		Yes	NULL	
address_state	varchar(100)		Yes	NULL	
address_postal_code	varchar(100)		Yes	NULL	
address_country	varchar(100)		Yes	NULL	
address_time_zone	varchar(8)		Yes	NULL	
address_weather_url	varchar(254)		Yes	NULL	
address_map_url	varchar(254)		Yes	NULL	
address_is_postal	enum('y', 'n')		No	y	
address_is_parcel	enum('y', 'n')		No	y	
address_is_billing	enum('y', 'n')		No	y	
tel_prefered	varchar(32)		Yes	NULL	
tel_mobile	varchar(32)		No	+000 (000) 0000-0000	
tel_office	varchar(32)		No	+000 (000) 0000-0000	
tel_home	varchar(32)		No	+000 (000) 0000-0000	
tel_fax	varchar(32)		No	+000 (000) 0000-0000	
tel_video	varchar(32)		No	+000 (000) 0000-0000	

tel_voice	varchar(32)		No	+000 (000) 0000-0000	
tel_other	varchar(32)		No	+000 (000) 0000-0000	
tel_pager	varchar(32)		No	+000 (000) 0000-0000	
tel_dailup	varchar(32)		No	+000 (000) 0000-0000	
tel_callback	varchar(32)		No	+000 (000) 0000-0000	
tel_assistant	varchar(32)		No	+000 (000) 0000-0000	
tel_manager	varchar(32)		No	+000 (000) 0000-0000	
tel_trustee	varchar(32)		No	+000 (000) 0000-0000	
email_description	varchar(32)		Yes	NULL	
email_address	varchar(255)		Yes	NULL	
email_format	enum('plaintext', 'html', 'mime')		No	mime	
email_use_public_key	enum('y', 'n')		No	n	
email_public_key	blob		Yes	NULL	
email_wraplines	enum('y', 'n')		Yes	NULL	
email_add_to_addressbook	enum('y', 'n')		No	n	
url_name	varchar(64)		Yes	NULL	
url_description	text		Yes	NULL	
url_url	varchar(255)		Yes	NULL	
url_uid	varchar(32)		Yes	NULL	
url_pwd	varchar(32)		Yes	NULL	
url_publish_directory	varchar(240)		Yes	NULL	

Design Notes: The entity table was designed to for speed, in most cases all the properties that make up an entity can be defined in this table, with the exception of entity attributes which vary depending on primary purpose of the system. Additional units (address and phone numbers), email and url's can be defined at any time, however when creating these we must ensure that a primary unit exists (properties from this table) before creating a new one, if they do not we must create it before creating the new unit. This is required in-order to allow the primary (this table) properties to be substituted with new properties by setting the primary flag.

We did toy with the following concept, but decided that the performance hit would be too high, by replacing the entity definition (currently first last middle name) with a single description/name field and move the (first last middle name etc) into the attributes table. This would allow the system to be extended with any number of new entities for example projects etc. Although this type of definition is very flexible it is at this point deemed to abstract to be comprehend easily, even by the system developers.

CRM Unit

The unit table is used to holds an entities paper address and phone contact details as well as providing a link to one or more, email, and url entities. Each unit has a name that describes the unit (e.g. Home, Office, Beach House, Sales Dept, etc.) and should be viewed as a container-link for url, emal as well as to other entities (relationship and roles) which have defined attributes.

Field	Type	Attributes	Null	Default	Extra
unit_id	int(14)		No		auto_increment
entity_id	int(14)		No	0	

