



What's New in Ideagen Pentana 4.2

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1 Introduction

Ideagen Pentana 4.2 is an enhancement release, available from January 2016. It is supplied as a free upgrade to existing supported customers, including those who migrate from our Pentana Audit Work System (“PAWS”) software, and as standard to new customers.

This document is intended for Ideagen partners and customers, to help prepare for upgrade to Pentana 4.2. It outlines the enhancements made since Pentana 3.2, including those introduced in the limited-scope Pentana 4.0 release and the Ideagen Pentana 4.1 release. Please refer to our Functional Overview or Help Guides if you need a more detailed description of general product features.

The major new features and selected minor enhancements in Ideagen Pentana 4.2 are described below. For a complete list of enhancements please consult the Release Notes document.

2 Major New Features

2.1 Key Issues/Strategic Risks

Pentana 3.2 already supported “Planning Risks”, to drive the systematic risk assessment of the universe for planning and scheduling purposes, and “Entity Risk Registers”, to enable the structured capture, assessment and management of Operational Risks & Controls and their subsequent testing within Audits or Risk Reviews.

In Pentana 4.1, our new “Key Issues” feature addresses a third key strand in the management of risk; namely the high-level, strategic or macro risks or principal risks that affect an organization as a whole, require strategic attention and management, and often inform operational risk management at lower levels throughout the business.

Key Issues can be defined centrally, related to applicable parts of the universe, linked to specific Entity Risks and Audit Problems (see later) and owned and managed through to their eventual resolution.

2.2 Definition Sign Offs

While our structured sign-offs in Pentana 3.2 are already very flexible and satisfy most common workflows, some customers have requested additional sign-off capabilities in order to control the “Definition” approvals of each item separately from their “Execution”.

In Pentana 3.2 the life-cycle of each object is typically:

Open -> Completed -> (optional Reviews) -> Approved

In Pentana 4.1 an extended life-cycle is also supported, effectively:

Open -> Prepared -> Confirmed -> Complete -> (optional Reviews) -> Approved

The “Prepared” and “Confirmed” sign-offs are available where an explicit Definition approval cycle is required, while the “Complete” and “Approved” sign-offs relate to Execution.

These life-cycles can apply to all objects that have sign-offs within the system, such as Audit Objectives, Risks, Controls, Tests, Findings and Actions. (A small number of objects have additional “Draft” and “Closed” states, such as the overall Audit, Incidents and Key Issues; this is unchanged).

Where customers wish to apply formal approvals over the definition of work before execution, this can be enforced through security permissions and, as usual, a full trail of the various sign-offs is automatically maintained for view and reporting purposes.

We also appreciate that many customers will NOT require so many levels of sign-off! We have therefore implemented this enhancement via a series of new configuration switches, so customers can determine separately for each object in the system, whether Definition Sign-Offs are:

- Off – i.e. only the Execution sign-offs apply, as per current behaviour
- On – Definition Sign-Offs apply but execution can start before each item is “Confirmed”
- Enforced – Definition Sign-Offs apply and items must be “Confirmed” before execution starts

By default all Definition Sign-Offs are “Off”.

2.3 Sampling

Pentana 3.2 already fully supports the management and documentation of detailed testing work; sample-oriented testing can be readily captured in the various descriptive fields or through additional custom fields. Where a test involves selecting a sample of N items and users wish to document information about each sample item, customers are currently encouraged to capture the detailed sample items in an attached working paper, such as an Excel spreadsheet, before documenting the overall results within the system against the parent tests.

We acknowledge that some customers wish to capture these detailed sample tests within the system itself rather than in a file attachment. We also recognise that there can be a many-to-many relationship, with the same sample of N items being subjected to X different tests.

