




INVERS GmbH  
Bismarckstr. 22  
D-57076 Siegen

Tel: +49 271 48972-0  
Fax: +49 271 48972-29

[info@invers.com](mailto:info@invers.com)

Start english  
presentation

A grey play button icon is positioned over the text 'Start english presentation'.

## GENERAL INSTRUCTIONS

Parts of this animation are automatically presented.

If the presentation stops at a breackpoint, please press any key to continue.

If you want to go back, please use the Page-Up-Key on your keyboard.

... press now any key to continue!

# Professional CarSharing requires...

# COCOS

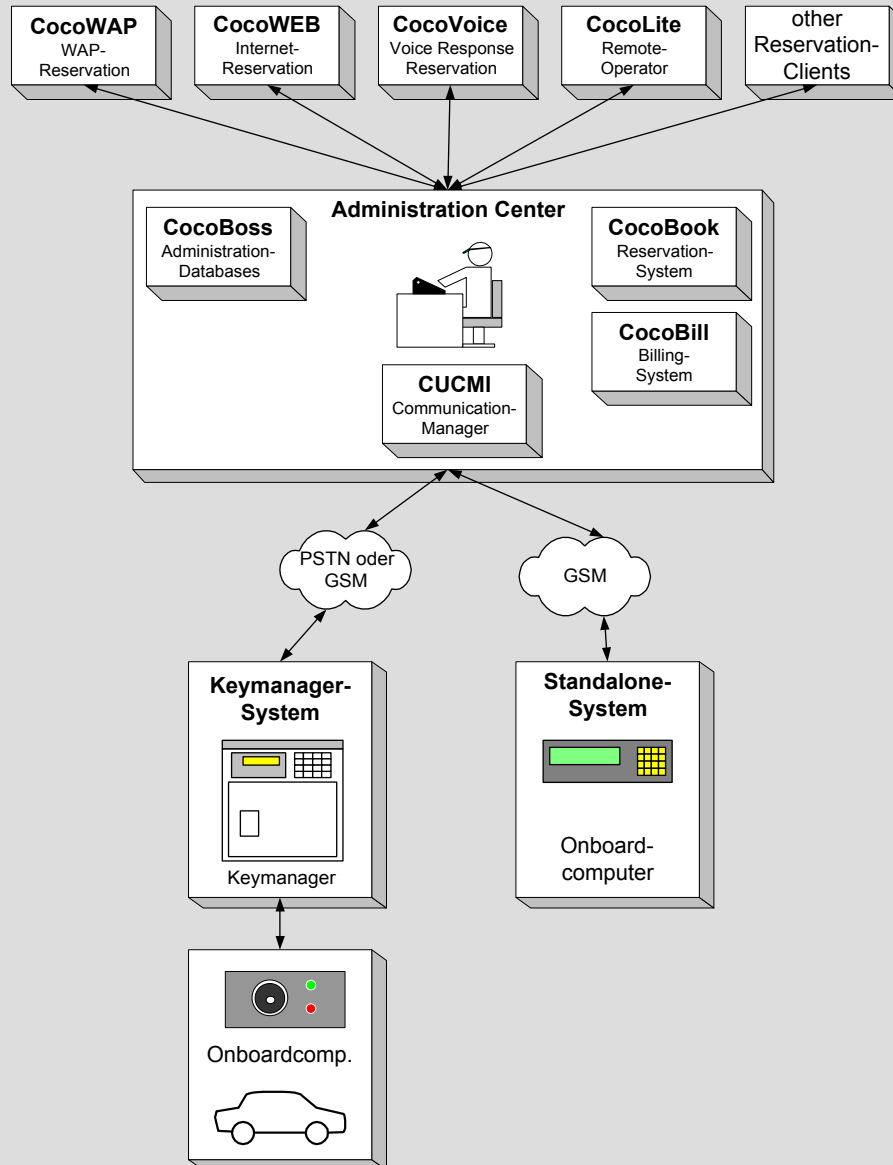
## Carsharing Organisation and Communication System



# COCOS is ...

- Modern contactless smartcard technology
- Modern communication technology
- Proofed onboard computer and immobilizer technology
- Optimized back-office software
- 8 Years experience with car sharing applications in 8 countries

# COCOS System Overview



## COCOS Keymanager System



Multi-Car Location  
(Railwaystations,  
apartment houses,  
company car-pools...)