modified_by	varchar(200)		Yes	NULL	
modified_on	varchar(14)		Yes	NULL	
is_primary	enum('y', 'n')		Yes	n	
unit_description	varchar(64)		Yes	NULL	
address_street_prefix	varchar(32)		Yes	NULL	
address_street_no	varchar(32)		Yes	NULL	
address_street_name	varchar(100)		Yes	NULL	
address_street	varchar(100)		Yes	NULL	
address_city	varchar(100)		Yes	NULL	
address_state	varchar(100)		Yes	NULL	
address_postal_code	varchar(100)		Yes	NULL	
address_country	varchar(100)		Yes	NULL	
address_time_zone	varchar(8)		Yes	NULL	
address_weather_url	varchar(254)		Yes	NULL	
address_map_url	varchar(254)		Yes	NULL	
address_is_postal	enum('y', 'n')		No	y	
address_is_parcel	enum('y', 'n')		No	y	
address_is_billing	enum('y', 'n')		No	y	
tel_prefered	varchar(32)		Yes	NULL	
tel_mobile	varchar(32)		No	+000 (000) 0000-0000	
tel_office	varchar(32)		No	+000 (000) 0000-0000	
tel_home	varchar(32)		No	+000 (000) 0000-0000	
tel_fax	varchar(32)		No	+000 (000) 0000-0000	
tel_video	varchar(32)		No	+000 (000) 0000-0000	
tel_voice	varchar(32)		No	+000 (000) 0000-0000	
tel_other	varchar(32)		No	+000 (000) 0000-0000	
tel_pager	varchar(32)		No	+000 (000) 0000-0000	
tel_dailup	varchar(32)		No	+000 (000) 0000-0000	
tel_callback	varchar(32)		No	+000 (000) 0000-0000	
tel_assistant	varchar(32)		No	+000 (000) 0000-0000	
tel_manager	varchar(32)		No	+000 (000) 0000-0000	
tel_trustee	varchar(32)		No	+000 (000) 0000-0000	

Note: in the future we may replace the unit definition with a single description/name field and move the fields into the attributes table. This would allow the system to be extended with any type of unit definition. Although this type of definition is very flexible it is at this point deemed to abstract to be comprehend easily, even by the system developers.

CRM Unit email

Provides a list of email address and associated parameters for each email address, such as usePlain Text, use public key etc. Email will display a dialogue to select the primary email address; it's setting as well as a list of other email addresses for this contact entity

Field	Type	Attributes	Null	Default	Extra
unit_id	int(14)		No	0	
description	varchar(32)		Yes	NULL	
is_primary	enum('y', 'n')		No	n	
address	varchar(255)		Yes	NULL	
format	enum('plaintext', 'html', 'mime')		No	mime	
use_public_key	enum('y', 'n')		No	n	
public_key	blob		Yes	NULL	
wraplines	enum('y', 'n')		Yes	NULL	
add_to_addressbook	enum('y', 'n')		No	n	

Note: could use tiki_user_email table for this

CRM Unit URL

Provides one or more url details, including any login id and password required to access the url. The url will display a dialogue to select the primary url (e.g. website), it's account and password information, as well as a list of other website for this contact entity.

Field	Type	Attributes	Null	Default	Extra
unit_id	int(14)		No	0	
is_primary	enum('y', 'n')		Yes	n	
name	varchar(64)		Yes	NULL	
description	text		Yes	NULL	
url	varchar(255)		Yes	NULL	
uid	varchar(32)		Yes	NULL	
pwd	varchar(32)		Yes	NULL	
publish_directory	varchar(240)		Yes	NULL	

Note: This would be the ideal place to store net meeting and other real-time connection information. We could use directory Links (aka featured links) for this feature. Directory could be extended with comments, attachments and a picture to represent the category and or site. User_bookmarks is should be integrated with directory. Tiki_category_sites used by directory should be renamed directory_sites_category as it appears to be part of tiki categories. We could extend the directory with uid and password and use the directory instead. Although we may have an issue with updates as directory cats are assigned directory admin?

CRM Synchronization

The synchronization table holds the information required to connect to external systems in-order to exchange packets of information between distributed entities.

Field	Type	Attributes	Null	Default	Extra
synchronize_id	int(14)		No		auto_increment

kind	enum('ldap', 'ical')		Yes	NULL	
description	varchar(64)		Yes	NULL	
inbound	enum('y', 'n')		No	n	
outbound	enum('y', 'n')		No	n	
host	varchar(200)		Yes	NULL	
url	varchar(200)		Yes	NULL	
port	int(11)		Yes	NULL	
uid	varchar(200)		Yes	NULL	
pwd	varchar(200)		Yes	NULL	
public_key	blob		Yes	NULL	
secret_key	blob		Yes	NULL	
refersh_interval	int(11)		Yes	NULL	
unresovled	enum('leave', 'usetiki', 'usehost')		Yes	NULL	
converstion	int(14)		Yes	NULL	
sync_items	int(14)		Yes	NULL	

This table will also be use to hold the configuration information for the following:-

☒ **LDAP** Import allowed [] + LDAP server/login details []

Note: for additional comments please refer to comm servers and crm folders. We need a method to store and schedule ldap imports/exports/updates as well as any RSS/RDF feeds we wish to establish for crm-entities.