In Pentana 4.1 we have therefore added new objects for “Samples”, “Sample Items” and “Sample Results” and we have exposed these throughout the relevant user interfaces. The new conceptual data model as it relates to Sampling can be represented as:

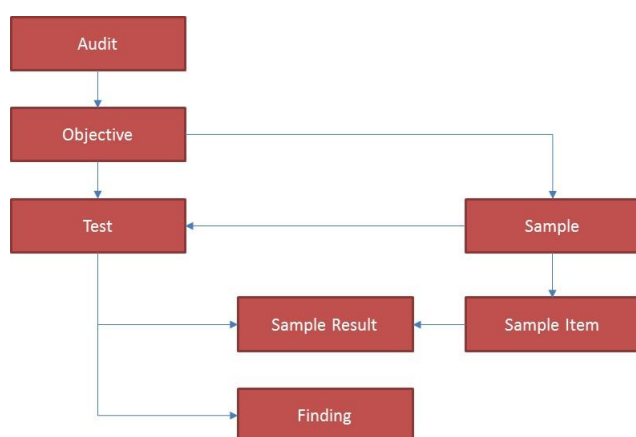


Fig. 1: Sampling

Information and results can be captured individually against each Sample Item/Test before an overall result is documented for the Tests as a whole. Findings (and hence Actions) are still raised in relation to Tests. This enhancement enables customers to bring their sampling work within the structured system, with the numerous benefits that this brings, although of course it does not preclude people from continuing with a spreadsheet-based approach if preferred.

The new Sampling features in Pentana 4.1 will also be reflected in an update to our Pentana Analytics Link Solution (PALS) in due course; PALS is an optional module that integrates the tests executed within data analytics products such as ACL, Arbutus or IDEA with Tests and Library Findings held within Pentana. In essence it enables the results of detailed work in analytics tools to auto-populate test results and findings in Pentana; users do still have to use their judgment to sign the work off though!

2.4 Audit Problems

While the observations and issues identified during the course of an Audit or project can already be fully documented and reported in Pentana 3.2 via the current Findings and Actions features, some customers have also requested an additional level “above” Finding; essentially as a way of bringing together a collection of the findings and reporting them as a consolidated “problem” or “theme”.

In some scenarios, these common problems may also inform or reflect the Key Issues/Strategic Risks that are faced by the organization as a whole.

In Pentana 4.1 we have therefore introduced a new “Problem” object at Audit level. A Problem can optionally link to multiple Findings within an Audit. Key Issues (as described earlier in this document) can optionally link to multiple Audit Problems. Problems can be documented, managed and signed off in the usual way.

2.5 Notes

Former users of our PAWS system may recall its “Diary of Events” feature. This was a general purpose object that allows multiple child items to be recorded against a variety of parent objects, including Objectives, Risks, Controls, Test, Steps, Findings and Actions.

This feature was originally excluded from Ideagen Pentana because file attachments can be used instead, however some customers have continued to request a comparable way of capturing multiple structured information updates about any parent item within the system.

In Pentana 4.1 we have therefore introduced a new “Notes” object; this can be enabled through system configuration to allow attachment to numerous parent objects, including:

- Universe level – Incidents, Key Issues, Actions & Action Updates
- Entity level – Entity Processes, Objectives, Risks, Controls & Tests (ORCTs)
- Audit level – Work Plans & Steps, ORCTs, Question Answers and Problems & Findings

The availability of Notes as a child object against designated parent items can be determined according to system configurations. Notes do not have screens or a life-cycle of their own but inherit their status from their parent item, in the same way as file attachments; for example, Notes cannot be added, edited or deleted once their parent item is approved.

2.6 Post Audit Work

Pentana 4.1 introduces additional flexibility with regard to the nature and extent of work that can be executed after an Audit has been “Approved”, right up until when the Audit is “Closed”.

In Pentana 3.2 the only data that could be updated after Audit Approval relates to the agreed Actions (generally via “Action Updates”) whereas in Pentana 4.1 the system also allows for individual Work Plans/Steps, Objectives/Tests and Questionnaires to be flagged in the library as “Post Audit” if desired.

For example, some customers may wish to allow a “Satisfaction Survey” questionnaire to be executed after the Audit has been “Approved” and for the Step that indicates when this survey has been done to be signed-off at that time.

Pentana 4.1 also supports several system settings that allow customers to determine at what stage Problems, Findings, Actions and indeed Audit Reports become read-only, such that they can be updated post Audit Approval if desired.

2.7 Get Findings & Actions

Pentana 4.1 provides more flexibility with regard to the follow up of Findings & Actions raised in previous Audits by introducing a new “Get from Audit” facility at the Findings & Actions screen.

