WORKPOOL RELEASE NOTES

WorkPool Version	:	**5.01.***	Internal Build Date	:	**20 February 2017**
Release/Batch Number	:	**107807**	Notes Prepared By	:	**Marius Botha**

Summary of Modules / Components Affected:

Module Changed/Affected	Significance / Effort
Calendar	Minor
Communications (Email & SMS/Text Message)	Major
Dashboard / Intranet Home	None
Directory	Medium
Files	Minor
Items	Minor
Process Management	Minor
Tasks & Activities	Medium
WorkPool System Administration	Major
WorkPool Mobile App [new]	Major
WorkPool Plug-ins (Add-ons) [new]	Major

Annexure: Known Issues

CHANGE LOG DETAILS

CALENDAR

1. **Updates to Calendar Event view screens and additional support for external invitations (139238)**

   Apart from continuing efforts to improve integration between WorkPool and other providers we have also made following changes and enhancements:

   a) The event title, date and time as well as duration now more prominent so it is visible at a glance without having to look through all the fields.
   b) To save space the "Entry Folder" and "Default Folder" links have been merged onto one line with standard links to the entry record and entry folder.
   c) The calendar event will now show the task number, title and status of the task it is linked to (if applicable) instead of just the task number.
   d) Items linked to Calendar events (such as boardroom, company car, data projector, etc.) will now be listed with a different background colour so these can stand out as non-human attendees.

2. **Minor Changes and Bug Fixes (132325)**

   a. (**138395 & 138401**) Minor Change: Since other Calendar systems allow invitations to be sent without a subject (title) for the event, creating these in WorkPool results in calendar events that look blank. As with emails we will now add a default "(No Subject)" title. In addition to events with no subject we have also found some providers who do not allocate a unique ID to their calendar events, typically used to uniquely identify an event. In this case too we now allocate an ID to the event to make it unique.
   b. (**138397**) Minor Change: Implementation of the international Calendar standards differ from provider to provider where some providers include all parties in the

accept/decline/status change notifications and others only the author or selected parties. To avoid situations where WorkPool will automatically inform all parties of a person accepting/declining an event in WorkPool we now allow the sender to choose who they want to send the response too. Since not all calendaring systems work in the same way it sometimes confused external parties when they received a notification from WorkPool that they would not under normal circumstances receive, or that would update their calendar automatically in the background. The user can now choose how they wish to respond, if at all.

c. (**138399**) Fixed Bug: When inviting Items to calendar events they would display as "null" on the calendar event popup that is displayed when you hover your mouse over the event.

d. (**138407**) Fixed Bug: When creating a recurring, All Day event, only the first date in the sequence lists the event as an All Day Event. All subsequent events in the same sequence is listed as a normal event spanning the whole day.

e. (**138408**) Fixed Bug: In a case where you have no feeds active OR only 'non-calendar feeds' such as next action dates on tasks, the reserved days were not being displayed on the calendar. It would only be visible if another feed was active.

f. (**147123**) Fixed Bug: When WorkPool received a Calendar event update request of type "counter" we show the details of the event as per the email instead of the event as per WorkPool. A "counter" request is a request from one invitee to update the date and time of the event therefore only contains the details of person requesting the change. All parties had to be populated.

g. (**145680**) Minor Change: Audit Notes now use the ANSI SQL format for recording dates in the audit trial instead of the user's date format preference. Using different formats make accurate reporting impossible.

COMMUNICATIONS (EMAIL & SMS/TEXT MESSAGE)

1. **Architectural Changes (Caching and "Big Data")**

As a business nervous system, WorkPool collects and connects a significant amount of data across various modules and applications in the business. Email is a significant chunk of this information collected and managed by clients. In many cases the email content can be responsible for more than 90% of the database size, specifically the email body content (not attachments or address details). It also increases the size of the database substantially over time, which means the server needs more and more hardware resources to perform its job. It also needs to compensate for users who do not maintain their mailboxes or do not refine their searches, resulting in WorkPool performing deep searches over millions of records in the database, leaving less resources for normal operations. Companies such as Facebook, Twitter and Google all had to go back to the drawing board when their information volumes spiked and normal systems or products could not cope with the demand, finding new and innovative ways to deal with the new requirements. This is an ongoing exercise as information and demands are

only increasing. WorkPool too has reached a point where the normal operating requirements for a database and server environment like ours is expanding beyond the norm and we too have to build and rebuild components to cope with these changes.

In this version of WorkPool we have adopted a caching methodology for emails stored in user inboxes. This means that WorkPool will now store your email inbox in memory and not rely on the database directly. This makes performance a lot faster and reduces the strain on the database by thousands of queries. We do not cache content, only the envelope information such as From, To, Subject, Sent On, etc. This does mean the server needs more RAM, however a relatively small amount in comparison to the database requirement to cope with the same information. In future, more and more information may be cached as we continue to evolve WorkPool to deal with big data. It is very possible that customers with high volume email environments may need to run their email sending and receiving activities on a separate server environment in the future, i.e. one server for WorkPool and one dedicated to processing email activities. Architecturally we have also simplified the design and database structure, removing many of the normalised relationships in favour of a simpler, faster structure. One of the changes we have made is to introduce an object called a "datastore" for every resource in the system, to link all their emails to as opposed to having to query the database across various tables. This also allows us to add a feature in the future where two users could both access the same mailbox as they can on Exchange in cases where an assistant is monitoring a manager's mailbox.

Please consider that there are many thousands of internal messages (not emails) managed by WorkPool to ensure that when you e.g. receive an email, send an email, link and email, etc. that all the various records are updated, people notified, etc. There are many things that can go wrong and interfere with these internal messages being delivered. If you are ever in doubt that the emails in your inbox is not correct and you want WorkPool to double check and rebuild your cache, you can do so by clicking on the following button under the user profile (see below). Please note that this button may be removed in the future.

2. Email composition screen updated (112851)

Apart from the changes already mentioned above we also changed the buttons and layout of the email composition screen to be more mobile/tablet friendly by removing some of the

dropdowns and making them onscreen buttons or options. Items such as read receipt, billable, priority, etc. have all moved onto the bar at the top.

WorkPool 4.7

WorkPool 5.0

3. **Linking Emails to multiple folders and Sending Emails Internally vs. Externally**

Linking an email to multiple Entry Folders

Email administration is always a burden and takes conscious thought to ensure information ends up in the correct place/s. Prior to WorkPool 5 a user would have to specify a primary Entry Folder or Personal Folder (if allowed) against which the email would be filed. This was a required field as per screenshot below. A user would then lookup and add one or more email addresses and click on send.

WorkPool would then take the user to a new screen where they can confirm the recipients, or, should their preference be set accordingly, they could bypass this step and WorkPool would guess the folder/s and then send out the email.

Send Message To

Confirm Recipients :

support@workpool.co.za : ● Recipient on WorkPool
  ○ WorkPool Support Department (General Info Email Address on Business View)

demo@workpool.co.za : ● Office Contractor (External Resource)

Send Mail to Recipients   **Back**

Depending on the choice made as per example above WorkPool would then file this email in both the primary entry folder **and** the entry folders selected on the screen based on those email addresses being registered against those folders. In this way one could link an email to multiple folders. Our goal was to simplify and streamline this action as much as possible in an environment where people may have been used to Outlook that had no such restriction in terms of where an email is filed.

With the introduction of the **Protection of Personal Information (PoPI) Act** there is now a much stricter obligation on businesses to manage and protect personal information, including email communication. Even on am internal staff level a business must ensure that information is protected and that only users with a legitimate reason to access personal information can do so. As such it was important that we introduce new rules and finer controls on email communication so that the sender could consciously control where an email will be filed, yet do so in a way that is still efficient and not a burden on them.

On WorkPool 5 the Entry Folder field has been removed from the composing screen. Instead, we now make use of the email addresses to guess and suggest to the sender where the email should be filed on the confirmation screen. The user can then decide to add or remove links to Entry folders for each individual email as opposed to filing it against the folder the address is registered against. If someone wasn't careful they could inadvertently publish a sensitive email to a public folder because the address was linked to that public entry folder. Our email address lookup function has also been replaced to show more information such as the Entry name to ensure you can make the correct selection while composing and therefore have no work to do on the confirmation screen. This is explained further down below. The filing confirmation screen can still be skipped as before by enabling the "Automatically Confirm Receivers" preference. The general feedback from the community though has been that this confirmation screen has become invaluable in managing access to emails and ensuring emails go to the intended recipients, which is essential under the PoPI Act.

Assuming example below, and clicking on "Send":

| Send | Save as Draft | Delete Draft | Priority ▢ | Sensitivity - Normal | Read Receipt | Billable |

TO john.doe@acme.com ✕ john.doe@workpool.co.za ✕
+ BCC CC projector@workpool.co.za ✕ john.doe@example.com ✕
Subject Testing

The user may be faced with the following screen where WorkPool will show the Entry Folder/s the email will be linked to (on the left) and the recipients and their type (on the right).

Send Message To

Link Email to Entries :

ABC Shoes (6760)
☑ ACME Corp

OR

Personal Folder :

Send Mail to Recipients **Back**

Email Recipients :

<john.doe@acme.com> ACME Corp
<john.doe@example.com> Not specified
<john.doe@workpool.co.za> John Doe (☑ Send Internal)
<projector@workpool.co.za> InFocus IN228

As indicated above, some Entry folders will appear and be ticked by default based on the types of email addresses used when composing the email. E.g. "ACME Corp" was identified based on the john.doe@acme.com that was used. The user can then lookup and add any additional folders that may be applicable such as "ABC Shoes" above. Alternatively a user can file an email against a Personal Folder – if this is enabled. A user must choose one type of folder, or the other and cannot link an email against both Entry Folders and a Personal Folder.

Sending emails to Internal Resources

Sending an email to a WorkPool user with an active mailbox on WorkPool would typically result in the email being sent internally, i.e. it would not be sent via an external mail server unless that user had a mailbox rule processor (e.g. out of office). This means that the user would receive the email instantaneously, there would be no duplication and one could track the read receipt of an email sent internally. In WorkPool 5 this functionality remains the same in that a user can still send an email to another internal resource's mailbox internally. This is the default behaviour if you select a resource's email address from the lookup, as long as the resource has an active mailbox. In WorkPool 5 we also allow you to make an exception in case you want an email to be sent externally. This is useful in cases where the recipient is using both WorkPool and another email client, such as Outlook or a mobile phone, and want the email to also be received on that account. In such a case you would un-tick the checkbox next to the address to tell WorkPool to send the email out. See "Send Internal" below.

