



# What's New in Pentana v5.0

VERSION 5.0 – SEPTEMBER 2016

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# Introduction

Ideagen Pentana 5.0 is an enhancement release, available from September 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 as technical information for Ideagen staff and partners, to help clients prepare for upgrade to Pentana 5.0. It outlines the enhancements made since Pentana 4.2. Please refer to our Functional Overview or Help Guides if you need a more detailed description of general product features.

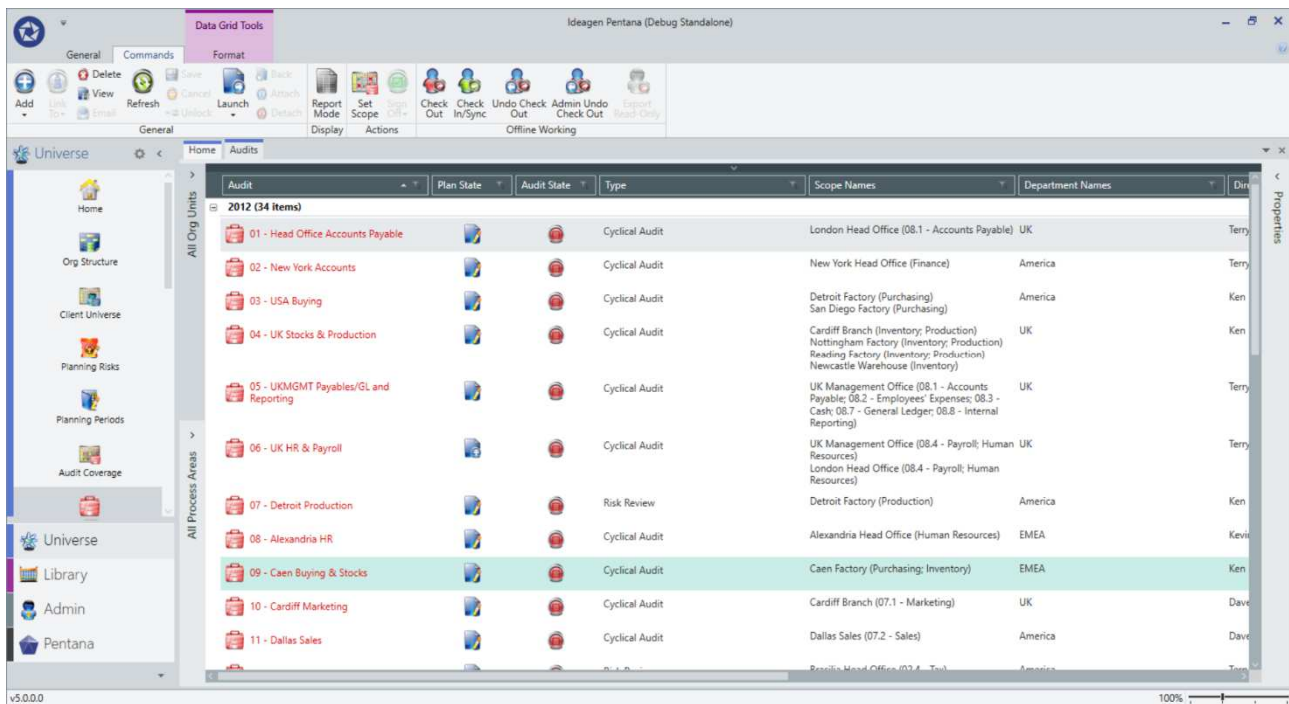
The major new features and selected minor enhancements in Ideagen Pentana 5.0 are described below. For a complete list of all enhancements please consult the Release Notes document.

# Major New Features

## Windows User Interface (WPF UI)

### Ideagen Theme

The WPF UI (and to a lesser extent the Web UI) has been updated to a brand new blue/grey theme which replaces the previous black/cyan one. This gives the UI a fresh new look and feel but without changing the functionality significantly.