Previously the system allowed that Findings & Actions would be disposed of in the context of their original Audit, but in Pentana 4.1 it is now possible to copy all or selected open items into a new Audit and to automatically close off the original items with a specified outcome, in order to avoid any double counting.

The rules governing how Findings & Actions are transferred into the new Audit and how prior items are disposed of in the original audit can be easily determined through maintainable system settings. For example, customers might decide that transferred Actions must have a Resolution of “Transferred”, so they can be easily identified and handled during reporting.

This feature will be useful where an organization has a policy of carrying out “follow-up audits” to determine action status, rather than following up all actions individually.

2.8 Web Interface

Strategies available in Pentana 4.1 for Business User interaction include granting restricted access to the main system or sharing limited data updates via two-way templates, such as MS Excel or Word documents. Access to the main system is a good option for “guest auditors” or risk/control managers, who may typically require substantial and feature-rich functionality. Meanwhile, two-way templates are suitable for simple turnaround documents, such as when responding to draft Findings or to provide updates to assigned Actions.

While both strategies have their place, we acknowledge that some customers are uncomfortable about deploying the main client application to their business users and that two-way templates can involve an administrative burden on central users. For Pentana 4.2 we are therefore introducing a new web-browser capability specifically targeted for business users, so they can perform limited functions through a simple web browser interface.

The initial implementation in Pentana 4.2 is focused on “My Actions”, “My Action Updates” and “Raise Incidents” for business users. The Pentana Web solution will also integrate with our wider Ideagen GRC portal for other governance, risk and compliance needs.

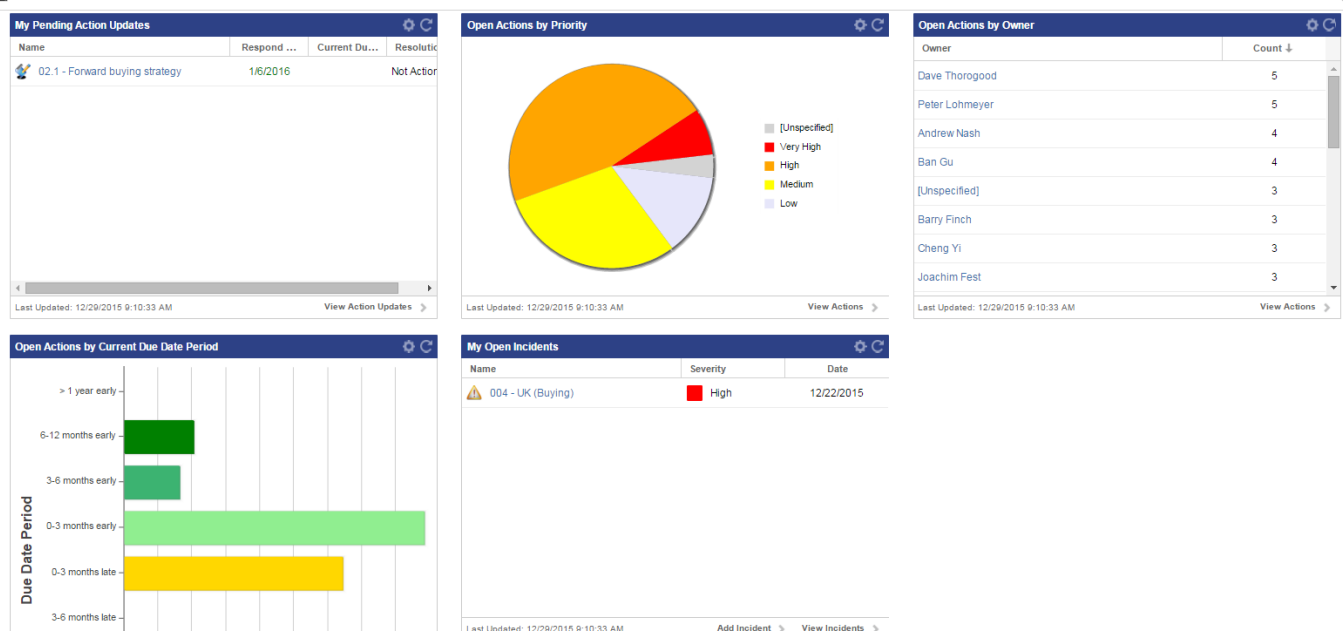


Fig. 2: Web UI Home Screen.

