

ABOUT INSTRON LIMITED:

Instron Limited manufactures, markets and services materials testing instruments, systems and accessories. Instron products are used to evaluate the mechanical and physical properties and performance of materials, structures and components.

Instron is a company with total sales of over \$200 million worldwide.

REQUIREMENT UNDERSTANDING:

Instron has a company-developed software called tesseract that helped them to create and assign calls. These calls are meant for service engineer in the field. Instron supplies heavy machines to companies. Every time customer support is required the Head Office receives the calls and assigns it to a Service Engineer giving the customer details and a job no and the engineer by whom the call is to be attended. Tesseract creates a job no for each customer support call. The Co-coordinator sitting at the Head Office then manually calls each person to inform him of the assignment. The customer details and the job code are then sent by mail to the engineer. The engineer then attends the call and fills in a report which contains details of the problems and the rectification done, the time he arrived at the site and the time taken for fixing the problem, the parts used or replaced, the charges for the parts replaced or renewed and this report called the service report is posted/couriered to the Co-coordinator who then updates the tesseract system and closes the call, if the call is closed.

Only the call creation was computerized. The passing of the call to the service engineer was through a manual operation because of which tracking of the call was difficult and also the service report was done manually and many important entries were missed and all the details of service and support done were not entered. Moreover the service report was sent through courier and hence there was a day delay in the report reaching the co-coordinator.

Where we fitted in

Our system removed completely the manual operation of sending the calls to the service engineer and getting his report with an automatic computer program. The call was automatically forwarded to the service engineer by mail and the service report was also sent to the co-coordinator by mail. The screen provided was so designed that the service engineer had to enter all-important entries as required by Instron.

Our software

We built a tier over the tesseract system. We interfaced with tesseract. The call report created by the tesseract system was captured in a excel sheet. The excel sheet was read

by our software and a mail was automatically generated based on the engineer code to the corresponding engineer giving him all the call details. Then our software installed in the service engineer's laptop scans his mail box, reads the relevant mail containing the call details, allowing him to view the detail of the call assigned to him. On completing every day's work the engineer records his work and generates a service report using our software which then automatically sends it to the co-coordinator who using his system can view the engineer's details and call status.

Instron Process Flow

Tesseract System (Company developed software to create a call)



Excel sheet



Our software at Head Office reads the excel sheet and updates our files



Send a mail to the respective engineer with an attached excel sheet containing call details and specific subject



Our software with the service engineer checks the inbox for messages with the specific subject, save the excel sheet, read and update files