### Data Grid Improvements

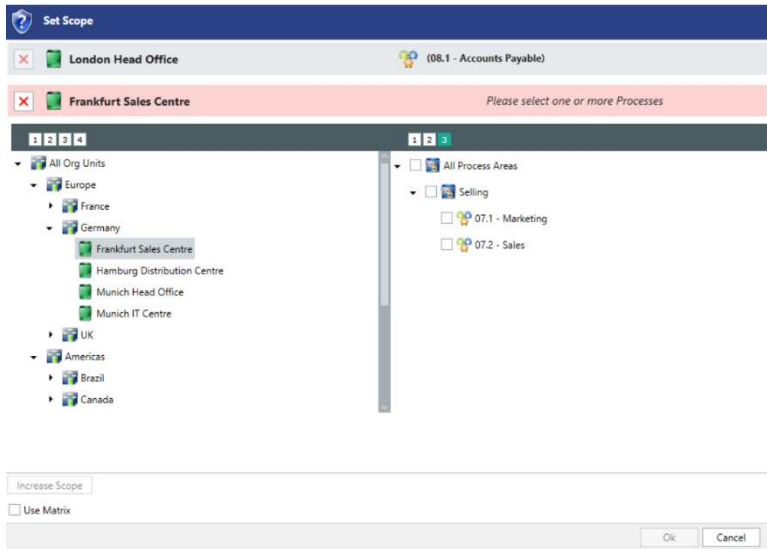
The Data Grid component, which forms an integral part of the WPF UI, has been improved in terms of functionality, usability and performance. Changes include:

- Clear all buttons added for on-grid and pre-filters.
- Filter information panels added for currently applied on-grid and pre-filters.
- Filter information included on exported reports.
- Clear all columns button added on column picker.
- Column picking for child grids greatly simplified.
- Expand to Level buttons added when Grouping.
- Sorting by a Segmentation is now by Order (if present) rather than alphabetically.
- Reliable colour blocks on exported reports.
- Improved handling of Rich Text on exported reports.
- Ability to drag/drop Attachments onto child grids.
- Totals shown when groupings are collapsed.
- Segmentations are now shown as coloured blocks.

This extensive set of changes should significantly improve productivity especially in terms of the power users who are responsible for creating/managing the set of UI Views.

## Set Scope Dialog

The interface for setting Audit Scope has been re-designed so that it no longer uses the Hierarchy Matrix component and therefore performs far better when used on a database with a very large Audit Universe.



This dialog is also used when setting the Scope of other objects such as Incident, etc. and users still have the option to use the previous interface if their Audit Universe is sufficiently small.

## Permission Settings

The interface for viewing/editing Permissions has been re-designed to make it easier to compare the settings across Roles and to see which settings have been changed from their default values.

Permission	Senior Audit Manager	Audit Manager	Auditor	Junior Auditor	Business Auditor	Audit Viewer
<input type="radio"/> Open Audits	Grant	Deny	Deny	Deny	Deny	Deny
<input type="radio"/> Launch Milestones	Grant	Grant	Grant	Grant	Grant	Grant
<input type="radio"/> Execute Milestones	Grant	Deny	Deny	Deny	Deny	Deny
<input type="radio"/> Launch Assign Staff	Grant	Grant	Grant	Grant	Grant	Grant
<input type="radio"/> Vary Staff Audit Assignments	Grant	Deny	Deny	Deny	Deny	Deny
<input type="radio"/> Launch Assign Contacts	Grant	Grant	Grant	Grant	Grant	Grant
<input type="radio"/> Vary Contact Audit Assignments	Grant	Deny	Deny	Deny	Deny	Deny
<input type="radio"/> Launch Audit Steps	Grant	Grant	Grant	Grant	Grant	Grant
<input type="radio"/> Read Work Plans	All	All	All	All	All	All
<input type="radio"/> Read Steps	All	All	All	All	All	All
<input type="radio"/> Get Steps	Grant	Grant	Deny	Deny	Deny	Deny
<input type="radio"/> Define Steps	Grant	Grant	Deny	Deny	Deny	Deny
<input type="radio"/> Lock/Unlock Steps	Grant	Grant	Deny	Deny	Deny	Deny
<input type="radio"/> Set/Unset Steps Post-Audit	Grant	Grant	Deny	Deny	Deny	Deny
<input type="radio"/> Assign Steps	Grant	Grant	Deny	Deny	Deny	Deny
<input type="radio"/> Confirm Steps	Grant	Grant	Deny	Deny	Deny	Deny
<input type="radio"/> Undo Confirm Steps	Grant	Grant	Deny	Deny	Deny	Deny
<input type="radio"/> Execute Steps	All	All	All	Own	Own	None
<input type="radio"/> Review Steps	All	All	None	None	None	None
<input type="radio"/> Approve Steps	All	Others	None	None	None	None
<input type="radio"/> Undo Approve Steps	All	Own	None	None	None	None
<input type="radio"/> Delete Steps	Grant	Deny	Deny	Deny	Deny	Deny
<input type="radio"/> Launch Audit Execution	Grant	Grant	Grant	Grant	Grant	Grant

