

RFID Enterprise Asset Management

RFID solution expert

Shanghai Leanwo Technology Co., Ltd

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Company Profile

Shanghai Leanwo Technology Co., Ltd. (hereinafter referred to as: Leanwo)

Leanwo is a member of National High-tech Enterprise, and a member of Shanghai Intelligent Manufacturing Association.

Leanwo is committed to providing material information management systems and Internet of Things (RFID & 2D) related services.



Customer cooperation

We are serving the Fortune 500, enterprises and institutions, mold manufacturing, automobile manufacturing, aerospace manufacturing, luxury goods storage and other fields.

Customers: SIEMENS (Germany), ZF (Germany), Danfoss(Denmark), NTNU (Norway), VolksWagen(Germany), COMAC, CAS, Jiangsu Highway, Ningbo Hangkai Company, Hangzhou POP, Zhejiang ENTIVE, etc.

Fortune Global 500 and foreign companies



SIEMENS



Scientific research institutes and schools



Listed companies and industry leaders



Invisible champion and future stars



Government and public institutions



02

Project Overview



Novozymes is the world leader in biological solutions. Together with customers, partners and the global community, we improve industrial performance while preserving the planet's resources and helping to build better lives.

Customer pain points & needs

Easy to lose

Multiple employees use the same batch of assets, which is easy to lose in the transfer hands.

Many materials

There are many types and quantities of assets. Up to 100+ categories and 8000+ items

On-site monitoring

Some Assets must be stored at constant temperature and humidity, so it is necessary to monitor whether the materials are in place in real time

Statistics are slow

The speed of asset counting is slow, and there are too many human interference factors.

Novozymes has a large number of assets (laptop, PC, printer, scanner, office furniture, etc.) and various equipments.

The core pain point of the material management of Novozymes is: how to conduct fast and accurate batch data collection and behavior analysis of assets. In-position management especially needs to ensure real-time monitoring and notification.

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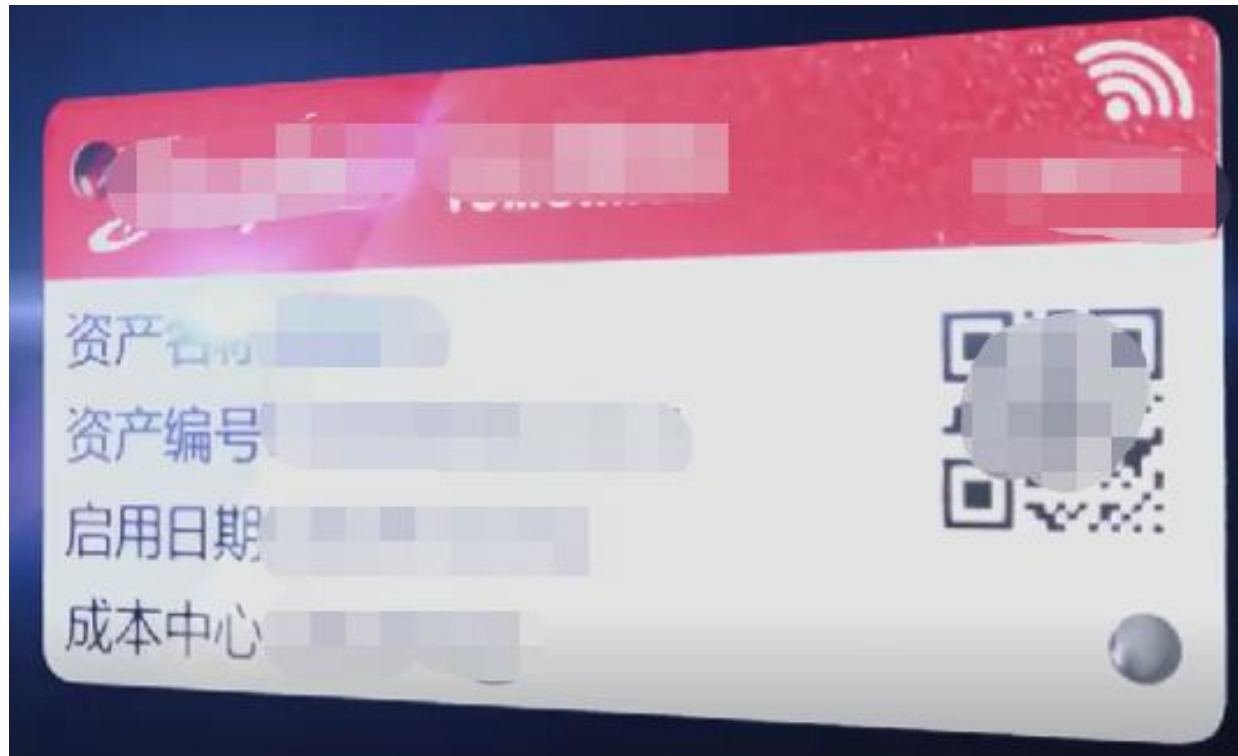
Solution & Realization

