

mDSD with CRM Activities, Two Processes in One Application



Applies to:

SAP CRM 2007, SAP ECC 6.0 and SAP mDSD 3.0. For more information, visit the [Mobile homepage](#).

Summary

This document will show how the application mDSD was enhanced to support CRM activities. SAP mDSD is a mobile application that allows having the pre-sales and delivery process in consumer products industry. This document will show some mDSD screenshots with the new functionality but it will not show the customizing inside the system to have that behavior.

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Author Bio



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Introduction

Currently there are some SAP mobile applications that help companies to develop its business. Those SAP mobile applications are addressed to cover some specific tasks in a business process inside the company.

Two of those SAP Mobile applications are SAP Mobile DSD (Direct Store Delivery) and SAP Mobile CRM (Customer Relationship Management).

SAP has made an enhancement to allow to companies to use MDSM for its sales operation and take advantage of the sales visit to have some additional activities. To do that, SAP has developed integration between DSD, MDSM and CRM applications.

This Document will show part of the “Presales Tour processing” process in the Handheld with MDSM application and the improvement made to have CRM activities in system.

Background

Direct Store Delivery (DSD) is a business process that is used in the consumer products industry to distribute goods directly to the end customer. In the Direct Store Delivery process, goods are not distributed via a retail company's warehouse/distribution centers.

SAP Mobile Direct Store Delivery (MDSM) is an optional component in the Direct Store Delivery scenario. A company can use this optional application on mobile devices so its field sales employees do not have to document all the data from their tours¹ on paper. When the sales employees return from a tour, they can upload the data they entered on the mobile device to the backend of the DSD application (Direct Store Delivery (Backend)). The data can then be processed.²

Features of MDSM (Mobile Direct Store Delivery)

MDSM supports sales representatives with the following tasks:

- Processing a tour of customer visits
- Tracking vehicle, merchandise and cash inventory

Other tasks depend on their respective roles.

The Route Accounting functionality allows sales representatives to do the following:

- Checking materials out of the warehouse
- Making deliveries
- Checking in returned materials and collected payments upon return to the warehouse
- Balancing and settling materials and payments

Sales representatives can log all tour-related activities using mobile devices. During a tour, they typically do the following:

- View a list of all visits and performs the activities that are necessary for each visit, that is sales, delivery, invoice issuing and cash collection
- Rearrange the order of the visits and create new unplanned visits, if necessary
- Update the customer's status with a reason code indicating why a visit could not be performed
- Adjust quantities during the actual delivery process, if necessary
- Collect returns
- Issue invoices
- Collect payments and issues payment receipts

¹ Route of the pre seller or brand-developer

² <http://help.sap.com>

All activities that need to happen in a Direct Store Delivery process that includes mobile devices are:

1. Data download
2. Check-out
3. Tour processing
4. Check-in
5. End-of-day
6. Data upload

The most important topic here is that the activities to perform by the user in MDSD are only sales activities like sales order creation, delivery, and invoice issuing and cash collection.

In the other hand, SAP Customer Relationship Management (SAP CRM) is a comprehensive solution for managing your customer relationships. It supports all customer-focused business areas, from marketing to sales and service, as well as customer interaction channels, such as the interaction center, the Internet, and mobile clients.

For some companies is necessary additional to have DSD sales activities, to have CRM Activities, for example surveys, contacts activities or service order requests. For this, was necessary to have both systems (MDSD and MCRM) in two Handhelds. Based on the requirement of the customers SAP has developed some CRM functionality in MDSD.

Presales Tour Processing

After login in the MDSD Application, the user can fill the field "Mileage" ("Kilometraje") to save the data of the status of the truck. With this information, the company could have some reports about how many kilometers spend each user to do his job.

After fill that field, the user clicks on ok button.

After login in the MDSD Application, the user can fill the field "Mileage" ("*Kilometraje*") to save the data of the status of the truck. With this information, the company could have some reports about how many kilometers spend each user to do his job.

After fill that field, the user clicks on ok button.

Acción	Aplicación	Opciones	?
Vehículo	x	PEMOBILE	
Kilometraje	x	0	
Código RV	x	0006000472	
Nombre RV		VENDEDOR PREVENTAS DSD	
ID externo		PE	
Acompañante			
Remolque			
Transportista			

Cancelar visitas Sincronizar OK- Info ruta

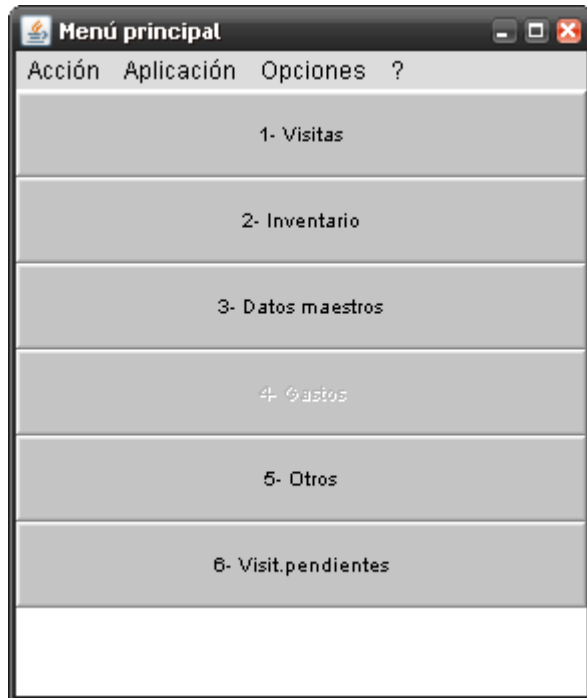
The applications shows some basic information of the tour and the user could start to process the tour doing click on Ok button.

Acción	Aplicación	Opciones	?
Ruta		PEB004	
ID ruta		V1000002038	
Status		Check-Out concluido	
Fe.real		lun,3/05/10 -	
Hora		16:29 - 0:00	
Fecha planif.		mar,4/05/10 -	
Hora planif.		0:00 - 0:00	
Distancia		0	

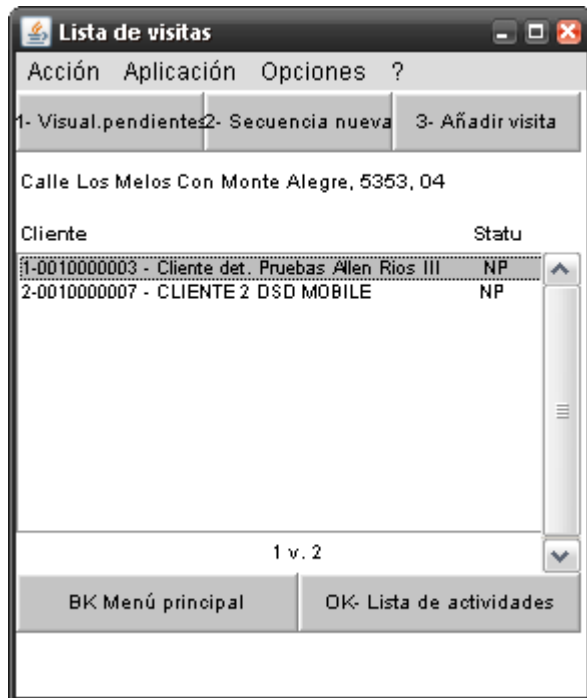
Inicio día Nota para ruta OK- Menú pral.