Changes can be made in bulk and values which differ from their default are highlighted. Each Permission now has a description (accessible via hover text) which explains precisely what functionality it controls.

## Confidential Audits

Audits can now be marked as "Confidential" and the Read Audits Permissions have been changed to allow the administrator to control which Roles have access to standard vs. confidential Audits independently.

This improvement means that it is no longer necessary to work around the issue by using the Department segmentation and the flexible Permissions allow you to closely control which Confidential Audits a given user can see.

## System Settings

A significant number of System Settings which could previously only be edited via the App Manager are now exposed in the WPF UI so they can be changed by the administrator. These include:

- Rich Text Settings (default font/size and maximum size)
- Attachment Settings (allowed file types, sizes, etc.)
- Hierarchy Matrix Settings (default appearance, behaviour, etc.)
- Risk/Control Sign Off Rules (making the standard Customization obsolete)
- Milestone Rules (making the standard Customization obsolete)

Exposing these settings in the UI should reduce the burden on resellers and system administrators.

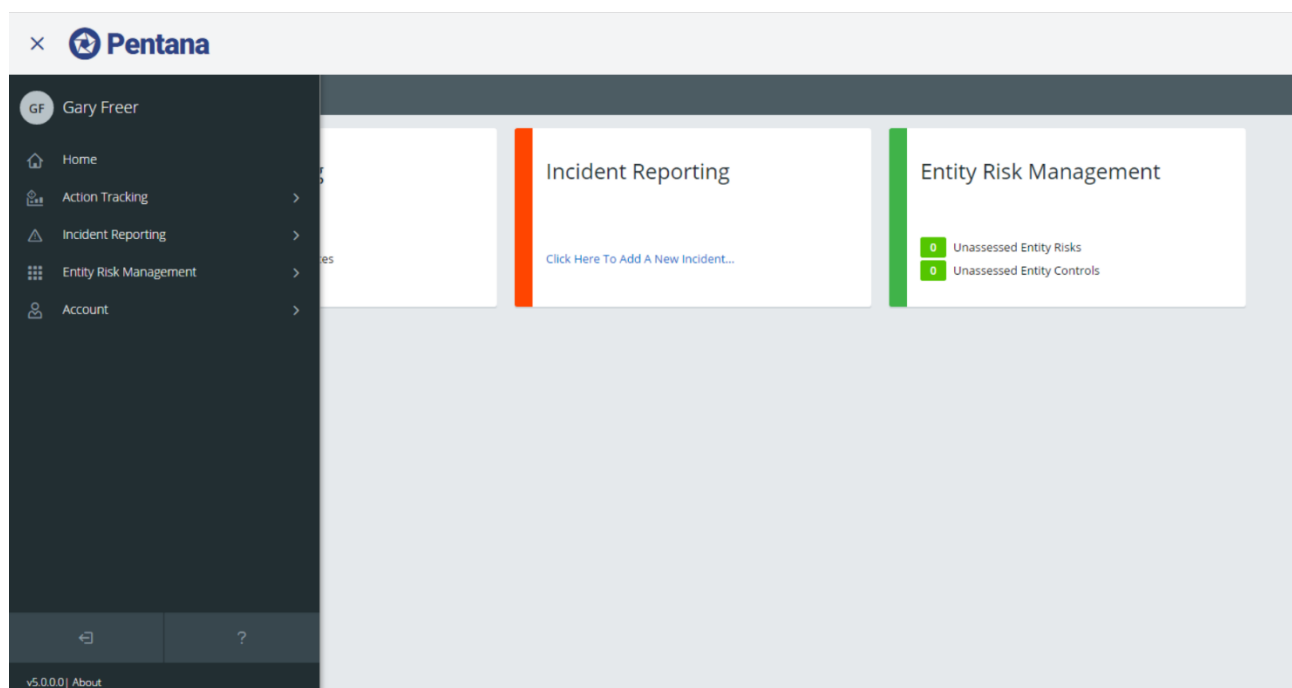
We strongly recommend setting the Rich Text size limit to around 1 Mb because anything larger begins to have a significant effect on overall performance of the application. If users wish to add text, images, photos, etc. which are larger than this they should do so as Attachments which are handled/stored in a different way.