Email Recipients :

<minister@sars.gov.za> Minister Gordan

<support@workpool.co.za>Joe Soap (☑ Send Internal)

A resource with no mailbox configured will be considered an external party, similar to an external resource, and WorkPool will send the email externally with no option to send it internally. For Task Notifications WorkPool will always look at the resource's configuration and automatically route the email internally by default, if that is possible. This means that in cases where users share email addresses like support@workpool.co.za the email will only go to the intended resource and not all people with the same address.

Saving an email as a draft

If you save an email as a draft WorkPool will retain the email address selections made on that email, which means you will not have to re-specify the entries on the confirmation screen.

Important: What about emails stored in WorkPool 4? What happens to them in WorkPool 5?

To ensure backwards compatibility, i.e. ensure that emails previously visible under an Entry folder will still be visible under the same folder in WorkPool 5, a migration is performed on the database that will file all old emails under every Entry folder they were visible before. This means that old emails will automatically be migrated and filed (linked to) all the same folders they were linked to before based on the email addresses used when sending that email. By default any other person with access to an Entry Folder will also be able to see emails linked to that same folder. This may surprise users who were not aware of this before and thought an email was confidential merely by setting the primary Entry folder to a restricted folder. It is our intention to provide a utility that will allow users or system administrators to update email folders after the fact, however this will require its own set of rules and control, including audit notes to be recorded.

4. **Looking up Email Addresses from the shared Address Book (113387)**

The email address lookup feature has been improved to indicate additional information about the email address such as if the address is linked to an Entry, Resource or Item and the name of the record it is linked to. Just start typing in any of the TO, CC or BCC fields to start a lookup. The background colour indicates the type of email address and the heading will indicate the name or title of the record it is linked too as per example below. The same lookup functionality and rules exist when creating Calendar events, where different types of parties can be invited, including Items (equipment or meeting rooms).

Select an email address by either scrolling up or down with your arrow keys on your keyboard or using your mouse to click on the appropriate one. If an email address does not exist in the database it will be listed as grey. These background colours are retained when you select the email address to provide you with visual confirmation when drafting the email. WorkPool will use your selection to suggest the Entry folders to link this email too on the next screen, or send it internally if the email is sent to internal resources only.
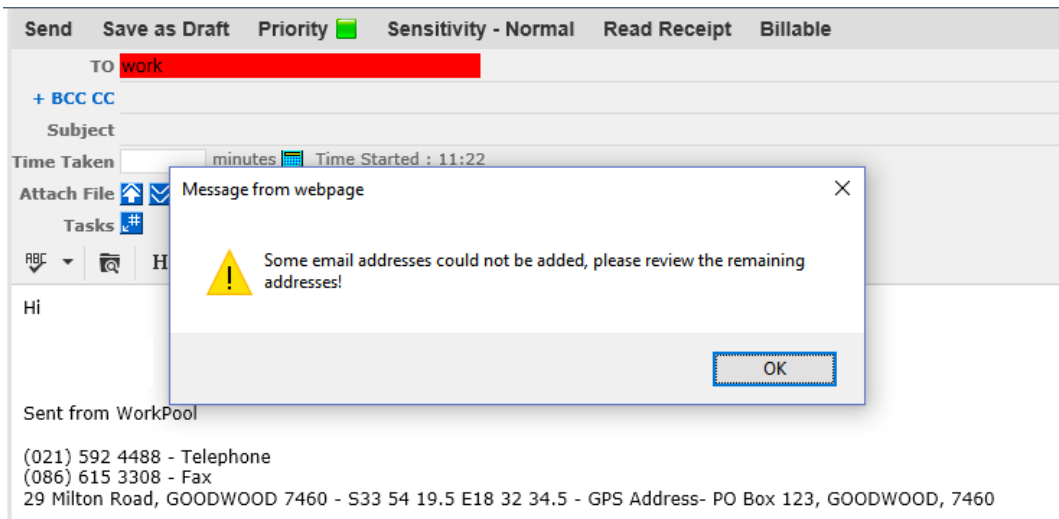

You can left-click and drag email addresses from one line to another. This is useful when you are replying to all recipients and want to address it to a different party.

If you type in an invalid email address, or press enter too soon (still busy typing in the address) then an error message will appear as per below.

Unlike the previous version of WorkPool you are not required to link or register an email address to an Entry to be able to send an email out of WorkPool. It make sense though, should you be using this address again in the future to tell WorkPool who this belong to. Registering (linking) an unknown email address to an Entry is easy. You simply left click on the grey email address and a popup will appear where you can link the address to an existing entry or create a new one.
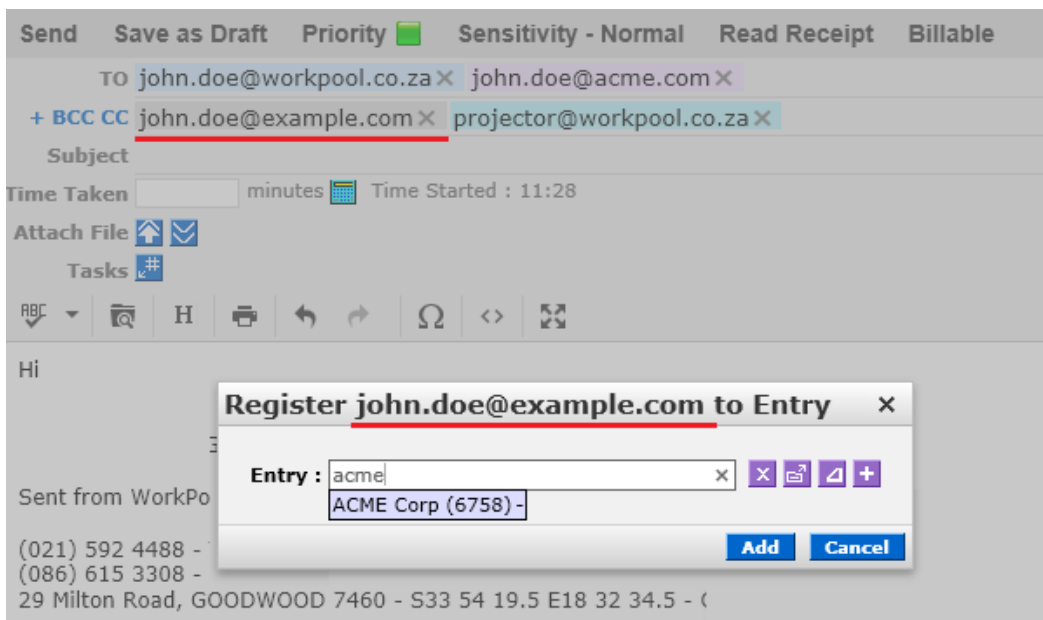
When you reply or reply all on an email that was received from the outside, i.e. it was sent by someone outside of WorkPool the addresses will default to grey even if these are found in the WorkPool database. This is because the user must make a conscious decision on the filing

location of the email and often the same email address can belong to multiple record. WorkPool cannot guarantee an accurate guess on these addresses and it is the user's responsibility to confirm the filing locations for emails. Replying on an **internal** email will however retain the links the original author used when sending the email, as long as these are still valid, as it is assumed the recipient would want to use the same folder/s by default.

Please note:

Just because you **can** log an email to multiple folders and multiple tasks does not mean you should or that it is a good idea. Adding emails to many folders is as problematic as not linking it to the correct folder/s. Decide what your company policies are around linking emails to folders and ensure users stick to this.

In summary, the following rules apply when WorkPool suggest folders to link emails to:
- When you compose a **new email** :
  - WorkPool will show and by default select all the entry folders you specified when you did a lookup for the email addresses. If your "Automatically Confirm Receivers" setting is enabled WorkPool will link the email to all these folders automatically.
  - If you are sending the email to internal resources only WorkPool cannot guess a folder so you will be asked to lookup and link at least one folder on the confirmation screen. The "Automatically Confirm Receivers" will be ignored because an email must be linked to a folder.
- When you compose a **new email from a task**:
  - The email folder will default to the same folder as the task, or tasks, linked during composing the email. The email will default with all email addresses linked to this entry. Any additional email addresses looked up from the directory during composing will show as folder options on the confirmation screen but will be unselected unless they are the same as the task folder. If your "Automatically Confirm Receivers" setting is enabled WorkPool will link the email to all the task folders automatically.
- When you compose a **new email from an entry folder / linked email address**:
  - The email folder will default to the same folder as the entry where you chose to send the email from, or the folder of the email address you clicked on. The email will default with the email address you clicked on. Any additional email addresses looked up from the directory during composing will show as folder options on the confirmation screen but will be unselected unless they are the same as the folder of the email address you clicked on. If your "Automatically Confirm Receivers" setting is enabled WorkPool will link the email to the one entry folder only.
- When you **reply on an existing email**:

- WorkPool will by default link the new email to the same folder/s and task/s as the originating email being replied to. If your "Automatically Confirm Receivers" setting is enabled WorkPool will link the email to the same folder/s as the originating email.
- If the user is replying on an email that was sent from WorkPool and WorkPool can recognize the email addresses as Entries, Items or Resources it will retain the same colour selection as per the original email. It will therefore be as if the user looked up each one of these addresses in the same way as the original author.
  - If in any event it happens that the "Automatically Confirm Receivers" setting is enabled and WorkPool cannot determine a folder, the screen to confirm a folder must be displayed.

5. **Guess Tasks, Link Tasks and Retrieve Signed Off Tasks (147078 & 147091)**

Since an email can now be linked to multiple entry folders the Guess Tasks and Retrieve Signed Off Tasks features have also been update to cater for multiple folders. If only one folder is linked WorkPool will automatically retrieve the tasks for that same folder when you click on the button. If more than one folder is linked a menu will appear for you to confirm which folder you want to retrieve tasks for. See icons marked in red below.
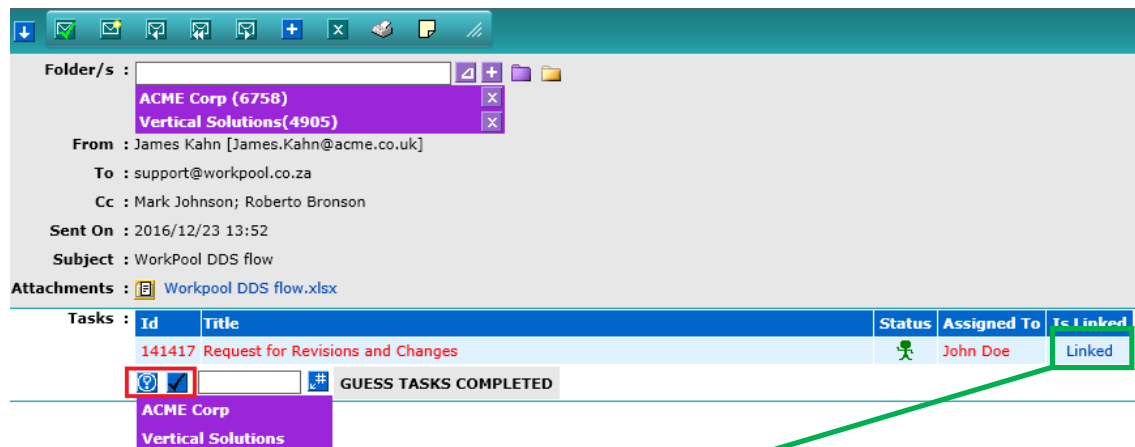
As per previous versions of WorkPool, should a user link a task <u>before</u> they specify a folder WorkPool will not retrieve a list of tasks automatically. If a user links a folder first, WorkPool will retrieve a list of active tasks in that folder. If the user links a second folder, WorkPool will replace the list of active tasks with the active tasks in the new folder that was linked. This way a user can link and lookup multiple tasks from this screen.