Validar sello

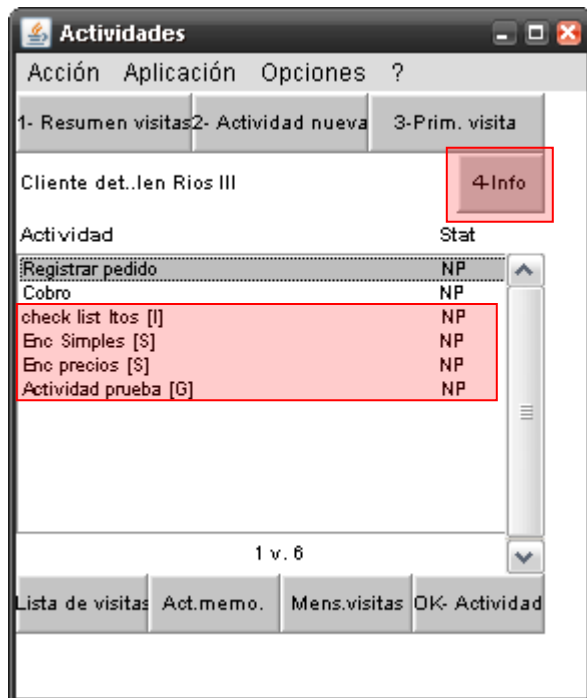
The main menu shows some standard MDSD functionalities. The first one is the button to see all business partners to visit in the tour.



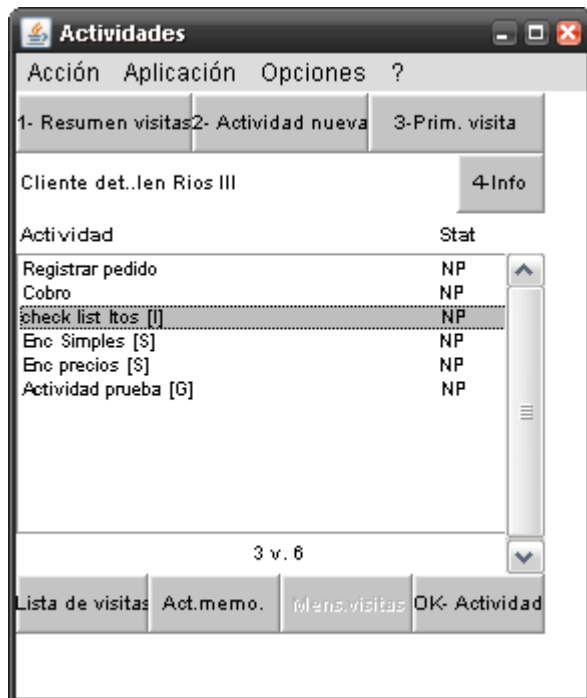
After click on the first button "1- Visits" ("1- Visitas"), the user can see all visits to be done in the tour. Selecting one of them and click on ok button, then the user can see the activities of the visit.



At this point, we can see two develops made in MDSD application, a new button “4-Info” where the user can see information about the customer and his Installed base (We will see that information more in detail below in this document) and also we can see two DSD activities and four CRM activities assigned to this customer in the visit. We will focus this document in the CRM activities.



To execute an activity, the user has to select the activity and click on Ok button. For example, here the user has selected the activity Check list ltos. With a Check list ltos activity, a pre-seller or a brand developer in the company qualifies his management by his self through a survey with YES/NO/NA answers.



In this kind of activity the user will see the status of the activity, the reason (if the activity has reason) and all sections in the survey to qualify the management.

This survey is created previously in the survey suit in CRM. To answer the survey, the user has to select each section and click on ok button.

The screenshot shows a window titled "Resumen ITOS" with a menu bar containing "Acción", "Aplicación", and "Opciones?". The main content area displays the following information:

- Cliente det. Pruebas Allen Rios III
- Estatus: Abierto (with a dropdown arrow and a "Cambiar" button)
- Motivo: (empty dropdown)
- Fecha inicio/fin: 30/07/10 - 30/07/10
- Resultado de ITOS
- Driver: (empty field)
- Resultado: (empty field)
- A list of sections: 1. Calidad, 2. Disponibilidad, 3. Precios, 4. Visibilidad.
- Page indicator: 1 v. 4
- Buttons: Atrás, Seguimiento, OK-Modificar

One of the most important parts of the development build in MDSD is the execution of the survey. In this window, the user can select the answer of the questions and save it by doing click on "Save" ("Grabar") button.

The first screenshot shows the "Encuesta ZIP2_1A1" window with a menu bar containing "Acción", "Aplicación", and "Opciones?". The main content area displays the following information:

- 1. Calidad 1/4
- A table with columns "Si", "No", and "NA":

	Si	No	NA
01.01.01 Vencimiento	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
01.01.02 Condición	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
- Buttons: Atrás, Grabar

The second screenshot shows the same window with a modal dialog box titled "Encuesta ZIP2_1A1" displayed over it. The dialog box contains the text "Resultados grabados" and an "OK" button. The "Grabar" button in the background window is highlighted in blue.

The mark "X" shows when a section is already answered.

The screenshot shows the 'Resumen ITOS' window for 'Cliente det. Pruebas Allen Rios III'. The status is 'Abierto' and the dates are '30/07/10 - 30/07/10'. The 'Resultado de ITOS' table has one row answered.

Driver	Resultado
1. Calidad	X
2. Disponibilidad	
3. Precios	
4. Visibilidad	

The table shows 1 of 4 rows answered. Buttons at the bottom include 'Atrás', 'Seguimiento', and 'OK-Modificar'.