The crm_unit_url table also serves a very similar role. IMO the best thing is to create a similar solution to tiki-send-obejcts but with the addition of an interval setting and perhaps a name and description field. We also want to be able to select multiple servers for communications for each crm_folder.

Note : tiki currently provides similar functionality in the following features, it appears that many of these could be merged into a single comms lib.

tiki_dsn – requires login information

tiki_rss_modules –

tiki-send-objects - used for articles (received-article) and wiki pages(received pages)

tiki-send-blogs

tiki-rdf-xxx when it becomes available

tiki_admin_external_wiki

tiki_newsservers

CRM Sync List

Provides a means to allow each folder to be synchronized with one or MORE systems.

Field	Type	Attributes	Null	Default	Extra
<u>synchronize_id</u>	int(14)		No	0	
<u>folder_id</u>	int(14)		No	0	

CRM Attribute List

Attributes are simply a set of user-defined fields that can be associated with an entity as well as each of its units. Each attribute set can also be associated with one or more participants in-order to form links between entities; these relationships are described using attributes.

Field	Type	Attributes	Null	Default	Extra
<u>attribute_id</u>	int(14)		No		auto_increment
entity_id	int(14)		Yes	NULL	
unit_id	int(14)		Yes	NULL	
definition_id	int(14)		Yes	NULL	
description	varchar(255)		Yes	NULL	
is_primary	enum('y', 'n')		No	n	
created_on	int(14)		Yes	NULL	
created_by	varchar(200)		Yes	NULL	
modified_on	int(14)		Yes	NULL	
modified_by	varchar(200)		Yes	NULL	
start_date	int(14)		Yes	NULL	
end_date	int(14)		Yes	NULL	

CRM Attribute Definition

The role definition table is based on the tracker table and is used to define a role and its attributes.

Field	Type	Attributes	Null	Default	Extra
<u>definition_id</u>	int(14)		No		auto_increment
name	varchar(64)		Yes	NULL	
description	text		Yes	NULL	
created_on	int(14)		Yes	NULL	
created_by	varchar(200)		Yes	NULL	
modified_on	int(8)		Yes	NULL	
modified_by	varchar(200)		Yes	NULL	
no_of_instances	int(11)		Yes	NULL	
use_comments	enum('y', 'n')		Yes	NULL	
use_attachments	enum('y', 'n')		Yes	NULL	

CRM Attribute Fields

The role field's table is based on the tracker field's table and is used to define each of the attributes associated with a role.

Field	Type	Attributes	Null	Default	Extra
<u>field_id</u>	int(14)		No		auto_increment
definition_id	int(14)		No	0	

name	varchar(64)		Yes	NULL	
position	int(11)		No	0	
is_main	enum('y', 'n')		Yes	NULL	
is_visible	enum('y', 'n')		Yes	NULL	
Kind	int(11)		Yes	NULL	
list_options	text		Yes	NULL	
select_query	text		Yes	NULL	
update_query	text		Yes	NULL	
ldap_definition	text		Yes	NULL	

Note: need to extend the current table to include Type: [checkbox, option, listbox, multi-checkbox, multi-option] Data Source (if gathered from another module) Select Query: Update Query:

CRM Attribute Instance

The role instance table is based on tracker item table and is used to map the field values to a specific role.

Field	Type	Attributes	Null	Default	Extra
<u>field_id</u>	int(14)		No	0	
<u>attribute_id</u>	int(14)		No	0	
value	text		Yes	NULL	

Note: may add notes and attachments tables in future.

CRM Participates List

Provides a list of entities for this relation id.