Updates report



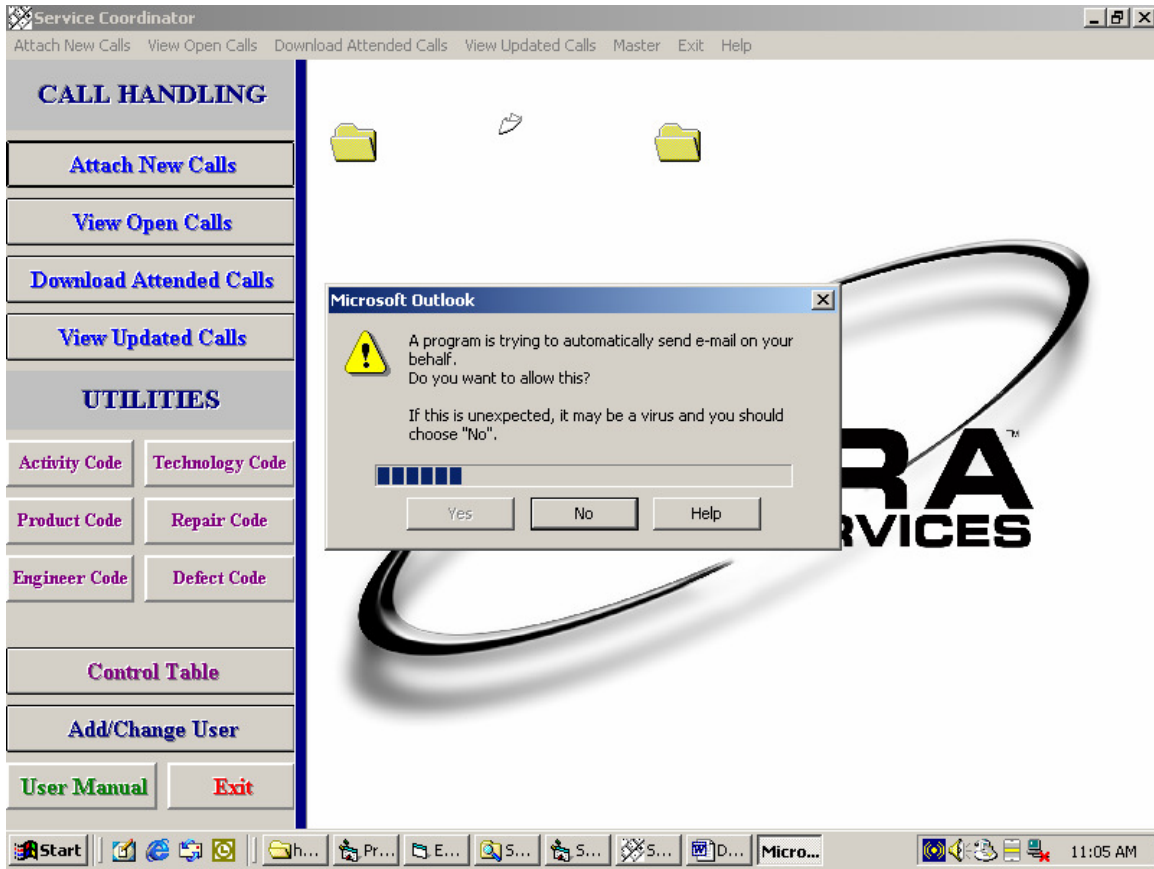
Sends to Co-coordinator



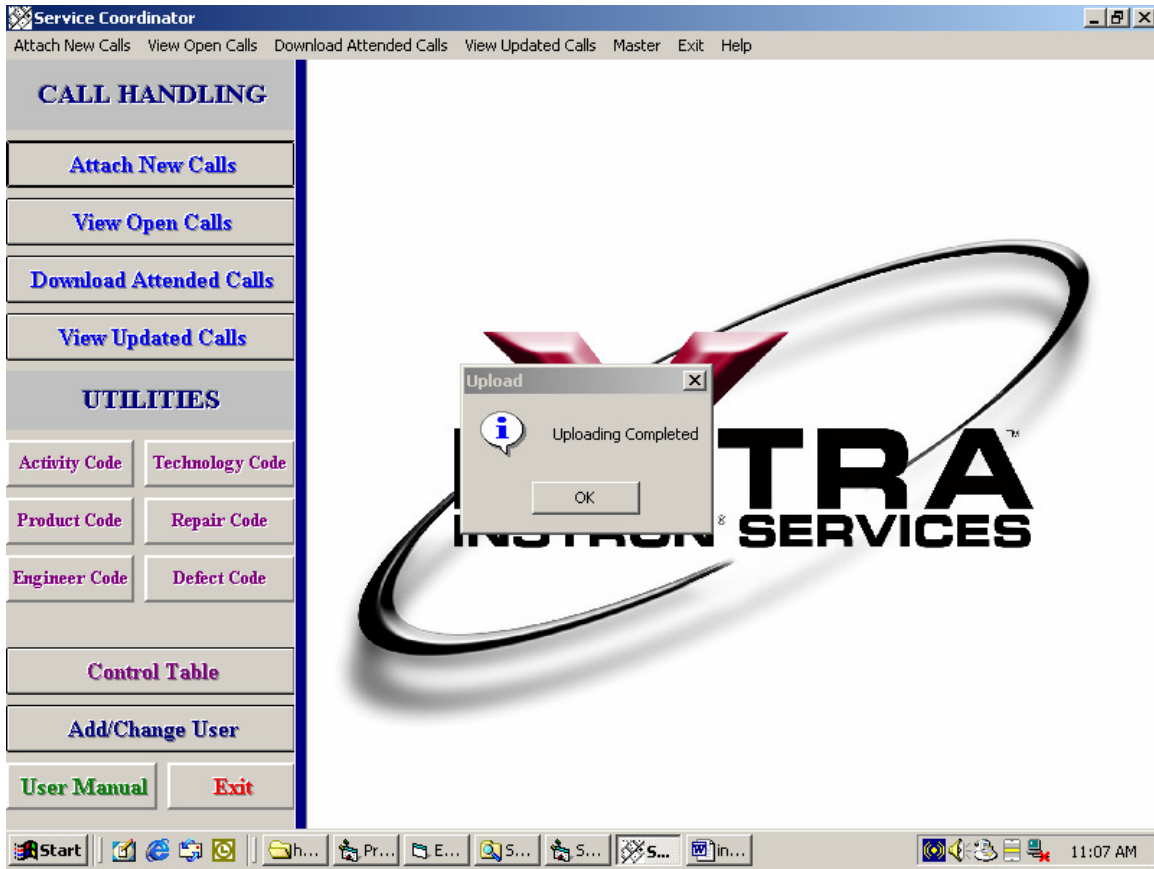
A FEW SCREEN SHOTS OF OUR SOFTWARE AT THE HEAD OFFICE:



Clicking the Attach new calls option reads the excel file stored in a specified location fixed in the Control Table.



Send a mail automatically to the Engineer specified in the call



A pop-up is displayed to inform the service coordinator of the status of update process.

Service Coordinator

Attach New Calls View Open Calls Download Attended Calls View Updated Calls Master Exit Help

CALL HANDLING

Attach New

View Open

Download Attended

View Updated

UTILITY

Activity Code

Product Code

Engineer Code

Control T

Add/Change

User Manual

Exit

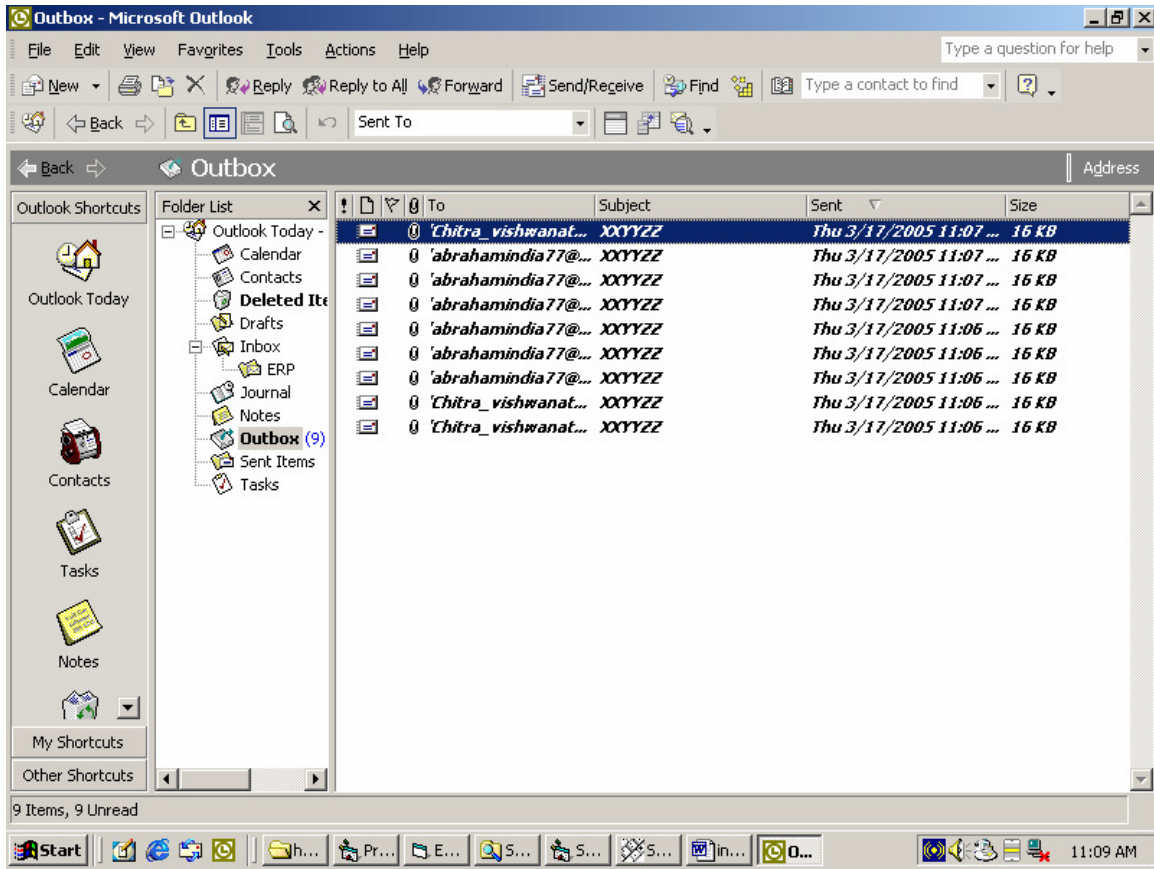
Job Listing - Service Coordinator