## Web User Interface (Web UI)

### Ideagen Theme

The Web UI has also been updated to have a new layout/theme making use of our new Ideagen user interface components.

Navigation is slightly different in that there is now a new Home Screen which consists of 3 tiles (Action Tracking, Incident Reporting Entity Risk Management) which provide access to the different modules which now make up the Web UI.



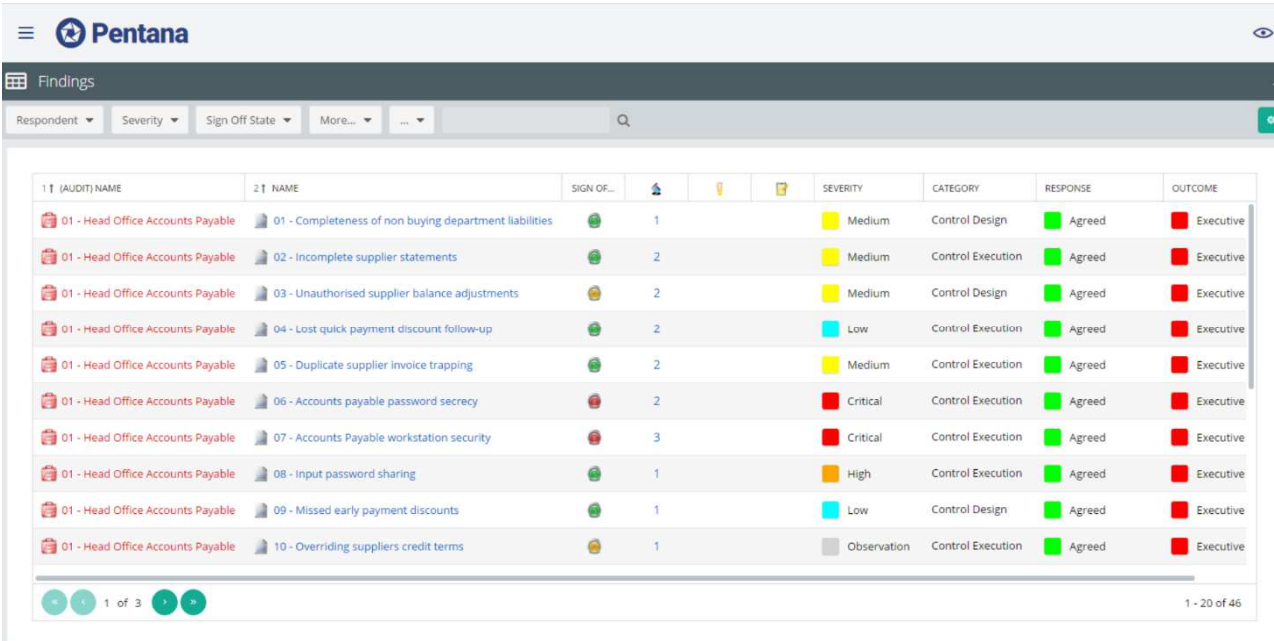
The Action Tracking module contains the previous functionality and has been extended to include Findings (see below).