Field	Type	Attributes	Null	Default	Extra
<u>entity_id</u>	int(14)		No	0	
<u>attribute_id</u>	int(14)		No	0	
created_on	int(14)		Yes	NULL	
description	varchar(64)		Yes	NULL	

CRM Activity

The activities table is a link table that links items stored in other tiki tables, and is used to store all of the activities for this entity; the default view mode is chronological order. Activities can be assigned to other users and reminders sent to that user.

Field	Type	Attributes	Null	Default	Extra
<u>activity_id</u>	int(14)		No		auto_increment
<u>entity_id</u>	int(14)		No	0	
parent_activity_id	int(14)		Yes	NULL	

activity_type	varchar(20)		Yes	NULL	
table_name	varchar(64)		Yes	NULL	
table_instance	varchar(32)		Yes	NULL	
description	varchar(255)		Yes	NULL	
created_on	int(14)		Yes	NULL	
created_by	varchar(200)		Yes	NULL	
duration	time		Yes	NULL	
assigned_to	varchar(200)		Yes	NULL	
assigned_on	int(14)		Yes	NULL	
assigned_notes	text		Yes	NULL	
assigned_schedule	enum('y', 'n')		Yes	NULL	
assigned_notification	enum('y', 'n')		Yes	NULL	
notify_on_updates	enum('y', 'n')		Yes	NULL	

CRM Folders

CRM Folders provides a convenient way to group entities and can be mapped to tiki user groups. Preferences and permissions can be applied on a folder-by-folder basis.

Field	Type	Attributes	Null	Default	Extra
folder_id	int(14)		No		auto_increment
description	varchar(45)		No		
access_group	varchar(30)		No		
allow_sub_folders	enum('y', 'n')		No	n	
admin_group	varchar(30)		Yes	NULL	
user_creation	enum('y', 'n')		Yes	NULL	
user_create_method	enum('number', 'name')		Yes	number	
user_start_date	int(14)		No	0	
user_end_date	int(14)		No	0	
user_access_items	enum('y', 'n')		No	n	
popup_reminders	enum('y', 'n')		No	y	
import_idif	enum('y', 'n')		No	n	
export_idif	enum('y', 'n')		No	y	
export_vcard	enum('y', 'n')		No	y	
import_vcard	enum('y', 'n')		No	n	
export_csv	enum('y', 'n')		No	n	
import_csv	enum('y', 'n')		No	n	
export_ical	enum('y', 'n')		No	y	
import_ical	enum('y', 'n')		No	n	
merge_code	varchar(64)		Yes	NULL	

Note: When importing records we need an option for automatically creating accounts base on the above. Also refer to Tiki User Groups and Permissions.

CRM Category List

Tiki categories will be used to classify instance objects (e.g. a specific crm entity), we should allow the user to assign an entity to one or more categories. This table provides a lookup list of the tiki categories that this contact has been assigned to and is used to assign a single contact to one or more tiki categories. Categories can be used in association with folders, for example you may wish to define a folder for partners and add the contact information for each business partner, each partner can then be associated with one or more categories, for example life insurance, mortgages etc.

Field	Type	Attributes	Null	Default	Extra
entity_id	int(14)		No	0	
cateid	Int(12)		No	0	

Note: we should be able to set permissions for categories for example who can view meeting, birthday, phone call, travel time, sick, on vacation, private, etc.

CRM Global Preferences

The global preferences table will hold configuration information that is global in nature, this table has yet to be refined.

- ☒ **CRM:** Use HOME contact method during hours, this is to allow the activity log call option to selected the correct contact method (email voice mobile etc)
- ☒ **CRM:** Use WORK contact method during hours this is to allow the activity log call option to selected the correct contact method (email voice mobile etc)
- ☒ **CRM:** Default View (Properties (sum, detail, events, relations)), List (tabs (people, company etc..))
- ☒ **CRM:** Default list view, Select which fields appear in the List View (A-Z) as well as their order.
- ☒ **CRM:** Default filter and category?
- ☒ **CRM:USER:**Use email application [mailto:: open windows default mail app or internal copy to field to tiki webmail]
- ☒ **CRM | USER:** Select the first five country names that appear in the contacts country dropdown list, used as a kind of shortcut.
- ☒ **COUNTRY ID:** used to determine if a contact address is international or not? WE COULD USE TIKI->GENERAL(Displayed time zone:)
- ☒ Collapsible Activity list [Yes|No]
- ☒ TEL FORMAT, default telephone format e.g. +00 (00) 0000-0000
- ☒ Number of items per page (will be incorporated as part of the list view)

Issues, Possibilities and Comments

The following table are not show, but may be included later

1. Pick Lists table may be added, the purpose of which is to provide a list of acceptable values for each field, unlike a list box, a pick list allows you to select multiple items and have the item represented as a icon (e.g. hobbies list, or services used list etc.)