As per the previous version of WorkPool, emails can be linked directly from the WorkPool Inbox or General Inbox. This control has been updated to allow links to multiple folders from this view, where the previous version allowed only one link option.
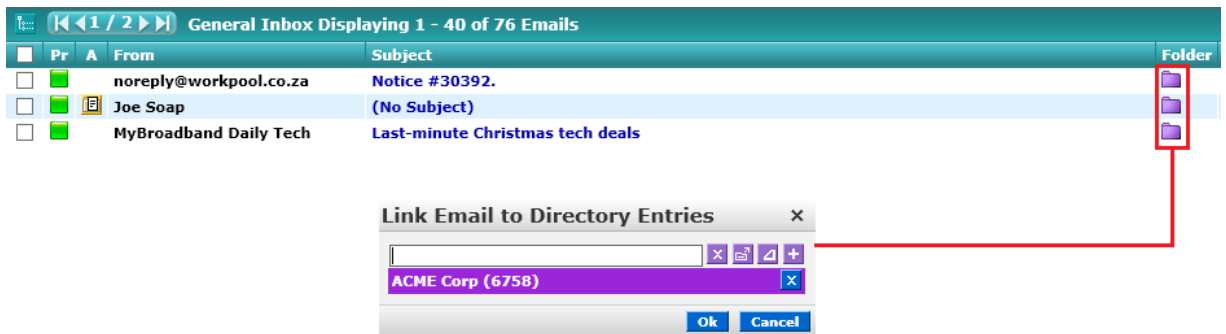
6. Registering Email Addresses against Entry Folders

In WorkPool 4.7 an email address was registered against an Entry automatically the first time an email was sent to that email address. Email addresses could be moved or removed from the Communications section as required. In WorkPool 5 a user can now register email addresses against an entry folder at any time. Furthermore, such registration is now also recorded in the entry audit notes against the user's name.

As mentioned earlier in the document a user can also use the quick registration feature when composing an email. This has the same result as using function above.
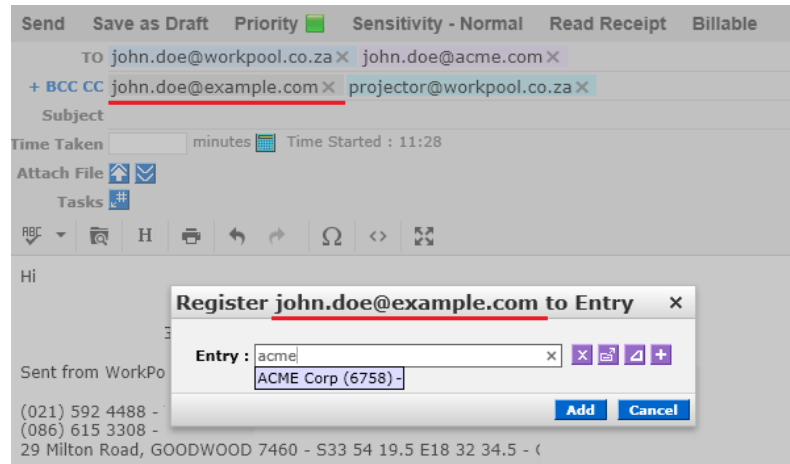
7. Adding Pre-Programmed Actions to Emails (145245)

We have several service centres, including our own WorkPool Support desk, using WorkPool where an email of a certain kind received by a user could typically result in a specific action, or actions, being taken. E.g. you could receive an email to change account details, add an item on insurance, update contact details, etc. This could in effect result in multiple actions to be performed by the user such as:

- Create a new task / start a new process and use a specific Task classification
- Assign the task to a specific person / group (or if it is a process maybe even pass Attribute values)
- Link it to a certain folder, or create a new one
- Draft an email using a standard template
- Remove from inbox
- etc. etc.

To accommodate this requirement, we have added a new feature to the Email Module, located as per link below.

Email Administration

Email Settings:
System Account Settings
Dictionary Exclusion List
User Email Signatures
Maintain Email Properties

Interaction Services:
Text Message Services
Folder Listeners
Automated Email Actions

Message Services:
Email Message Sending Service
Email Message Downloading Service Panel

Communication Templates:
Text Message Templates
Manage Text Message Template Groups
Text Message Signature
Email Templates
Manage Email Template Groups

Email Reports:
User Account Summary

Back

This will provide a place where pre-configured scripts can be added (WorkPool Developers only).

Automated Email Actions

Name	Path
Client Take On	/scripts/client_take_on.script

Save   Back

And would then activate a new icon on the email action panel for these scripts to be executed from either the inbox, or on an existing email linked to a task.

Client Take On

Folder /s :

ACME Submission
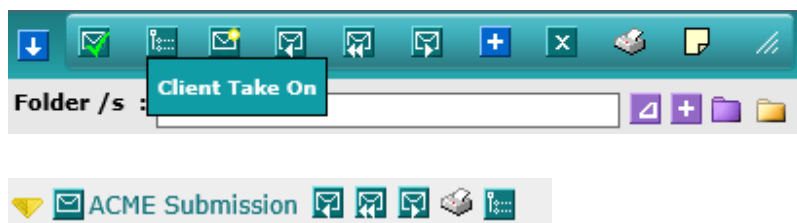
8. Addition of Custom Mailbox Processors (<mark>150786</mark>)

Similar to the previous point, we have several clients who use WorkPool to offer support and monitor mailboxes for action. It is critical that these emails are attended to and filed correctly. This version of WorkPool now allows for scripting (or programming) the actions you want WorkPool to perform automatically, before the email is passed on to the relevant party/ies. These processors can be used to look at the from address (or domain), the to address, keywords in the subject or body, attachment names, etc. and can then create tasks, link emails to folders, distribute the email to multiple parties, etc. The processor ensures that no email goes missing and companies can now configure business rules to execute on incoming emails. These scripts must be written by a WorkPool Developer, however can be done fairly quickly. This feature has been added in the following location (linked to a mailbox):

Mailbox Rule Processor

Choose new Mailbox Rule Processor to configure :

○ Out of Office Mailbox Rule
○ Start a Task Mailbox Rule
◉ Custom Mailbox Rule (Script)

Continue   Back

Specify location of custom script : /temp/support.script

Save   Back

9. Prompt or Warning to save when leaving email composer screen (147903)

To prevent a user from losing their email content when they accidentaly close their browser or navigate away to another screen a new feature has been added to prompt them before closing the window or moving away.
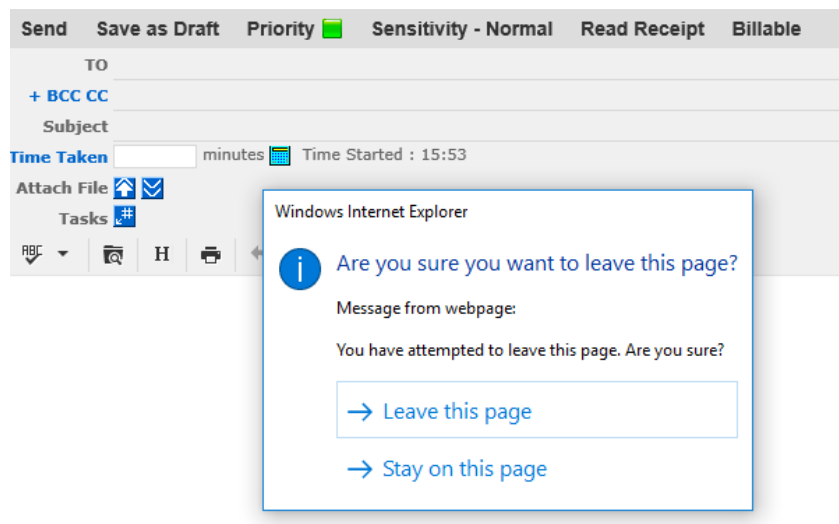
This feature can be enabled as a system property on the following location:
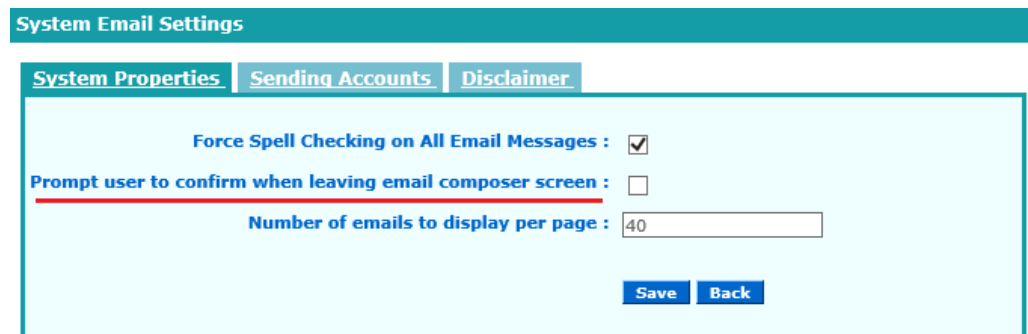
10. "More Documents" panel updated to include attachments in embedded emails (146355)

Pending (in development)

11. Add/Append forced signature on SMS (147021)

12. Minor Changes and Bug Fixes (137119)

a. (**99934**) Minor Change: Email search logic was updated to ensure better performance when searching for emails in WorkPool.

b. (**136656**) Minor Change: To improve the performance of the email spell checker, specifically when spell checking other languages, we now limit the content checked to the last email only (top section) and exclude all historic email content that may be in the same email e.g. when replying or forwarding on another email.

c. (**138361**) Fixed Bug: Email Sensitivity was not set when sending bulk communications.

d. (**138362**) Fixed Bug: The "More Documents" panel would only show documents linked to one task linked to an email, not all tasks.

e. (**138362**) Minor Change: "Related Documents" tab removed from the "More Documents" panel when used to insert embedded content. Only images can be embedded in emails, not all documents.