## COCOS Standalone System



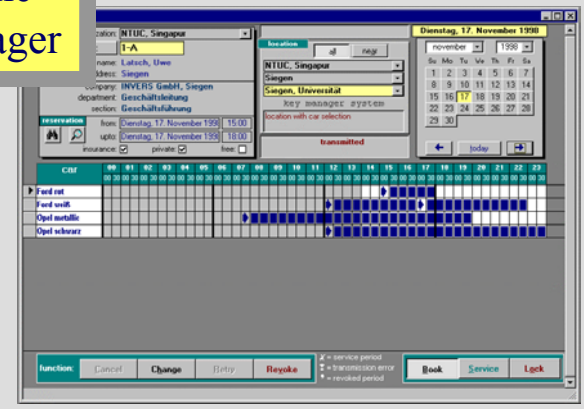
Single-Car Location  
(Low density areas...)

# Using the Key Manager System

COCOS Software transfers your reservation data via telephone line or mobile radio into the Keymanager

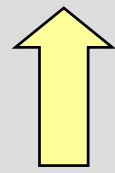


Reservation Data



Now the Keymanager knows which car you are assigned for your reservation

Phone the operator or use the Internet





Hold your COCOS Smartcard in front of the Keymanager's Display. The Kemanager reads your customer data from the card's memory and checks if there is a reservation for you.



...enter your secret PIN...





...open the door...

The green light shows the key  
on which you made your reservation.  
Only this key is programmed to release the  
immobilizer. The other keys can't start any car!



...remove the key and close the door...





You get the ignition key to open the door...

... and a "Data Key" carrying the information to release the immobilizer.





Before starting you have to contact datakey to the keyreader of the onboardcomputer for

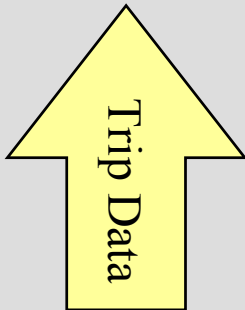
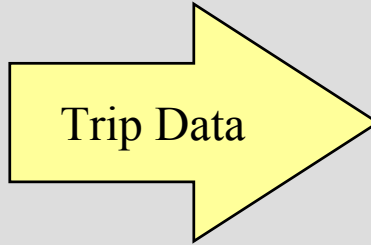
A small onboard computer „BCKM“ is installed into each car. It controls the immobilizer and records the trip distance.



The onboardcomputer checks the validation of data on the datakey and releases the immobilizer



Start the engine and enjoy your trip!



If you return the key into the keymanager, the datakey automatically transfers your trip data from the onboard computer into the Keymanager and finally into the billing system.



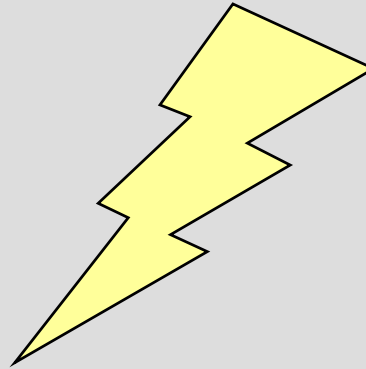
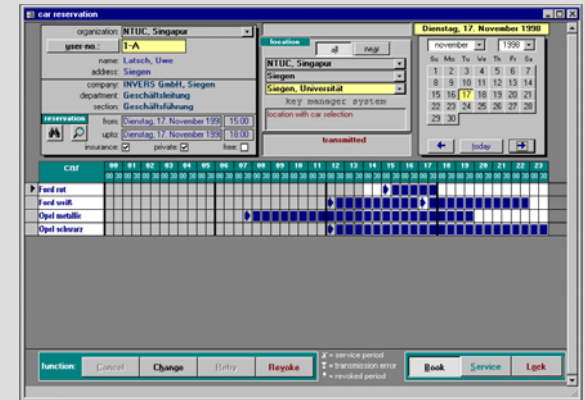
# Features of Key Manager System

- High mechanical and electronical security
  - Electronic data exchange from booking to billing
  - Spontaneous use and open end
  - Easy to use
  - Cost efficient at multi-car locations
- ⇒ Low flexibility in selection of car-sites

# Using the Standalone System

# COCOS Standalone System

COCOS Software transfers  
your reservation data via  
GSM Short Message Service  
directly into the onboard computer



