

INSTRUCTIONS FOR COMPLETING
CUSTOMER ENGINEERING SYSTEM PERFORMANCE LOG

Prepared By:
Poughkeepsie Customer Engineering
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INTRODUCTION

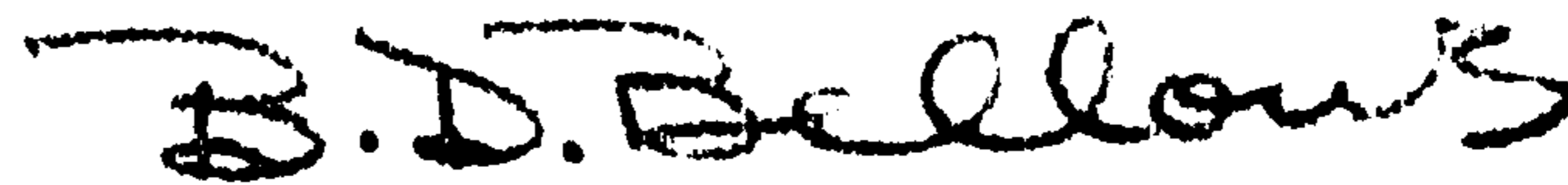
I am sure you are aware of the competitive aspects of our business. IBM's leadership in the computer field depends on superior performance by everyone.

The feedback of accurate and timely system performance data for the Poughkeepsie Plant Customer Engineering Department will help IBM to retain this leadership. The log information is also used extensively by Quality Control, Reliability Engineering, Product Testing Laboratory, and Manufacturing to evaluate and improve our products.

Because of the type of information sought on various machines and systems, some Branch Offices will be requested to complete the entire CE System Performance Log. Your CE Manager or Field Manager will advise you of the procedure that applies. At the same time, he will review the log reporting instructions with you. These instructions should be retained by you for reference when any questions arise.

The Plant Customer Engineering Department is available at all times to assist you in this important reporting program. We welcome any ideas you may have to improve the present log instructions.

Thank you for your cooperation.



B. D. Bellows
Manager, DP Customer Engineering
Poughkeepsie Plant

BDB:cpj

BRANCH OFFICE: "LEVEL 1" REPORTING

1. The CE System Performance Log should be initiated the day that the system arrives at the site. Fill out the log in duplicate, with the carbons provided. It is suggested that a No. 3 pencil be used.
NOTE: PLEASE DO NOT USE INK.
 - a. Installation Period
Fill out the log completely with the exception of INCIDENT CODE AND SYSTEM HOURS. (See Sample Log)
 - b. Operational Phase
This phase begins only after the system has been turned over to the customer. At this time, fill out the log completely. (See Sample Log)
2. A letter to the Branch Office CE Manager may request that certain defective parts be returned to the Poughkeepsie Plant Customer Engineering Department. (See also "Parts," Page 3)
3. The reporting period runs from Thursday midnight of one week to Thursday midnight of the next.
4. Each installation should have original log sheets in the mail every Friday. Pre-addressed stamped envelopes are provided by the Poughkeepsie Customer Engineering Department.
5. Duplicate log sheets should be retained for your reference at the installation. A binder is provided by the Poughkeepsie Customer Engineering Department.
6. When installation is completed and the system is turned over to the customer, indicate the date in the comments area of the log.
7. It is not necessary to prepare or mail the Weekly Performance Summary Card (Form N11119) on "Level 1" reporting systems.

NOTE: If you are advised by the Poughkeepsie CE Department that your system will go off "Level 1" reporting, we will mail to your CE Manager a deck of pre-punched and interpreted Performance Summary Cards.

BRANCH OFFICE: NON-REPORTING

1. Log entries should begin the day that the system arrives at the installation site.
2. Complete shaded areas only and retain as permanent record of system performance. This will provide the necessary data for preparing the Weekly Performance Summary Card (Form IBM N11119).

PARTS RETURN INFORMATION - ALL 1410/7000 Series Systems

1. Parts (except SMS Cards and Tape Unit R/W Heads) are to be disposed of in the normal manner. That is:

If reworkable value exists, return per the instructions set forth in the Used Parts Returnable Booklet. All other parts are to be disposed of locally.

2. SMS Card Return

All removed SMS Cards must be returned to the plant for analysis. Field return (yellow) envelopes, Form # 920-8137, should be completed by the Customer Engineer for each SMS Card replaced. All SMS Cards are to be returned to Department 988, Endicott Plant except as noted below.

SMS Cards removed from machines in the MIR Reporting Program (including machine types within 7000/1410 Systems) should continue to be returned in accordance with the Special Situations Section (Page 18) of the Incident Reporting Booklet, Form # 229-1267.

SMS Cards removed as the result of a field conversion (Good-Used) should be returned in accordance with the "Disposition of Removed Parts" section of the Engineering Instructions for the particular conversion.

SMS Cards listed in the Used Parts Returnable Booklet should be returned to the applicable address as listed in the Booklet.

In the event certain SMS Cards require special analysis, your Branch Office CE Manager will be advised by letter in which the system type, machine type, part number, description, special mailing instructions and all other pertinent information will be specified.