Solution & Realization

In order to solve the above-mentioned pain points, Novozymes can use Prodog® RFID digital full-cycle management software from Leanwo. The process is as follows:

3.1. Initialize and paste the RFID label

RFID tags are bound to each material and fixed asset, so that each material has a globally unique ID number, and tampering is not allowed.



After binding RFID tags to each asset, put it on the containers and store it normally. Distribute to employees.

If staff need to go out and use asset, he can use the toolbox to bring out batch and scanning at a short time. Due to the characteristics of RFID signals, you can get the data in the box without opening the box. The RFID material label contains electronic code (EPC), two-dimensional code and visual data to ensure multiple confirmation of data.



3.2. Quick and comprehensive inventory

Using RFID technology to achieve 50 times faster inventory

RFID material inventory of Prodog

[Click to
play video](#)

3.3. Full life cycle management of fixed assets

Leanwo Prodog supports digital management of assets throughout their full life cycle from purchase to retirement. Photos, attributes, usage records, repair records, maintenance records, collection and return records and usage records of each asset can be digitally recorded.

admin

< 返回

资产名称

Asset name

桌椅

规格型号

Model

李丽丽

条码

Barcode

2019090001

放置地点

Place

1002

使用人

User

Epc

EPC

100000000000000000000000000129

增加方式

直接购入

折旧方法

净残值

本月计提折旧额

本年累计折旧

供应商

有限公司

详细参数

所属公司

Company

上海联物

资产分类

Sort

办公产品

原值

Original value

789

领用人

Receiver

责任人

Liabile

王子楠1

数量

Quantity

1

所属部门

Dept.

开发部

资产编号

Asset No.

2019090001

开始使用日期

Date

2019-08-03 00:00:00

保管人

Custodian

王文贺1

打印次数

使用部门

使用年限(月)

664545

净残值率

月折旧率

累计减值准备金额

备注

出厂编号

记录胡

申购人

生命周期

当前位置

历史位置

资产归还

Asset return

时间: 2019-09-27 11:41:56

资产名称: 桌椅, 资产编号: 2019090001, 卡片编号: 2019090001 的资产在时间 2019-09-27 11:41:56.0 被 王照宽1 归还

资产维修

Asset maintenance

时间: 2019-09-27 11:41:14

资产名称: 桌椅, 资产编号: 2019090001, 卡片编号: 2019090001 的资产卡片在时间 2019-09-27 11:40:27.0 发生故障. 故障发生楼: -, 故障发生房间: -, 故障地点: 楼下, 故障发现人: admin, 是否在保修期内: 否, 维修协调人: -, 设备管理员: 王照宽1, 故障描述: 需要维修, 备注: -, 维修是否已完成: 否

资产领用

Receive assets

时间: 2019-09-27 11:40:17

资产名称: 桌椅, 资产编号: 2019090001, 卡片编号: 2019090001 的资产在时间 2019-09-27 11:40:17.0 被 王照宽1 领用

资产卡片报废

Asset discarding

时间: 2019-11-25 16:53:47

总公司固定资产于 2019-11-25 16:53:47对卡片所属单位: 宁波市公共交通集团有限公司, 卡片所属部门: 机务技术管理中心,卡片使用单位: 宁波市公共交通集团有限公司第一分公司, 卡片使用部门: 机务科,卡片名称: 空调中巴, 卡片编号: 00020325030, 资产编号: 00020325030, 规格型号: 合客HK6668G, 申请报废. 报废原因: 2018

资产报失

Report loss

时间: 2019-10-09 08:21:30

资产名称: 空调中巴, 资产编号: 00020325030, 卡片编号00020325030的资产在时间 2019-10-09 08:21:17.0 丢失. 报失时间: 2019-10-09 08:21:17.0, 报失人: -, 资产管理人: -