View Exit

	Job Code	Times of Visit	Customer Name	Report Date
1	1937	1	GE INDIA TECHNOLOGY C	25/03/2004
2	2014	1	Indian Institute of Techn	25/03/2004
3	2134	1	Vikrant Tyres Limited,	25/03/2004
4	2135	1	Composite Product Devel	25/03/2004
5	2156	1	Dept. of Mech. Engineerii	25/03/2004
6	2158	1	Hindustan Aeronautics Li	25/03/2004
7	2209	1	ExxonMobil Company Inc	25/03/2004
8	2228	1	IPCL Plastics Applicat. Ce	25/03/2004
9	2229	1	IPCL CF Plant R & D Centi	25/03/2004

Start | h... | Pr... | E... | S... | S... | S... | in... | 11:08 AM

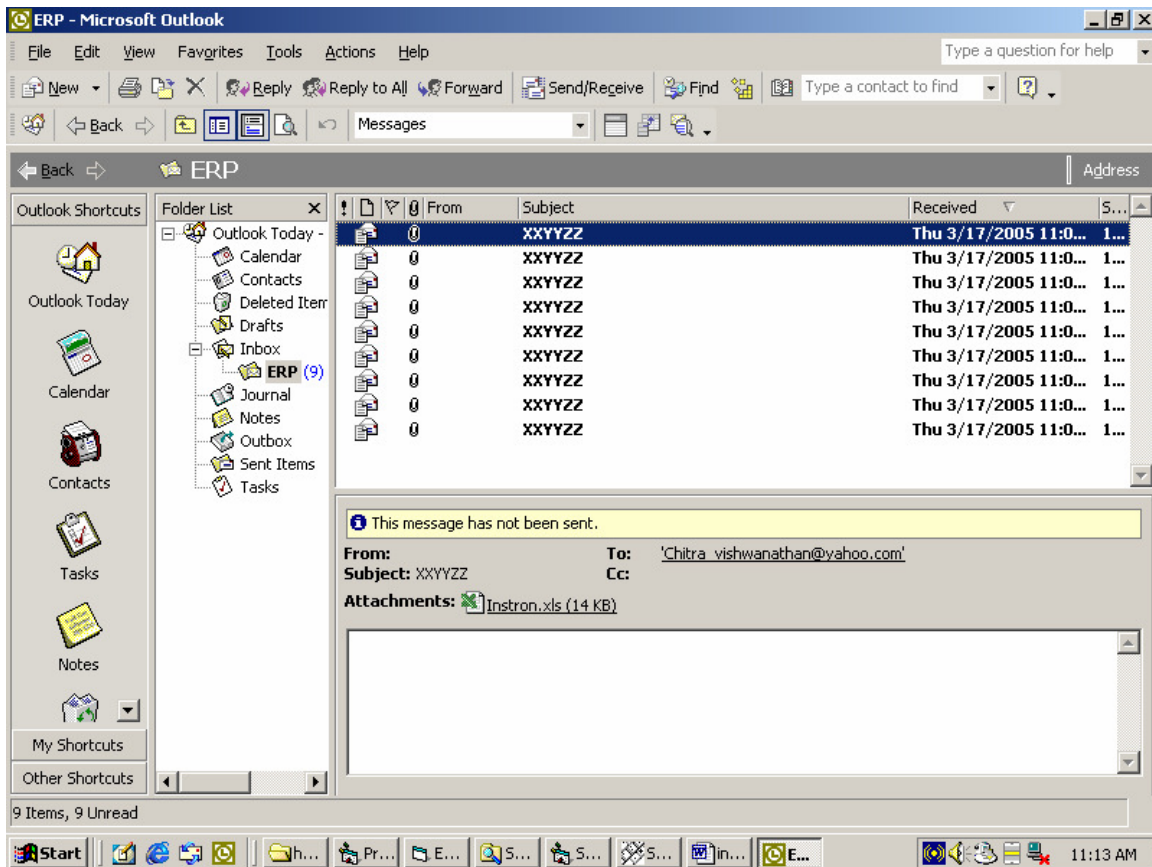
Once the uploading is completed the uploaded calls can be viewed



