**Solide**

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# Preface

This project provides:

* An online shop for all auto body parts
* An IT-tool to optimize the organization of the stocks, replenishment and commission of product on depot. Hence the depot manager have a permanent control of his stocked products.
* A trigger of order to transport the online ordered products from the stock depot to the customer local.

# Goal of project

* Creation of an electronic platform that contains all kind of used car parts which are required for auto repair.
* This 24/7 service platform will be a solution for searching and buying every time without physically moving to the seller local.
* This will provide an intelligent process to find quickly the exact needed piece in the exact location. And will relieve the user of physical search stress.
* For the sellers, this will be a great possibility to have more customers and demands for their products. And so their over-the-time presented articles, would be more and more visited and shopped.

The project solide, is not an e-commerce way to stop the traditional one, but its purpose a parallel way to achieve a profit increase.

# Depot process

## Solide-oriented depot

A solide-oriented depot is a depot with a unique addressable products stockage places, those must be one to one saved in solide database system, so that solide software can be every time capable to manage those locations and their contents.

All logistics operations in solide-oriented depot are managed from a warehouse management system, named solide-office.

Solide-office is a desktop application, that offers the possibility to the depot operator to execute all logistics tasks, and to have more control for his stocks.

Note: Along this document, the depot word means automatically a solide-oriented depot.

## Stock Process

If The operator want to store a new article into the stock, he have to logging into solide-office,

or use the solide-app into his mobile device, and there he has to scan the barcode for the new article in the corresponding field, and entering others required informations “important is the storage place where he desires to put it, and the number of units for this article”. After add-operation, an intern number will be automatically generated and assigned to this Article, and with this assigned number, this product will be unique identified through all the system operations.

A part of this article number should be referenced to the depot, so that in the central system should be very easy to identify the depot for each existing article.

On solide-app on the mobile device, an order for a commissioner will be created, he must bring the pieces of this Article and put them in the assigned sockage place displayed on his device. After this physically stock operation, the commissioner will be close this stockage order on the system. In this moment this article will saved central and local and can be online accessible

## Commission process

The operator arranges a removal order to picker. The picker become this order displayed on his mobile device. The picker goes and get the goods, and gives a confirmation to the operator in his mobile device.

The operator stamps the goods that has left the depot, or will create again a stockage order and passes it to the picker.

## Replenishment of products

The operator generate an order of replenishment and send it to a free picker.After the picker finish to execute the physically moving of the products, send a confirmation to the operator. And so should a new location assigned to the product.

# Central Location workflow

## Operation

### Depot and user accounting

Solide platform provides for new users a possibility to create and manage their profiles.

In this way the registered user has to input his personal and contact data into the system.

For static customer like depot managers, transporters and mechanics should input more data into the system like their locations etc...

Solide provides only for registered users to put a new products and allows them to update those products on the system.

### Central and local databases synchronization

There are an automatically job responsible to synchronize the databases on the depots with the central one. So to have each time the same status of products and their availability.

### Orders and reservations

Each user, registered or not, has the possibility to have a lock on the system and to start a searching over the existing articles on the system.

If the user have interest for some article, he can only put a reservation on it, and start a transport order for it. In this case the registration is mandatory.

### Transport order

The system collects all transport orders triggered from the customer, and try to plan them for the next day. The customer will be informed for this planning.

By the planning, the system (transport manager job) try to distribute those orders to the available transporters.

Each transporter can log on the system and see the tasks assigned to him.

After a decision of transporter, a transport order can have multiple states like executed, closed, plan later…etc.

### Transport management

#### Vehicles localisation

After each transport order execution, the system was informed that the transport vehicle already achieved a planned stop. And so in every moment, it is possible to know that a vehicle x is on its way from customer A to customer B.

If something’s anomaly happened, during the transport tour, with the vehicle or with the transporter, he has to be inform immediately the Transport manager.

#### Transport orders distribution

This is a main task for the transport manager.

Different criteria’s have to be considered, like:

Each transporter have an assigned geographic zone.

The zones are dynamically defined, dependent of existing stops.

The distribution should be approximately even for all available transporters.

## Finance

### Bills creation and control

The finance responsible create bills for all existing shipments.

A bill should include a shipping costs.

A copy printed on paper must be packed together with the shipment.

A customer can received, if he wants that, an electronic copy of his bill.

After the successful execution of shipment, the corresponding created bill should be paid.

### Executed transport order

After the execution of the order, the transporter has to confirm this, before he drives to the next stop.

The transporter has to cash in, the exact amount on the bill, from the customer.

This paid amount will be controlled, by the finance responsible, later at the end of the tour

### Supplier finance

The finance responsible takes care of the supplier bills, he has the responsibility to control and execute the payment on time for opened supplier bill.

### Daily finance state reporting

At the end of the day the finance responsible should present a daily signed report contains: how many article are successful sold,

What’s the totally amount,

What was the expected amount?

## Sales and marketing

### Tools and hardware sale

### Solide services sales

### Market research

### Reclamation management