ADVANTAGE - HOSPITAL INFORMATION SYSTEM INTERFACE
(SOFTWARE VERSIONS 3.0.0.16 AND UP)

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CONTENTS

Document History

Rev.	Date	By	Description
1.0	16/03/2005	R. Dubbers	Initial / concept version
2.0	25-Jun-09	J. Keller	Update for ADVANTAGE
2.1	25-jan-10	R. van Mulken	Linguistic changes

1. INTRODUCTION

1.1 *Purpose of this document*

In this document the interface between the ADVANTAGE system and the hospital information system is described.

2. HOSPITAL INFORMATION SYSTEM INTERFACE

The interface between the HOSPITAL INFORMATION SYSTEM and ADVANTAGE system is file based. The files will be placed in a shared directory, on the computer, or server where the SQL server is located, typically in the directory c:\program files\adv\adam\.
The following file name format will be used by the ADVANTAGE system to place files in the shared directory :

MDS[nnnnnn].adm

As long as the HOSPITAL INFORMATION SYSTEM system is not reading and deleting the files the ADVANTAGE software will continue incrementing the numbers [nnnnnn] and placing the files in the shared directory.
For example the following files would be placed in the shared directory :

MDS000001.adm
MDS000002.adm
MDS000003.adm
MDS000004.adm
MDS000005.adm

The MDS can disinfect more instruments during a single run, each instrument will then have its own file, (the files will have most information in common).

Each line in the file will start with a header identifier followed by predefined fields, the header and the fields will be separated by a '|' sign.
Each line will end with a CR/LF sequence.
The following header identifiers will be used by the ADVANTAGE system.

- `INS` Instrument disinfection information
- `FAI` Failures
- `SOA` Soap tank change
- `ALC` Alcohol tank change
- `DIS` Reusable disinfectant tank change
- `CMA` Component A tank change
- `CMB` Component B tank change

Future usage

- `MEA` Measurements
- `MAC` Machine disinfection information

2.1 *Header INS*

INS

Field	***Description***	***Values***	
1	Instrument identification number	<0..9999>,<empty>	
2	Instrument disinfection result	<0,1>	0 = Not disinfected 1 = Disinfected correctly
3	Disinfection cycle result	<0,100,101	0 = Busy 100 = Ok 101 = Ok, but failures occurred 102 = Ok, but safety controller disabled 120 = Failed, operator cause 121 = Failed, failure occurred 130 = Failed, interrupted cycle 140 = Failed, lio cause 150 = Failed, safety controller cause
4	Machine serial number	<0..999999>	
5	Machine side identification	<1..2>	1 = Left side 2 = Right side
6	Disinfection cycle number	<0.999999>	
7	Disinfection cycle completed date	dd/mm/yyyy	dd=day mm=month yyyy=year
8	Disinfection cycle completed time	hh:mm:ss	hh = hour mm = minutes ss = seconds
9	Disinfection cycle total duration	hh:mm:ss	
10	Program parameter set	Text	
11	Operator loading id	Text	
12	Operator loading name	Text	
13	Operator unloading id	Text	
14	Operator unloading name	Text	
15	Patient	Text	
16	Physician id	Text	
17	Physician name	Text	
18	Physician assistant id	Text	
19	Physician assistant name	Text	
20	Instrument location	<0..5>	In case of multiple instruments in one basin this will indicate in which position the instrument was located
21	Machine Location	Text	

2.2 Header FAI

FAI

Field	***Description***	***Values***	
1	Failure id	<-1..-999>,	
2	Date	dd/mm/yyyy	
3	Time	hh:mm:ss	
4	Description	Text	
5	Phase reference	Integer	Indicating the phase where the failure occurred
6	Step reference	Integer	Indicating the step where the failure occurred

2.3 Header SOA

SOA

Field	***Description***	***Values***	
1	Machine serial number	<0..999999>	
2	Machine side identification	<0..1..2>	0 = Both sides 1 = Left side 2 = Right side
3	Tank code	Text	
4	Date	dd/mm/yyyy	
5	Time	hh:mm:ss	
6	Operator loading id	Text	
7	Operator loading name	Text	

2.4 Header ALC

ALC

Field	***Description***	***Values***	
1	Machine serial number	<0..999999>	
2	Machine side identification	<0..1..2>	0 = Both sides 1 = Left side 2 = Right side
3	Tank code	Text	
4	Date	dd/mm/yyyy	
5	Time	hh:mm:ss	
6	Operator loading id	Text	
7	Operator loading name	Text	

2.5 Header DIS

DIS

Field	***Description***	***Values***	
1	Machine serial number	<0..999999>	
2	Machine side identification	<1..2>	1 = Left side 2 = Right side
3	Tank code	Text	
4	Date	dd/mm/yyyy	
5	Time	hh:mm:ss	
6	Operator loading id	Text	
7	Operator loading name	Text	

2.6 Header CMA

CMA

Field	***Description***	***Values***	
1	Machine serial number	<0..999999>	
2	Machine side identification	<0..1..2>	0 = Both sides 1 = Left side 2 = Right side
3	Tank code	Text	
4	Date	dd/mm/yyyy	
5	Time	hh:mm:ss	
6	Operator loading id	Text	
7	Operator loading name	Text	

2.7 Header CMB

CMB

Field	***Description***	***Values***	
1	Machine serial number	<0..999999>	
2	Machine side identification	<0..1..2>	0 = Both sides 1 = Left side 2 = Right side
3	Tank code	Text	
4	Date	dd/mm/yyyy	
5	Time	hh:mm:ss	
6	Operator loading id	Text	
7	Operator loading name	Text	

2.8 Header MEA

MEA

Field	***Description***	***Values***	
1	Measurement id	<1..999>,	
2	Date	dd/mm/yyyy	
3	Time	hh:mm:ss	
4	Description	Text	
5	Phase reference	Integer	Indicating the phase where the measurement was done
6	Step reference	Integer	Indicating the step where the measurement was done

2.9 Header MAC

MAC

Field	***Description***	***Values***	
1	Disinfection cycle result		0 = Busy 100 = Ok 101 = Ok, but failures occurred 102 = Ok, but safety controller disabled 120 = Failed, operator cause 121 = Failed, failure occurred 130 = Failed, interrupted cycle 140 = Failed, lio cause 150 = Failed, safety controller cause
2	Machine serial number	<0..999999>	
3	Machine side identification	<1..2>	1 = Left side 2 = Right side
4	Disinfection cycle number	<0.999999>	
5	Disinfection cycle completed date	dd/mm/yyyy	dd=day mm=month yyyy=year
6	Disinfection cycle completed time	hh:mm:ss	hh = hour mm = minutes ss = seconds
7	Disinfection cycle total duration	hh:mm:ss	
8	Program parameter set	Text	
9	Operator loading id	Text	
10	Operator loading name	Text	
11	Operator unloading id	Text	
12	Operator unloading name	Text	
13	Machine Location	Text	

ALC|7890|0|55|15-07-2009|15:06:41||JKeller

```
INS|2|0|110|4068|2|8|10-09-2009|10:42:13|00:33:34|1-14-101 B
||JKeller|aabb|jak||||||0|.
FAI|-104|10-09-2009|10:15:07|Minor endoscope leak, cycle continuing safely|2|3
FAI|-283|10-09-2009|10:35:18|Water inlet flow too low|12|0
```

INS|3|1|100|4068|1|10|10-09-2009|11:08:12|00:31:54|1-14-201 B
|aabb|jak|aabb|jak|||||0|.