f. (**138363**) Fixed Bug: The version of the HTML email editor was updated to offer better support for bullets/numbering in the email content. Previously the same editor would under certain conditions start bulleted content at the top of the email instead of in the body of the email where it was required.

g. (**138366 & 133037**) Fixed Bug: In cases where people used a mailbox rule processor (e.g. out of office) and the mail processors were deactivated or interrupted before it could finish processing the emails, some emails would get stuck. This was already reported and addressed in an update to 4.7 and users affected were contacted and emails processed.

h. (**138367 & 138364**) Fixed Bugs: Various updates and look-and-feel fixes to offer better support for iPad/tablets. This remains an ongoing effort as browsers and devices change all the time.

i. (**138368**) Fixed Bug: Replying to certain HTML emails in Internet Explorer would lock the cursor at the top of email (due to invisible <style> elements).

j. (**139218**) Fixed Bug/Change: Transaction time-out during bulk messaging of SMS and EMAIL. Bulk messaging of large amounts of emails (1000 plus) will cause a time-out on the transaction and as such needs to be changes so that this runs in a separate thread. Additional requirements for this as outlined by Gerrit in his email (attached to Task) are: 1.) Thread needs to be self-managed in that it should not be interruptible by restarts or power outages and must simply pick up from where it left off. 2.) Users should be able to see the progress of said bulk transaction i.e. progress bar and maybe even a report on

what has happened with messages i.e. rejected due to ... with a reason and ability to re-submit the messages that can be.

k. (**119128/118920**) Fixed Bug: Deleting internal emails linked to Personal email folders did not delete the email, only the link to the email. This also prevented the email folder from being deleted.

l. (**139225**) Fixed Bug: Link to send a bulk email from an Entry Group was pointing to an invalid (missing) location.

m. (**120624**) Fixed Bug: Double clicking (instead of single clicking) on the Entry name in the Folder column in the Email Inbox would cause an error to popup. This link is used to set an Entry Folder on an email without opening it.

n. (**139227**) Fixed Bug: An error message appeared when a user typed an email subject that was longer than 255 characters. Since 255 is the maximum characters allowed in WorkPool for an email subject we now truncate the text at 255 characters.

o. (**139228**) Fixed Bug: Invitations received for "all day" calendar events would appear as blank in the inbox, including some notifications/updates.

p. (**139229**) Fixed Bug & Minor Change: Where an email template contains an expression that references a View, which does not exist on a specific Entry, ALL expressions will fail to resolve. This means that none of the values on the existing Views are populated. Example of sent email content added as an activity, all expressions in the template have been tested and work. Bug report [TASK:130374]. Where an email is linked to multiple Entry folders, what the rules of resolution must be.

q. (**139231**) Fixed Bug: Email to SMS module failed to notify user or log event if message was not sent.

r. (**139234**) Minor Change: Removed the "Insert Image" icons on "System Email Settings". Inserting images can be done in-line and only applies to HTML messages.

s. (**139239**) Fixed Bug: Email Sending Service would not display the sending history if the list contained one or more rejected emails.

t. (**135628**) Fixed Bug: All Email Templates were visible to all users regardless of permissions.

u. (**135946**) Minor Change: A user's personal preference for the default period (e.g. 4 weeks) to consider when viewing email history would override a smaller system default (e.g. 2 weeks). Since a system administrator must be able to impose rules in terms accessing information to manage performance on the server the rule has been updated so that the system default will always be the largest allowed period. Users may choose a period that is smaller than but may not set a default that is longer than the system default.

v. (**139995**) Fixed Bug: An error appeared when updating (editing) a mailbox rule processor.

w. (**146782**) Fixed Bug: When an email subject's length was longer than a certain number of characters and the subject contained one or more double spaces (" ") these spaces would be stripped out by the JavaMail library. This resulted in WorkPool being unable to

find the email again later in the database when comparing new downloaded emails to ones already stored in the database – resulting in duplicate emails being imported.

x. (**146307**) Fixed Bug: In the previous version of WorkPool a network or email server connectivity problem would sometimes be reported as an unsupported email instead of a connectivity problem.

y. (**120501**) Fixed Bug: The spell-checking facility of the email editor was updated to prevent duplicate checks when a user double clicks, or clicks multiple times on the "Send" button of an email. This resulted in duplicate words being inserted, or new line breaks being inserted in the content.

z. (**112943**) Minor Change: Email Read status updated to track and show who's read an email based on downloaded consumptions and internal recipients.

aa. (**147212**) Minor Change: Add "Drafts" column to "User Account Summary" report showing mailbox sizes.

bb. (**147217**) Minor Change: The "Enable Extended Support for unsupported Email Messages" property has been removed from WorkPool as it no longer plays a role in downloads. Anything that fails to import is considered an unsupported email message, including email messages where a content part exceeds 16 megabytes. Unsupported email messages are downloaded and the raw .eml file attached as a new email in WorkPool.

cc. (**112850**) Minor Change: Mailbox Download and Sending Service panels updated under Email Administration. Email Download service panel now shows live data as mailboxes are processed ("Status" column updated).

dd. (**132523**) Minor Change: As with every release we have again incorporated more support for previously unsupported emails, where these emails do not conform to the international email standards. This will be an ongoing process.

ee. (**112944**) Minor Change: Email Print Screen updated to support multiple folders.

ff. (**146192**) Deleting an Email Template currently in use by a Mailbox Rule causing Error when accessing Rule

gg. (**155497**) Minor Change: Addition of multi-select and retain selection feature on emails in the inbox to simplify and speed up bulk operations where multiple operations must be performed on the same list of emails.
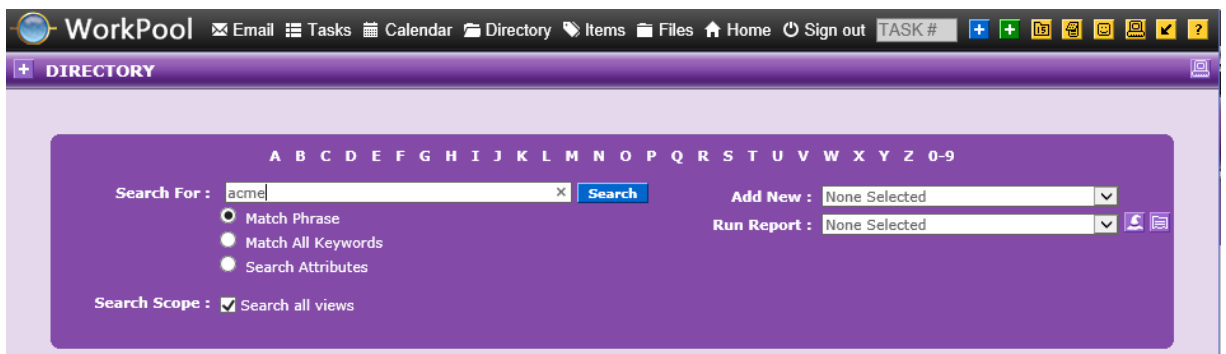
DASHBOARD / INTRANET
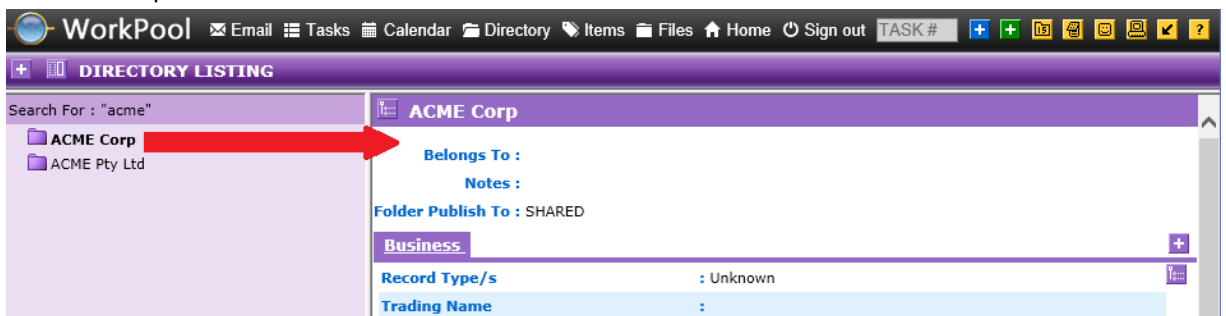
No changes were made to this module.

DIRECTORY

1. **Directory Search now opens first Entry automatically**

When searching for an entry as per screen below, WorkPool would return a list of results and then wait for the user to click on either the name or the folder of the entry to view the information.

In this version of WorkPool we will now open the information and views for the first entry in the list automatically since it is often the record people are looking for. It will also encourage users to be more specific in their searches to save time and clicks.

2. **Changing Entry Folder on a Process and updating all related information (150360)**

It can happen that a user starts a process against the incorrect Entry Folder. To fix this the process initiator and each individual child task owner needs to update the Entry folder of all the process tasks manually. Doing this would still only update the Tasks. The Activities, Emails and Calendar Events would remain on the original, incorrect folder. A new feature was added to

allow the process initiator to move (or re-file) a process from one Entry to another. See icon below.

Process Title : TEST1

Process Code : TEST1

This will initiate a 4-step process where the user can selectively move information across to a new folder. See first step below.

3. Addition of Entry Relationship Types (148806)

WorkPool already supports the ability to link Entry records by creating a hierarchy ("belongs to" or parent/child/sibling relationships), using Entry Groups or Directory Entry attribute types on views. Relationships to processes and Items are also tracked and visible from the "Relationships" drop menu on an entry. It happens though that some relationships are unstructured, or needs to be recorded in more detail. If you look at a family for example you might want to record all the people and how they are related, without creating attributes for every possibility.

Entry 1		Relationship Type		Entry 2	Inverse	Notes
John Doe	->	Grandfather	to	Jenny Doe	Grandchild	On the mother's side
John Doe	->	Brother	to	Peter Doe		
John Doe	->	Father	to	Susan Doe	Child	From first marriage
Susan Parker	->	Donor	to	Parker Trust		Susan is the Donor of the Trust

To address this requirement of multiple (or many-to-many) relationships we have introduced a new feauture where you can define relationship types and then link Entries accordingly.

DIRECTORY ADMINISTRATION

Directory Configuration:
Maintain Directory Properties
Maintain View Definitions
Maintain Permission Groups
Maintain Relationship Types

Directory Statistics and Audit Details:
View Audit Entries Per Period
Entry Statistics
View Statistics

Data Transfer:
Manage File Data Sources
Manage JDBC Data Sources
Batch File Import

Report Management:
Reports

RELATIONSHIP TYPE ADMINISTRATION

Relationship Type	Inverse	Relationship Instances
Associated with		1
Brother		0
Ex-employee		0
Friend		0
Parent	Child	0
Sister		1

Create New Relationship Type   Back

Once configured you can start using these as per below.