资产盘点

Asset inventory

时间: 2018-12-28 20:31:31

资产名称: 金龙客车, 资产编号: 00020450006, 卡片编号: 00020450006的资产卡片在时间 2018-12-28 20:39:27.337 被 总公司固定资产 在 永平公司 房间盘点到

3.4. Self-service registration of RFID material loan and return

Material users can use the Propass for self-service registration of material collection and return. Just click a button, you can record the time of occurrence, bill of materials, requisition/return, and on-site photos at the same time, simple and fast.

Application of Propass

Self-help collection and return of tools

[Click to play video](#)

3.5. RFID material and personnel behavior tracking

Leanwo Propass intelligent material data node automatically records the RFID tags of the materials carried by the personnel when they enter and exit the unit gate, and records the RFID tags attached to the personnel's employee card. At the same time, the camera can automatically capture several photos in and out of the scene.



The screenshot displays the Leanwo Propass system interface. The top section shows asset details for a "一字螺丝刀 (小)" (Small Flat-head Screwdriver). The details are organized into columns: Asset Name, Specification, Location, User, Epc, Increase Method, Depreciation Method, Net Residual Value, Monthly Depreciation, Annual Accumulated Depreciation, Supplier, Detailed Parameters, Company, Asset Classification, Original Value, Custodian, Responsibility, Quantity, Usage Status, Accumulated Depreciation, Unit Depreciation, Net Value, Manufacturer, Operating Procedure, SMQ, Non-specialized Equipment, Admin, Admin, 1, Department, Asset Number, Start Date, Custodian, Print Count, Department, Usage Period (Month), Net Residual Rate, Monthly Depreciation Rate, Accumulated Depreciation Reserve Amount, Remarks, Production Number, and Purchaser.

Below the details, there are tabs for "生命周期" (Life Cycle), "当前位置" (Current Location), and "历史位置" (History Location). The "历史位置" tab is selected, showing a table with columns for "序号" (Serial Number), "时间" (Time), and "地点" (Location). The table contains two entries: 1. 2020-01-07 10:31:13, 上海联物; 2. 2019-12-26 21:13:10, 上海联物. Each entry has a "图片" (Image) button next to it.

A red arrow points to the "图片" button for the second entry, with the text "Click 'image' button". Below the table, there is a section titled "历史图片" (History Image) showing a grid of images. A red arrow points to one of the images, with the text "Click to view the larger picture". The larger image shows a person's face and a camera timestamp: "01-10-1970 星期六 13:57:00". The bottom right corner of the image shows "Camera 01".

Application of Propass

Automatic tracking of material

[Click to
play video](#)

3.6. RFID material in-place monitoring and push alarm with WeChat

Leanwo Prohad intelligent material in-place monitoring equipment automatically obtains the in-position status of various metered materials in drying cabinets, constant temperature and humidity cabinets, etc., and instantly summarizes them into Prodog.

Application of Prodog Material in place

[Click to
play video](#)

04

Why UHF RFID?

The development of article labeling is a process of gradual progress of technology and gradual automation of use.

According to the time sequence, it has gone through several stages: direct marking, bar code marking, QR code marking and RFID marking. The comparison of main features is shown in the figure below:



Lettering marking



Bar code marking



QR code marking



RFID marking

Why UHF RFID?

No.	Feature	UHF RFID	Bar/QR code
1	Reusable	Yes	No
2	Recognition speed	>100pcs/s	<2pcs/s
3	Distance	>3m	<50cm
4	The label is visible to the naked eye	No (Radio)	Yes
5	Information Encryption	Yes	No
6	Firmness	Not easily damaged	Easily damaged
7	Reading mode	Readable in motion	Inactive reading
8	Multi-label Read	Read multiple at once	Read one by one
9	Anti-forgery	Only one in the world	Copy freely
10	Price	Slightly expensive	Cheap

Estimate by managing 10,000 fixed assets, the cost as follow:

Name	Band	Distance	Features
Low frequency	125KHz133KHz	<0.5m	Passive, not group reading, poor security, good penetration, close distance, slow communication speed, low price.
High frequency	13.56MHz	<0.5m	Passive, group-readable (general performance), high security, good penetration, close distance, slow communication speed, low price.
Active UHF	433MHz	50~100m	Active, group-readable, distance, high price, not conducive to daily maintenance, high price.
UHF	915MHz	2~10m	Passive, group-readable, good security, penetration in general, moderate distance, cheap, in accordance with international standards (EPC Global C1G2), low price.
Microwave	2.45GHz	50m	Active, far distance, poor penetration, high price.

