2. Sorting

3. Indexing

4. Quality Control & Validation

1. Document Capture & Pre-processing

5. OCR, Document Creation & Compression

6. Export Connectors

IDENTIFICATION

SEPARATION
- Per batches, documents and attachments
- OCR, Barcode, Patchcode, Blank page, Image layout

IMAGE ENHANCEMENT
- Deskewing
- Black border & noise removal
- Splitting
- Advanced binarization

FROM FILE
- Twain
- ISIS
- VRS
- Any brand
- Any speed

FROM ANY SCANNER
- SDK available (C++, .NET)
- Creation support

RECOGNITION
- OCR, Barcode, Patchcode, Blank page, Image layout

SCRIPTING
- Per document type!
- Recognition results
- Database matching
- Data combination

RESTRUCTURING
- Rescan
- Change document/ batch structure
- Image enhancement

VALIDATION
- Document type
- Indexing
- Multi-value indexes
- OCR/ICR On-the-fly Validation from database

FULL-PAGE OCR
- 120 languages
- Alphabets : Latin & Cyrillic, Arabic, Greek, Chinese, Korean

DOCUMENT CREATION
- PDF, PDF/A, Word… and many others

COMPRESSION
- iHQC™
- JPEG, JPEG2000

INCLUDED

AVAILABLE

CUSTOM
- From third party companies
- From I.R.I.S.
- To I.R.I.S. products (IRISDocument™, IRISCapture™ Pro)
- To external products (Microsoft SharePoint, etc.)
- Extended connector

Unrivalled Performance

Reliable

Affordable

Legalized Scanning

Maximum Productivity

Full Text OCR

Fast

Intuitive

Most Powerful Technologies

 # 1
Versatile
IRISPowerscan
Scanning Solution

Datasheet

IRISPowerscan™ 9

- The most productive **scanning**, **indexing** and **OCR solution**

- Completely **integrated workflow**: scanning, indexing, quality control and validation, processing

- Very **intuitive** and **easy-to-use interface**

- The easiest way to **index all your documents**

- Creation of **hyper-compressed color PDF, PDF/A-1b and XPS** output files

- **No scanning volume limitation**

I.R.I.S.
Document to Knowledge

IRISPowerscan™ Global Benefits

Do you need to increase your **scanning productivity?**

Do you need to **convert scanned images** into **indexed and searchable PDF or XPS** files, or editable text? (e.g. Microsoft® Word)

Are you looking for a professional scanning, indexing and OCR application with **NO VOLUME LIMITATION** and that **can meet your budget** requirements?

Do you need a **user-friendly** application with **predefined projects** so that you can start scanning immediately at a **production level**?

If you answered yes to one of these questions, IRISPowerscan™ is definitely the application you need.

IRISPowerscan™ is a powerful, user-friendly production application with a multi-stream architecture for the scanning and the electronic capture of any kind of documents. Furthermore, thanks to the embedded IRISDocument™ for IRISPowerscan™, it is a complete professional solution to scan, structure, sort, index and convert all documents into fully searchable text files.

IRISPowerscan™ supports most popular scanners such as Kodak®, Fujitsu®, Canon® and many more: it is the perfect solution for front-end content, document processing and workflow applications.

With its extensive set of features, IRISPowerscan™ is the perfect solution to kick-start any Document Management System or ERP.

High Value Proposition

- **Support of all brands of scanners:** Kodak®, Canon®, HP®, Avision®, Fujitsu®, Epson®, Bell + Howell® and many more thanks to generic TWAIN driver.
  Kofax® VRS™ (VirtualReScan™) is also completely supported (4.2 and later versions).
  Extended compatibility to ISIS scanners (Add-on).

- **High-speed scanning** and **multi-image display** of the scanned images for fast and easy control.

- **Ready-to-use application:** scan at a production level thanks to the predefined projects.

- **Improve the quality of images** with automatic **deskew**, **despeckle** and **page orientation detection.**

- Ensure the **identification of various document types**.

- **Advanced documents separation features** through barcodes, patch codes, OCR/ICR, blank pages, page count or layout identification thanks to the IRISFingerprint™ technology that allows you to work without separators (Add-on).