3. Tape Unit R/W Heads

All defective Tape R/W Heads should be returned along with completed questionnaire and RMER to Poughkeepsie Plant CE Department per instructions forwarded to all Branch Office CE Managers on February 8, 1963.

DATE: Record month, day and year in this field. A full week's activity can be recorded on one log sheet.

INCIDENT: An occurrence or event associated with system operation or machines used with the system. ("System" is defined as a group of interconnected machines performing a customer programmed operation).

Examples:

- a. An event that interrupts a customer programmed operation of the System. i. e. Scheduled and unscheduled maintenance, customer error, system service code 57, Sales and Engineering Changes.
- b. An event that changes the status of the System. i. e. Power on, power off, customer operation, installation or discontinuance of machines.
- c. An event that does not affect the system for a specific operation but involves maintenance on machines used with the system. i. e. Performing off-line maintenance on Tape Drives, Readers, Punches, etc.

INCIDENT NUMBER: It is not necessary to fill in this field.

INCIDENT CODE: All incidents are coded to denote a system activity. Incident codes are defined as follows:

Code

- 00 - Customer Programmed System Operation.
- 01 - Unscheduled Maintenance - repairs - Customer Reported Troubles.
- 02 - Scheduled Maintenance Repair - repairs during preventive maintenance.
- 03 - Power On - Power on the system.
- 04 - Power Off - Power off the system.
- 08 - Scheduled Maintenance - preventive maintenance, cleaning, testing, etc.
- 19 - Repairing spare sub-assembly.
- 20 - Installation - supervising the unpacking of equipment, installing and testing. (To be used after initial installation of the system for installing additional machines).

Code

- *21 - Equipment Location Change - Supervising the moving of machines/system from one location to another.
- 22 - Discontinue - disassembling machines, supervising packing, etc.
- 31 - Sales Change - installation and discontinuance of Sales Changes on installed machines.
- 32 - Engineering Changes - covers all Engineering Activity, improvement, safety changes, etc.
- 57 - Customer Error - System Service - locating reported trouble on the system or machines which is determined to be the direct responsibility of the customer.
- *70 - Idle Time - Power is on and no other incident code applies.

*These codes are to be used in addition to ones indicated on logs.

TIME: (Clock) In hours and tenths, based on 24-hour clock (00.0 to 24.0) is used to record elapsed time of each incident. From time of machine failure until the incident is satisfactorily terminated. (Do not mistake for "CE Hours.")

Power on (03) power off (04) should be noted in the "start" column only. No elapsed time is involved in this activity.

SYSTEM HOURS: Elapsed time for events affecting the system.

NOTE: If two or more Customer Engineers are each simultaneously performing system maintenance during the same time period, only one man should account for the system hours. The other maintenance should be considered off line.

SYSTEM HOURS: (hours and tenths)

1. Customer Available - Time under customer programmed system operation (00).
2. Scheduled Maintenance - Time that scheduled maintenance interrupts system operation.
3. Unscheduled Maintenance - Time that unscheduled maintenance interrupts system operation.

4. Other - Time for miscellaneous circumstances.
 - a. Engineering activity (31, 32) - installation and/or check out time.
 - b. Awaiting the Customer Engineer to perform maintenance (travel to the installation and awaiting parts). This time should be recorded on the same line that incident occurs.
 - c. Unusual system maintenance due to air conditioning failure, Customer error code 57, etc.
 - d. Machine/system location changes (20, 21, 22).
 - e. Idle time (Code 70).

PRIMARY CE HOURS:

1. Actual - Time in man hours that the primary Customer Engineer spends on the maintenance action includes preparation time, diagnostic time, and reporting time, but does not include travel time.
2. Diagnostic - That portion of the elapsed time used to determine the cause of trouble.

ASSIST CE HOURS:

1. Actual - Man hours for assisting Customer Engineer.
2. Diagnostic - Man hours for assisting CE analyzing and locating cause of trouble.

NOTE: "Actual" time recorded in assist hours should include time of the Product Field Engineer, Manufacturing or Engineering personnel. Their time should be itemized under "Comments."

Example

Product Field Engineer 2.3 hours (Jim Jackson)
Poughkeepsie Manufacturing Department rebuild
assembly XXX 1.5 hours (Joe Doakes)

MACHINE TYPE AND SERIAL NUMBER: Where maintenance was performed and trouble corrected.

NOTE: On system checkout or actions not assignable to a specific serial number, record system/type without the serial number (1410, 7070, etc.). If performing identical maintenance on all machines of the same type (729 or 7330) record machine type without the serial number.

OFF-LINE: Check mark this column when the incident does not interrupt Customer System Operation.

SERVICE AIDS: It is not necessary to fill in this field.

PARTS:

Quantity: "Level 1" reporting system should record each part separately with its component address.

NOTE: Always record a quantity of one.

Replacement Part Number: The part number of the replaced component is recorded under this heading. Indicate the last digit of the part number in the right hand position of the part number field. If installing an Engineering Change, record the number in the Replacement Parts Section. If there is a bill of material with EC, record the bill of material number in the comments section.