Estimate by managing 10,000 fixed assets, the cost as follow:

No.	Content	UHF RFID Cost	QR Code Cost
1	Label	100, 000. 00	10, 000. 00
2	Collector	10, 000. 00	8, 000. 00
3	Counting Time/Year	10 person days	60 person days
4	Counting Manpower Cost/Year	20, 000. 00	120, 000. 00
5	Daily Operation Time/year	20 person days	100 person days
6	Daily Operation Manpower Cost/Year	40, 000. 00	200, 000. 00
7	Total Cost/Year	170, 000. 00	338, 000. 00
0	More		Easily Full Life Cycle Recording

05

Why Leanwo?

Why Leanwo?



Leanwo attach great importance to R & D and continue to innovate. Authorized intellectual property and software testing: 42 items. Software test report: 1 item. Passed ISO9001 quality management system certification.



Why Leanwo?

Leanwo's continuous innovation has won many honors as follow:



Shanghai Jing'an
District Kechuang
Star Enterprise



National bronze award of
entrepreneurship competition



Impinj Si partner



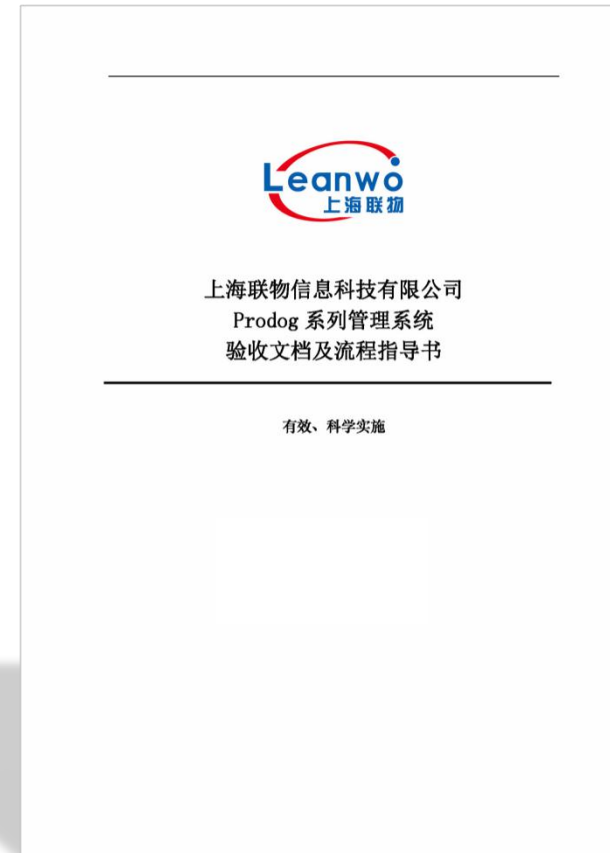
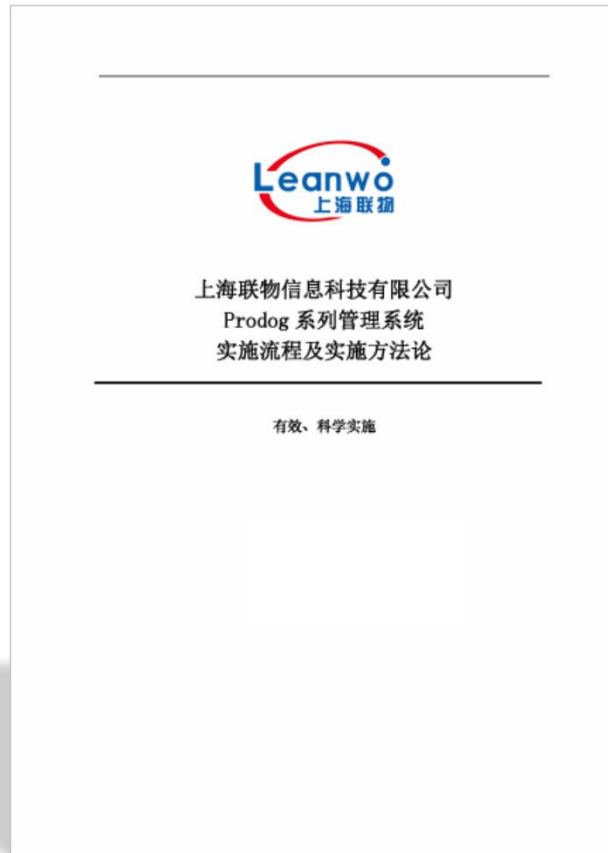
National high tech
enterprise