The Risk Management module is new and allows business users to contribute to the management and assessment of the Entity Risk Registers (see below).

The Incident Reporting module contains the previous Incident functionality (raising of Incidents and tracking their life-cycle) and has had only minor enhancements in this version.

## Web Findings

In v4.2 the "Web Actions" functionality allowed Action Owners (and Audit Managers) to perform (and manage) the Action life-cycle. It relied on the Actions themselves being added by the Auditors using the WPF UI whilst performing the Audit.



1   (AUDIT) NAME	2   NAME	SIGN OF...				SEVERITY	CATEGORY	RESPONSE	OUTCOME
01 - Head Office Accounts Payable	01 - Completeness of non buying department liabilities		1			Medium	Control Design	Agreed	Executive
01 - Head Office Accounts Payable	02 - Incomplete supplier statements		2			Medium	Control Execution	Agreed	Executive
01 - Head Office Accounts Payable	03 - Unauthorised supplier balance adjustments		2			Medium	Control Design	Agreed	Executive
01 - Head Office Accounts Payable	04 - Lost quick payment discount follow-up		2			Low	Control Execution	Agreed	Executive
01 - Head Office Accounts Payable	05 - Duplicate supplier invoice trapping		2			Medium	Control Execution	Agreed	Executive
01 - Head Office Accounts Payable	06 - Accounts payable password secrecy		2			Critical	Control Execution	Agreed	Executive
01 - Head Office Accounts Payable	07 - Accounts Payable workstation security		3			Critical	Control Execution	Agreed	Executive
01 - Head Office Accounts Payable	08 - Input password sharing		1			High	Control Execution	Agreed	Executive
01 - Head Office Accounts Payable	09 - Missed early payment discounts		1			Low	Control Design	Agreed	Executive
01 - Head Office Accounts Payable	10 - Overriding suppliers credit terms		1			Observation	Control Execution	Agreed	Executive

In v5.0 the functionality has been extended so that the Business Users can be involved earlier in the process (subject to Permissions) allowing them to:

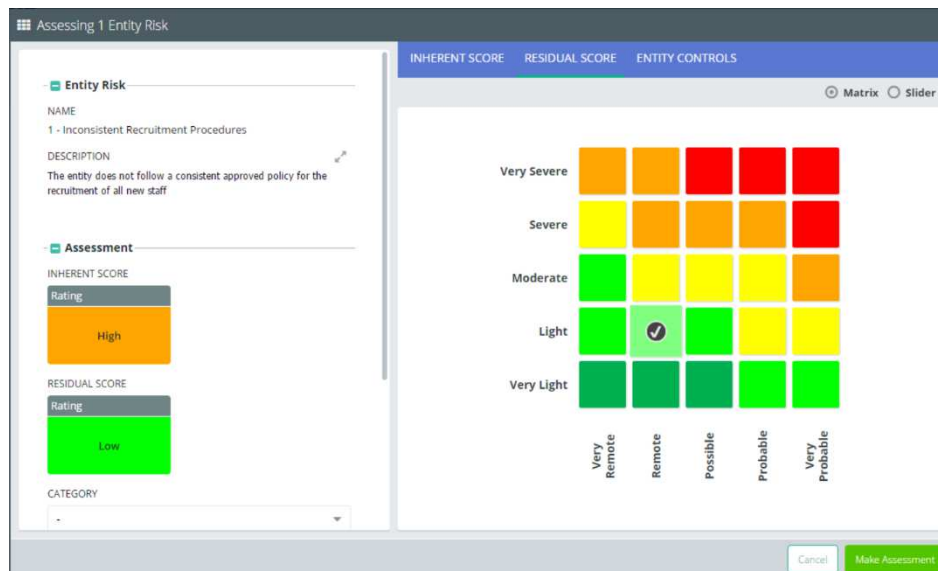
- Respond to Findings
- Execute Findings
- Define Actions
- Delete Actions

Equivalent functionality already exists in the Paws Web UI and replicating it in Pentana should encourage some customers to make the move to the new product.

