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UADC Generic File Format for Quality System Tester Interfaces

Overview:
To read data from the UADC Interface to the quality system database the tester has to write an ASCII File. This ideally would be accessible over the network from the PC running the UADC software. Ethernet connection is the simplest option but RS232 and FTP are also available. This ASCII File has to include the Records for failed and Passed Boards.

This File should include the following 27 fields per defect record. Some of these fields are optional. A comma following the field separates each **field**. The first line of the file should contain 10 fields, the second 10 fields, and the third 7 fields. Then additional defects follow these lines with the same format. The fields are printed in the order below. If a field is empty leave an extra comma with no field to designate the field to be empty.

Field Order

Order	Fieldname	Description	Example	Importance
1.	**SerialNumber**	Serial Number of the Board	1234,SN9876	Mandatory
2.	**Line**	Production Line Name	Line1, Fuji Line	Optional – can be got from database
3.	**Machine**	Assembly Machine Nickname that placed part	CP6_1, GSM	Optional – can be got from database
4.	**Symptom Type**	PASS or Failure Type,	PASS or Typical Failures = Part, Pin, ATEFail, Module, "User Defined"	Mandatory
5.	**Symptom Label**	PASS or Fail, Fail is more specific.	PASS, Out of Range High, Open Circuit, Usually tester specificThe UADC 'maps' a range of error messages to a single label	Mandatory
6.	**Reference Designator**	If ICT then usually related to a particular Component. If Functional may refer to a 'block test'	R1, R2, C1,D1,IC1	Optional -
7.	**Part Number**	Component Part Number	1234567, PN9876	Optional – can be got from database
8.	**Assembly Shape**	Component Assembly Shape	PLCC44	Optional – can be got from database
9.	**Pin**	For Pin level defects the device pin number can be identified	1,2,3,etc	Optional
10.	**Net1**	For Short Circuit, only the first two nets	PWR, Gnd	Optional

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11.	**Net2**	For Short Circuit, only the first two nets	PWR, Gnd	Optional
12.	**Inspector**	Inspectors Login ID	UDCM, Mike, Tester1	Optional
13.	**Inspect Location**	Inspectors Location, route checking enforcement	Route Checking, ICTA1	Optional – can be set by UADC
14.	**Inspect Note**	Information for Repair, Comment Field from Program, typically parallel components.	Normal Value: 5 V, Real Value: 3 V	Optional
15.	**Repair Status**	Fault Status, usually open	Open, Closed	Optional
16.	**Disposition**	Process Step, which assembly area are we in	SMT, Test, Packing	Optional
17.	**Route Step**	Where in the process this station is located.	Line Inspect Location (logical)	Optional – set by UADC
18.	**Inspect Time**	Set automatic	12:12:33	Optional – set when system logs the data
19.	**Inspect Date**	Set automatic	5/12/00	Optional – set when system logs the data
20.	**Lot Code**	Set automatic	Lot123	Optional – set when system logs the data
21.	**Marker Location**	Graphical Marker to identify location of Fault	Set automatic when comes from tester	Optional
22.	**Level**	Top or Bottom side of Board	Top, Bottom	Optional – can be got from database
23.	**Marker Rotation**	Graphical Marker to identify location of Fault	Set automatic when comes from tester	Optional
24.	**Marker Type**	Graphical Marker to identify location of Fault	Set automatic when comes from tester	Optional
25.	**Repairer**	Repair Engineer ID	This comes from the repair station not from the tester	Optional
26.	**Repair Note**	How was the symptom repaired.	This comes from the repair station not from the tester	Optional
27.	**Symptom Severity**	Defect unless cosmetic damage only, usually only identified at visual inspection stations	Defect, Cosmetic	Optional

Most of the fields are optional to cater for different levels of test. An In-Circuit Tester would be able to identify Reference Designators, Pin Numbers and Net names. This information would not be available from a Functional tester, hence the reason why it is optional. The more information in the fault ticket then the more detailed the analysis. Whilst the date and time can be generated automatically it will be when the data is transferred to the database. This may not be when the board was actually tested, everything relies on date and times being set correctly in the first place.

See examples on next page.....

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Sample Output

The outputs below show both pass and fail records.

```
E708405000047,,,PASS,PASS,,,,,,
,E7084-63557,,,Repaired,ATE,,12:46:51,01/28/1999,,
,,,,,,PASS,
```

Field	1	2	3	4	5	6	7	8	9	10
1st Line	E708405000047,	,	,	PASS,	PASS,	,	,	,	,	,
2nd Line	,	E7084-63557,	,	,	Repaired,	ATE,	,	12:46:51,	01/28/1999,	,
3rd Line	,	,	,	,	,	,	PASS,			

```
12345678,Labor,ICT,PASS,,,,,,,
,,,,,,,11:04:04,29.11.99,,
,,,,,,,

79071534,Linie A,ICT,ATE,,Kurzschluss ,,,,<402;403...> <453> ,
,,,,,,,10:20:20,29.11.99,,
,,,,,,,
79071534,Linie A,ICT,ATE,,C15-(3),,,,,
,,,100 nF chip c--Ist Wert: 0.000 fF (0.0%)--Sollwert: 100.0 nF (+-15.0%) +TP= 453 -TP= 402 ,,,,10:20:20,29.11.99,,
,,,,,,,
79071534,Linie A,ICT,ATE,,R8-(3),,,,,
,,,chip R 4K7--Ist Wert: 4.852  Ohm (-99.9%)--Sollwert: 4.700 kOhm (+-10.0%) +TP= 453 -TP= 402 --Guard_TP=402
,,,,10:20:20,29.11.99,,
,,,,,,,
79071534,Linie A,ICT,ATE,,T5 (ON)-(3),,,,,
,,,BC847 NPN--Ist Wert: 639.8 mV (326.6%)--Sollwert: 150.0 mV (+-80.0%) +TP= 453 -TP= 455 --Guard_TP=402
,,,,10:20:20,29.11.99,,
,,,,,,,
```