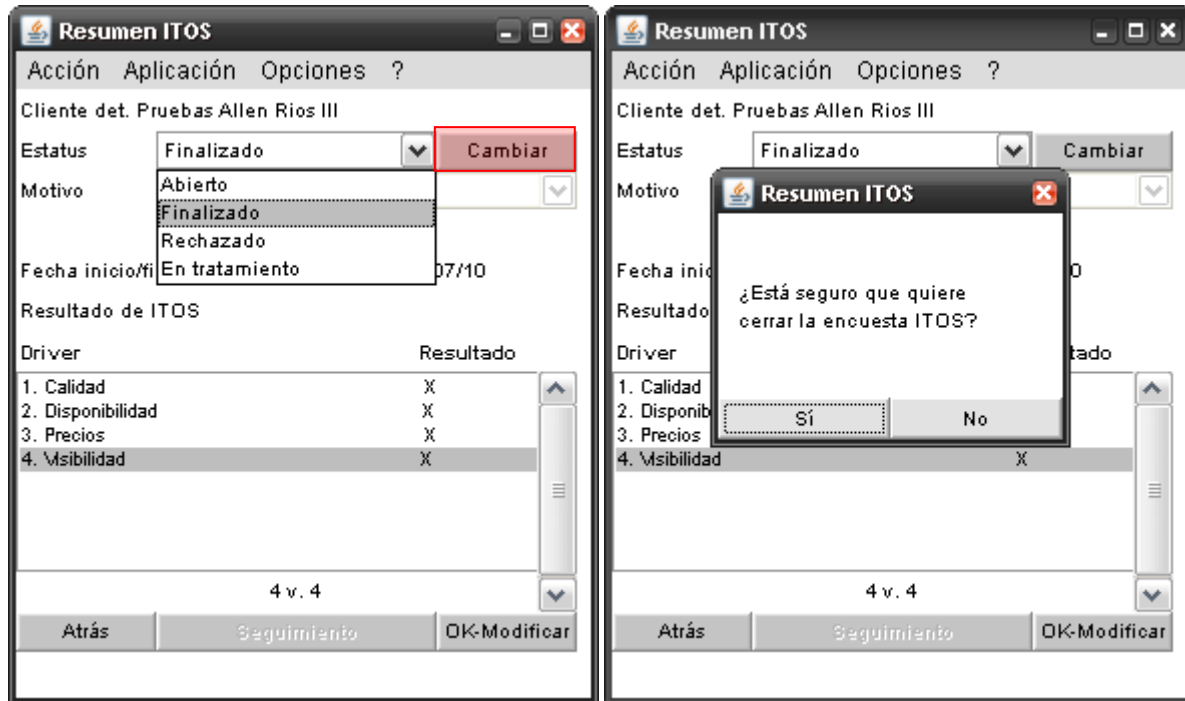
The user has to answer all sections to have the qualification.

The screenshot shows the 'Resumen ITOS' window for 'Cliente det. Pruebas Allen Rios III'. The status is 'Abierto' and the dates are '30/07/10 - 30/07/10'. The 'Resultado de ITOS' table shows all four sections answered.

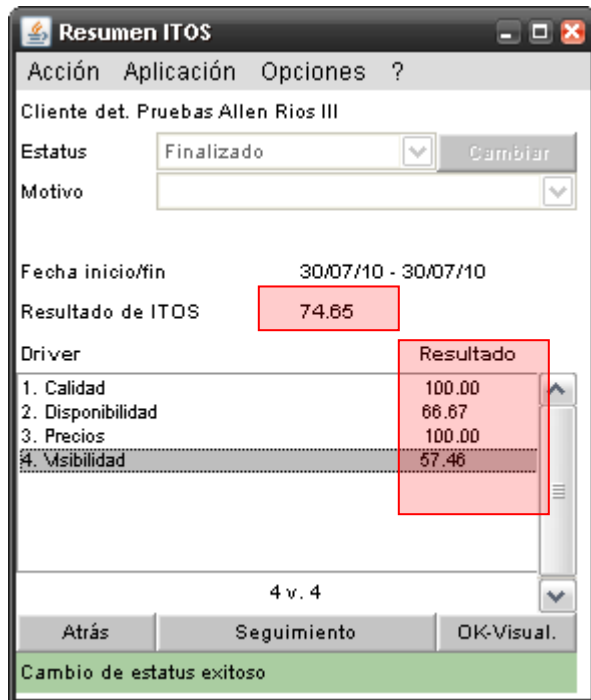
Driver	Resultado
1. Calidad	X
2. Disponibilidad	X
3. Precios	X
4. Visibilidad	X

The table shows 4 of 4 rows answered. Buttons at the bottom include 'Atrás', 'Seguimiento', and 'OK-Modificar'.

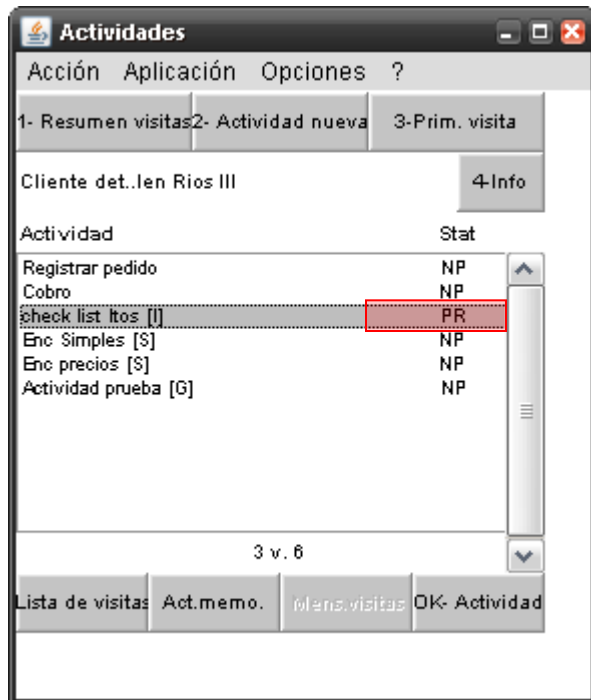
Once the user answered all sections, the user has to change the status of the activity selecting the new status and doing click on “change” (“*cambiar*”) button.



When the activity is changed to the status “concluded” (“*finalizado*”), the system shows the qualification. Each question and each section has a scale; with that scale the system obtain the final score

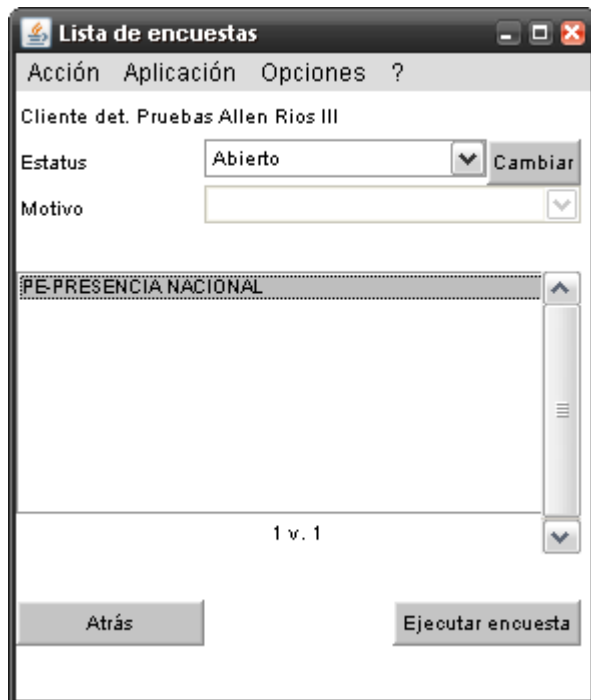


When an activity is completed, the status in the list of activities changes to PR (Processed).