- **Advanced automatic sorting** through barcodes, patch codes, OCR/ICR and layout identification.

- **Advanced indexing** through barcodes, patch codes and OCR/ICR.

- **Creation of complete index files** containing all relevant data and metadata, in **XML** or **TXT** format.

- **More than 130 OCR languages supported** including Greek and Russian alphabets (see full list on page 7)
  Japanese, Chinese, Korean, Hebrew and Arabic are also available (Add-ons).

- **Easy workflow set-up**.

- **API (Application Programming Interface)** for integrated indexing, processing, event handling and export in most common programming languages such as **C++**, **.Net** or **Visual Basic®**.

- **Easy project import from KODAK Capture Software® 6.X application** (full support of all Batch Output Formats developed for KODAK Capture Software® 6.X).

Thanks to the embedded IRISDocument™ for IRISPowerscan™

you also benefit from:

- **Recognition engine and full page OCR**
  IRISPowerscan™ and IRISDocument™ use I.R.I.S.' latest recognition engine and formatting technology. Page analysis is carried out on the color image, resulting in better zone segmentation. This new engine also recognizes the color of the text and keeps it in the output file.

- **More than 130 languages supported, with multilingual recognition**
  IRISDocument™ recognizes more than 130 languages, and up to 5 languages on the same document, even with mixed alphabets (see page 6).

- **High-speed conversion of document images** into fully searchable PDF, PDF/A-1b, PDF with iHQC™ hyper-compression, and many others (see page 7).

- **iHQC™ technology (patent pending):** with this unique proprietary technology, get color PDF, PDF/A-1b and XPS searchable files even smaller than black & white images (with Add-on; more details on page 8).

- **SharePoint® connectivity:** a special export connector, available as Add-on, was developed to integrate IRISPowerscan™ into SharePoint® via the embedded IRISDocument™ (see the Add-on chapter on page 10 for more details).

- **Partial recognition of a batch of documents**
  Choose the pages of a document to be OCRed and keep the rest of the document as an image file. This will speed up the process and reduce the amount of data stored.
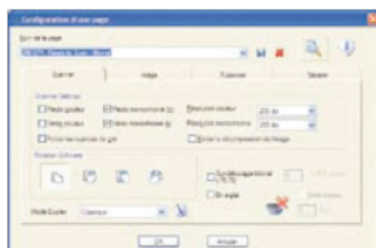
IRISPowerscan™ - Features and Workflow

Scanning has never been so easy. Below is a description of the workflow followed by IRISPowerscan™.

1. Document Capture and Pre-processing

Predefined project
To speed up your workflow, IRISPowerscan™ is delivered with numerous predefined projects. They include typical settings for common sorting, indexing and processing tasks. With IRISPowerscan™, start scanning in just a few clicks!

Scanning page set-up

Import file
IRISPowerscan™ can process any kind of image already scanned and archived in your system. Simply import a batch of scanned documents and process them according to your needs. Supported formats: BMP, TIFF, JPEG, PNG.

Multi-stream support
IRISPowerscan™ is able to scan and handle multi-stream images, e.g. a batch of documents, front and rear, scanned in color as well as in grayscale and black & white at the same time.

Multi-mode scanning
Append, rescan, attach and insert pages within your batch.

Automatic pre-processing of the scanned images
Features such as automatic on-the-fly deskew, cropping/overcropping (eliminates black borders), rotation (supports landscape scanning) and blank page detection and deletion (reduces need to pre-sort) let you scan documents without worries.

Image adjustment
Adjust images of a complete batch of documents without having to scan them again. Available features are digital rethresholding, rebinarization, rescanning, etc.

Image manipulation
– Merge front and rear of documents into a single image. Split front and rear of very long documents into smaller images (e.g. each side of an A3 document into two A4 documents).
– Deskew: the skewing of the text is analyzed on the front of the page but is applied both on the front and the back of the documents, resulting in a much faster processing speed.
– Despeckle: clean up images by removing noise that can appear when scanning documents.
– Smoothening of color images: allow optimal recognition results by reducing sharp transitions in your documents with the "smooth color image" function.
– Page orientation detection: automatic rotation and straightening of the text orientation contained in your documents for optimal OCR accuracy.
– Binarization: extremely fast binarization of color images. Scan all documents in color and create binarized images that can be improved with contrast, brightness, smoothening and despeckle features.
– Color dropout: when converting color images to black and white, remove problematic colors.
– Image cropping and zone deletion: remove edges of images, keep only selected parts, blank out unwanted zones, etc.