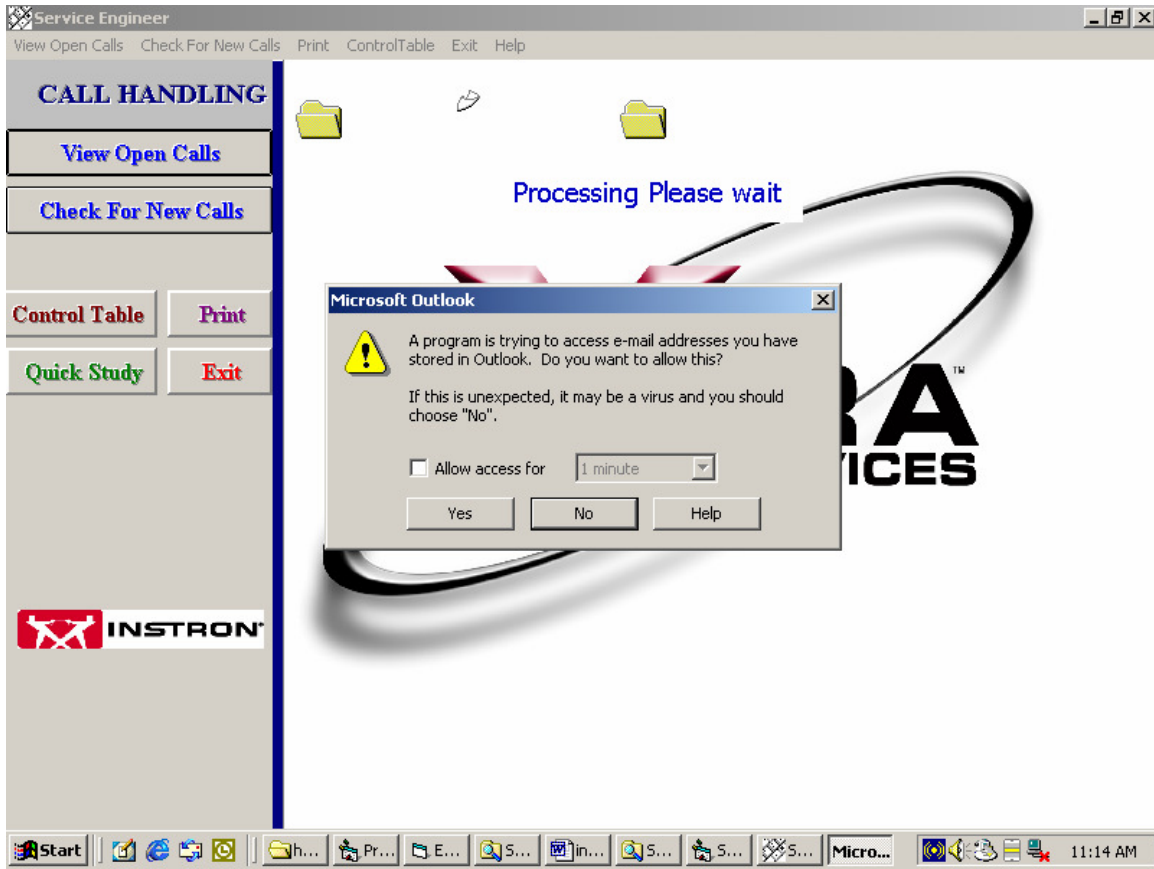
The customer calls with the specifics are attached as an excel sheet to a mail with the engineer's name specified in the engineer master.