Another kind of activities is simple surveys and price surveys. This kind of activities doesn't have qualification and is used for marketing proposals.

In the list, the user can see the surveys linked to the activity.



In Handheld (HH) only, a sub set of possible answers are developed in surveys. The user could create in CRM surveys with the answer to be used in HH:

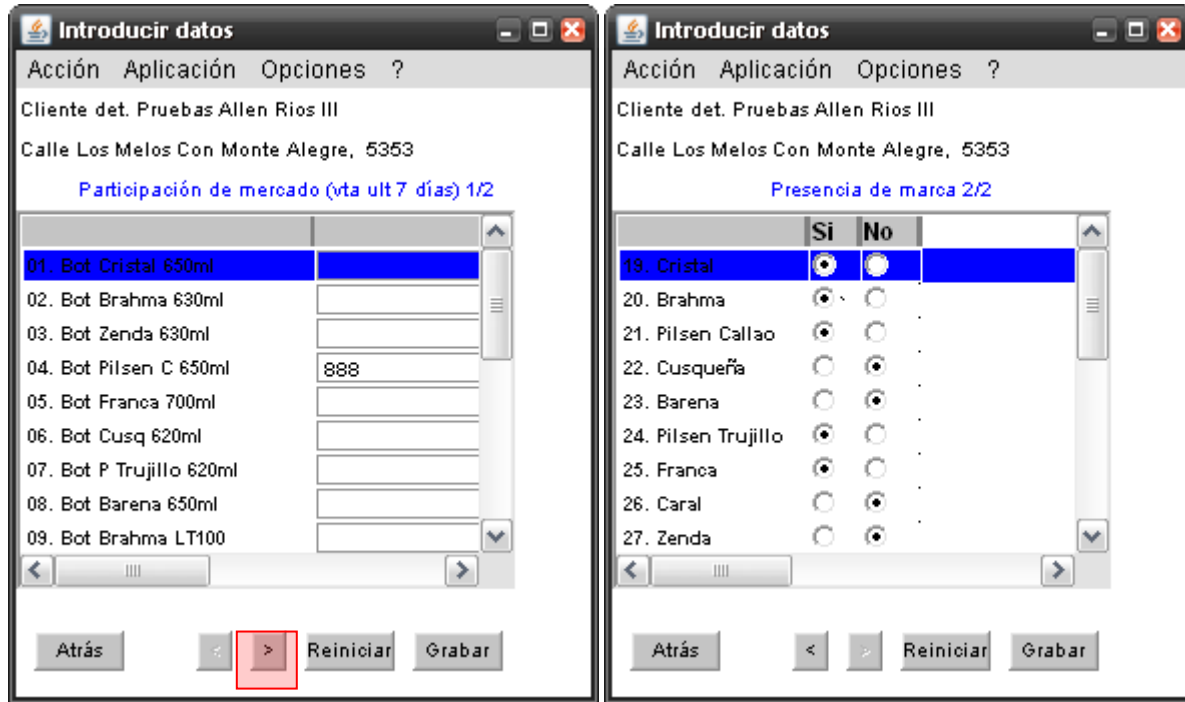
- Free-text questions
- Limited length text questions
- Radio buttons/Radio button groups
- Checkboxes
- Single choice questions (select one from a predefined list)
- Multiple choice questions (select zero or more from a predefined list)
- Numeric questions
- Date/Time questions

The screenshot shows a handheld application window titled "Introducir datos". The window has a header bar with "Acción Aplicación Opciones ?". Below the header, the text "Cliente det. Pruebas Allen Rios III" and "Calle Los Melos Con Monte Alegre, 5353" is displayed. A blue link "Participación de mercado (vta ult 7 días) 1/2" is visible. The main content area is a list of 9 items, each with a text label and an input field:

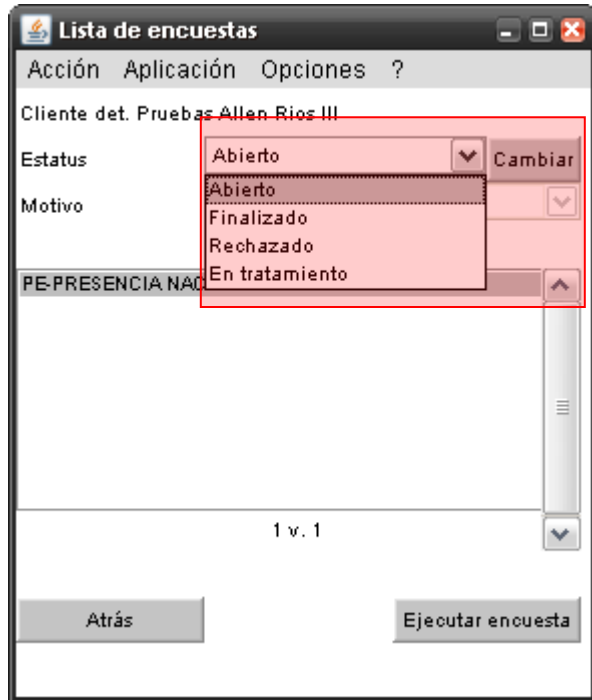
Item ID	Item Name	Input Field
01.	Bot Cristal 650ml	<input type="text"/>
02.	Bot Brahma 630ml	<input type="text"/>
03.	Bot Zenda 630ml	<input type="text"/>
04.	Bot Pilsen C 650ml	<input type="text"/>
05.	Bot Franca 700ml	<input type="text"/>
06.	Bot Cusq 620ml	<input type="text"/>
07.	Bot P Trujillo 620ml	<input type="text"/>
08.	Bot Barena 650ml	<input type="text"/>
09.	Bot Brahma LT100	<input type="text"/>

At the bottom of the window, there are five buttons: "Atrás", "<", ">", "Reiniciar", and "Grabar".