DIRECTORY LISTING

Search For : "john"
- Boysens, John (IT)
- Cooper, John
- Doe, John
- John D
- John Rogers
- Johnson, Cindy
- Johnson, Peter (CEO)
- Johnson,Peter
- Smith, John
- **Smith, John Mr**
- Soap, JMS (John)
- Vosser John

Smith, John Mr

Edit Entry
Alert Message
Audit Trail
Folder History
Relationships
Communications
Add Child Entry
Add Task
Add Activity
Recurring Tasks

: Fruit and Meat City
: Met John at a social in Jan 2011, introduced by Sharon
: SHARED

	: Client
	:
(Work)	:
ary)	:
Mobile (Secondary)	:
Email Address (Primary)	:

Any entry linked to another Entry using this feature will now show an icon on the Entry View screen that can be clicked on to see the relationships. Standard permissions will apply and users can only access data visible as part of their profile.

SPONSORED

4. **Minor Changes and Bug Fixes (132327)**

    a. (**120294**) Minor Change: Some users have a habit to add a space to the end of an email address which then causes WorkPool to report an error (invalid email address). As such we now trim spaces from the end of an email address automatically to suppress this.

    b. (**149159**) Fixed Bug: An error occurs when exporting multiselect options without specifying a separator. The "select all" button/link does not make the separator appear as opposed to when you manually select an option.

    c. (**133474**) Fixed Bug: Adding a new Entry using the [+] icon on the Entry Folder control did not add a note to the Entry's audit trail.

    d. (**148731**) Minor Change: Support for SFTP and FTPS has been added as a source to the File Data Sources for importing data from files located on another server.

e. (**155498**) Minor Change: We now allow Resource Groups as the Manager on JDBC Sources (but not File Sources).

f. (**148599**) Minor Change: A new function was added to optionally reduce the JDBC data source files exported by removing the previously exported records. We have several clients who use WorkPool to connect to other systems/databases to export data and them import this in WorkPool. Those systems or databases do not always have the ability to export only modified information and ad such many of these JDBC exports contain duplicated information from the previous files. Re-checking and re-doing all these imports can be an expensive resource operation. To manage this, we have implemented a new feature that will compare the result set to the previous export and store only the difference in the file. The actual (completed) result file from the query will still be stored in the reports, however the file that is written to the location specified will only be the difference based on the last cycle. If none exist, the entire result will be written to file.

FILES

1. Renaming of Attachments and checking documents into FILES section directly (146271)

This feature is explained under the "WorkPool System Administration" section of this document as it affects the File Upload and File Display components used everywhere in WorkPool. In summary, the new feature allows a user to check a document into the FILES section directly from another location in WorkPool without the need to download it first, as long as the user has permission to do so.

2. Minor Changes and Bug Fixes

   a. (**138414**) Fixed Bug: In the case of having a folder structure A -> B -> C, where C is the child of B and B the child of A (the root folder) the system did not allow you to move C upwards and make it a child of A.
   b. (**138415**) Fixed Bug: Could not assimilate Document Statuses, caused an error.
   c. (**138417**) Fixed Bug: The warning image next to a document code to indicate that a document code is being used on a process was not showing on all the screens.

ITEMS

1. Minor Changes and Bug Fixes

   a. (**115097**) Fixed Bug: The Item lookup control (used to link an Item record to another object like a task) did not display items with double quotes (") in the item name.
   b. (**154148**) Minor Change: The Item Category field has been moved to the top of the screen and when selected will now default the name value of the item to the category name.
   c. (**154516**) Minor Change: Adding "Items Linked" and "Items not Linked" as columns to the Item Category screen under Item Administration.

PROCESS MANAGEMENT

1. Adding Task Classification Codes to Process Flows (146726)

As reporting and tracking of specific tasks by classification become ever more important we now include the ability for process designers to configure classifications on child tasks (known as "flows"). In the past the main process instance task would typically be assigned a classification by the initiator and by default the children would have no classification. It was assumed that all child tasks would fall under the same classification as they are steps towards achieving the same goal. As people use processes more and more to control quality, track performance and generate specialised reports, the need to assign classifications to child tasks have become apparent.

The Classification Code field is supported and visible on both the visual and manual process designer screens with a classification lookup function by **code (not name)**. All old processes will

be migrated automatically with no classification values set on child tasks. During the import of a new process WorkPool will compare codes used in the process to the classification codes configured on the system (e.g. in case the process was designed elsewhere) and warn the user if the classification code is not valid or not found.

2. **Allow limited changes to Flow information on active processes definitions (146729)**

The reason we do not allow changes to a process definition (once there are active process instances linked to it) is to ensure we do not lose integrity of the historic processes and processes that may be active right now. E.g. changing a transition rule or expression condition can cause an active processes to "break" or the way tasks executed on old, completed processes to no longer make sense when compared to the diagram. In some cases and on some fields though changing the information will not impact active or completed tasks. At present we allow no changes apart from attribute options (adding or assimilating), which means a new process definition must be created for every change made. This could be as simple as fixing a spelling mistake or updating a task description. Changing the title of a flow or task description will not invalidate old tasks or change the behaviour of active processes. The original flow content will still be on the old tasks previously created and any change made to the task would still be recorded as a task note. New tasks will have new details and old task old details. As such we will now allow the following changes to be made to a process definition even if there are active processes linked to it as it will not affect historic data:

    1. Task Title
    2. Description
    3. Owner Expression
    4. Resource Expression
    5. Entry Expression
    6. Note 1
    7. Note 2
    8. Duration (and related fields)
    9. Estimated Time
    10. Ref Doc
    11. Sensitivity
    12. Priority
    13. Is In transfer
    14. Is Billable

The following will still be excluded:
1. Flow NAME
2. Flow Type
3. Start as External
4. Flow Process

These changes can only be made via the MANUAL designer screens, not the visual designer screen at present. On the visual designer the process will remain as read only, as it does at the moment when a process is active or has any instances linked to it.

3. **Minor Changes and Bug Fixes (132324)**

    a. (**139230**) Fixed Bug: Read only, Email Address attributes were not being displayed on the update Attribute Instance screen (also known as the "blue bubble").
    b. (**139240**) Fixed Bug: Using the "Auto Transfer to Manager or QA" feature on Resource Groups would cause a process assigned to this group to stop/fail due to an error.
    c. (**139246**) Fixed Bug: Attributes of type "Task" would cause an error in the log file when used in a process HTML Template.
    d. (**119932**) Fixed Bug: Process would record all read only attributes in the task notes instead of only the linked read only attributes.
    e. (**120236**) Fixed Bug: Process child tasks would display the value of read only attributes, not linked to views, as "Link To View Expired" when completing the task and viewing it again.
    f. (**130805**) Fixed Bug: When a user specified an attribute display name that is longer than 100 characters an error would occur. The maximum length for both name and display name values on attributes is 100 characters.
    g. (**132644**) Fixed Bug: When the last task in a process starts another process, and this task in the first process is assigned to a resource group an error occurs. If the last task was not assigned to a Resource Group the new process would start correctly.
    h. (**135909**) Fixed Bug: Process Tasks that are due in 1 day ignored the skip reserved days checkbox.
    i. (**140002**) Fixed Bug: Transition conditions were not updated automatically when an option value was changed, i.e. a choice value as defined in the list of values for an Option Attribute.
    j. (**147232**) Minor Change: The "History" section on the main process instance task was updated to look and behave like on a normal task.
    k. (**149502**) Minor Bug: "Linked To View Expired" was being displayed for all attributes instead of just the ones linked to a View.

TASKS AND ACTIVITIES

1. **Task List icons consolidated and replaced with new drop-menu (132204)**

Since the WorkPool interface is now quite dated and often quite busy due to the amount of information managed we have embarked on a project to update the look and feel in WorkPool and make it more mobile friendly. This is a lengthy project and changes will be phased in incrementally over time to minimise the change management and re-training required. One of the changes we have made in this version is to replace the icon tray showing the task lists with a dropdown menu as per screenshot below. This was necessary as we could no longer fit in all the features on the screen along with all the various other controls. It was also becoming more difficult to access these features from a mobile device as users had to zoom in to click the correct icons. As a result the only option that made sense, which would also allow for future growth and easy access on mobile devices, was to use a dropdown menu.

WorkPool 4.7

WorkPool 5.0
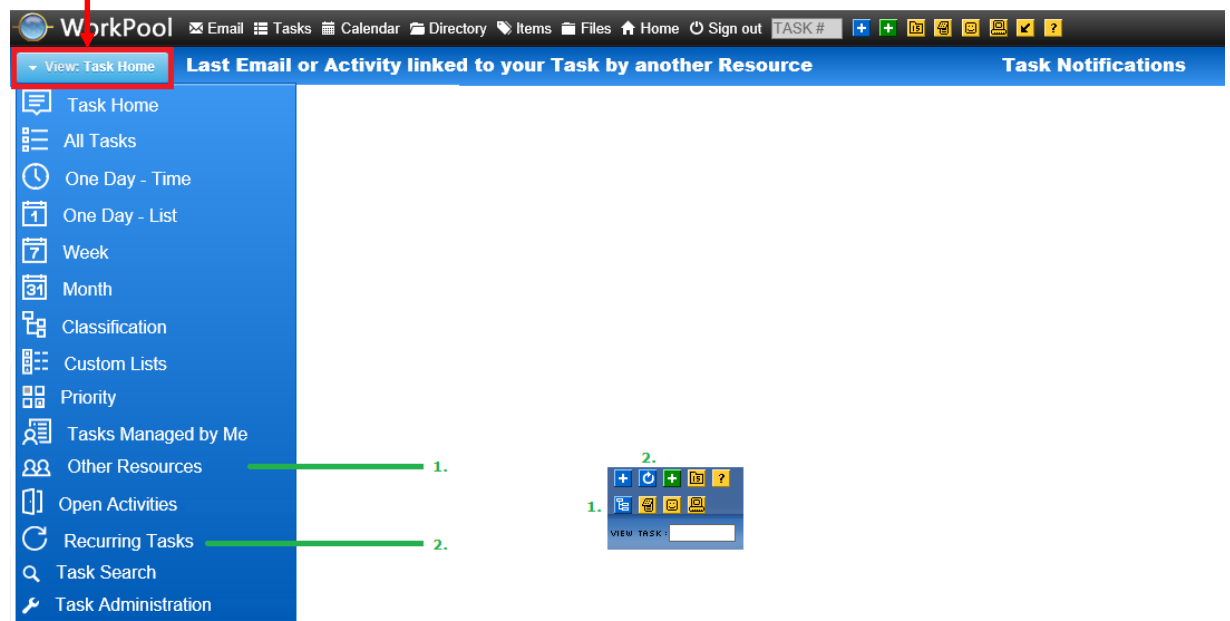
As indicated on screenshot above, two of the icons on the old shortcut panel has been moved to the Task section where they belong: **1)** "**View Task Lists for Resources**", which is now called "Other Resources" and **2)** "**Recurring Tasks**".