PARTS RETURNED TO THE PLANT: If a part is to be returned to the plant for special analysis purposes, place a check mark in this column.

COMPONENT ADDRESS: Record the address of the defective component in these columns (as indicated on the system logic page).

Example

1410 SYSTEMS

SMS Cards

1411 and 1414 M3, M4

Rack and Panel	Ex.
*Machine Type	<u>II</u>
A Through D Frame	B
1 Through 6 Chassis	2
A Through K Row	E
1 Through 26 Column	14
A Through R Pin	

1414 M1, M2

Rack and Panel	Ex.
*Machine Type	<u>14</u>
Frame D	D
Chassis 1 or	
A Through C	1 or C
A Through F Row	C
1 Through 26 Column	14
A Through R Pin	

*Last Two Digits of Type

7000 SERIES SYSTEMS

Modular I

Vertical Swing Gate	Ex.
01-99 Frame	01
A, B Module	B
1 Thru 8 Gate	3
A to F Column	C
1 to 26 Row	14
A to R Pin	

Modular II

Sliding Gate	Ex.
01-99 Frame	01
A Thru D Gate	C
1 Thru 4 Chassis	2
A Thru K Row	D
1 Thru 28 Column	17
A Thru R Pin	

NOTE: Indicate the first character of the component address in the far left hand position of the field. If a part is a relay, enter R in the far left hand position. Example: (R005, R027, R241).

TROUBLE: It is not necessary to fill in this field.

COMMENTS: Should include:

1. Symptoms, cause and correction of malfunction.
2. B/M number.
3. Assist time of Product Field Engineer, Manufacturing or Engineering personnel.
4. Other information pertinent to the incident.

EDIT: Field - Leave blank (for Plant Customer Engineering Department's use).

NOTE: Order additional pads of logs from Endicott Stationery Stores, Form #120-0174.

- NO. — CUSTOMER AVAILABLE
- 00 — SCHEDULED MAINT.—INSPECT
- 01 — UNSCHEDULED MAINT.—REPAIR
- 02 — SCHEDULED MAINT.—REPAIR
- 03 — POWER OFF
- 04 — RETURN TO STOCK
- 05 — SCHEDULED MAINT.—INSPECT
- 06 — REPAIR SPARE SUB-ASSEMBLIES
- 07 — DISCONTINUE
- 08 — SALES CHANGE
- 09 — ENGINEERING CHANGE
- 10 — CUST. ERROR

SAMPLE LOG

7070-USE FRAME II
(Frame #1)

SERIAL NUMBER: 10012 CUSTOMER NAME: IBM

SYSTEM: 7090

MONTH	DAY	TIME (LOCAL)	INCIDENT NUMBER	SYSTEM HOURS				ACTUAL C.E. HOURS		MACHINE SERIAL NUMBER	TEST FRAME	SERVICE AID	PARTS	RETURN TO PLANT	COMPONENT IDENTIFIERS	TROUBLE FOUND	COMMENTS	UNIT	PART	IDIT	
				CUSTOMER AVAILABLE	SCHEDULED MAINTENANCE	UNCHEDULED MAINTENANCE	OTHER	DIAGNOSTIC ACTUAL	DIAGNOSTIC SCHEDULED												
4	100	03 6 0								7090						Power on					
		08 6 0 6 2		2				0 4		7090						System checkout					
		08 6 2 6 5		3				0 5		729						Clean tape transport all system drives					
		08 6 5 6 8		3				0 5		7090						Routine 1 9M51					
		08 6 8 7 0		2				0 4		7302 10013						Routine 2 completed					
		00 7 0 10 0 3 0								7090						Customer operation					
		01 10 0 11 0		1 0				1 0	7 0 5 0 5 7 1 0 0	10012						Sense ind. failing to reset & clear, bad card replaced					
																Sense ind. failing to reset & clear, bad card replaced					
																Sense ind. failing to reset & clear, bad card replaced					
		00 11 0 13 0 2 0								7090						Customer operation					
		01 13 0 13 1		1				1		729 12345						Clutch shaft broken, drive remove, off line for repair					
		00 13 1 14 1 1 0								7090		249 228				Install E.C. B/M #345620					
		32 14 1 16 0						1 9 1 9	1 9	7100 10012						Remove broken shaft - new shaft ordered					
		01 13 1 14 5						1 4	0 8	729 12345						Clean & lubricate, check relays					
		08 14 5 16 0						1 5		729 12345						Clean tape transport all drives on system					
		08 16 0 16 3						3		729						Customer operation					
		00 16 3 18 0 1 7								7090											
		70 18 0 24 0						6 0								Idle					
4	110	70 0 0 8 0						8 0								Idle					
		08 8 0 9 0						1 0	1 0	7090						Run diagnostics					
		00 9 0 12 0 3 0																			
		21 12 0 14 0						2 0 2 0	3 0	729						Relocate drives at customer request					
		00 14 0 24 0 10 0																			
													TOTALS →		15 6	13 1 1	6 1	7 13 0 5			