

## Criterion A- Consultation

Transcript of Interview with Ms Lax, manager of PT Nirwaana Paratrans on 31<sup>st</sup> August 2013

<u>Questions Asked</u>	<u>Comments</u>
What are the major types of paperwork do you produce while doing the shipping business?	We produce numerous types of documents. I cannot be specific here, but they serve different technical purposes. There are around 5-6 types of documents. Most of them use a software specifically tailor made to produce one type of document. We have to spend minimal time producing each type of document, free of errors and mistakes. We have many customers to interact with, and produce much paperwork according to their shipments as well as make sure their goods reach safely to their destination with the correct paperwork. We can also derive that the business does not run without paperwork. All tasks should be handled efficiently to catch up with deadlines as to the correct paperwork should be ready.
Is there an obstacle you face when producing this set of paperwork?	We somehow do not face any major obstacle in producing this set of paperwork, however, at time we find ourselves being slowed down by the mistakes we make on it and thus, have to incur the cost of rectifying it as well as time delays. This does not happen frequently, but when it does, a substantial amount has to be paid. These issues occur when we are mostly working on the invoice document.

**Can you describe how do you particularly produce an invoice?**

Basically we have a spreadsheet template containing data of a previous document. Various types of data are placed in specific types of cells. We make sure that the arrangement of cells aren't changed or tampered with because these cells place the data in it in a proper format that perfectly falls into the margins of the special invoice paper we use to print our documents in. So based on this template, some data is erased from the specific cell and the newer data for the newer document is entered. So using this process, we get a neat printed invoice.

**How does this method of producing an invoice relate to the possible occurrence of a mistake that costs you money?**

Replacing old data with new data within the template of an invoice can be a tedious process. The layout of the template itself is congested. It is very easy to mix old and new data together, be it in the form of numbers or characters. Moreover, there is no way we can verify what have we entered on the template except by looking at a paper where the new data is which is a source of what to enter in the screen. However, most of the time we find ourselves modifying the template to suit the accommodation of all data. In most cases, new data to be entered doesn't exactly fit the template. Now with resizing and shifting cells, it destroys the outlook of data on the invoice. It tampers the placement of data on the actual printed invoice making it look unorganized and in no way neat. By this issue, we will have wasted so much time finding out a way to make the new data look neat on the printed invoice as well as error checks to that we charge customers correctly for what services they have used accurately.

Has there been an attempt at a solution to fix this?

Apparently no, but we have increased our time on average in producing such a document. We have increased the time for error checks too. We believe that displaying correct data is more important than its presentation, although we strongly believe that the presentation of data can influence its perception. We find ourselves reaching at a compromise for quality when producing an invoice.

If you had a software just to produce sets of invoices, how would you use it?

I would want to use it in such a way that I would only have to enter a variable amount of data (any number of services and its cost the client uses) and its placement is automatically configured neatly on the printed invoice no matter how much data I enter.

Is there a particular feature that you want it to possess?

It would be a helpful addition if it could calculate the totals & subtotals automatically and have a currency converter between US dollars and Indonesian rupiah for which the rate of currency exchange and the tax can be modified any time.

---

## Planning

### Defining the problem

A significant task of a shipping company is to produce invoices, they are similar to bills that cover the details of services used by the company's clients and are sent to the client demanding them to pay fairly of the services used. This is the way invoices are made currently:

There is always a spreadsheet file containing the data of a previous invoice. It is the blueprint or template for hundreds of invoices produced by the company. Its content is always modified but the position of data in cells is always the same, whenever new invoices are made.

A major obstacle arising while depending on such templates to reproduce newer invoices is: each invoice is meant to be unique in the terms of the amount of data entered and different client companies use different services. So the amount of data for services fluctuates for each invoice, and the data may not fit the original(prehistoric) template. This leads to the constant activity of erasure, copying, pasting and shifting of cells to modify the original template for data to fit in neatly when printed on the specialized paper. This task increases in difficulty and extends with time when the number of services used increases. Moreover, the time is topped up with error checks. Some data fields dependency on the data of the services section, this data will be automatically wrong when the services data is wrong too.

After approaching this company, I expect my solution to integrate different features can be implemented to remove this major problem and improve the efficiency in creating such invoices.

### **Rationale for proposed solution**

I propose to create a software that allows easy customization and creation of newer bills without stressing other technical aspects of the bills(such as placement of data in certain cells for neat printing). The software allows easy input and output of data. It forms the basis of a type of word processing program tailored for this kind of document only.

Although, Microsoft Access can be used to collect new data from the user through forms and generate reports automatically created from the records within the database, I believe this is a more complicated solution because the input form will not be able to accommodate how many services the user can enter and forms are to be predesigned before use. As a result, there is less flexibility to customize than the actual proposed solution which is the main goal that this project should achieve.

<b><u>Solution Overview</u></b>			
Description of problem	Proposed solution	Benefits/plus points	Another potential solution

<p>To create a certain type of billing document, the company relies on using old excel sheets of older bills as a template for newer bills to be made. This can lead to accidental loss of data of older bills or accidental removal of a bill file. For printing, the cells in the excel sheet are correctly and tediously chosen and configured so that the data produced on the paper output is organized in a neat manner.</p>	<p>I propose to create a software that allows easy customization and creation of newer bills without stressing other technical aspects of the bills(such as placement of data in certain cells for neat printing). The software allows easy input and output of data. It forms the basis of a type of word processing program tailored for this kind of document only.</p>	<p>The software automatically adjusts the layout of data, so neat documents can be made. The user's job is only limited to entering certain categories of data in a neat form like user interface.</p> <p>The software can also be used to modify other older bills.</p> <p>Data processing is also able to take place automatically such as calculation of bill sums or currency converting once the user has input enough data for a calculation to take place.</p> <p>Time to produce a document is relatively much quicker than the complete modification of an older excel file for a newer file.</p> <p>Removes the risk of accidental erasure or deletion of data or file as with excel files.</p> <p>Editing and creation of a new file are treated as separate modules.</p>	<p>An form can be created in Microsoft Access to collect new data from the user for a newer bill and store it into a discrete new database with no existing relationship with another database file containing a similar kind of data. A report is automatically created from the records within the database that can be neatly aligned and layed out for neat printing using the help of certain queries. All databases forming the data source for each bill can have a common storage area that Microsoft Access can recognize and open.</p>
--	--	--	--

### **Success criteria**

1. A user interface similar to the layout of the special paper the invoices are printed on
2. A form like interface to allow the input of data
3. A form to enable the user to choose any number of services to be displayed on the actual invoice
4. Calculations that can be perform on input data to calculate other data for other fields involving totals etc.
5. A feature to enable conversion between currencies
6. A feature to automatically calculate the final total value of all services used involving tax
7. A feature to accommodate change in currency and tax default values
8. Enable neat printing of all the data entered that correctly fits within the margins of the special paper used
9. A feature to open existing invoices and load its data into the software for any modifications
10. A main menu to allow users to choose on working on a new invoice or an existing one