

Messrs. _____

Elimination of downtime by the power of

Self-detection of error

**Enhanced quality assurance by saving of the
traceable data.**

**The brief guide to
「MAT」 Computer System**

MAT stands for “**M**aintenance **A**nalyzer and **T**raceable” Computer System.

Opton Co.,Ltd.

Ver.2

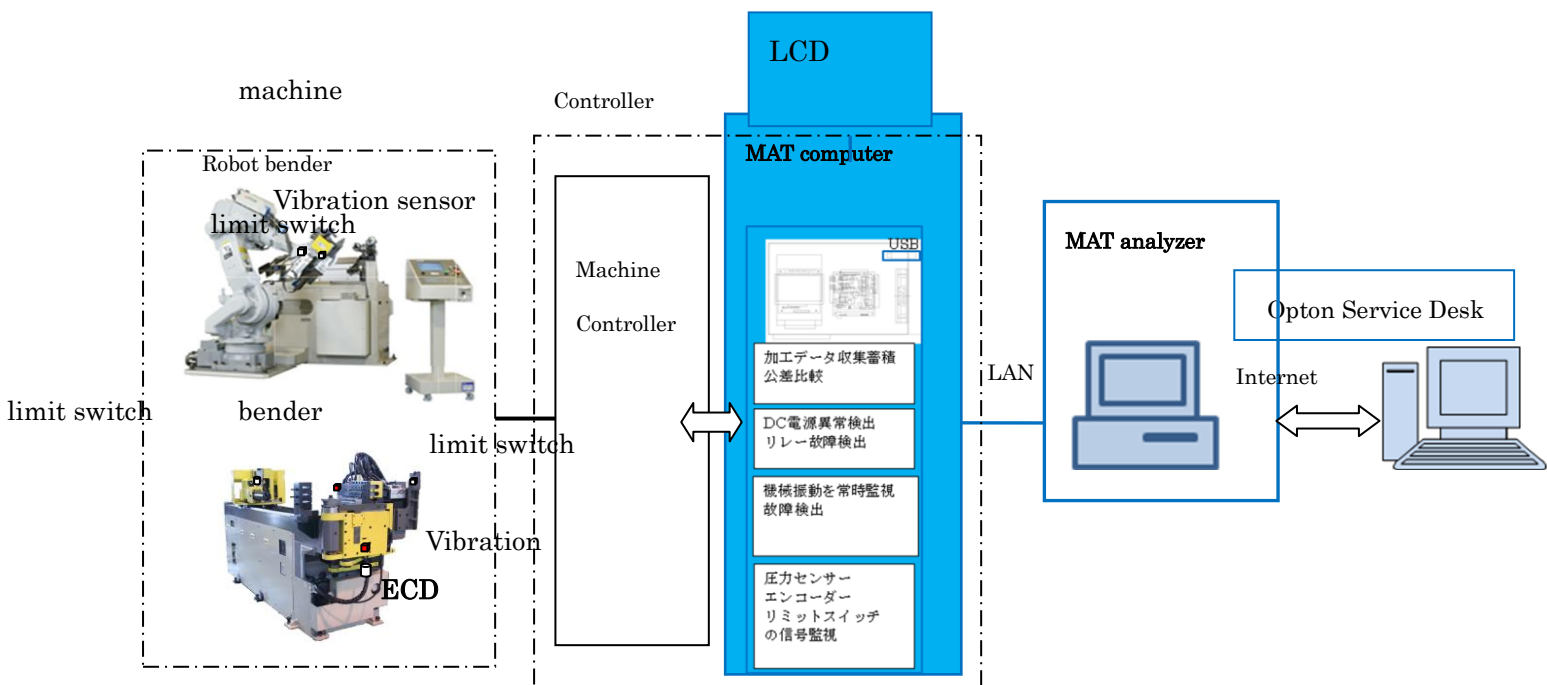
「MAT Computer system」

「MAT」 (for Maintenance analyzer + Tracing) is the mini-computer for special purposes that works for self-detecting of ill-operation of N/C production machinery and saving of the traced data of production.

The 「Mat」 detects ill-operated machining data that may be attributed to faulty and/or degraded machine performances and displays the differences by comparing the detected data vs those available in normal operation. Display also covers the information on periodical maintenance and the location of faulty part, thus leading to maintenance work-time requirement to be reduced possibly to half in maximum.

The machining data from production are also saved for later review and traceability that should work powerful for quality control.

With the「MAT」computer installed to the controller unit of Opton bender currently at service, error-monitoring can be implemented for full course of operation by interfacing 「MAT」 to the signal cables of ECD / limit switches and of the vibration sensors that are additionally fixed to important bearing supports as needed.



1 MAT Computer (sized by 180W×250H×145D)

①Error diagnosis

(1) Quick error finding

The code of error location is marked followed by flashing on the 「MAT」 display. This mini-sized display is of separation type and can be placed on the panel door of the controller box.

(2) By 「MAT」 being installed to N/C machines, error diagnosis and causation are automatically displayed.

Powerful tool for self-maintenance

(3) Ill machining motion detected.

Monitoring is held through complete production duration. Alarm appears when these on-going production data are found with out-of-tolerance deviation from the standard figures that are established in eligible production.

(4)Notice of periodical maintenance

Upon registration of maintenance parts in the 「MAT」 , the computer automatically issues the notice of maintenance for the parts whose periodical maintenance is nearing due.

(5) 「MAT」 Analyzer computer on LAN connection, data communication via USB, and analysis of the collected data are all realized.

