

Burrotech

Quickscan technical specification v1.0.1

Overview

Quickscan is a distributable exe file which communicates with TWAIN scanners and converts the scanned page(s) into an image (bmp, jpg or tif) or PDF document. Quickscan is the ideal solution for developers looking to include scanning operations into their application.

Use

Quickscan operates by the following 3 step system:

1. Set the options by using the quickscan.ini file or command line params.
2. Run Quickscan.exe
3. Wait for the indicator file to be produced and then process the resulting output file(s)

The Indicator file

The indicator file is a file that is created after the scan is finished regardless of the outcome of the scan. There are 3 things that can happen when quickscan runs:

1. No pages are scanned (because of a problem or the user cancels)
2. A single page is scanned (on a flatbed scanner)
3. Multiple pages are scanned (on a ADF scanner)

In case 2 it will be very obvious to your application that the scan is complete (the output file is present), but in cases 1 and 3 it can be difficult to establish that the scan is complete. This is where the indicator file comes in useful and that is why your application should monitor for the indicator file rather than the output file.

Monitoring for the indicator file means that your application can perform other tasks while it is waiting for the scan to take place. It also means that you can put in a cancel button to stop the wait and ignore any indicator or output file that is created.

The indicator file is always called qs_done.dat and will appear in the same folder as quickscan.exe. Although quickscan.exe will delete this file upon startup it is recommended that your application deletes the file before launching quickscan.exe to avoid any false indications that the scan is complete.

The options

There are two kinds of options – those that have a value (eg resolution=200) and those that don't (eg showUI). The full list are as follows (all options are case-insensitive):

Option	Value (blank for none)	Default	Use
Scanning options:			
SelectScanner		Off	When present the select scanner box is brought up. The user then selects the scanner and then the scan is done – unless noscan is used.
Noscan		Off	The scan is not performed. Used mostly in conjunction with SelectScanner to select the scanner that will be used.
ShowUI		Off	Shows the scanner's user interface page, allowing various scanning options including scanning part of a page or setting the resolution.
ShowProgress		Off	Only valid when ShowUI is not used, ShowProgress shows a small page showing the progress of the scan. The words 'scanning to <prodname>' are usually displayed.
Prodname	Your product name	Quickscan	Used with ShowProgress option to show user the application name that is performing the scan.
Scanner	Scanner Name	The last scanner to be selected, possibly by the selectscanner option	Use to set the scanner. Only really used in advanced situations, more often there will be a menu item to select the scanner and quickscan.exe can be called with selectscanner and noscan options.
Resolution	The resolution in dpi	200	Set the resolution of the scan. Note that if the ShowUI option is set then the scanner's user interface will override this value.
A4		Off	Limits the scan to just an A4 page. Most flatbed scanners allow for a combination of A4 and letter sizes, so the resulting (uncropped) scan is bigger than both. The A4 option limits the resulting scan to just the A4 section.
Letter		Off	As above, crops the result to Letter size.
NoADF		Off	Uses the flatbed on an ADF scanner. This only applies to ADF scanners with a Flatbed as well, and would be used for scanning documents which so not fit in the ADF such as a magazine or book page.
Output options:			
JPG		On	Creates one or more jpeg files from the scan. If the filename option is not set then the resulting files will be page001.jpg, page002.jpg etc.
JPG_Quality	Quality (35-100)	85	Sets the quality of the jpeg files. 100 is the best quality with largest file sizes. Only applies when the JPG or PDF options are set.
BMP		Off	Creates one or more bmp files from the scan. If the filename option is not set then the resulting files will be page001.bmp, page002.bmp etc.
TIF		Off	Creates one or more mono tif files from the scan. If the filename option is not set then the resulting files will be page001.tif, page002.tif

