



# Item Writing

An overview of the various aspects and functionality of CE Item Writing, Exam Scanning and Online Testing

*January 2019*



# Introduction



- ▶ Item writing has been written using ASP.net and MS SQL Server
  - ▶ Could support mySQL on request
- ▶ It has been in development and production at various client sites for 4+ years
- ▶ It has hosted over 350,000 items
- ▶ Most items have been migrated from PET, about 70,000 items from other external systems
- ▶ Custom integrations have been developed with multiple third party candidate management and testing systems



# Item Writing

- ▶ Item Writing is 100% web-based
  - ▶ No installation to desktops
  - ▶ Can be accessed either internally or externally
  - ▶ Can be accessed by mobile devices
- ▶ All modern browsers are supported
  - ▶ Chrome, Edge, Firefox, Safari
  - ▶ Internet Explorer is still supported but not recommended
- ▶ Supports either Forms or Windows authentication
- ▶ Compatible with MS SQL Server 2008 to current
- ▶ Implements MS .net framework 4.7.2



# Security



- ▶ Supports Forms and Windows authentication
- ▶ Banks are logically separated and users have bank level security.
  - ▶ Exposure to Items, Exams and/or functionality is controlled by software
  - ▶ No access/read only/full access
- ▶ Form level security to limit access to menu and reporting options
- ▶ Security groups for rapid maintenance
- ▶ Supports record locking; no concurrent maintenance
- ▶ Field level auditing and process auditing



# Selection Grids

- ▶ All selection grids support views allowing users to customize which fields are important to them
- ▶ Grids are sortable, filterable, resizable, multiple page options,
- ▶ They also allow data to be exported to various formats (DOCx, XLSx, PDF, text file etc)



# Item Banking

- ▶ Logical separation of data within the system
  - ▶ All data can be contained within one database for barrister, solicitor, paralegal, etc.
- ▶ Data can be replicated (copied/moved) between banks, assuming bank permissions



# Exams



- ▶ Multi-language support
- ▶ Multiple versions supported
- ▶ Multiple forms (different logical sequencing of items)
- ▶ Supports drag/drop sequencing of exams
- ▶ Document builds support templates to customise the look of the exam documents
  - ▶ Supports review copy formats to include all exam, item, attachment, reference, author, stats information in line with the exam document





# Sessions

- ▶ Supports multiple sessions for the same exam
  - ▶ Different sets of registrants can be logically split for demographic or different testing periods
  - ▶ Do not have to copy the exam to test with different candidates
- ▶ Single or multiple sessions can be tested to easily combine results data





# Calculations

- ▶ Multiple independent sets of statistical results can be tied to a given exam
- ▶ Results view are provided to give raw views of results data which are customisable and exportable

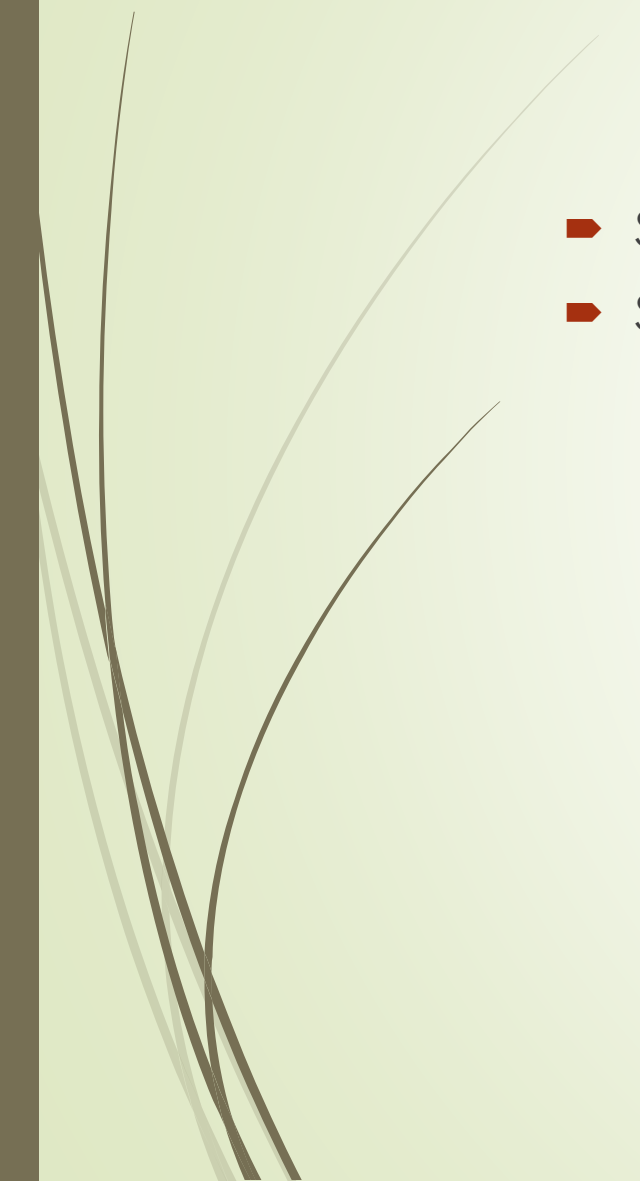


# Items

- ▶ Supports
  - ▶ multi-language;
  - ▶ multiple versions;
  - ▶ Revisions
  - ▶ Multiple competencies
  - ▶ Multiple attachments
  - ▶ Multiple options + constructed response