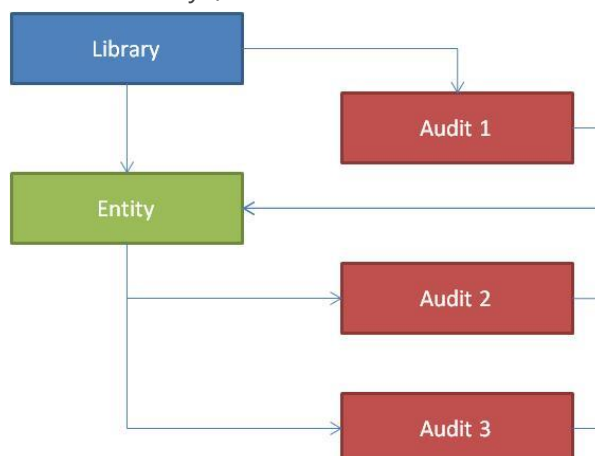
Our underlying Pentana Web engine will allow us to introduce more business user features in due course. Ideagen can also deliver custom web interfaces on a consulting basis, or our partners and customers can even develop their own web interfaces if desired, after suitable training.

2.9 Refresh from Library

The Entity-level Risk Register of Objectives, Risks, Controls and Tests (ORCTs) is intended to act both as a repository of risk management registers (containing both internal and external assessments, as required), and as a repository of the latest operational risk scores from audits. In the latter role it can also act as a pseudo library for audits, containing both library ORCT and additions from audits.

There are two methods of populating risk registers in an audit:

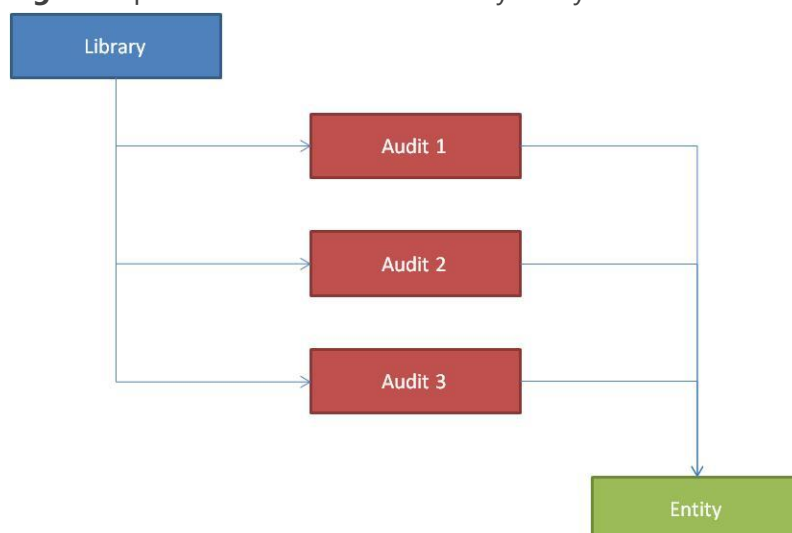
- **Fig. 3:** Populate the audit from the library the first time, then populate subsequent audits from the entity (this method would also be the norm for risk management).



In 4.2 we have added functionality to allow the user to “Refresh” the contents of an Entity-level Risk Register with any changes which have been made to the Library. This means that subsequent Audits will contain the latest library items (4.2) as well as any Entity-specific items which were added in a prior Audit.

The “Refresh” can be run manually at any time from within an Entity-level Risk Register or immediately prior to “getting” Entity ORCTs into an Audit (to ensure that the source items are up-to-date before taking a copy of them).

- **Fig. 4:** Populate audits from the library every time.



The process for “updating” Entity-level ORCTs when an Audit is “Completed” has been improved in 4.2 to ensure that items which already exist are updated rather than a duplicate record being created.

2.10 Property Grid Designer

Prior to Pentana 4.2 even the simplest UI Customizations had to be made by Ideagen (or one of our trained partners) but we have now added a screen to allow power users to make some field/layout changes themselves.