2. Sorting

⚡ **Automatic identification of the document type**

Automatic batch and document sorting from barcodes, patch codes, OCR/ICR zones and layout identification.

With layout identification, train the program about the various document types you are scanning, so that any incoming document with a similar template is identified and sorted automatically (IRISFingerprint™ Add-on – see page 10).
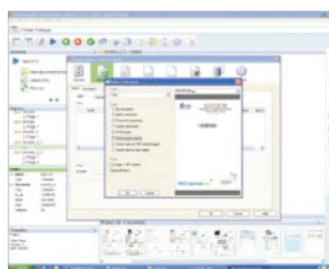
Alternatively use barcode values or OCR/ICR zones to identify documents.

⚡ **On-line separation of documents**

Automatic batch and document separation thanks to barcodes, patch codes, OCR/ICR zones, blank pages, page count and layout identification.

Barcode set-up   Patch code set-up

3. Indexing

⚡ **On-line indexing at batch or document level**

While scanning, index files automatically at batch or document level thanks to OCR/ICR zones, barcodes, MICR codes and patch codes.

⚡ **Indexing options**

You can set special default values, split barcode values over several fields, or validate indexes through mask formulas (invalid values will be highlighted in red).

⚡ **Data Link**

Any indexing value can be retrieved and/or validated through an ODBC data source.

⚡ **Specific indexing settings for each document type**

With this particular feature, documents can be indexed and processed differently according to their type.

⚡ **Powerful barcode recognition**

Front and rear barcode recognition: IRISPowerscan™ recognizes more than 18 types of barcodes including the PDF 417 high density, the Data matrix and the QR two-dimensional barcodes.

⚡ **Banking Fonts OCR**

Enjoy powerful banking font recognition: OCR-A1 Alphanumeric, OCR-A1 Eurobanking, OCR-A1 Numeric, OCR-B1 Alphanumeric, OCR-B1 Eurobanking, OCR-B1 Numeric, E-13B Optical and CMC7.

⚡ **Document renaming**

Several options are available for naming the output files, including any indexed information along with available metadata such as scan date, scan station name, incremental number, etc.

⚡ **Document numbering**

Continuous incrementing of document numbers across batches and incrementing of image numbers across documents.

4. Quality Control & Validation

Improved indexing
Indexing has been made very fast and easy: you no longer need to key in the data thanks to the drag-and-drop OCR feature, combo lists and last value indexing.

Multi-image display
With IRISPowerscan™ you can quickly and easily verify scanned documents by displaying from 1 to 81 images at a time. Enjoy other valuable features such as multi-criteria filtering, dynamic zooming, dynamic filter and a slider to navigate through a batch of documents.

Tree view
Navigate easily among batches, documents and pages thanks to the tree view. It also allows you to cut, copy, paste and drag-and-drop any object (batch, document, page).

Editing tools
The user-friendly interface of IRISPowerscan™ lets you easily rescan, rotate, reorder and delete pages.

Booklet reordering
By essence, certain documents cannot be scanned in the right page order (stapled documents, folders, brochures, booklets…). IRISPowerscan™ features a handy booklet feature that will reorder everything automatically.

Post-scanning features
Easily split and merge documents or batches and modify the position of pages across documents or documents across batches with a simple drag-and-drop.

Drag-and-drop OCR, ICR, barcode
Data can be captured from any image using the drag-and-drop OCR tool. Simply select the text on the image and the information will be automatically captured.

Data Link
All value indexing fields can be retrieved from an ODBC data source so you can very easily pick up the right indexing value through, for example, combo box.