# Attachments

- ▶ Supports all modern image formats
  - ▶ Supports HTML/rich text for instructions
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# Competencies

- ▶ Supports multiple hierarchical competency types
  - ▶ Category
  - ▶ KSA



# Reporting



- ▶ Several reports are included with the Item Writing package
- ▶ Custom reports are available upon request
- ▶ Reports can be exported to a number of formats
  - ▶ PDF
  - ▶ XLSx
  - ▶ DOCx
  - ▶ Text file



# Online Help

- ▶ All documentation is available via a hosted Wiki page
  - ▶ <https://www.certificationenterprise.net/cpswiki/>
- ▶ Item Writing users may optionally maintain their own process flow documentation via their own wiki area



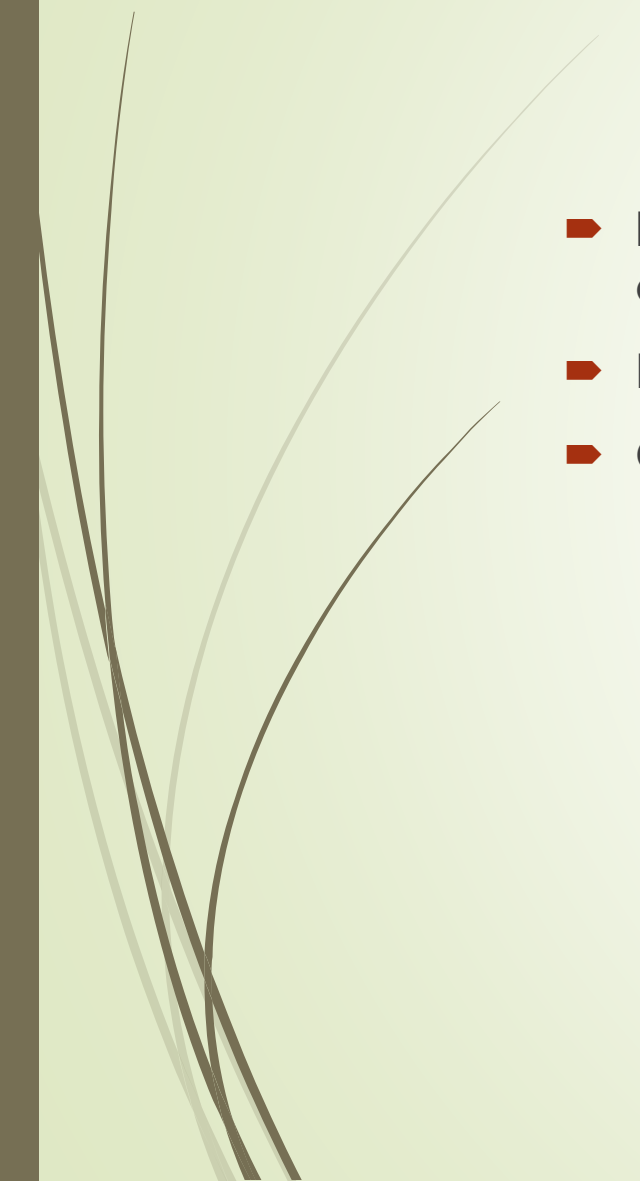
# Exam Form Scanning

- ▶ Exam Scanning is a windows-based application
- ▶ Integrates with Item Writing database for security, items, exams, sessions etc.
- ▶ Supports the latest generation InScan scanners/hardware
- ▶ Supports spreadsheet-based result import
- ▶ Customisable to use STXAPPDEF scan definitions
- ▶ Customisable scan mappings to Item Writing
- ▶ Supports a wide variety of out-of-the-box sheet validation rules to warn or reject sheet data





# Online Testing

- ▶ Integrates with Item Writing database for security, items, exams, sessions etc.
  - ▶ Delivers MCQ items to candidate for selection
  - ▶ Optionally informs the candidate of their score upon exam completion
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# Data Migration



- ▶ Custom migrated legacy client data from PET as well as other proprietary systems
- ▶ Integration with multiple 3<sup>rd</sup> party candidate management, online and computer-based-training partners
  - ▶ PearsonVUE
  - ▶ Surpass
- ▶ Supports transform and load functionality in multiple formats
  - ▶ JSON, XML, XLSx, DOCx, DAT, TXT
- ▶ Integration with Web API, web services, file system, command line, direct data access or SQL stored procedures