2. Split address street field into sub-fields (e.g. Name, Street No and Street Name) in-order to allow for a more intelligent map referencing url.
3. We should really have some credentials tables for key management, but that's another feature altogether a KMS, maybe in the not to distant future.

Other tables of interest

Tiki_wiki_attachments

Tiki image

Tiki files

Tiki comments

Tiki User Groups & Permissions

The following section describes some ideas on how to manage the security and permission for contact records. Within tiki users are assigned to groups and permissions are applied to these groups.

- Contacts mapped to the Anonymous Group are deemed site contacts anyone can view them.
- Contacts mapped to other groups are visible to all group members unless the owner (user) has selected the private flag (isPrivate) for this contact.

To-do

- My-Contacts is used to view all the private flagged contacts for that user, this is a feature specific tiki group which

Permission system should be the same as CMS/Articles (submission in waiting until approved)

- tiki_p_contact_edit
- tiki_p_contact_remove
- tiki_p_contact_read
- tiki_p_contact_submission (maybe in future)
- tiki_p_contact_submission_edit (maybe in future)
- tiki_p_contact_submission_remove (maybe in future)
- tiki_p_contact_submission_approve (maybe in future)
- tiki_p_contact_admin (used for delegated management)

Note: How does this work if the owner is does not have edit, delete permissions?

Tiki Theme Control

How do we add crm as a tiki section?

Phone Dialer

Determine telephone call location based on ip location, this presumes that all number are entered in the correct international format. We also need to add the following: Dialing prefix (e.g. Calling Card #)

Modules/Blocks

The following block/modules can be used to navigate contact entities and can be assigned in the same ways as tiki modules.

- ENTITY Current Time, we need to show the system time for this to be useful, also note that the system time will only use the users time zone if we cannot get a system time based on ip address.
- ENTITY Current Weather

- ENTITY Current Map
- Clipboard block – dual-purpose block 1] can be used as bookmark (e.g. tagged items are placed in the clipboard. 2] can be use too copy and PAST tagged items.
- Relationships (only visible from properties view of people and org) provide an hierarchical view of relationships for the select entity.
- Activity List for a specific entity, the idea is that you could use this block/module from other modules
- Calendar, provide a block using the calendar (being developed by mose) to display the contacts calendar.
-

Maybe?

- Person List, the idea is that you could use this block/module from other modules such as a Projects module
- Org List, the idea is that you could use this block/module from other modules such as a invoice module

GUI and Views

This section is an attempt at documenting some potential GUI elements for easy navigation of CRM features. It is very much a work in progress and is likely to change frequently.

Currently we have two main views, the list view and the properties view.