The mail then reaches the respective service engineers

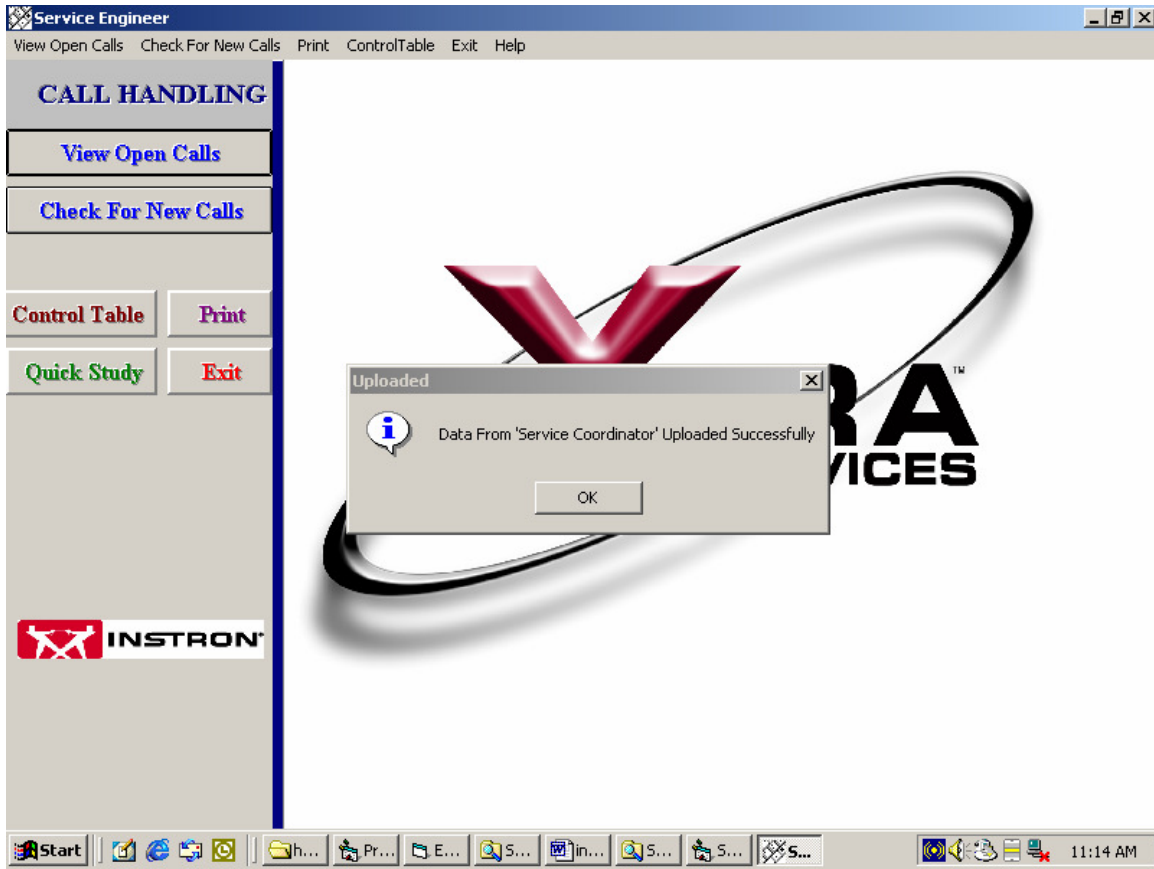
A FEW SCREEN SHOTS OF OUR SOFTWARE FOR THE SERVICE ENGINEER:



The mail reaches the service engineer with a specified subject “XXYYZZ” and is moved into a Folder called ERP



On clicking the Check for new calls option the mails in the ERP folder will be automatically read and the excel sheet attachment will be uploaded into our software.



Once the data is uploaded from the excel sheet in the mail the above message appears

The screenshot shows a software application window titled "Service Engineer" with a menu bar containing "View Open Calls", "Check For New Calls", "Print", "ControlTable", "Exit", and "Help". The main interface has a "CALL HANDLING" header and a "View Open Call" button. A "Service Engineer - Job Listing" dialog box is open, displaying a table of job data. The table has four columns: Job Code, Times of Visit, Customer Name, and Report Date. Below the table is a large light blue area. The Windows taskbar at the bottom shows the Start button, several application icons, and the system clock at 11:15 AM.

Job Code	Times of Visit	Customer Name	Report Date
1 1937	1	GE INDIA TECHNOLOGY C	25/03/2004
2 2014	1	Indian Institute of Techn	25/03/2004
3 2134	1	Vikrant Tyres Limited,	25/03/2004
4 2135	1	Composite Product Deve	25/03/2004
5 2156	1	Dept. of Mech. Engineeri	25/03/2004
6 2158	1	Hindustan Aeronautics Li	25/03/2004
7 2209	1	ExxonMobil Company Inc	25/03/2004
8 2228	1	IPCL Plastics Applicat. Ce	25/03/2004
9 2229	1	IPCL CF Plant R & D Centi	25/03/2004

The data that has been uploaded can be seen on clicking the View Open Call button