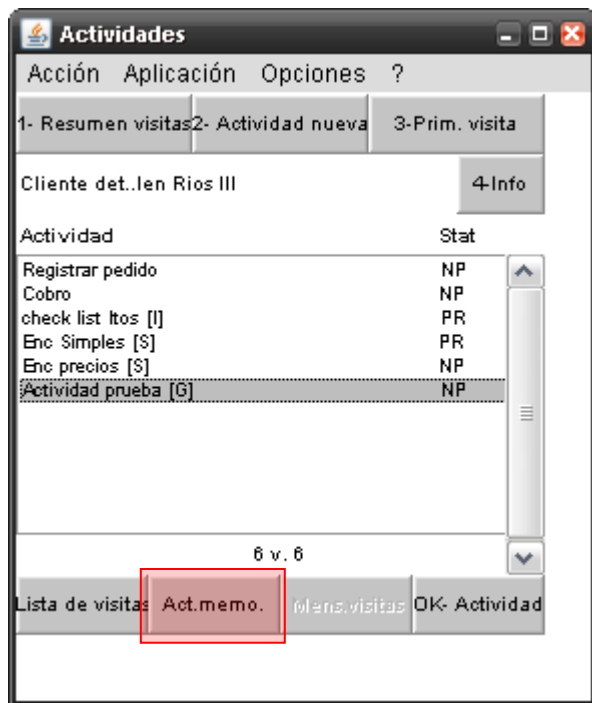
The user could change the section of a simple survey by doing click on the arrow button.



At the end, the status activity has to be changed.



The other type of activity is used to send information to the user regarding a customer. To see the text, the user has to do click on Act.memo button.



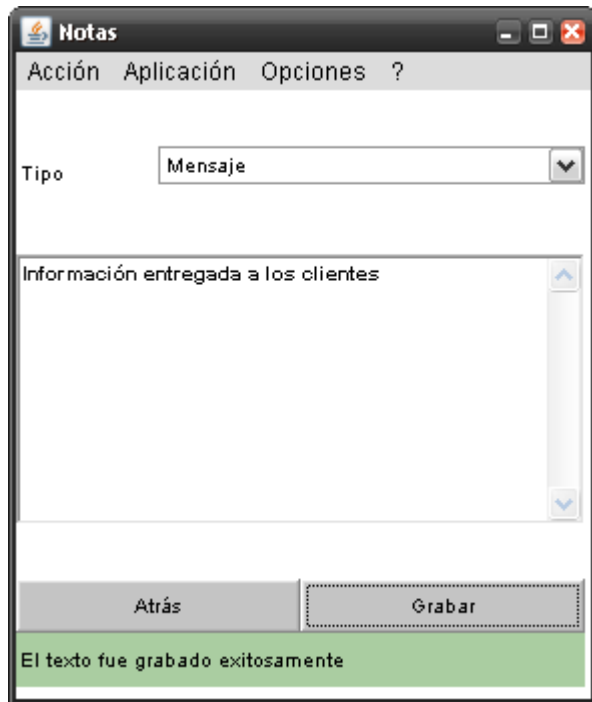
With this type of activity, the user can see important information in the text field.



Several types of text can be showed; those types of text are customized in CRM.



The user could add new texts in order to send information to CRM.



Notas

Acción Aplicación Opciones ?

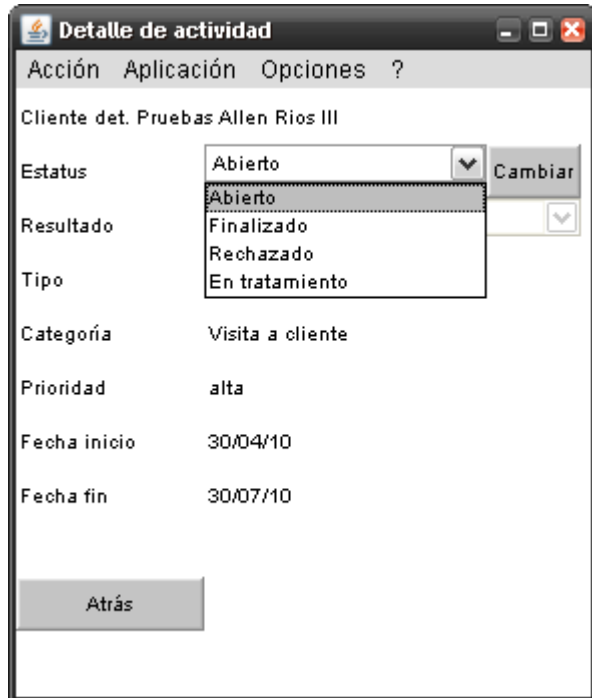
Tipo Mensaje

Información entregada a los clientes

Atrás Grabar

El texto fue grabado exitosamente

At the end, the status activity has to be changed.



Detalle de actividad

Acción Aplicación Opciones ?

Cliente det. Pruebas Allen Rios III

Estatus Abierto Cambiar

Resultado Finalizado

Tipo Rechazado

En tratamiento

Categoría Visita a cliente

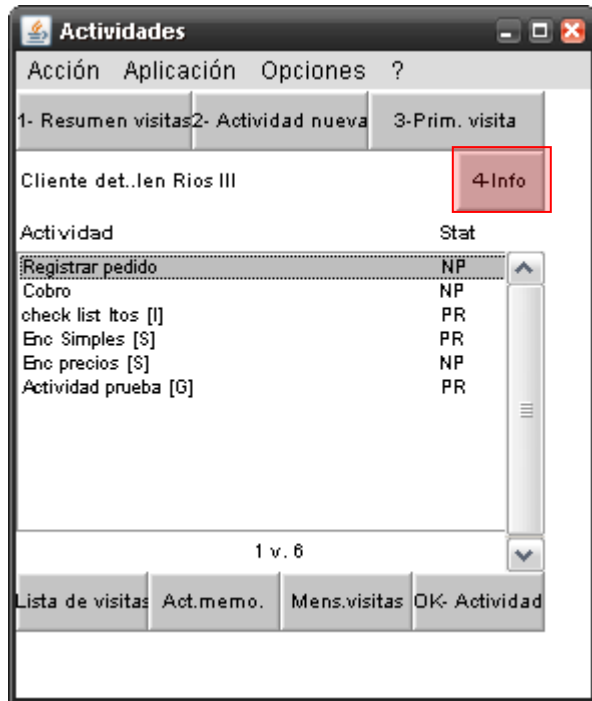
Prioridad alta

Fecha inicio 30/04/10

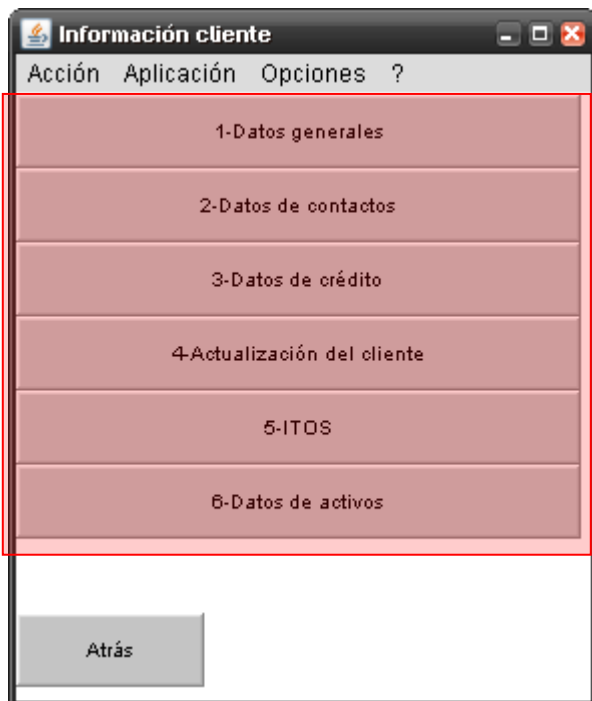
Fecha fin 30/07/10

Atrás

Additional to those activities, MDSD has been developed to have additional information, installed base and service orders to that installed base.