Global /Navigation View

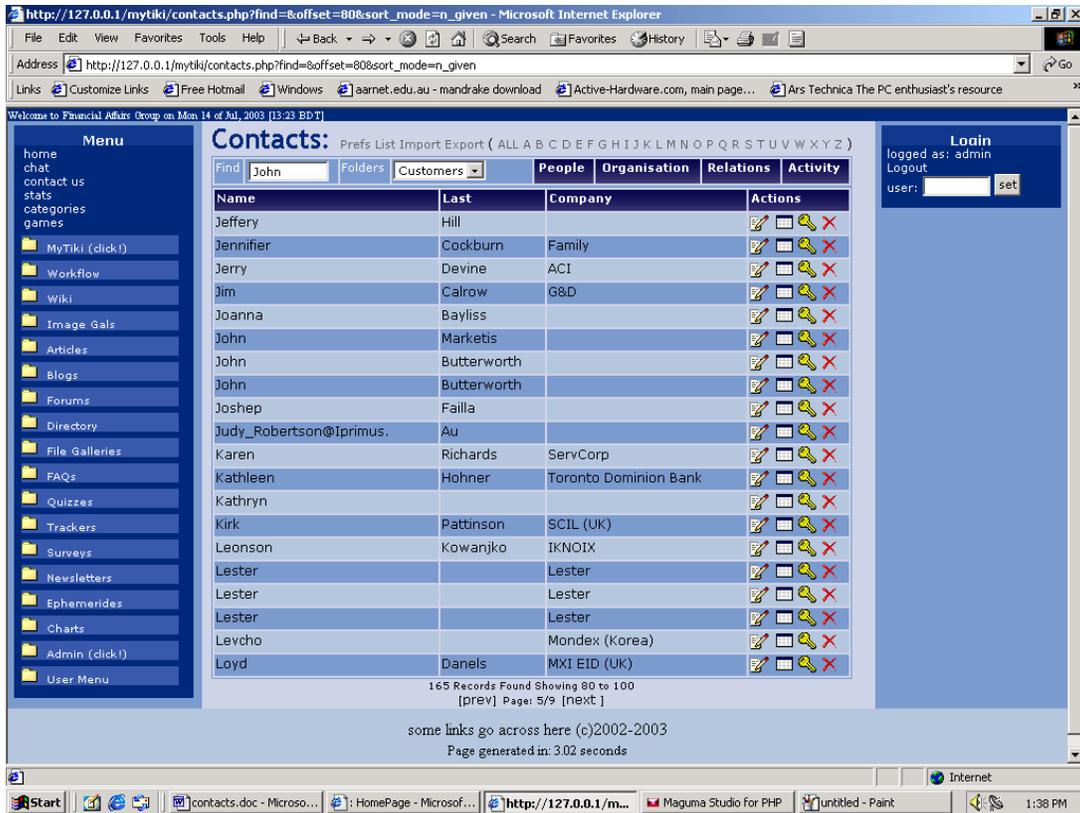
The global view is nothing more that a header with a number of command which are consistent across all views

Commands Global: The following commands are available from the list view

- New -> goes directly to properties view
- Add/Import all from vcard, cvs, outlook, ldap etc!!
- Save/Export all vcard, cvs, outlook, sql, ldap etc!!
- Print (all pdf, biz cards)

List View

The list view is used display, sort and find entities, there are currently four tabs one for each of the following lists [People | Organizations | Relationships | Activity]. The administrator should have the option of specifying which fields are included in the list view. An option to set the number of items shown per page should be available.



Each list will provide the functionality to select and manipulate multiple, entities can also be sorted using any of the fields defined. Some field values may have shortcut links, for example if the email field is shown you can click on the email address which will launch the email app as specified by the contact preference.

Each list page will have a footer which will display the current page, number of pages, page 1...n, first, last, next and previous as well as the number of records and the first and last record currently display on the screen. The record creation date and the record last modified by xxx on date. May add link to select all.