Why Leanwo?



Perfect and reasonable project implementation methodology.

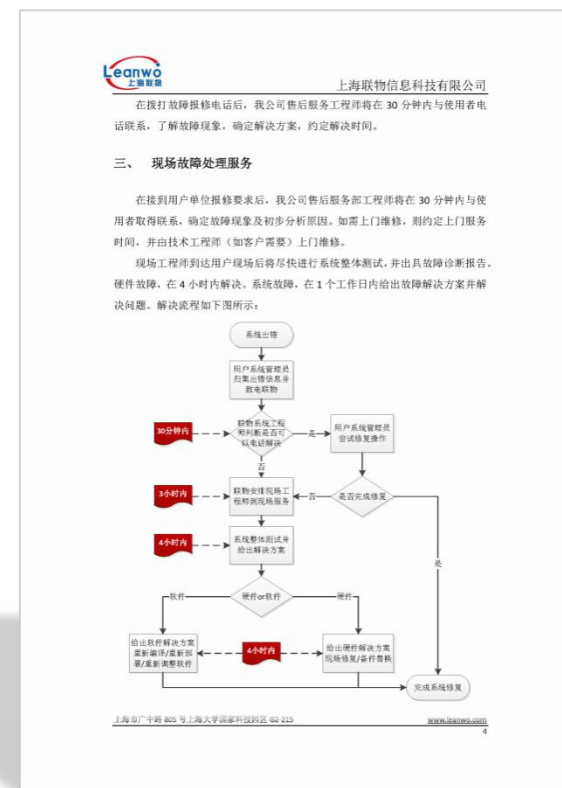
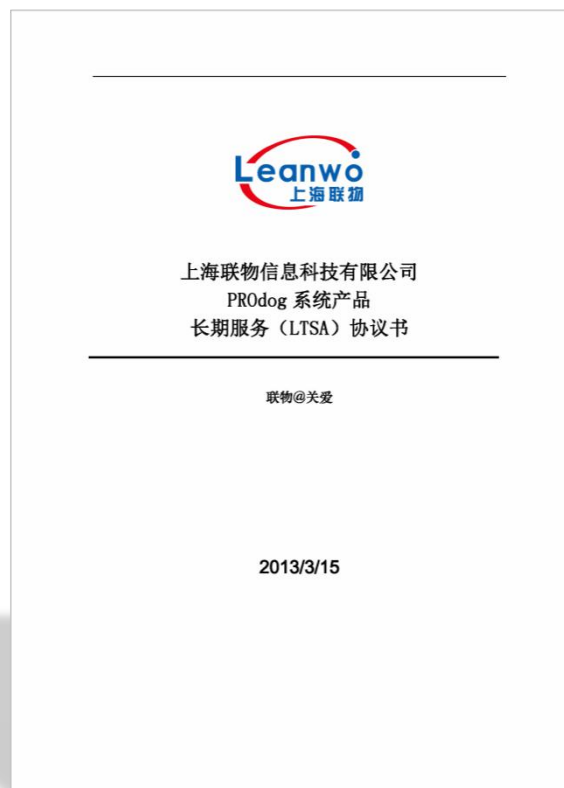
For the implementation of the management system project, Leanwo has formulated a strict project implementation methodology to ensure the reasonable and orderly implementation of the project.



Why Leanwo?

For the after-sales maintenance of the project, Leanwo made the after-sales commitment of long term cooperation agreement LTSA to the customer, and attached the agreement when the contract was signed. Fully protect every investment of customers and improve customer satisfaction.

The service timeliness of Leanwo can be achieved: 24-hour telephone hotline, 60 minute telephone response, 72-hour on-site service and solving all problems within 5 working day.



Thank you!