Application Programming Interface
IRISPowerscan™ is an open application that lets you choose between numerous APIs: Connector API, Extended connector export API, Indexing API, Event Handler API, etc.
The Indexing API is used to define new formats for indexing fields and new validation/evaluation rules.
The Event Handler API can be used by an external application to interact with the general workflow of IRISPowerscan™ by capturing events and acting on them.

5. OCR, Document Creation & Compression

Recognized languages
American English, British English, Afrikaans, Albanian, Aymara, Balinese, Basque, Bemba, Bikol, Bislama, Brazilian, Breton, Bulgarian, Byelorussian, Catalan, Cebuano, Chamorro, Corsican, Croatian, Czech, Danish, Dutch, Esperanto, Estonian, Faroese, Fijian, Finnish, French, Frisian, Friulian, Galician, Ganda, German, Greek, Greenlandic, Haitian (Creole), Hani, Hiligaynon, Hungarian, Icelandic, Ido, Ilocano, Indonesian, Interlingua, Irish (Gaelic), Italian, Javanese, Kapampangan, Kicongo, Kinyarwanda, Kurdish, Latin, Latvian, Lithuanian, Luxemburgh, Macedonian, Madurese, Malagasy, Malay, Maltese, Manx (Gaelic), Maori, Mayan, Minangkabau, Nahuatl, Norwegian, Numeric, Nyanja, Nynorsk, Occitan, Pidgin English, Polish, Portuguese, Quechua, Rhaeto-Roman, Romanian, Rundi, Russian, Samoan, Sardinian, Scottish (Gaelic), Serbian, Serbian (Latin), Shona, Slovak, Slovenian, Somali, Sotho, Spanish, Sudanese, Swahili, Swedish, Tagalog, Tahitian, Tok Pisin, Tonga, Tswana, Turkish, Ukrainian, Waray, Wolof, Xhosa, Zapotec, Zulu, Bulgarian - English, Byelorussian - English, Greek - English, Macedonian - English, Russian - English, Serbian - English, Ukrainian - English, Hebrew - Simplified Chinese (optional), Traditional Chinese (optional), Japanese (optional), Korean (optional), Arabic and Farsi (optional) + Moldovan, Bosnian (Cyrillic and Latin), Tetum, Swiss-German and Kazak.

🔖 **Output formats** (via the embedded IRISDocument™)
- **PDF** (4 different file modes: Image, Image-Text, Text, Text-Image, with many options: PDF/A-1b compliance for long-term archiving, certification, encryption).
- **PDF with iHQC™ hyper-compression** (3 different compression levels, many options: PDF/A-1b compliance, certification, encryption).
- **XPS** (4 different file modes: Image, Image-Text, Text, Text-Image).
- **XPS with iHQC™ hyper-compression** (3 different compression levels, many options)
- **Common file formats** such as TXT, RTF, DOC, OpenDocument text, HTML, XML, WordML, SpreadsheetML. Many reformatting parameters are available to respond to the most common needs, e.g. Word and RTF output files: "retain color of text", "retain color of background", "keep paper size", etc.
- **Image file formats** such as TIFF (single or multi-page), BMP, JPEG, JPEG2000 or PDF image (with possible iHQC™ hyper-compression) .
  Standard Image compression: modify JPEG compression rate and image resolution when generating PDF files (with or without text files) and highly compress all your images with JPEG2000 technology.

Note: IRISPowerscan™ supports multiple output formats and connectors simultaneously: generate several output files with different file formats in one single process, from one image file, and export to any application.
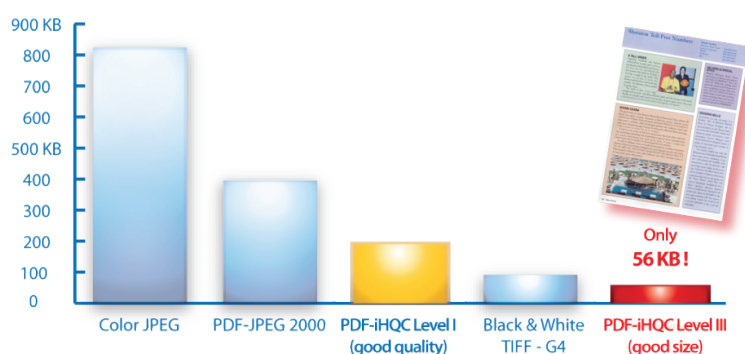
🔖 **iHQC™: Intelligent High Quality Compression Technology**

iHQC™ is the revolutionary hyper-compression technology from I.R.I.S., which will dramatically reduce the size of your PDF, PDF/A-1b and XPS files (color or black and white) while maintaining perfect image quality and text legibility. iHQC™ generates better quality than JPEG 2000 with much smaller files.