People

Organization

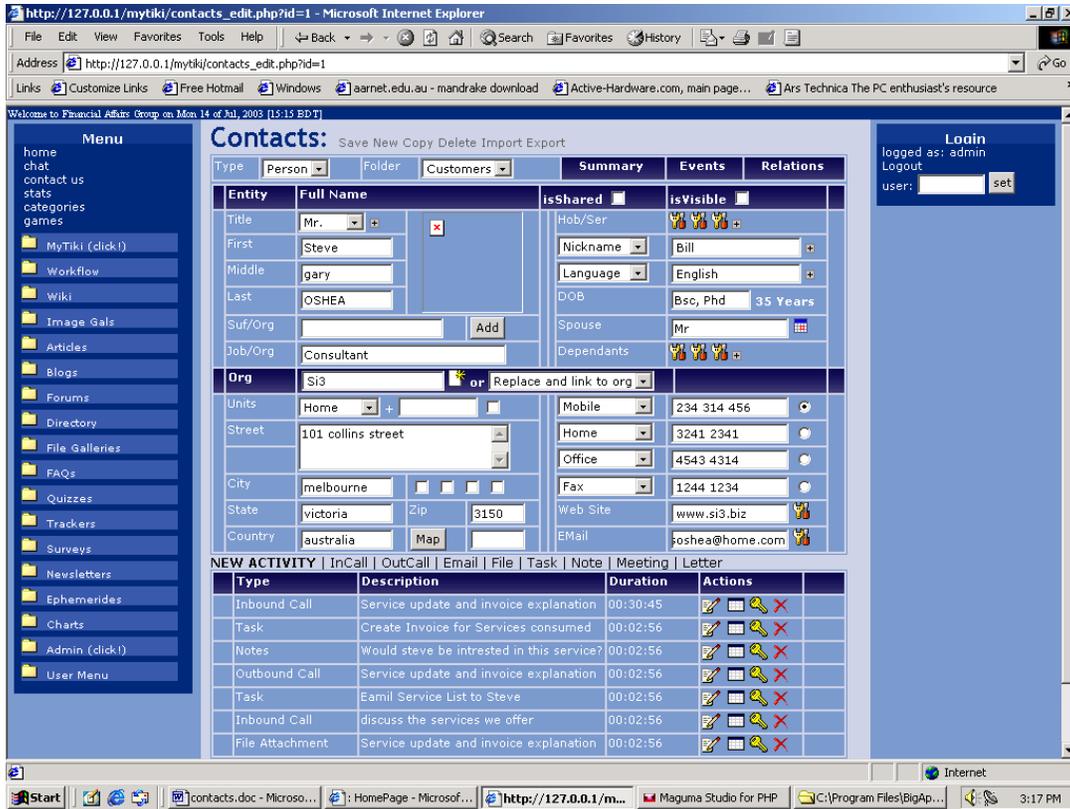
Relationships

Activity

Properties View

The properties view is used to navigate and edit an entity and its associated properties. This screen(s) is split into two regions (top and bottom) the top region is used to display the entities properties (details, events and relations) and the bottom region is used to display the entities activity in chronological order (notes, tasks, calls etc).

Figure 1 - Mockup Example Screen



People

Person's properties are split over four tabs, primarily to allow space for the activity log to be shown.

- **Summary Tab (not shown)**, allows the admin to specify which of the details, events, relations and activity items to be shown.
- **Details**, is a fixed form, which describes the entity contact details?
- **Events**, display all the events for this entity
- **Relations**, display a list of relationships for this entity, custom fields are assigned to relationship roles.

Note: Where are we going to put the entity notes (a single notes field) and digital ids (public key). Notes are specific to this contact and are not linked to activity, the main reason they are included is so information is not lost when importing contacts. However this field may be useful if you want to add notes about this contact e.g. take station road train to Bakersfield and wait for Fred. Alternatively we could create a note item in the activity list for this contact and mark it as the primary/sticky note!!

Summary

The summary view provides a read only view of the person. The view is a combination of user-selected data from the other tabs, details, events, relationships and other.

Upcoming Events		Other. Dependants	
	Birthday: Anniversary: Dependants:		

Person Details			Other Custom fields		
	Name: Mailing: Address: Home Phone: Office Mobile: Job Title: Department: Company: Web Site: Pager: Fax: Email:				
Most Active Relations			Other Services/products		

Details

Provides the details for this person

Events

Events are simply a convenient way of adding and viewing calendar events for a specific contact and will use the existing tiki group calendar, and can be used to define activities such as:

- Birthday [date, who do I remind]
- Anniversary
- Pay Review
- Customer Service Review

Other Calendar Options

Meeting/Appointment [Request/Schedule]

- Subject
- Location online meeting netmeeting | netshare event, event address
- Start Date Time
- End Date Time
- Recurring event [dialogue see outlook]
- Reminder [1 hour before] | show as [busy | tentative | out of office | free]
- Invite Attendees bTo [email.addresses]
- Send attachments:
- Attendees Availability: [dialogue see plan a meeting outlook]

Forward as iCal *.ics (add attach .ics)

NOTE: may move events to activity log

Relations

Used to view and define relationships for this contact, relationship can be defined as

- People-2-People (steve->**father**->aaron)
- People-2-org (steve->**directory**->si3)
- org-2-org (si3->**subsidiur/division/department**->asdell)
- Group base relationships 1:M can also be defined for things such as sales opportunities.