A menu to display the information and the installed base is showed.



The first button shows general data of the customer

The screenshot shows a window titled "Datos generales del cliente" with a menu bar containing "Acción", "Aplicación", "Opciones", and "?". The main area displays the following customer data:

No. cliente	0010000003
Razón social	Cliente det. Pruebas Allen Rios III Allen
Razón comercial	
Grupo de clientes	U6 PE GER NO TUMB S01
Calle	Calle Los Melos Con Monte Alegre
Código postal	7878
Ciudad	5353
Tel.	
Distrito	LOS PALOS GRANDES CARACAS
Región	Arequipa
Localidad	CO Central Pblciones
Clase	Tienda
Subcanal	PE ON SOC Bar Rx TrN
Clasificación MEDA	BajaPrioridad-MayCo
No. NIF	10257449365
Tipo NIF	RUC
Volumen	Bronce

At the bottom of the window, there are two buttons: "Atrás" and "Actualización".

The user could create and update data request by doing click on "update" ("actualización") button. The system will create a new activity (change customer data request) with a survey to be filled by the user. When the HH is synchronized, a new activity in CRM will be created.

The screenshot shows a window titled "Actualizac dat cte" with a menu bar containing "Acción", "Aplicación", "Opciones", and "?". The main area displays the following information:

Cliente det. Pruebas Allen Rios III
Calle Los Melos Con Monte Alegre, 5353

Below this, there is a list of input fields:

01. Calle
02. Distrito
03. Teléfono
04. Anexo
05. Subcanal

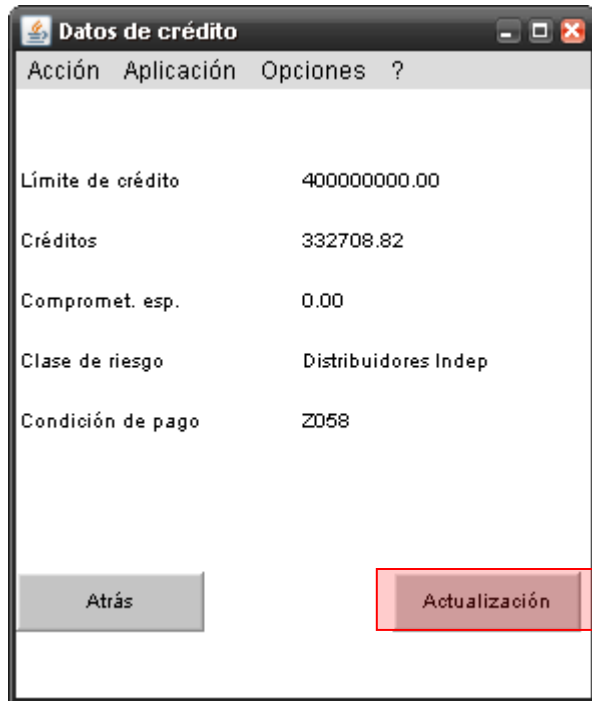
At the bottom of the window, there are three buttons: "Atrás", "Reiniciar", and "Grabar".

The second button in the menu shows the list of the contact person of the customer.

The user could create a request to add a contact person or modify the data by doing click on “update” (“*actualización*”) button.

The system will create a new activity (change contact person data request) with a survey to be filled by the user.

The third button in the menu, shows the credit data of the customer, like in the other case, the user could create a change data request by doing click on “update” (“*actualización*”) button.

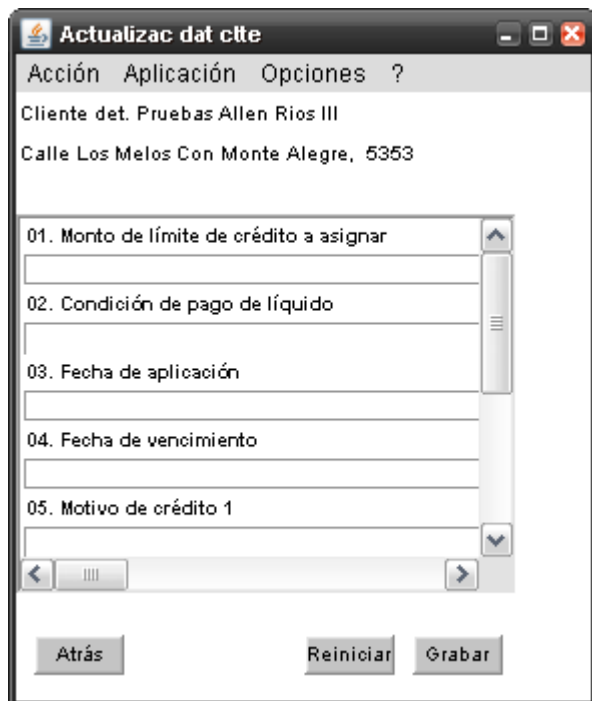


The screenshot shows a window titled "Datos de crédito" with a menu bar containing "Acción", "Aplicación", "Opciones", and "?". The main area displays the following data:

Límite de crédito	400000000.00
Créditos	332708.82
Compromet. esp.	0.00
Clase de riesgo	Distribuidores Indep
Condición de pago	Z058

At the bottom, there are two buttons: "Atrás" and "Actualización". The "Actualización" button is highlighted with a red border.

The system will create a new activity (change credit data request) with a survey to be filled by the user.