## Web Risks

The most significant new functionality which has been added to the Web UI in v5.0 allows the Business Users to participate in the assessment and management of the Entity Risk Registers.

Junior Business Users can be authorized to assess the Risks and Controls which are assigned to them and upload supporting evidence, etc.



Senior Business Users can also be authorized to participate in the management of the Risk Registers which includes adding, editing and deleting the Objectives, Risks and Controls plus assigning them to other users for assessment, etc.

The functionality available within the Web UI now covers the following Permissions:

- Define Entity ORCTs
- Lock/Unlock Entity ORCTs
- Execute Entity ORCTs
- Assess Entity ORCTs
- Delete Entity ORCTs

Equivalent functionality already exists in the Paws Web UI and replicating it in Pentana should mean that there are no remaining functionality gaps which might prevent any customers from making the move to the new product.

## Web Views

The Web UI now allows users to customize the Data Grids (i.e. pick columns, apply filters/sorts, etc.) and to save these for use later or share with other users (subject to Permissions).

They can also choose a favourite View for each screen which is applied by default. This functionality is broadly similar to that which has existed in the WPF UI for many versions.

## Custom Fields

Custom Fields are now fully supported in the Web UI on all available objects (e.g. Findings/Actions and Entity ORCTs). Custom Fields automatically appear in the Web UI when they are added to the WPF UI via a Customization supplied by Ideagen or a reseller, there is no need for additional work to also expose a Custom Field in the Web.

The Custom Fields appear on the Web Property Grid in the same places as in the WPF UI and are also available on the column picker and for filtering.