The actions which can be performed are:

- Re-order the fields within a section
- Re-order the Sections
- Collapse Sections
- Show/Hide a field
- Hide a field from Staff/Contacts

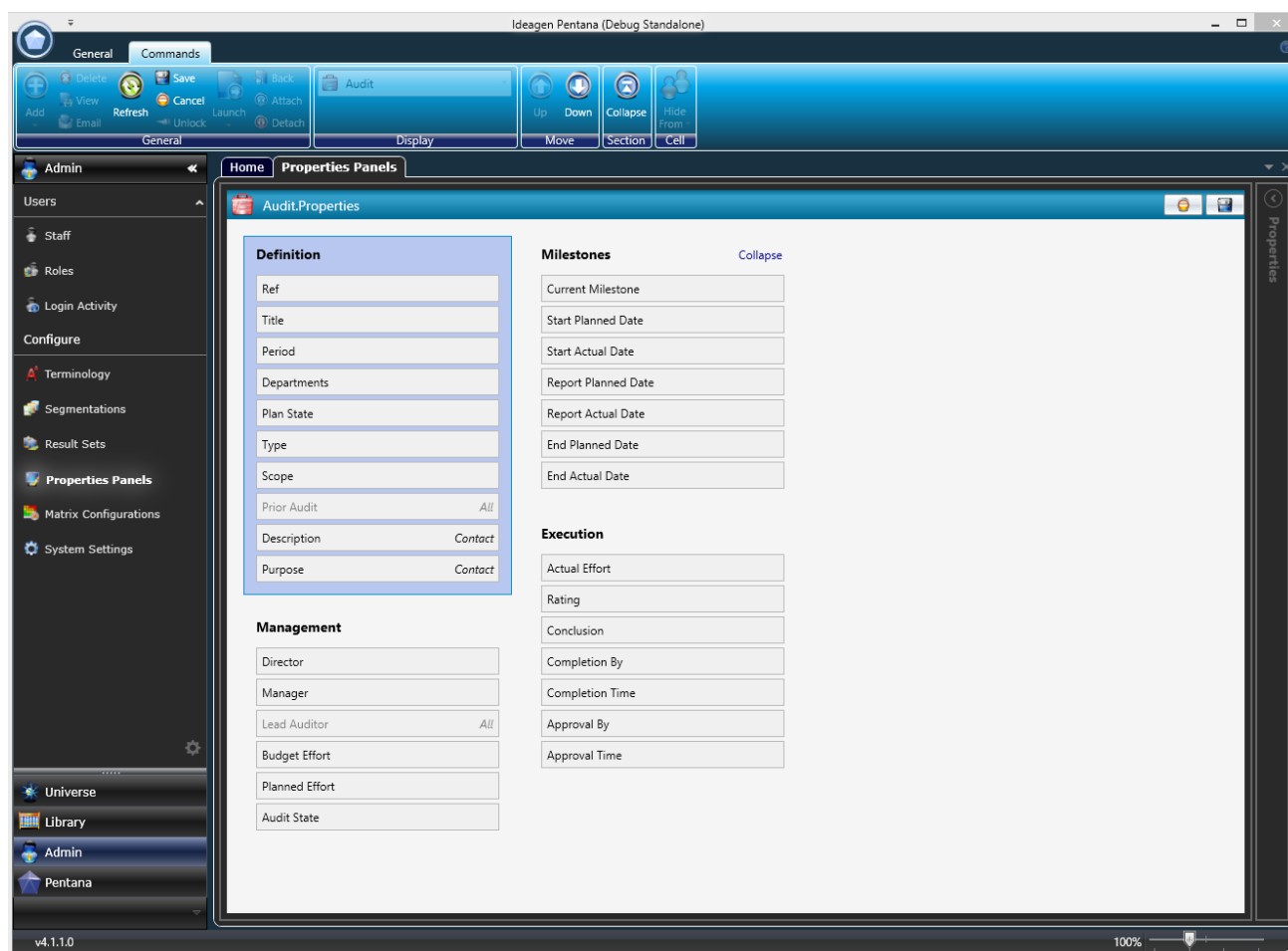


Fig. 5: Property Grid Designer.