The screenshot shows a window titled "Actualizac dat chte" with a menu bar containing "Acción", "Aplicación", "Opciones", and "?". The main area displays the following information:

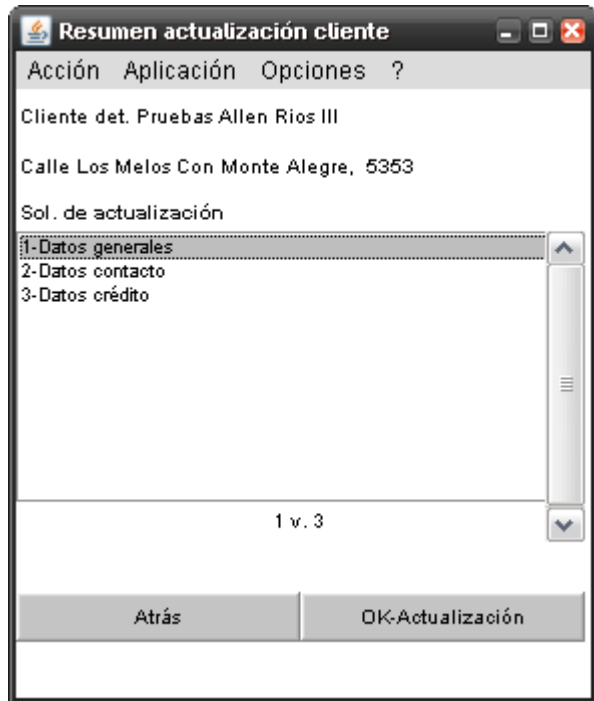
Ciente det. Pruebas Allen Rios III
Calle Los Melos Con Monte Alegre, 5353

The survey form consists of five items:

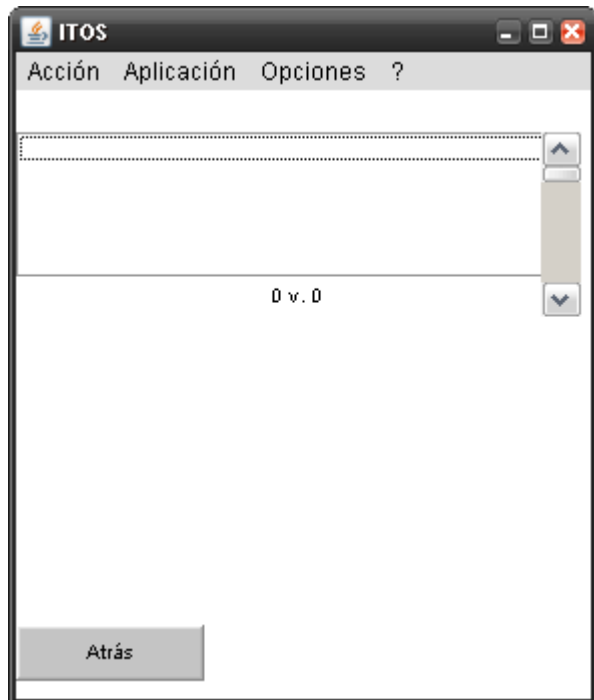
01. Monto de límite de crédito a asignar
02. Condición de pago de líquido
03. Fecha de aplicación
04. Fecha de vencimiento
05. Motivo de crédito 1

At the bottom, there are three buttons: "Atrás", "Reiniciar", and "Grabar".

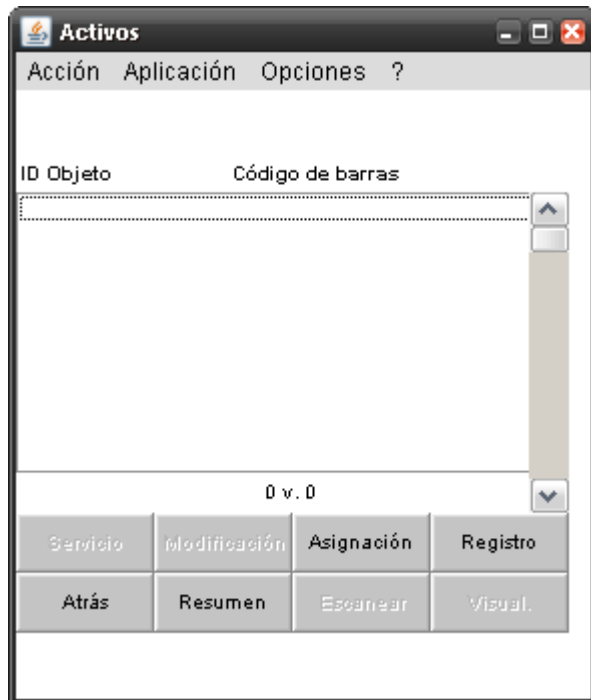
With the fourth button in the menu, the user can see all requests created in the visit. The user could modify a request by selecting it in the list and doing click on OK.



The fifth button in the menu shows the list of the Itos qualification done before by a manager or supervisor to the customer.

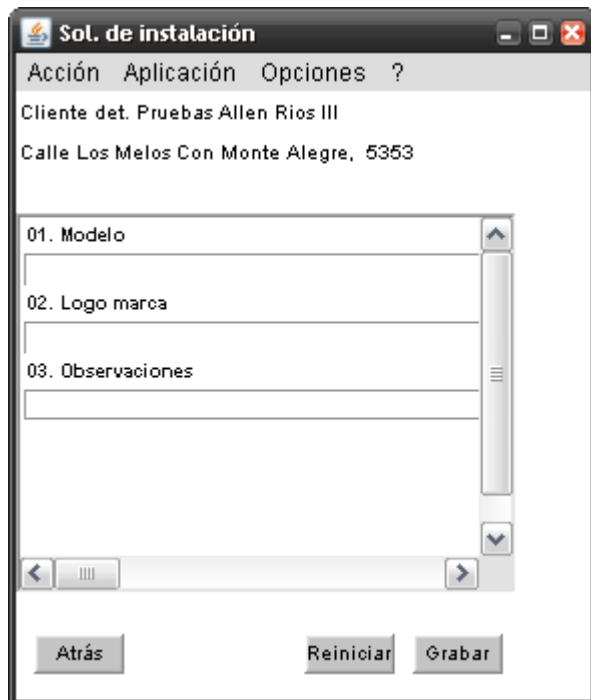


The last button in the menu, shows the list of the coolers (installed base) linked to the customer.



The user could create fourth service order request: service request, modification request, assigning request or record request. These requests are created in CRM like service order when the HH is synchronized.

The following is an example of an installation request.



The next is an example of a record request.

Solicitud de registro

Acción Aplicación Opciones ?

Cliente det. Pruebas Allen Rios III
Calle Los Melos Con Monte Alegre, 5353

01. Código de barras

02. Modelo

03. Logo marca

04. Observaciones

Atrás Reiniciar Grabar

Finally, the user can create a sales order (standard functionality) based on a suggested order.

Actividades

Acción Aplicación Opciones ?

1- Resumen visitas 2- Actividad nueva 3- Prim. visita

Cliente det. Ien Rios III 4-Info

Actividad	Stat
Registrar pedido	NP
Cobro	NP
check list Itos [I]	PR
Enc Simples [S]	PR
Enc precios [S]	NP
Actividad prueba [G]	PR

1 v. 6

Lista de visitas Act.memo. Mens.visitas OK- Actividad

Pedido

Acción Aplicación Opciones ?