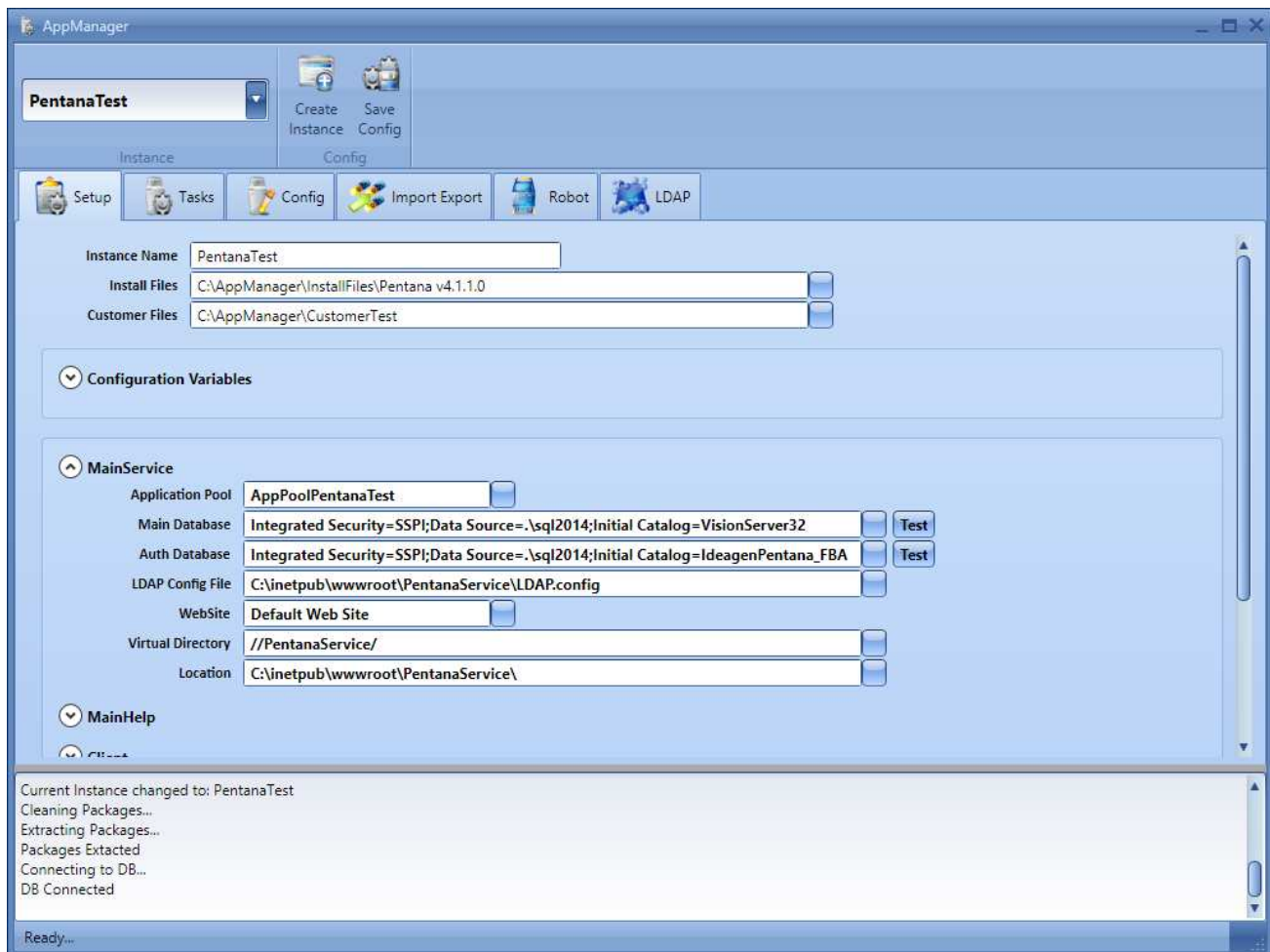
## Technical

### App Manager

A common complaint prior to Pentana 5.0 was that it is 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 5.0 there has been a very significant improvement to the management tool which should reduce this burden considerably to the point the power users may, in some cases, 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.



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.

## Multi-Language Segmentations

Pentana could already be translated into multiple languages even within the same implementation which means that users can share the same database and yet see the UI and all related messages and terminology displayed in their own preferred language.

Previously this functionality did not extend to cover “segmentations” such as the Finding Severities of “High”, “Medium” and “Low”. Customers were free to change these to whatever text they like (in whatever language) but that same text is then shown to all users regardless of their own preferred language.

As a result, some bilingual customers had elected to set each item’s text to a combination of English and another language, e.g. “Medium/Medio” which can be understood by all users but clearly this solution is not sustainable as a third and fourth language is added to a given implementation.

In v5.0 it is possible to give each “segmentation” a different value in each language and the appropriate value is displayed to the user throughout the WPF UI, Web UI and various reporting mechanism such as Doc Pop.

## Rich Text Buddy Fields

Each “rich text” field in the database (on non-cached objects) now comes with a “buddy” field to contain the “plain” text equivalent which can be used for reporting and/or exporting to an external application which does not support the mark-up language used by the application.

The “plain” field should be used wherever possible to improve performance especially in cases where the “rich text” is currently being exported and “flattened” later by an external application (e.g. export to a data warehouse).

## LDAP Integration

The existing functionality which allows Staff/Contact information to be added/synchronized from Active Directory has been extended to allow for:

- Person and Identity to be added together.
- Active Directory Groups to be mapped to Pentana Roles.
- People to be added in bulk.
- People to be synchronized in bulk.
- People to be synchronized automatically via Robot Job.

This set of improvements should significantly reduce the burden on the user administrator.

## Database Foreign Keys

The performance of the database layer has been improved by the addition of some specific/targeted foreign key indexes on frequently hit tables/relationships. The benefit gained from these indexes is increased on particularly large databases.

Please note that a SQL script to add these indexes to an earlier version of the Pentana database (e.g. v4.2) is also available on request.