More complicated Customizations will still need to be made by Ideagen (or one of our trained partners) but we will look to enhance the new Property Grid Designer to cover more types of Customization in due course.

2.11 App Manager

A common complaint prior to Pentana 4.1 was that it was an administrative burden to install, configure, customize and upgrade due to the number of tasks which had to be performed manually and the relatively limited functionality of the “Installer” application.

For Pentana 4.2 there has been a very significant improvement to the management tool which should reduce this burden considerably to the point the power users should be able to upgrade the Pentana application themselves without the need to consult with Ideagen or their reseller partners.

The new “App Manager” allows you to manage multiple “instances” of Pentana including almost all of the constituent components via the “Setup” Tab:

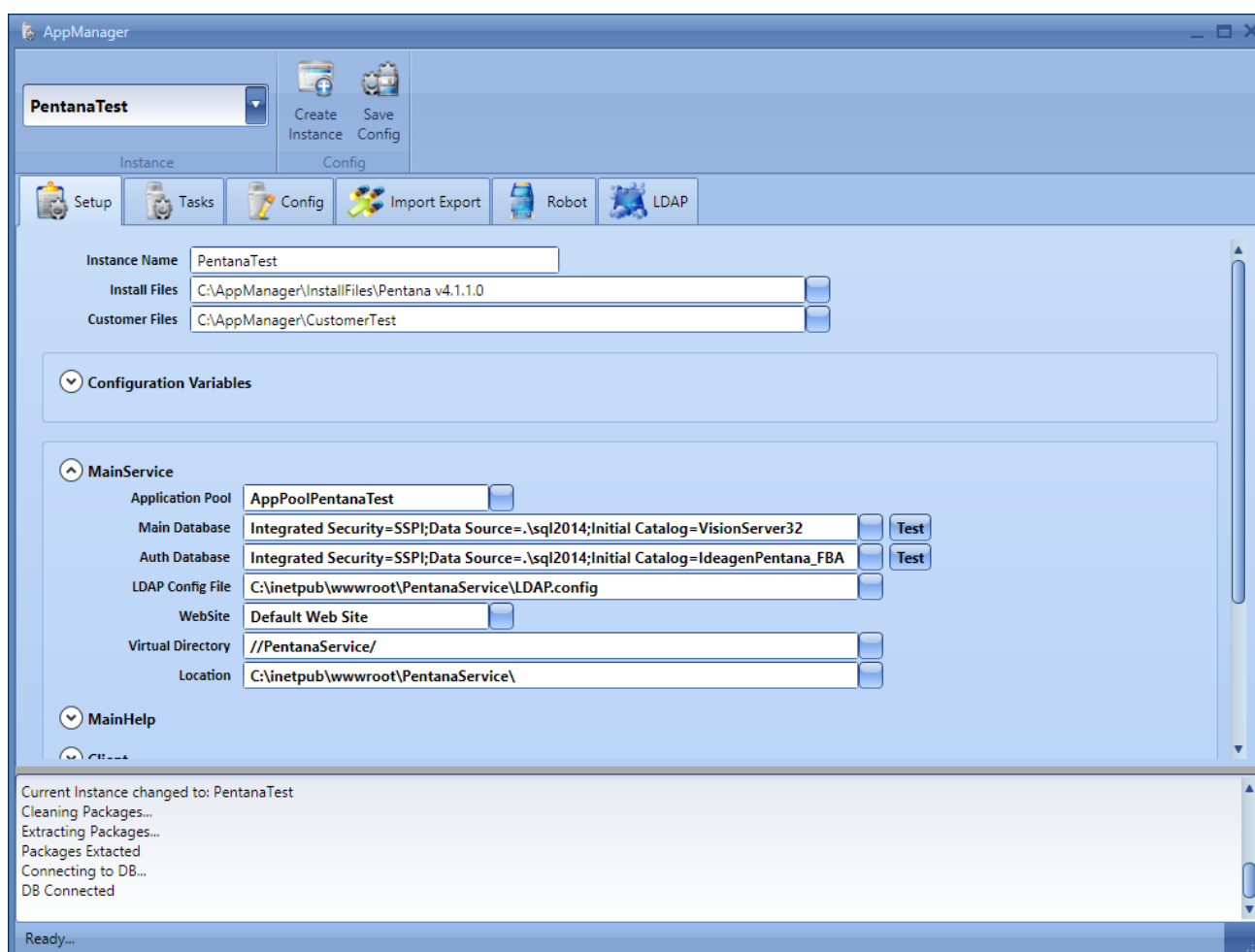


Fig. 6: App Manager

The “Tasks” Tab allows you to perform upgrades and install Customizations, etc. while the “Config” Tab provides a helpful editor for managing the various configuration files that Pentana requires.