2. **Support for Day/Month/Year/Week expressions in Recurring Task titles (139253)**

Since it is possible for a recurring task to start a new task when the previous task is still open (e.g. a daily, weekly or monthly task) it can be difficult to keep track of and find which recurring task you need to work on. It also happens that some people add placeholders in the title where the owner will then insert the correct value when the task gets created. To assist users with managing this and creating unique tasks we now support the following expressions in the recurring task title and/or description fields:

- "system.date.monthName"   = Name of current month   "January"
- "system.date.year"   = Current year   "2016"
- "system.date.weekOfYear" = Week number in year   "02"
- "system.date.month"   = Current month numeric value   "3"
- "system.date.dayOfMonth" = Today's day in month   "23"
- "system.date.now"   = Full date in user format   "2017-02-22"

As usual, expressions are surrounded by ${ }. E.g. ${system.date.now}

SCHEDULE RECURRING TASK

Recurring Task Title : Monthly Billing: ${system.date.monthName} ${system.date.year}

Start Process : None Selected

Description : This is for ${system.date.monthName} ${system.date.year}

3. **Tasks assigned to External Resources can now be completed by both the Task Owner and the External Resource's Reports To (146244)**

As more and more people use External Resources to track the performance of their service providers we have changed the rules around these tasks to make it more flexible and allow more than one person to mark a task as complete and so ensure completion times are more accurate. WorkPool will now allow both the user this external resource reports to, as well as the owner of the task assigned to the external resource to mark the task as complete. Previously only the Task Owner could mark the task as complete. This rule change also impacts the system property that makes adding of an activity compulsory on a task before completion (see below

under Task Properties). WorkPool will now allow either or both of these parties to add an activity and complete the task.

4. **New Duration Field added to Task Classifications (146543)**

Task Classifications play a vital role in most businesses these days to categorise and keep track of work as well as report on performance. In most cases businesses are able to associate standard turnaround times with certain types of tasks as they can in processes. When a task is created they would then normally guess or set a due date based on their standard operating procedures or experience based on previous tasks. To standardise and simplify this "Due Date" allocation on new tasks and recurring tasks we have added a function to allow a system administrator to allocate default duration values to Task Classifications. Should a default value be set, WorkPool will then calculate and update the due date automatically based on this value when a new task or a recurring task is created. WorkPool will not overwrite a value in the due date field if this is entered before the classification value is selected. The same applies to "Start Before" on recurring tasks.

In addition to the duration value pulled from the classification we will also default the **billable** value on the task to the value of the task classification. The classification value will always override the current billable value on the task when the classification is set or changed. The user can always change a billable value on the task after setting the classification, however if they choose a classification or change an existing classification value the screen will update the task with this value.

Task Administration: Classifications

Id	Name	Code	Duration	Description	Billable
63	⊞ ACCOUNTS AND BILLING				☐
15	⊟ SUPPORT				☐
201	Environment - Email		2.0 days		☐
203	Environment - FTP / File Access		2.0 days		☐
289	Environment - Mobile (iPad or Phone)		2.0 days		☐
202	Environment - Network / ISP		2.0 days		☐
228	Environment - Oil Exception		2.0 days		☐
21	Environment - Other		2.0 days		☐
206	Environment - Server Crash		2.0 days		☐
297	Environment - Server Decommission		2.0 days		☐
205	Environment - Server Problem/Config		2.0 days		☐
212	Environment - Server Update/Maintenance		2.0 days		☐
230	Environment - Third-Party Software		2.0 days		☐
270	Incident		2.0 days		☐
31	Installation/Upgrade - Assistance		2.0 days		☐

Setting a Standard Duration value (optional)

Edit Classification

Name: Training

Code: HR_TRAINING

Description:

Standard Duration : 2 [days ▾]

Billable: ☐

Fixed rate: ☐

Rate Per Hour: 120

Belongs To: HR AND BUSINESS OPERATIONS (80) X

Assimilate X

Save **Back**

5. Minor Changes and Bug Fixes (132324)

1. (**139243**) Fixed Bug: If a user set the "Percentage Completed" value and then marked the task as completed at the same time, WorkPool would set the value as per the slider instead of setting the percentage completed to 100%.
2. (**115708**) Fixed Bug: An error occurred if a system administrator attempted to configure a Resource Group name containing an apostrophe (').
3. (**139245**) Fixed Bug: Could not add a task to a shared custom task list from the start/edit task screen if the task list was owned by another resource.
4. (**139992**) Fixed Bug: Using the "Select All" option in a filtered task list would apply a drag-and-drop or context menu action to all the tasks in the list, not just the ones visible on the screen as per the filter.
5. (**139994**) Minor Change: In the case of Private/Confidential tasks assigned to a Resource Group the users in the "Grant Access To" list of that group would also have access to the details of the task. This was changed so that only the owner of the task and then members have access.
6. (**140001**) Fixed Bug: Sorting items by column was not working on the "Open Activities" screen.
7. (**140003**) Fixed Bug: The "Time spent" column under the "Task Classification" report would show a value of "0 hrs" for any value below 1 hour. The "Actual Time Spent" column would display the same value correctly formatted in hours and minutes.
8. (**146364**) Minor Change: The "Reports To" value is now required when creating or editing an External Resource.
9. (**147086**) Minor Change: Names of previous attachments now clickable in task notes. In cases where a user would update a task reference document or a URL process attribute the audit notes would record the change, however older files could only be accessed by typing in the URL. These links are now hyperlinks to make accessing older files easier.
10. (**148372**) Minor Change: Addition of the system ID for Task Classifications on the Task Classifications report (see Task Administration, Reports section).
11. (**149570**) Minor Bug: Using a Resource Group name containing a single quote in the name caused an error when editing, or updating links on Flows.
12. (**154134**) Minor Change: Task Add and Edit screens have been updated to disable the ability to transfer a task from yourself to yourself. This is only available now if the "assign to" value is different from the user that is currently logged in.

WORKPOOL SYSTEM ADMINISTRATION

1. **Architecture Change: Migrated from JBoss4 to Wildfly9, including updates to Hibernate and incorporating Spring Framework (118300)**

As mentioned in the introduction we have made major architectural changes to the application server and supporting technologies. More than 350 man hours (almost 50 days) were spent porting from our previous application server called JBoss to Wildfly. This was necessary to update our technology stack and supporting systems in line with enterprise Java standards.

2. **WorkPool Login Screen and Main Menu redesigned (132204)**

As mentioned in the introduction and under point 1 of the Tasks and Activities section of this document the WorkPool login screen and main menu was replaced with new screens. The alternating login screen symbolises different aspect of WorkPool as a business nervous system.

3. **Resource Session Management and Caching (132323)**

As information volume and functionality inside your WorkPool grows the standard way of accessing information is no longer optimal and can put a strain on the server to perform. As such, caching of information has become a popular mechanism to deal with high volume transactions to reduce the number of simultaneous queries on a database. From WorkPool 5 onwards we will be caching significantly more information on the server to reduce the demands on the database. This would include caching of users' mailboxes, preferences such as format settings, and various other information used on a regular basis. This change will increase the RAM requirements of WorkPool servers but will typically make an exponential difference in performance when working in areas such as emails or the mobile platform. It again stresses the importance of system administrators and data stewards taking responsibility to keep their WorkPool server healthy by confirming that users manage their workflows and mailboxes and so prevent a build-up of information that would be cached unnecessarily.

4. **Renaming of Attachments and checking documents into FILES section directly (146271)**

Pending (in development)

WorkPool is a web-based system, therefore we depend largely on the standard functionality in internet browsers such as Internet Explorer, Chrome and Firefox and the web servers that serve content to the users. One of the limitations is that content is typically read-only, i.e. you cannot edit a file and then automatically save it to the server like you would be able to do on your browser. Additionally, when you want to change the name of a file (like an attachment on an email) you would typically need to download it to your PC first, rename it and then upload a new copy of the file before you can refer to it in WorkPool. In cases where you have a scanning solution that sends a generic email with a generic attachment name to a user when they scan a document they would then have to repeat these steps for every document. Of course, allowing everyone to change names of any attachments in a shared environment could create havoc and also compromise the audit trail and integrity of information such as email communication. The name of an attachment is also significant in terms of duplication and deletion of information. WorkPool will always check the system to see if the same attachment is not perhaps used elsewhere before deleting it – in cases where deletions are allowed.

5. **Updating the "More Documents" panel to show attachments in embedded emails (146355)**

<mark>Pending (in development)</mark>

An "embedded email" refers to an attachment that is an email, i.e. instead of a document attachment an email can also have another email attached to it in its entirety. Forwarding an email as an attachment, as opposed to a normal email forward, is often used in cases where someone wants to pass on multiple related emails in one batch. If you are an intermediary, e.g. in insurance, it sometimes happens that you will receive a copy of all the communication associated to a case, including all the emails between the various parties. Each one of these emails would have its own content, possibly attachments and perhaps even embedded emails. To make it easy for a WorkPool user to gain access to this information, specifically attachments contained in these emails, when they work on tasks or draft new emails we have implemented support for embedded content on the "More Documents" panel. Attachments linked to embedded emails will now be visible as well when using this feature.

6. New feature to prevent users from repeating the same password in 12 cycles (137156)

The weakest link in security is people. Some companies enforce a strict policy to protect their data by ensuring user accounts are changed on a regular bases (e.g. monthly) and that users do not repeat the same passwords on a regular basis. This is now a standard rule option under the "Security Polices" as per screenshot below.

7. Minor Changes and Bug Fixes (132983)

a. (**133851**) Fixed Bug: In cases where a system administrator would edit the "Notification and Communication Details" of a resource and tick the "All Priorities" tick box, then untick it and tick it again, the system would not update the checkboxes as ticked the 3rd time.

b. (**119618**) Fixed Bug: The "Duration Tag" in WorkPool would always display decimal values (fractions) even if the developer configured it to round values.

c. (**120340**) Fixed Bug: In cases where users attempted to access WorkPool, or reporting systems were making requests to WorkPool, during the startup sequence of the server it would sometimes block the loading of the license, resulting in an Invalid License error.

d. (**130656**) Fixed Bug: In some cases like updating attributes on processes or views, WorkPool would record the values using the user's format settings instead of a universal system format setting. E.g. if the user had their own date format or decimal format, WorkPool would update the audit trial using this format setting instead of the system format setting.

e. (**146559**) Minor Change: Ability to reload mods (custom code unique to that WorkPool) via the system administration interface. See "Standard Plugins" menu item.

f. (<mark>193913</mark>) Minor Change: Microsoft SQL Driver for ODBC now added as standard library to connect to other databases.