Service Engineer - Customer Details

New Edit Send Cancel Exit

Customer Name	GE INDIA TECHNOLOGY (Model		Serial No		Customer Ord.No		Date	25/03/2004
Customer No	ING011	Call Type	65C	Engineer	FE010	Country	IN	Job No	1937
Address	UPPER GROUND FLOOR INNOVATOR BLDG.,	Arrival Date*		Arrival Time*		OnSite Hrs			
Contact		17/03/2005		00:00:00					
Phone		Finished Date*		Finished Time*		Travel Hrs*			
Fax		17/03/2005		00:00:00		00:00:00			

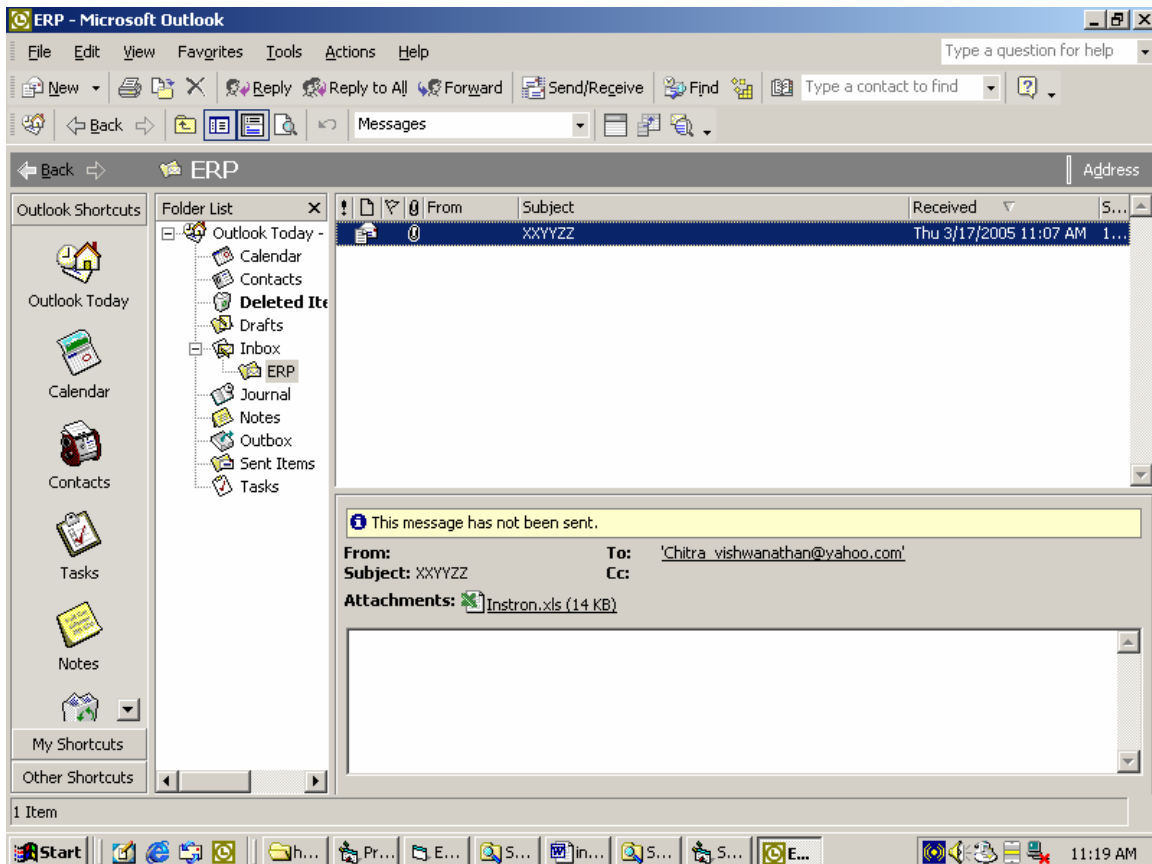
Fault Code*		Hours*	00:00:00	Repair Code*		Action Code*		Total Labour Charges*	0
Fault symptoms*								Total Travel/Board Lodge Charges*	0
Repair Details								Total	0

Add Parts
Submit Faults

Follow-up Actions*		Engineer's Notes*	
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Start | Internet Explorer | Outlook | h... | Pr... | E... | S... | in... | S... | S... | S... | S... | S... | 11:15 AM

The data as received in from the service co-coordinator at Head Office and viewed by the service engineer



The service coordinator receives the mail and the process continues

Our software comprising of the service coordinator application at the Head Office and the service engineer application at site has been developed in 5 languages (English, Spanish, German, Polish and French) till date and is deployed in these countries. We are on the anvil of developing the same for other countries too as well as procuring more international projects from Instron.