The “Import/Export” Tab can be used to perform all of the tasks supported by the previous version of the tool and the “Robot” and “LDAP” Tabs fully replace the functionality of the old “Robot Manager” tool which is now obsolete.

2.12 Excel Importer

Strategies available in Pentana 3.2 for importing data from an external source include two-way templates (which has limited capability) and via an Intermediate SQL database (which typically requires assistance from Ideagen).

For Pentana 4.1 we have therefore created a new and improved Excel Importer tool which is extremely versatile and reliable and can be used to upload data into almost any table on a one-off or recurring basis. This replaces the basic Excel Importer that previously existed which is no longer supported and should not be used.

The format required is very specific but easy to understand for resellers and “power users” and allows for a single Excel file to contain multiple tabs of data and each of these can contain data for multiple database (e.g. you can now upload an entire ORCT hierarchy from a single tab). The tool itself guides you through the process of selecting which sets of data you wish to upload and informs you how many records will be added/edited before confirmation.

The Excel Importer tool can be run independently of the Smart Client application or as an External Application accessible via the Ribbon.

There is also the option of using a Server Robot Job to perform uploads automatically on a recurring basis. The format for the Excel files is identical and the Job simply needs to be configured to point at the directory which contains the source files and to be scheduled to run at the required times.

2.13 API

Pentana 4.1 introduces the ability for 3rd parties to start writing external applications of their own to interact with the Service by reading/writing data via the "API" assembly. This assembly can be referenced by any .NET application (i.e. WinForms, Web, Console, etc.) and allows the developer to run any query and make updates to selected data. All requests go through the Service layer and therefore the end users role permissions are applied at all times.

For this first version the type of data which can be updated is limited to the following:

- Incidents
- Audits
- Audit ORCTs
- Audit Sampling
- Actions
- Attachments
- Notes

Pentana 4.2 extended the API functionality to include:

- Findings
- Assignments
- Org Units
- Entities
- Library ORCTs

In due course this list will be expanded further subject to demand.

2.14 DB Queue

Many of Pentana's Robot Jobs (both Standard and Custom) use a queuing mechanism for posting changes to 3rd party applications and sending emails, etc. and prior to Pentana 4.2 the only supported mechanism for this was MSMQ which can be difficult to set up and administer.

Pentana 4.2 allows the Robot Jobs to use a DB Queue which means that the queue messages are stored within a SQL database (usually the main Pentana database) which can make things simpler.

Minor Enhancements

The following is a selection of other minor enhancements in Pentana 4.1:

Locked Items – it is now possible to mark Steps and ORCTs as “Locked” so that when they are used within an Entity/Audit they cannot be modified except by users with sufficiently high role permissions.

Prior Audit - an Audit can now be linked to its “Prior Audit”, so customers can easily report the “Prior Rating” and other comparators; this also helps to drive the new “Get Findings & Actions” feature as described above.

Execute Audit Permissions - several role permissions relating to Audit “Execution” have been moved down from Client Universe to Audit level, so that a user’s permissions in this regard can now be varied on an Audit-by-Audit basis.

Interested Party Permissions – the Read Actions permission now have an allowed value of “Interested” which allows the user to view records for which they are either the Owner or an Interested Party.

Action Update Attachments – are now copied from the Action Update to the Action when the Action Update is “Accepted”.

Audit Sign Offs – there are now separate role permissions relating to Undo Complete, Undo Approve and Undo Close Audits for greater security.

Delete Review – it is now possible to delete a Review (of a Test for e.g.) if it has been added by mistake, etc.

Break Link – ORCTs and Work Plan/Steps within an Entity/Audit can now have their link to the Library item broken (to make the item “standalone”) if you wish to change it and do not wish for it to be updated by a refresh in the future.