Añadir pos. 3520 Añadir Actualizar

AGUA CRISTALINA PET S/G 65 Pago 7 días neto sii

2 3/devol CAJ

Material	Activ	De	Ctd.	UM	Moti
CS SG..15PX1			2	CAJ	
VBARENA 33			5	CAJ	
AB 620 RT CP			2	CAJ	

1 v. 3

Añad.envase Vista previa Promoc.ventas Descuento

BK: Activo Menú pedidos Envases OK Conf.

After the confirmation of the order, the system will do the credit verification (standard functionality).

The screenshot shows a window titled "Verif.crédito" with a menu bar containing "Acción", "Aplicación", and "Opciones ?". The main area displays a list of credit-related items and their values:

Límite de crédito	400.000.000
Comprometidos especiales	0
Facturas de hoy	0
Crédito global	332.708,82
Órdenes confirmadas de hoy	0
Cobros de hoy	0
Crédito disponible	399.667.291,18
Transacción actual	60.399

At the bottom, there are two buttons: "Atrás" and "OK". A yellow banner at the very bottom contains the text: "ATENCIÓN: Cite.tiene part.vencidas".

And the user could print the sales order in the Sales point.

The screenshot shows a window titled "Confirmación pedido" with a menu bar containing "Acción", "Aplicación", and "Opciones ?". The main area displays the following information:

Previsión (minimizada):
 U.C.P. BACKUS Y JOHNSTON S.A.A
 AV. NICOLAS AYLLON 3986 LIMA

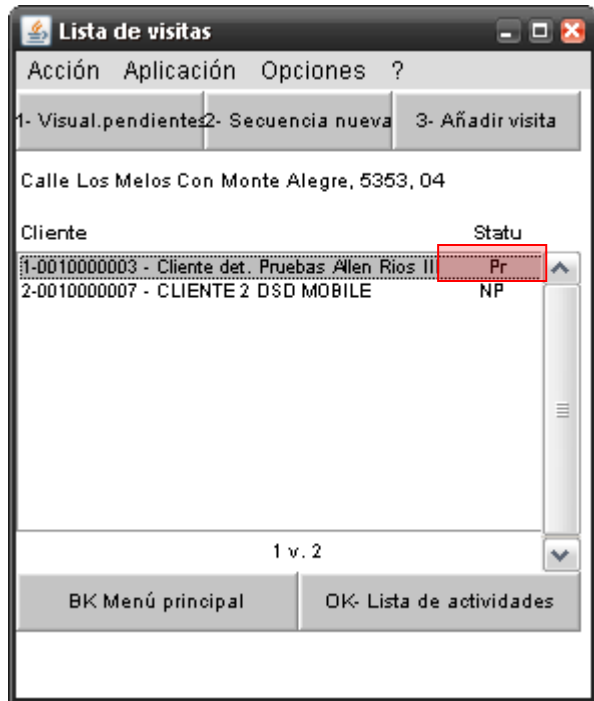
Nombre Cliente: Cliente det. Pruebas Allen F
 Dirección: Calle Los Melos Con Monte Alegre

RUC./DNI: 10257449365
 Vendedor: VENDEDOR PREVENTAS DSD
 Forma de Pago: Pago 7 días neto sin Descuer

Below this information is a table with columns: Código, Descripción, Cant, UOM, and Prec. The table is currently empty, with navigation arrows on either side.

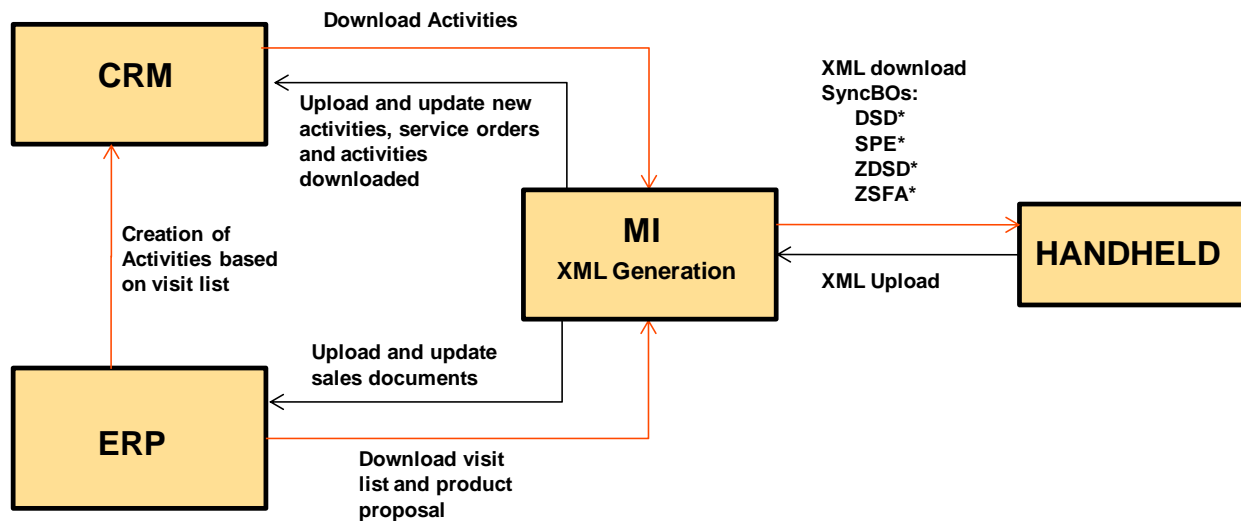
At the bottom, there are three buttons: "Atrás", "1-En impres.", and "2-En fich.". Below the buttons, the text "Ning.impresora disponible" is displayed.

When the user has done the CRM activities and has created the sales order to the customer, the visit status change to Pr (Processed).



System Architecture

The 3-tier solution consist of a SAP ERP backend/SAP CRM backend, a SAP Netweaver middleware and a mobile device on which SAP xApp mDSD solution is running as front end. The backend systems are communicated via qRFC with the middleware and latter using http(s) with the front end.



The first step when the user wants to synchronize the Handheld is to create CRM activities based on the visit list that is synchronizing. Then the Middleware (MI) takes the sales data from DSD and the activity data from CRM afterwards the last step in download data is the XML generation and sends it to Handheld through SyncBOs (synchronizer business objects).

Similar to download, after field operation (sales order creation, survey execution, service order creation, etc.), the data is transferred to MI in XML format and then is uploaded to CRM and ERP systems to continue with the backend process.

Conclusion

In conclusion, some functionality of the MCRM has been included in MDSD application to fulfill the customer requirements. That new functionality allows having activities execution including surveys execution and service orders creation within MDSD. When the Handheld is synchronized, the sales data is transferred to DSD but the activity and service data is transferred to CRM.

Related Content

help.sap.com

For more information, visit the [Mobile homepage](#).

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