## Chunked Cache Updates

When Pentana starts the changes to the locally cached data is now downloaded in chunks so that if a large amount of data has been changed (e.g. there has been a large bulk update to a segmentation) this can be synchronized without the process timing out.

A related change is that the XtraDeploy mechanism can now be used even if the customer is NOT using ClickOnce for deployment. This means that if such an upload occurs you can also choose to manually re-build the Firebird database once (on the server) and drop it into the XtraDeploy folder to roll it out to the end users more efficiently.

# Minor Enhancements

The following is a selection of other minor enhancements in Pentana 5.0:

**Hierarchy Matrix Performance** – This component now populates with a cancellable progress bar so when a large number of cells are visible the user can cancel when they can see enough data and free up the network/server to deal with requests from other users.

**Expand All Performance** – In the Risk Register (for example) if the user elected to expand all Objectives (or Risks or Controls) in one go (using Shift + Click) the operation was inefficient and liable to timeout but this has now been fixed so large Risk Registers should now support this operation.

**Filtering** – Date fields can now be used in pre-filters, as can Text fields which means that it is now much quicker and easier to perform a “search” within a set of data.

**Principles and Components** – A pair of new Tick Many segmentations called Principles and Components have been added to Control (at all three levels) designed to store data contained within the COSO 2013 Library. The list of Components is a calculated field which is set to the distinct list of items covered by the selected Principles.

**Refresh Audit Milestones** – Within an Open Audit it is now possible to refresh the Milestones so any new ones which have been added to the Library (for that Audit Type) since the Audit was created can be added. There is also a standard Customization to run this over all Open Audits at once if required.

**Bulk Assessment of Risks/Controls** – The Risk Register screens (at all levels) have been improved so that Risks and Controls can now be “assessed” in bulk. This makes it quick and easy to apply the same Assessment to copies of the same Control which has been pasted against multiple Risks, for example.

**Convert Contact to Staff** – It is now possible to “convert” a Contact to Staff in the event that they change from being a Business User to a full member of the Audit Team, especially in a Multi-Client implementation.

**Finding Permissions** – The Permissions for Execute Findings, Define Actions, Assign Actions, Confirm Actions, Undo Confirm Actions and Delete Actions have been changed from Grant/Deny to All/Own/None (where Own means the current user is one of the Finding.Respondents). This change is to make it possible to configure Business Users so they can be responsible for more of the Finding/Action life-cycle but only for “their” Findings.

**Action Update Permissions** – Furthermore the Permissions for Define Action Updates and Assign Action Updates have been changed from Grant/Deny to All/Own/None (where Own means the current user is the Action.Owner) so that Business Users can be configured so that they can raise Action Updates on themselves but on for the “their” Actions.

**Roll Forward Candidate Audits** – These can now be “got” from a previous Planning Period if they were planned but were never converted into real Audits.

**Get from Library** – There are now additional checkboxes to allow the user to choose if Findings/Actions are also included (also applied to Get from Audit).

**Refresh from Library** – There is now an additional checkbox to allow the user to choose whether or not new child items should be included (i.e. added) by the “get”.

**Offline Working** – The robustness of the check-in process has been improved so the probability of encountering an error (or losing data) is greatly reduced.

**Retain Bookings** – There is now a System Setting to control if bookings added to Retain by the Robot are added as “Ghost” or “Confirmed” bookings.

**Additional Roles** – There are now two additional standard Roles (Library Viewer and Universe Business Manager) which can be configured as required.

**Test/Execute Robot Job** – It is now possible to test and immediately execute a Robot Job via the App Manager in order to debug problems and force them to run now rather than wait for their next scheduled run.

**Doc Pop Word Add-In** – There is now an add-in for Word which helps authors (including resellers) create 1-way Word Doc Pop reports.

**Caching Sensitive Data** – The Person data is no longer cached in the local Firebird database for security reasons.

**Customization Version Control** – The App Manager now prevents Customizations from being run against the wrong version of Pentana.