			etc.
Multi_TIF		Off	Creates a multi-page TIF file. If the filename option is not set then the output file will be pages.tif. You can set this option even with a single page scanner by combining with the append option.
PDF		Off	Creates a single PDF file from all the scanned pages. If the filename option is not set then the output file will be pages.pdf. Using the append option will append scanned pages to the PDF.
Mono		Off	Creates a mono (black and white) output. If the file type is TIF or PDF then it will be a CCITT compressed format. If it is a JPG file then it will be a 256-greyscale format. This has no effect on a BMP output.
MonoEnhance		Off	Enhances mono output files (TIF and PDF). Makes non-white sections of the page darker before dithering to create a more readable output. See www.burrotech.com for more details.
PDFPassword	PDF password		Sets a PDF password to encrypt the PDF file.
Append		Off	Appends the scanned page(s) to the end of any previous pages. If single page documents (BMP, JPG or TIF) then the new files will come after the existing ones (eg page002.jpg following page001.jpg). If multi-page files (PDF or TIF) then the pages will be appended within the file. If a PDF password exists on the existing PDF then the same password must be used.
Filename	Output File		Sets the filename of the output file with full path (folder must exist). You still need to set JPG/TIF/BMP/PDF/Multi_TIF option. If the filename option is not set then the output file will be created in the same folder as quickscan.exe.

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Setting options using the ini file

The ini file can be used to set the options prior to running quickscan.exe it must be called quickscan.ini and reside in the same folder as quickscan.exe. All settings go into the [Scan] Section. Settings which have no value and need to be set are given a value of 1 (eg jpg=1) while settings that do require a value are assigned that value (eg resolution=300). It does not matter which order the options are set within the file as long as they follow the [Scan] header section and they are case-insensitive.

Here is an example of an ini file:

```
[Scan]
Resolution=300
SelectScanner=1
JPG=1
A4=1
ShowProgress=1
ProdName=My Product
```

Setting options using command line params

Options can also be set by using command line params. This will let you launch quickscan easily with the options you choose. Options without a value simply need the option somewhere in the command line (eg JPG) while options with a value must have that value as the param following the option name (eg Resolution 300). Other than that the params can come in any order and are case insensitive.

Values with spaces in them must be surrounded by double quotes (") otherwise the spaces will be interpreted as param delimiters (eg prodname "My Product").

Here is an example of the same options as the ini file above being used as command line params:

```
C:\scan\quickscan.exe resolution 300 selectscanner jpg a4 showprogress prodname "My Product"
```

Getting the names of the available scanners (Advanced)

If you wish to present a list of scanners to users then they can be retrieved from the ini file. Each time Quickscan runs it will populate the [Scanners] Section of the ini file with the scanners available and the last scanner used. Here is an example:

```
[Scanners]
Count=6
Scanner0=HP PrecisionScan Pro 2.0
Scanner1=hp psc 1200 series
Scanner2=Burrotech NetScan
Scanner3=Free RemoteScan(TM)
Scanner4=TWAIN_32 Sample Source
Scanner5=VIMICRO USB PC Camera 301x
LastScanner=TWAIN_32 Sample Source
```

Note that the list of scanners goes from 0 to n-1 where n is the number of scanners. This will let you gather the correct information to use the scanner option and set the scanner yourself rather than using the selectscanner option. Note that the very first time you run quickscan.exe this list will not be populated so you can run it with the noscan option to populate the list without actually scanning.

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Case Studies:

1. Simple scan to jpeg

In this case we will scan at 200dpi to jpeg. Before the scan is performed we will select the scanner to use:

```
C:\scan\quickscan.exe resolution 200 selectscanner jpg
```

This will scan to c:\scan\page001.jpg (and then c:\scan\page002.jpg if it is an ADF scanner).

2. Dual menu items

We will perform the same scan, but this time we will have one menu item to select scanner and another to do the actual scanning:

Select scanner:

```
C:\scan\quickscan.exe selectscanner noscan
```

Scan

```
C:\scan\quickscan.exe resolution 200 jpg
```

Again this will scan to c:\scan\page001.jpg (and then c:\scan\page002.jpg if it is an ADF scanner), but this time the select scanner form is separate and will not appear each time you do a scan.

3. Advanced scanning

Something a bit more juicy, a 300dpi scan appended to a password-protected, mono (enhanced) PDF, saved to c:\My Documents\scan.pdf in A4 showing the progress form with "Scanning to My PDF":

```
C:\scan\quickscan.exe resolution 300 pdf mono monoenhance A4 filename "c:\My Documents\scan.pdf"...  
showprogress prodname append "My PDF" PDFPassword "Pass123"
```

Alternatively the following quickscan.ini file could have been used:

```
[Scan]  
Resolution=300  
PDF=1  
Mono=1  
MonoEnhance=1  
A4=1  
FileName=c:\My Documents\scan.pdf  
ShowProgress=1  
ProdName=My PDF  
Append=1  
PDFPassword=Pass123
```