iHQC™ offers several levels of compression. IRISPowerscan™, via the embedded IRISDocument™, comes standard with the basic one, for unlimited volumes of documents.

Images	Color (Uncompressed)	Color compressed JPEG		Black & White TIFF Group 4		PDF+ iHQC™ Good Size (image + text)		PDF+ iHQC™ Good Quality (image + text)	
	Kbytes	Kb	compression	Kb	compression	Kb	compression	Kb	compression
byte_a	19.978	1.445	14	119	168	57	350	86	232
sojoumc_son	19.158	824	23	91	211	59	325	88	218
eos03noise	33.836	1.024	33	89	380	58	583	100	338
fnac01	7.795	474	16	30	260	25	312	35	223
lion_a	8.196	759	11	35	234	30	273	44	186
park_a	4.303	436	10	30	143	25	172	32	134
scenic_b	13.540	619	22	76	178	43	315	61	222
time_france	19.429	904	21	106	183	57	341	80	243
invoiceTDI	26.092	1.259	21	29	900	52	502	85	307
Total	126.236	7.744	16	605	209	406	311	611	207

Example: this table is showing that iHQC™ allows to generate fully-searchable PDF, PDF/A-1b and XPS files (containing both the color image and the full-text index) that are more than 200 times smaller than the original color image and smaller than the black & white TIFF Group 4 image (which doesn't contain the full-text index).
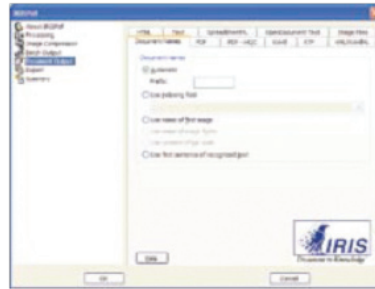
❧ Available iHQC compression levels :

   - iHQC™ - Level I – Good Quality - INCLUDED
   - iHQC™ - Level I – Good Size
   - iHQC™ - Level II – Good Quality
   - iHQC™ - Level II – Good Size   NOT INCLUDED - Optional iHQC™ Add-on.
   - iHQC™ - Level III – Good Quality
   - iHQC™ - Level III – Good Size

6. Export Connectors

IRISDocument™ Output formats set-up

❧ Included

- to I.R.I.S. products

  – IRISDocument™ Server

  Add IRISDocument™ Server to IRISPowerscan™ and enjoy server functionalities to keep scanning on your workstation while the OCR process is decentralized and done on a dedicated server. This combination allows you to make full usage of all the stations dedicated to the dematerialization process.

  – IRISCapture™ and X4D connectors

  - IRISCapture™ is a very powerful application for the data extraction and sorting of all kinds of documents. The software suite is specifically designed for the scanning, separation, recognition, and approval of invoices, forms, cheques, mail, résumés, ...

  - Docutec Xtract for Documents (X4D) is a solution designed to sort large volumes of highly complex documents into separate categories, assign them to the various business processes, perform automatic extraction of the relevant data for the respective business process, and transmit the collected data for further processing into the Electronic Data Processing system.

- to external products

  A large number of Connectors is available for integration with popular content, document and imaging applications, for example Microsoft® SharePoint®. (list permanently updated)

❧ Available

- from third party companies
- from I.R.I.S.

❧ Custom

- SDK available (C++, .NET)
- Creation Support

General

◆ **The most intuitive and easy-to-use GUI**
IRISPowerscan™ benefits from a new and very intuitive interface that has been redesigned to give users valuable enhancements such as customizable workspaces and toolbars, an integrated explorer, scanning, indexing and property panes with a dynamic selection of objects (viewers, sliders, etc.)