System Settings – there is now a new System Settings screen, to enable customers to maintain a large number of configurations within the main application rather than through the separate “App Manager” tool.

Allowed File Types – there is now a System Setting to control which file types are allowed to be uploaded as an Attachment. Therefore they can now be controlled via this “white list” or the existing “black list”.

Person Reports To – there is now a standard field to capture who each Person (Staff or Contact) “reports to” allowing them to form a ragged hierarchy. This is then used to drive the new “My Team” filter when viewing Actions (which includes Actions whose Owner is someone who “reports to” the current user).

Person Language – it is now possible for a user (subject to role permissions) to change the Language of another Person (Staff or Contact) in case they are a Business User who does not interact with the Smart Client.

Person Attachments – it is now possible to upload Attachments against Staff or Contacts.

Purge Audit Trails – it is now possible to purge data from the Audit History tables (via a Server Robot Job) according to central configurations, to assist with ongoing database maintenance.

Conditional Field Visibility - our UI engine now allows fields to be shown/hidden in the Properties panel dynamically based on specified conditions. This means we can offer even more powerful solutions on a custom basis; for example where a customer requires fields “X” and “Y” to be visible if an item is of “Category A”, but hidden otherwise.

Multi-Client Action Tracking – in a “multi-client” implementation it is now possible to specify which Clients should participate in Action Tracking via a flag at Client level.

Ideagen Branding – the product name has changed from Pentana Vision to Ideagen Pentana so the splash screen, application logo and some labels have been changed accordingly.

User Interface – the UI engine has been upgraded to improve reliability and extensibility and some customers may notice minor changes to the user experience relating to this.

Chart – the UI chart component has been replaced by one from a different vendor which greatly improves the number of ways you can visualize your data through the various “Analysis” screens.

Child Data Grid Filtering – when a Data Grid is given a “pre-filter” that criteria is now also applied to the child Data Grid when they are expanded.

Hierarchy Matrix Performance – the performance of the Hierarchy Matrix component has been significantly improved when using a large Audit Universe (although it is known to still perform poorly if fully expanded to show more than a thousand or so cells).

Intuitive dashboards – Ideagen has partnered with a 3rd party organization in order to offer generic dashboards which can be delivered outside of the main application.

Sub-Queries – the Query Builder tool now supports “sub-queries” which allows queries to be created which were not previously possible. There is also now a “quick link” in the schema from Audit to Entity which greatly simplifies some Audit-level reports by avoiding having to link through the “Scope”.

Office 2013 Compatibility – the two-way template mechanism is now supported using Office 2013.

Citrix Compatibility – the use of the Smart Client using Citrix is now supported subject to some minor limitations.

Activity Report – there is new report (accessible from the Login Activity screen) which summarizes the logins for “standard” and “occasional” users for the purpose of determining how many licenses are being used or are required.

Universe Actions - there is now a new Universe level screen called "Actions" which collects together all of the Client level Actions (i.e. ones associated to an Incident, Key Issue, etc.) and is the screen which is launched when the user clicks a hyperlink, etc. to a Client-level Action. Note that Entity and Audit level Actions are unaffected and for these the user is launched into the Entity or Audit respectively.

Attachment Performance - a significant performance improvement has been made to the download code in the File Service when using a SQL File Store. This dramatically reduces the time taken to download Attachments, etc. when using SQL to store the files.

Locked ORCTs life-cycle - a set of bugs have been fixed which prevented ORCTs from being uploaded from Audit to Entity (e.g. on Audit Completion) if a) they included Samples, b) they were Locked or c) the Tests were Automatic.

Tool Versioning – when using the various external applications (e.g. Query Builder, Custom Field Package Builder, etc.) the Service now forces you to use a compatible version, i.e. a tool which has the same build version as the Service. This is required to ensure that old versions of tools are not used incorrectly.

Action tracking 2-way Templates - the Robot Jobs which send out Action Tracking emails with a 2way Template attached were failing to populate those templates due to a bug introduced in v4.0.

Delete People – there is now a "standard" Customization to delete the users specified in the associated configuration file regardless of the records linked to (or modified by) them in the database. This is useful when "cleaning" a UAT database in preparation for going into Production.