Creating new relations involves specifying the following instance information

- ☒ Relationship Name []
- ☒ Description []
- ☒ Which People are involved in this relationship []
- ☒ Which organizations are involved in this relationship []
- ☒ When does this start date []
- ☒ When does this end (if any) []
- ☒ Values for each of the user defined fields for this relationship type

The Relationship definition screen allows you to define the relationship role along with the attributes for this role. Attributes are based on tracker fields are there is no limit to the number of attributes allowed to describe a relationship.

- ☒ Type: org/person
- ☒ Entity (FN) Name:
- ☒ Compartment/unit: N/A, ALL, Select
- ☒ Role Name:
- ☒ Unlimited user defined Attributes

Example Sale opportunity could be defined using the following attributes

- ☒ Close date
- ☒ Sale stage
- ☒ Potenta revenue: 1 zillion
- ☒ Profit margin [10%] I
- ☒ Description

Organization

Organization screen layout follows the same conventions as found in the person properties. Organization properties are used to define the various attributes that describe the organization, such as department's etc. People may be linked/mapped to each department or roles but the details of that person are store in the person.

Events

The events property view will follow the same conventions as those found under both people and organizational events.

Relations

The relation's property view will follow the same conventions as those found under both people and organizational relations.

Links/Competition

There are many groupware and standalone php based solution that offer some of the capabilities that will be present in tiki CRM, here is a short annotated list of some of the solutions I have played with.

<http://www.moregroupware.org/> Nice and simple GUI and has nice company relationships and partner modules, also has a really cool looking web mail app.

<http://www.phpprojekt.com/> provides a wide range of functions, none of which really excel, although the calendar module looks pretty neat.

<http://www.phpgroupware.org/> Latest release includes some theme and CMS support, generally this has a good contacts and project management capability we could add these to tiki

<http://www.hilckmanngroep.com/sourceforge/> has a very nice and simple interface with pull-down menus, some nice design ideas but a little limited in functionality.

<http://www.dotproject.net/> has a nice windows feel to it, but little substance

<http://www.tutos.org/homepage/index.html> if you figure out how you are supposed to use this system please let me know, it took me few hours to figure out how to add a user! Just call me Dumbo ☺

<http://dcl.sourceforge.net/> Double Choco Latte is more of a tracking tool for project/product not sure how this fits? Nice calendar popup. Appears to be a port of phpgroupware.

<http://www.phpcollab.com/phpbb/index.php> is a project management tool, primarily aimed at software nice gant chart

<http://www.relata.org/> (next version won't be GPL) simple GUI, but I would never pay for this so good luck on what every they are going to do.

<http://www.anteil.com/> This one looks pretty good.

<http://www.customer-touch.com/> Demo - Ok but really a bug tracking system and nothing more, bugzilla and a number of other solution are more practical

<http://www.guanxicrm.com/> clone of moregroupware, which is unicode compliant? They are also building an xoops module for this which may be good! As xoops was my second choice after tiki as the foundation.

<http://e-crm.sourceforge.net/> could not connect to demo!

<http://crm-ctt.sourceforge.net/> nothing more than a tracker, but has a very clean interface and uses a lot of mouse over stuff! Need to install and play with it!

<http://issue-tracker.sourceforge.net/> another tracker, but has escalation support and instant email notifications. Although no demo available, must install and play!

<http://www.leads4web.de> INSTALL FIRST - could not read German, but screen shot looked interesting!

<http://www.limerence.net/> An invoicing piece of software

<http://openrcm.sourceforge.net/> last update was in May 2002, which means its fantastic or crap? Have not played with it.

<http://assistant.sourceforge.net/> INSTALL - at 250k this has got to be worth installing!

Some LDAP browser links:

<http://rolodap.sourceforge.net/>

<http://noc.postnuke.com/projects/ldapclient/>

<http://alcastle.com/index.php?id=178>

<http://sourceforge.net/projects/lam>

<http://yala.sourceforge.net/>

<http://sourceforge.net/projects/ldapnavigator/>

<http://web.pdx.edu/~keysd/eLDAPo/>

<http://davedap.sourceforge.net/>