◆ **Workspaces**
Define workspaces by customizing your own interface (panes, toolbars, etc.) according to your specific needs and the user privileges you want to grant.

◆ **New OCR accuracy report**
OCR accuracy report provides a graphical view of the OCR accuracy results on your documents. With this new tool you can compare the quality of the OCR process done with different settings to define the parameters you need to get the best OCR results on your documents.

◆ **Index file in XML**
Full text, character positions, confidence level as well as other information about the conversion process are all contained in an XML output, ready for a quick integration in a document management system.

◆ **Custom installation**
You can easily customize the installation by putting in your set of pre-configured projects, your Export Connectors, Event Handlers, etc.
For example, make one CD with everything pre-configured, and use it to make the installation on all your machines, thus eliminating the need to reconfigure all the PCs!

◆ **Multi-user centralized configuration management (Add-on)**
Export configurations, projects, images… Both the IRISPowerscan™ settings and data can be saved in a central network location. A manual or automatic push/pull system ensures synchronization (project setup, security and scanner settings)

◆ **Security - Users and roles:**
  – IRISPowerscan™ is a multi-user application and therefore has the notion of Users and Roles. Those are managed within IRISPowerscan™ through user groups, each with specific roles.

  – LDAP user authentication through Active Directory®:
  IRISPowerscan™ also offers the possibility of storing and accessing the user and role information on your Active Directory®. This makes for much easier centralized and integrated security management.
  Two solutions are available:
  - Automatic login, which uses the Windows® User Credentials
  - Semi-automatic login, where the Windows® User Credentials are prefilled in the login window.

◆ **Background processing**
IRISPowerscan™ offers a fully asynchronous process: you will no longer have to wait for your connector to be done before scanning the next batch.

Add-on Modules

▶ **iHQC™ Add-on**
This add-on will give you access to the best levels of compression available in IRISDocument™ (see page 7 for more details):
- iHQC™ - Level I – Good Size
- iHQC™ - Level II – Good Quality
- iHQC™ - Level II – Good Size
- iHQC™ - Level III – Good Quality
- iHQC™ - Level III – Good Size

▶ **Microsoft® SharePoint® Add-on**
Based on settings you define prior to scanning, IRISPowerscan™ 9 can recognize the type of document and capture indexes. Documents and their indexes can later be exported directly into SharePoint® and, based on their type, sent automatically to the right document libraries.

▶ **IRISFingerprint™ Add-on**
IRISFingerPrint™ is a document identification technology based on the layout of the document, meaning you don't need separators anymore. IRISFingerprint™ is easy to set up and extremely fast, since no OCR and no reading of barcode or patch code is performed.

▶ **Arabic OCR Add-on**
This add-on is totally unique and enriches IRISPowerscan™ with the recognition of Arabic and Farsi.

▶ **Asian OCR Add-on**
Enriches IRISPowerscan™ with 4 additional Asian recognition languages: Japanese, Traditional Chinese, Simplified Chinese and Korean.

▶ **Hebrew OCR Add-on**
Enriches IRISPowerscan™ with Hebrew recognition.

▶ **Multi-user centralized configuration management Add-on**
Export configurations, projects, images… Both the IRISPowerscan™ settings and data can be saved in a central network location. A manual or automatic push/pull system ensures synchronization (project setup, security and scanner settings)

System requirements

▶ Intel® Pentium® or equivalent. Intel® Pentium® IV 2GHz or equivalent is recommended

▶ 512 MB RAM. 1 GB RAM is recommended

▶ 400 MB free disk space for the software, plus the space necessary for the image files

▶ Operating system: Windows® Vista® (32 bits), XP (32 bits), 2000, Server® 2008 and 2003 (32 bits)

I.R.I.S. Company Profile

Image Recognition Integrated Systems (I.R.I.S.), a Belgian company founded in 1987 and listed on Euronext Brussels (IRI), is a leader in the "Document to Knowledge" market, and provides extremely high-quality solutions for converting paper documents into electronic formats for archiving, storing and sharing digital information.
For more information on our company, our solutions or our products, visit the I.R.I.S. website at www.irislink.com.

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