

Obtaining production data from the Smart-binder

Data Logging in the Smart-binder

The Smart-binder supervisory PC logs data about its operation collecting:

1/ Product data

Data about the sheets fed in and the booklets delivered.

2/ Operation data

Data about the way in which the machine is operating

3/ Fault data

Reasons for stoppages

This data is collected in plain text files each of about 1Mbyte (approx. 20-30 mins running time). Log files are written to the D: drive which is shared. See Smart-binder Diagnostics v.009 pdf for details of each type of data recorded in the logfile.

For product tracking purposes 'S records' log the arrival of sheets, 'D records' log the delivery of booklets from the machine. The D record is probably most useful for collecting production data (see next page for more detailed explanation).

Retrieving log data

There are 2 ways to retrieve this information:

1/ Reading and processing the logfiles.

Read the files directly from the network share, you will have to check periodically for new files or the addition of data to the last file. Log files are successively numbered 'Lognnnn.txt' so when log10 is opened, log9 will have been completed. The file will have to be filtered to obtain the desired records and these will have to be parsed to extract relevant data.

2/ Read data from the IBIS Smart-Data Analysis system.

This is an additional package that collects live data from multiple Smart-binders into a central database, it provides some filtering and aggregation of the data to create reports for each machine of:

Input/Output by hour

Running times by hour

Faults by hour

Jobs

Data can be exported from the Analysis System direct to an Excel spreadsheet.

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D Record details

Identifier =D0 (Replaces 'D' from Version 1.7.50 (changed order and added JobID))

Delivery record created as the section is either rejected or put on the delivery conveyor

13204139382.797;D0;192;3327;64;17;0;091723;091723;

Note first 2 fields are the UTC timestamp & the identifier 'D0' thereafter:

Data	Value in sample line	Format	Meaning
SectionID	192	Integer	Identity number of the booklet/section, generated internally by the Smart-binder
Status1	3327 (0xcff)	Integer	Book status flags 1 – show the presence of the book at each of the sensors that the booklet passes, 2 bits for each sensor (arrival & departure). These will be 0xcff for a delivered booklet, 0x800ff for a rejected booklet, 0 if there is no booklet (an empty cycle can be created by inching the machine), or some other value if the booklet was removed part way through the machine.
Status 2	64 (0x40)	Integer	Book status flags 2 – show the results of the analysis of the composition, 0x40 indicates a correctly composed book, other codes indicate some fault (eg a missing sheet, or a sheet from which a code was not read).
#Sheets	17	Integer	Number of sheets delivered
Delivery Code	0	Integer	Code returned by delivery check (error codes 131,138,140), 0 if there was no error, these codes appear when there is some uncertainty as to whether the booklet was successfully delivered even though the status flags show might show that it was.
[JobID]	"091723"	Text	Job Identifier field from outermost sheet (present if Job Id configured in setup)
[BookID]	"091723"	Text	Book ID field from the outermost sheet (present if BookID configured in setup). In this case the Book ID and the Job ID are set to the same characters.
[OtherIDs]	""	Text	List of other BookIDs detected on sheets, will be present if book rejected because it contains sheets of more than one book.