②Tracing

(1) Selection can be made for production data storage mode, either for total pieces or intermittent pieces.

※The data keeps stored for about two months for those equivalent to the per-work piece average of 10-sec. machine time with 64 process PRB data The data stored over two months are subject to be replaced by a new incoming data.

(2) Preventive function by ID against data-manipulation Collective data can be over-written upon access only by ID.

2 MAT Analyzer computer (Managerial function is performed in dominant position over MAT Computer)

① Error Diagnosis

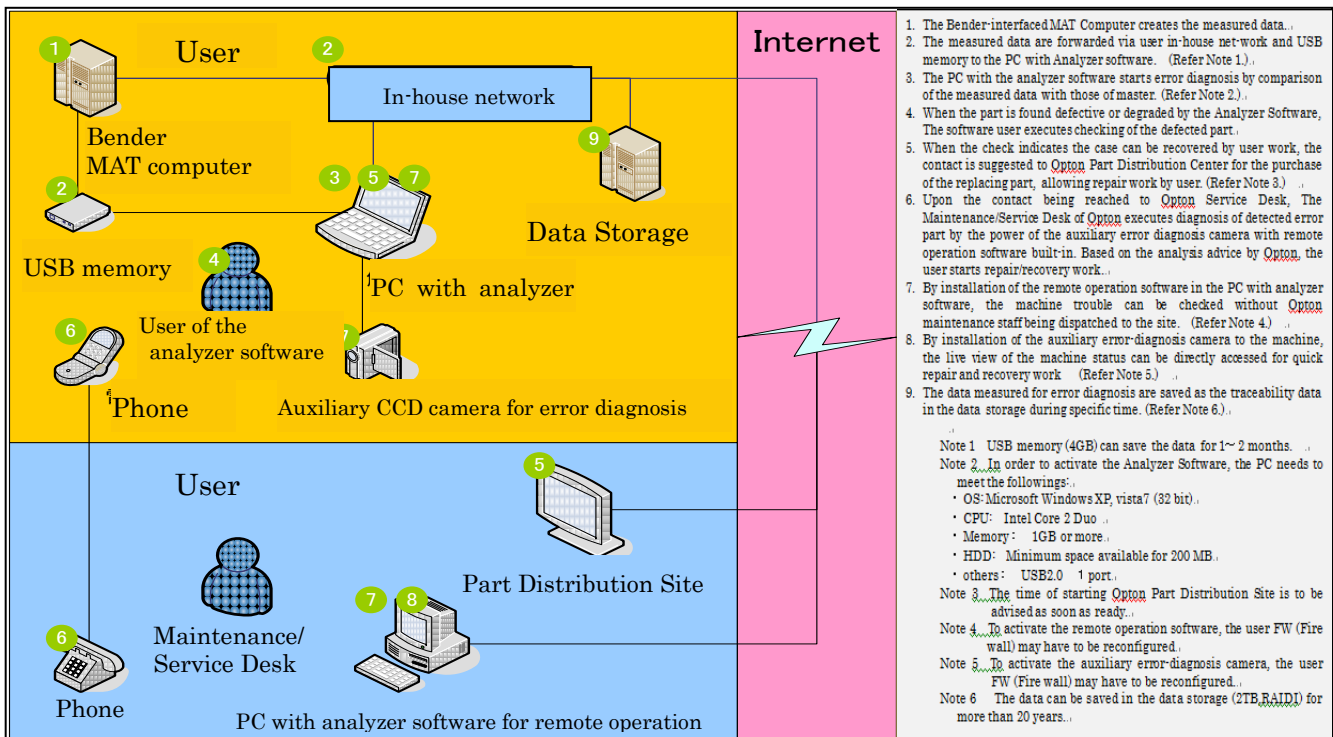
(1) Full Error-listing backed-up by MAT Computer

The detail of error is indicated with flashing either in the mechanical/electrical drawing or a few possible causations and suggested repairing procedures as well. With these detailed information available, a quick recovery action is taken.

(2) A noticing alarm is programmed to issue when periodical inspection arrives due for each of so-designated parts that are used in mechanical and electrical systems.

1) Periodical maintenance can be programmed for when and which individual part needs be.

2) MAT Computer displays a symbol for the due-time arrival of periodical maintenance, and MAT Analyzer Computer indicates a flashing mark for a corresponding part.



(3) Interfacing with a CCD camera (an auxiliary camera for error diagnosis)

This option will widen communication channels between a user maintenance staff and Opton maintenance specialist that include information exchange over phone, documents and/or images. Interactive image sharing is designed between the production site and Opton PC on an error part by interfacing a CCD camera to MAT Analyzer Computer.

② Traceability by MAT Analyzer Computer

(1) Total listing of the production data and non-defective data

The collective data are put in the listing.

(2) The production data can be saved in a external server or HDD.

The data keeps stored for about 20 years for those equivalent to the per-work piece average of 10-sec. machine time with 64 process PRB data

In starting feasibility study

For starting a study on 「MAT」 computer system, followings are offered:
Please pick up any one below that most suites your initial interest.

1. Opton staff visit to an inquirer is offered to make detailed presentation including demonstration.
2. The product is currently in developing stage for preparing the one in prototype version. Demonstration schedule will be informed as soon as being ready.
3. Upon an inquiry being informed to Opton for after-market installation of 「MAT」, Opton staff will be pleased to make a proposal visit to the inquirer.
4. For consultation raised for 「MAT」 application, Opton staff is pleased to make a visit to an inquirer to start discussion.

Opton stays always ready to meet anyone above