WORKPOOL MOBILE APP (BETA RELEASE)

FIRST VERSION OFFERS SUPPORT FOR ANDROID ONLY

WorkPool now offers a "scan-and-go" mobile solution where users can log into their WorkPool via their mobile device using the WorkPool mobile application. Users can download and install the App from the WorkPool Mobile website (see https://www.workpool.mobi/download) and then scan the barcode in their WorkPool to log in and access their information. See step-by-step installation instructions further down below. You no longer need to access WorkPool via a browser on your phone/device. Based on each user's profile and permissions the mobile app provides user specific access to information stored in WorkPool.

Apple/iOS: An iOS implementation will follow in the near future. WorkPool is still an entirely browser-based application so can run on any smart device such as tablets or TV's with a standard Internet browser. Native integration for iOS and other devices will follow in the future.

Features available in this early release of the mobile app includes:

1. **Access to WorkPool Directory**
   Search or browse the WorkPool Directory from your phone to view all your customer, supplier and contact information. This includes searching all database fields (attributes). You will now have real time access to the latest information such as addresses, phone numbers and email addresses in real time on your phone. Information does not need to be synced or duplicated and therefore remains protected within the mobile app. Since the permissions are tied in with WorkPool's standard permissions a system administrator can grant or restrict access should a cell phone be lost or stolen. Record changes are tracked and visible as part of the standard audit trail. Upload and add photos from your mobile device as required.

2. **Calendar Synchronisation:**

   The mobile app will synchronise your WorkPool events and add these to your standard device calendar to provide a truly consolidated view of all your appointments and personal commitments. You can continue to use your existing calendar system and pull events from WorkPool, or switch over to WorkPool's calendar as it now offers native integration, including

reminders. Make changes and schedule new meetings on your phone and these will appear in your WorkPool calendar linked to the correct customer or contact folder. This helps you keeping track of your time and being able to draw reports on this just like any other activity in WorkPool.

3. **Private & Secure Instant Messaging Platform**

Instant messaging solutions such as WhatsApp have quickly become an integral part of business communication between staff members and even customers or suppliers. Business owners have expressed their concern over the:
   a. unstructured nature of this communication,
   b. lack of control over what information is being shared and with whom (protecting confidential and personal information) and
   c. lack of trust in and abuse by providers such as WhatsApp, Facebook and Google who may intercept and use your information for their own gain to profile users or build analytics.

The WorkPool App providers users with a real time instant messaging solution that is encrypted and completely private (i.e. information is not shared with any other providers) and allows for uploading and sharing of photos/images via the app. We also provide deskbound users with a web (browser-based) interface to type and share information more efficiently with mobile users, even if the connection to their WorkPool server is down. By granting your agents, suppliers and contractors access to your WorkPool you can exchange of information securely and record communication at the same time.

Coming Soon: Adding instant messages as activities to client folder and a task's audit trial.

4. **Installation Instructions**

Since the WorkPool App is still in BETA we have decided not to publish it to the Play Store yet. This will happen as part of the official release. Until such time the mobile app can be installed by going to the following address with your mobile device and clicking on the WorkPool logo:

On your mobile browser, go to: https://www.workpool.mobi/download

5. **Future Features:**

   a) Geolocation and Tracking: The ability to manage your salesforce or deliveries in real time.
   b) Stock Control (Barcode scanning of items): Check items out and back in with your phone.
   c) Integrated task and processes, allowing staff to work on and complete work assigned to them via a process. This means you can interact with your team and complete tasks in real time instead of catching up on administration after the fact.

d) Voice logging and recording to add voice notes.

e) Smart email management. Taking WorkPool's powerful email management features and adding this to your phone so you streamline you communications and cope with email volumes.

f) Document management. Instant access to all company documents such as presentations, brochures, contracts, policies, etc.

WORKPOOL PLUG-INS (ADD-ONS)

The WorkPool plug-in framework is an entirely new addition to the WorkPool platform and plug-ins can be categorised as either a:

a) Standard WorkPool Plug-in, or

b) Bespoke Customer add-on (Custom Development)

The "Standard WorkPool Plug-ins" provide any WorkPool users with optional, add-on functionality to use in their own WorkPool environment - should it make sense to do so. Some WorkPool plug-ins are free and sponsored by the community. Some plug-ins are available as paid for extensions, priced either per user or at a fixed monthly fee, developed in conjunction with the WorkPool community to address a specific requirement. Plug-ins are created based on joint ventures, sponsored development and/or popular requests from customers either in a specific industry sector or where customers share the same business requirement and WorkPool can add value in this space.

Bespoke Customer Add-ons, previously known as "custom development" has been popular for many years where customers pay for development to add features, reports or enhancements to their WorkPool that is unique to their environment. This has now been formalised as a standard option under the "Bespoke Customer Add-on" category. In these cases customers are required to have a separate, secondary development environment to test development and changes before this is deployed to their production server.

A plugin can be activated by installing a WorkPool Iicense file containing a valid subscription. Limited trial versions are available to any WorkPool customer who want to test the functionality in their own environment before purchase. Plugins can be removed or disabled without affecting current WorkPool operations.

Plug-in modules can be accessed and configured from the System Administration menu as per screenshot below.
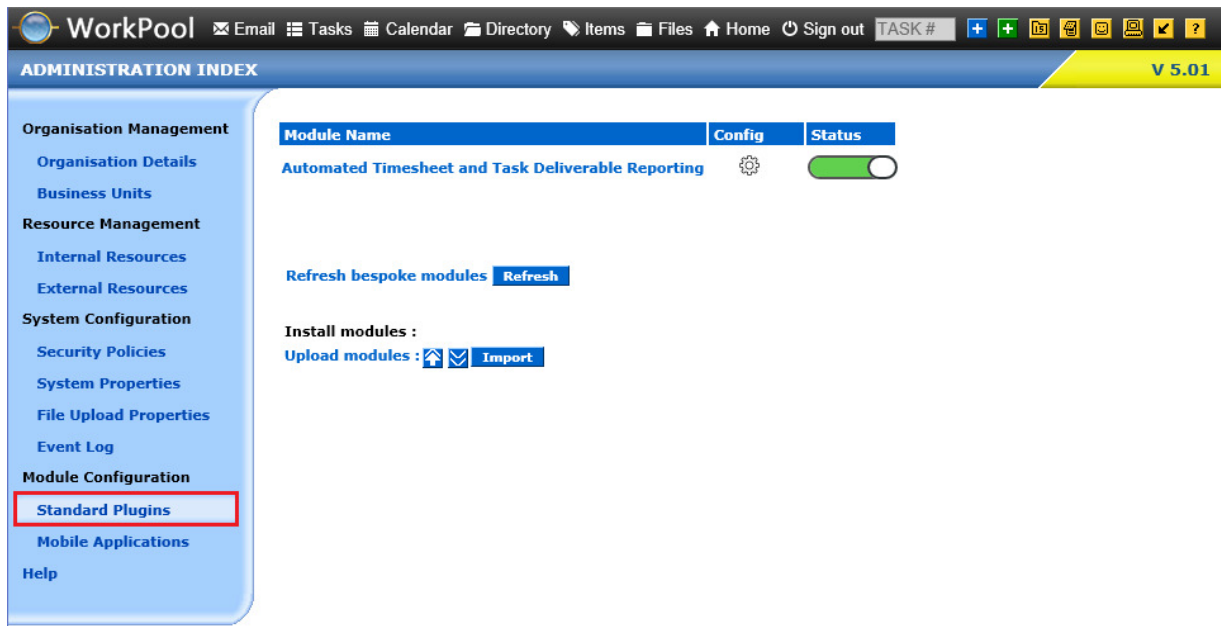
Click on the gear icon to configure a module: ⚙

Click on the slider icon to enable or disable a module:

1. **Automated Resource Performance and Reporting Module (Timesheets/Activity) (136141)**

We are proud to announce our first official WorkPool Plug-in, being the "**Automated Timesheet and Task Deliverable Reporting**" module. This plug-in development was a community driven initiative sponsored by WorkPool and three of our WorkPool community members, primarily **Bay Union** (www.bayunion.co.za).

What does the module do and how does it help you?

At WorkPool head office we have been using WorkPool for many years with some of our own additions to allow for automated and manual reports to track time spent by resources on activities and compare general performance. Having access to this information has allowed us to introduce new policies and effectively manage these with little or no intervention from management. WorkPool could do a lot of the work for us in the background and then present objective information to relevant users in terms of their performance and actions taken. Just making this information visible is often enough to help people improve how they manage their workflow, assist with time management and help them to adjust their habits and way of operation to be more effective and in line with the company's expectations. If your company ever considers sharing information with external parties, or publishing WorkPool information onto your website or formal reports, it is most critical that you can rely on people to perform as expected and as per your commitments in the company's service agreements.

We found that simple daily feedback (reporting) by means of a personalised email to each user and their line manager showing actual time logged, pending due dates/deadlines and statistics made a significant difference in performance and increased the quality of information. With the quality of the information being improved we could then go further to automate tracking of key tasks and processes where WorkPool will remind users of important actions, tasks that are not getting any attention and automatically recording performance, which is invaluable in performance reviews/discussions. Using WorkPool in this way allowed us to establish a consistently effective and efficient way of working that allows to continuously improve our business and manage change. A simple, automated email once a day has made a tremendous difference in our business, saving both management and users many hours per month in preventing mistakes, making sure all time is tracked and billed and users do not have to be micro managed.

Effective time management is a complex topic. Philosophies and time management principles devised decades ago do not always work in today's fast paced world where our output is higher and we deal with significantly more information. The reality is that even in the same business, different people and departments have different cultures and different ideas of what is important in terms of quality, priority and so on. Without consistent management and leadership, performance will typically fall to the lowest common denominator over time instead of rising to expectations. You also have users who fit different profiles and the criteria that would make their time management/activities "successful" differ from person to person. E.g. the key success criteria used to manage a sales person would be quite different to ones applicable to an administrative person. As such when we introduce a monitoring and reporting system it must consider that not all users are the same.

Start small: The scope and possible applications for this module to help with time management and automated monitoring is enormous. Not everyone is ready for change and not everyone works on WorkPool the same way. That isn't necessarily bad, change just needs to be managed properly and considering all the facts. Reporting of this nature can be quite complex and must consider various aspects such as login time, activities, tasks, calendar events, etc. We suggest using this module responsibly and phase in changes over time instead of bombarding users with too much information or overwhelming them with too many changes. It is also important that your server has sufficient resources to compute this information in real time.

The automated email consists of 3 possible parts:
1. Summary of tasks due today, yesterday and tomorrow.
2. Timesheet statistics – showing your timesheet activity to you in a graphical format, typically over a 2 week period (14 calendar days, typically 10 working days).
3. Contextual performance – are you on track or falling behind the group?