Give a phone call  
to the operator  
or use the Internet

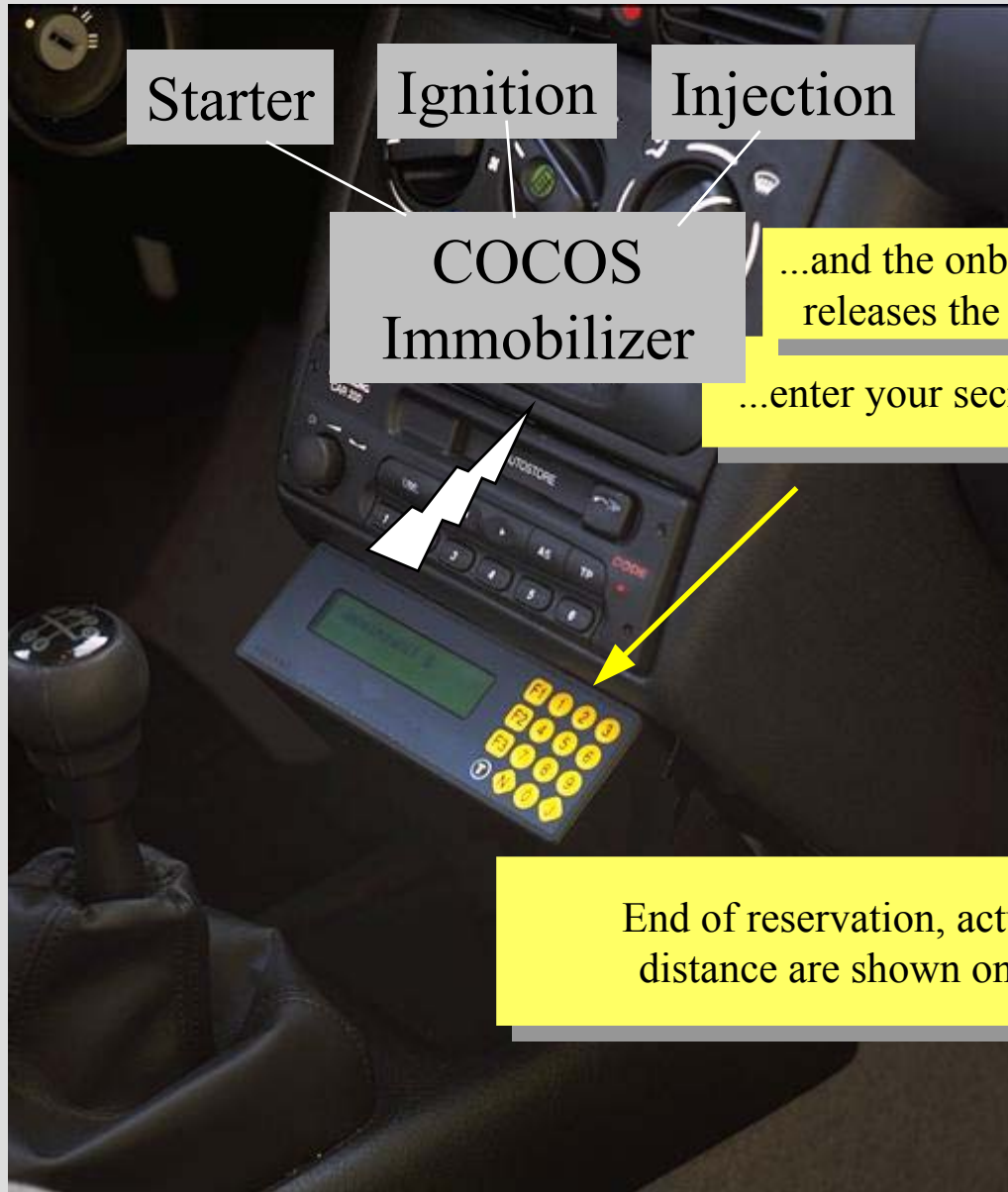


Klick

Hold your smartcard  
in front of the  
windshield.



The onboard computer reads  
your customer data, checks your  
reservation and opens the doors.



Starter

Ignition

Injection

COCOS  
Immobilizer

...and the onboard computer releases the immobilizer.

...enter your secret PIN...

End of reservation, actual time and distance are shown on the display

The ignition key is deposited in the glove compartment. To make sure, that the customer returns the key after the trip, the key is identified by an electronic datakey which has to be slotted into the key-holder for to return the car.



Start the engine and enjoy your trip!



After the trip the data are transferred  
vis GSM into the headquarter office.



# Features of Standalone-System

- High electronical security
  - Electronic data exchange from booking to billing
  - High flexibility in selection of car-sites
  - Easy to use
  - Option GPS Tracking of vehicle location
  - Cost efficient at single-car locations
- ⇒ Less flexible reservation and mobility schemes

# COCOS Administration Software

# CocoBook (Call-Center Reservation)

organization: NTUC, Singapur  
user-no.: 1-A  
name: Latsch, Uwe  
address: Siegen  
company: INVER  
department: Gesch  
section: Gesch  
reservation from: Diensta  
upto: Diensta  
insurance:

location: all near  
NTUC, Singapur  
Dienstag, 17. November 1998  
november 1998  
Su Mo Tu We Th Fr Sa  
1 2 3 4 5 6 7

confirm modification  
user-no.: 1-A  
user: Latsch, Uwe  
location: Siegen, Universität  
all near near+free

location with car selection

confirmation text

car	00	01	02
Ford rot			
Ford weiß			
Opel metallic			
Opel schwarz			

function: Cancel

©2001 Mcinity Corp, NavTech

# CocoWeb (Internet Reservation)

The screenshot shows a Netscape browser window displaying the CocoWeb reservation system interface. The browser's address bar shows the URL: `http://213.240.144.25/cgi-bin/cocoweb/englisch/overview.pl`. The page content includes a navigation menu with links for [New reservation](#), [Edit/Revoke](#), [Location overview](#), and [Logout](#). Below the menu is a yellow box titled "Check your reservation and confirm" containing the following reservation details:

Check your reservation and confirm	
Organisation:	City Car Sharing
City:	Siegen
Location:	INVERS Bismarckstr.
Car:	Demo-VW
Start:	03.08.2000 19:30
Stop:	03.08.2000 23:00
Note on car:	Demo-Konsole im Besprechungszimmer

Below the table, there are two buttons: "confirm reservation" and "back". A mouse cursor is pointing at the "confirm reservation" button. The background of the page features a repeating watermark logo for "INVERS INNOVATIVE VERKEHRSTELEMATIKSYSTEME".

# CocoW@P (WAP- Reservation)



# CocoBoss (Databases)

main menu

Fahrzeuge

Auswahl

Organisation: City Car Sharing, Berlin

Ort:

Standort:

Fahrzeug:

Typ Bord-Computer:

alle

aktivierte

deaktivierte

Fehler

Clear

Fahrzeugbezeichnung: Golf 1

Eigenschaften COCOS Brief Ausstattung Wartung Versicherung Leasing Verkauf Reservierung

Kommunikations-System: G1

Protokoll: M3

SIM-ID: 238457638476587

SIM-Sprache	SIM-Daten	SIM-Fax	PIN	SuperPIN
▶ 7863457638475	9349756348756		3534	89736487

BC-Serien-Nr.: Ti 980001

Code Wegfahrsperre: 1234

km-Konstante: 10

Löschen Neu Schließen

Datensatz: 1 von 279

# CocoBill (Billing)

## rentals

user-no.:  
name/address:

### Invoice

City Car Sharing, Berlin

monthly invoice January 1999

01/01/99 - 31/01/99

res-no.

#### trip data

4 days  
hour  
weekend

#### trip total

distance  
fees

Hansa GmbH  
Potsdam  
Breitestr. 234  
D-123654 Pots

user-no.	dri
1324	CI
3427	Br
3463	Mr

\*) price list from 01.  
\*) see rentals

### Invoice Summary

01/01/99 - 31/01/99

date: 29/03/99

invoice no.	address	user-no.	user name	km	amount
1	Mr. John Adams Bonnstreet 3 D-45244 P	1234	Adams, Helen	722	369.40
		1241	Adams, John	19	27.80
		2345	Adams, Steve	80	41.00
2	Mr. Walter Mutschke Eschen 223 D-12312	4511	Mutschke, Walter	182	119.90
3	Mr. Will Maiwom Fishstreet 4 D-13123 P	2432	Maiwom, Will	222	85.40
4	Mr. Amd Langer Treeroad 1 D-123123 Po	4523	Langer, Arnd	32	46.40
5	Mrs. Karin Otmar Lohweg 4 D-12313 Pots	1414	Otmar, Karin	462	298.63
6	Mrs. Andrea Musterfrau Kleisstr.7 D-57072	4711	Musterfrau, Andrea	463	235.60
7	Mr. Gerd Immel Brockenstr 19 D-123123	2324	Immel, Gerd	669	288.80
8	Smith & Partner Berlin Management Kurfür	3425	Shoemaker, Michael	359	204.75
9	Smith & Partner Berlin Production Kurfürst	1234	Schmitz, Dr. Christine	0	35.00
		2341	Schmidt, Dr. Thomas	0	15.00
		2347	Smith, John	591	282.75
10	Smith & Partner Berlin Office Kurfürstenda	1412	Stone, Fred	205	137.00
11	Hansa GmbH Potsdam Breitestr. 234 D-12	1324	Clixon, Andrew	230	206.10
		3427	Brosch, Marie	94	83.80
		3463	McDowell, Jack	1357	585.25

3062.58

consumer tax (16%)

490.01

**total 3552.59**

# CUCM (Communication Manager)

Universal Communication Manager 32

File Options Windows State Help

Tasks

No	TimeStamp	Type	Status	ErrorCode	Comm.-System	Address
137	09.11.19					
138	09.11.19					
139	09.11.19					

COCOS Communication Manager

Init Modem

Responses

ResponseNr	Response	Data Type	Reservation
1	23.09.19	3	
2	23.09.19	3	
3	23.09.19	3	
4	23.09.19	3	
5	23.09.19	3	



# Additional Features

- Automatic handsfree hotline telephone
- Solar Power for Keyamanger
- Multi-Application-Card
- GPS-Tracking, Class Selection, Spontaneous use, One-Way Trips...