See example below for typical content that can be expected:

Hi Johanna,

You have **4** tasks due today. Of the **233** tasks assigned to you **55** are overdue, which is **23.60%**. Many of your tasks are overdue. This is not good. You have to make a serious effort to get your tasks under control as soon as possible.

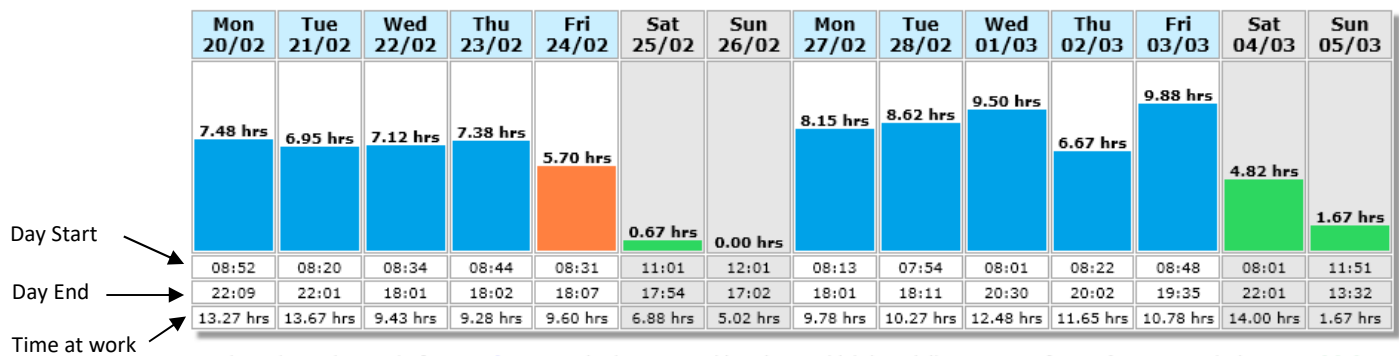| **Here is a list of all your tasks that are due today (per client):**	
HR: Doe, John	147352 ✎ Confirm details/reason for person being absenst from work
WorkPool Training Documents	147165 ✎ Review WorkPool 5 Training Documents
Zappo	147334 ✎ Request for Quotation
Here is a list of all your tasks that are due tomorrow:	
SARS	147271 ✎ SARS EMP201 submission for June 2015
Green, Susan	147182 ✎ Annual Review 2017
You completed these tasks on/or since the previous business day:	
ACME Corp	146435 ✓ Configure: View Definitions for Short Term
ACME Corp	146438 ✓ Peform Database Import with Client Info
Internal Processes	147297 ✓ Update Checklists

Below is a breakdown of your time logged over the last 14 days.

	Mon 20/02	Tue 21/02	Wed 22/02	Thu 23/02	Fri 24/02	Sat 25/02	Sun 26/02	Mon 27/02	Tue 28/02	Wed 01/03	Thu 02/03	Fri 03/03	Sat 04/03	Sun 05/03
	7.48 hrs	6.95 hrs	7.12 hrs	7.38 hrs	5.70 hrs	0.67 hrs	0.00 hrs	8.15 hrs	8.62 hrs	9.50 hrs	6.67 hrs	9.88 hrs	4.82 hrs	1.67 hrs
Day Start	08:52	08:20	08:34	08:44	08:31	11:01	12:01	08:13	07:54	08:01	08:22	08:48	08:01	11:51
Day End	22:09	22:01	18:01	18:02	18:07	17:54	17:02	18:01	18:11	20:30	20:02	19:35	22:01	13:32
Time at work	13.27 hrs	13.67 hrs	9.43 hrs	9.28 hrs	9.60 hrs	6.88 hrs	5.02 hrs	9.78 hrs	10.27 hrs	12.48 hrs	11.65 hrs	10.78 hrs	14.00 hrs	1.67 hrs

You have logged a total of **84.60 hrs** over the last 10 working days, which is a daily average of **8.46 hrs** per work day. **Good job!** This is well within the range that is expected of someone in your position. Keep it up!

Kind regards,
WorkPool System

A day marked in blue is where you logged more than the minimum productive time. Orange is a day where you logged less than the expected time. Green being any time logged on weekends or public holidays.

Configuring the module:

There are multiple configuration parameters that determine how the module behaves, grouped as per the following headings. Most of these have been configured with system defaults and are safe to run or change.

a)   **Calendar Module Configuration (Defaults)**

Calendar Module Configuration (Defaults)

Working Hours Setting	Active
Start of Day	08:00
End of Day	17:00
Exclude	Saturdays, Sundays

The module will pull information from the system calendar as configured under the Calendar section. Working hours will be used to indicate the standard or typical start and end times of a normal work day and if the system considers Saturdays, Sundays and public holidays as work days or not. The module will only generate and send reports on work days. To change this information you can click on the admin icon provided to navigate to the appropriate place.

b) Task Module Properties (Defaults)

Task Module Properties (Defaults)

Make "Time Taken" a Required Field on Activities and Messages	Yes
An Activity must be present before a Task can be completed/signed off	Enabled, All Tasks.

The module will pull information from the system properties as configured under the Task Administration section. For timesheets to be accurate it is expected that most people will be logging time as they work on tasks. Making the time taken on activities and emails a required field, and enabling the rule to ensure a task cannot be closed before an activity is added by the resource will assist in this. To change this information you can click on the admin icon provided to navigate to the appropriate place.

c) Configure Users: Timesheet report

Configure Users: Timesheet report

Andrew Johnson*, Eddie Peters*, Gary Green*, Gerhard Brink*, Jason Masters*, Johan Collins*, Jonathan Katz

* Report copied to line manager
^ Report blank copied to line manager

Configure recipients of the generated emails by clicking on the gear icon as per image above. As indicated the * character indicates that the line manager of the resource will be copied in on the email (as per the "Reports To" setting), or ^ if the line managers is blind copied.

User Configuration

Resource	Email Address	CC line manager	BCC line manager	Start time	End time	Hrs per day	Max hrs per week	Min hrs per week
☑ Andrew Morris	amorris@workpool.co.za	☑	☐	08:00	17:00	11:00	60.0	40.0
☐ Ashley Smithers	ashleys@workpool.co.za	☐	☐	08:00	18:00	12:00	40.0	40.0
☑ Eddie Green	eddie@workpool.co.za	☑	☐	00:00	00:00	00:00	0.0	0.0

Save   Cancel

The screen above will show a list of all active resources and their configuration as set up under their profile. Include a resource by clicking the checkbox on the far left and then click the CC or BCC column if applicable. Once done, click on Save to commit your changes.

d) Execute Report

Execute Report [Last Executed On: 2017/03/03] ▶ ↻   ➕

DAILY @ 09:15   ⚙   ON ⬤

The plugin can be run manually or scheduled to run daily or weekly with any number of combinations of these. Please be mindful that the server resource requirements may be substantial to work through a list of all the tasks, activities, emails and other records logged in the system. We suggest scheduling the report to run after hours or during a time when the load on the server is low so as not to impact on the other users.

e) Configure Activity Types

Configure Activity Types

Standard Activity Types:

Fax
Follow Up
Installation or Setup
Instant Message
Investigate
Management
Marketing
Marketing Material and Documents
Marketing: Research
Meeting

Activity Types To Ignore:

HR: On Leave or Vacation
Travel
Other

Since not all activity types are necessarily work related, or does not count towards productive hours, e.g. when logging time away on leave, the module allows you to exclude certain activity types from the calculations. This is useful if social events or time on leave is logged on the calendar.

f) Email Configuration Options

Email Configuration Options

Email Subject: Daily delivery and timesheet report for ${today}   ⚙

Number of days in reporting cycle: 14 days   ⚙

Default timesheet allocations   ⚙
Removing normal email from inbox   1 min
Removing automated email from inbox   0 min
Creating a new task (includes recurring tasks)   0 min
Sign off a task (non process tasks)   1 min

Send emails from:
◉ Resource's line manager (if specified and has valid email address), else do not send.
◯ Resource's line manager (if specified and has valid email address) or
   WorkPool Reports reports@workpool.co.za
◯ This email address: WorkPool Reports reports@workpool.co.za

Include Task Information:
☑ Task total summary (you have X number of tasks of which Y % is overdue)
☑ Due dates today
☑ Due dates tomorrow

Default Entry for all Emails:
| Module: Time Assist (6683) | X 🖼 ⊿ + |

Folders excluded from all timesheets:
| | ⊿ + |
| **Company Socials / Team Building** | X |

Use this section to configure the email message subject and content. Using the ${today} expression in the subject will populate the date the email is generated with the recipient's date format settings. This is useful if you receive this report daily to locate a specific report. By setting the number of days in the reporting cycle you can control how far back the module must look in terms of time logged and averages. We have found a good value to be 2 weeks as it means data will not be skewed by one or two days of absence. The higher this value, the more data WorkPool needs to work through to compile the report. It is therefore potentially dangerous to set this value too high if you do not have the system resources to process this. Since there are many types of actions you can perform on WorkPool and not all of them have a place to log time we allow you to set defaults for typical actions as defined in the list. Removing an email from the inbox for example could be considered reading the email and therefore we assign a time of 1 minute to this. If someone was away on leave or process a lot of emails in one day this value can inflate their timesheet for that day. You can also configure who the emails are being sent from, in case the Reports To setup is not correct and the resource in question is not managed by the other party.

Keep the email content fresh by alternating what is included using the checkboxes to enable and disable content. Since an email must always be linked to an Entry folder in WorkPool, create and set up a Directory Entry that can be used for this. We recommend using an Entry that is linked to a business unit that is not accessible to all people by default. This will prevent users from looking at everyone else's performance. Once sent and received by the user they may file it into their personal folder.

Lastly, use the Folders excluded option to remove any time logged for non-productive activities such as company socials.

g) Error Handling and Reporting

Error Handling and Reporting

Report problems to following users: WorkPool Admin (admin@workpool.co.za)

Report problems:
- ☐ System Errors/Failures
- ☐ Users with no email address or invalid email addresses.

Configure error handling as per section above to ensure someone is notified if there is a problem with the module and can attend to it.

h) Email Module Configuration (System SMTP Account)

Email Module Configuration (System SMTP Account)

Server address	10.0.0.1
Authentication Required	No
Username	
Transport Layer	NONE
Port	0

To send emails from WorkPool it is critical that a System SMTP Account is configured that WorkPool can use for this purpose. Speak to your Email or IT Administrator for details on what to enter here if you are unsure. If this is not configured correctly emails may be rejected by the email server.

ANNEXURE: KNOWN ISSUES

- Delays in email sending (queued emails)