#### SAS CMS Project Hotel Reservation Description and manual

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## **Summary**

Carmen CMS is responsible for creating hotel reservations and forecasts. The process and the different reports are described shortly in the following sections.

**Change History** 

Version	Author	Date	Description
1.0	Leo Wentzel	2007-05-02	Added Hotel Reservation documentation.
1.1	Hugo Vazquez	2008-02-15	New description of batch jobs and processes.

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# 1 Hotel Reports

### 1.1 Reservation/Forecast generation

Forecasts are generated one time every month after schedule release and cover the next month. Orders are generated automatically every day and cover the following two days. How to run the forecasts and orders manually are described later in this document. Forecasts and reservations are generated for every "preferred" hotel for each SAS region. Hotels with no demand receive a reservation with a message indicating that there is no demand for rooms.

It is possible to generate forecasts, performed list and reservations manually through the studio menu.

# 1.2 Forecast Reports

Forecasts are generated in PDF format. A hotel forecast contains information of the expected room demand for a hotel for a period. The forecast holds no personal information. The report shows information about the flight that crew is arriving and departing with how many rooms that there are demand for and how many nights crew will stay. An example of the forecast PDF is shown below:

Company: Adress:	Hotel Park Avenue The street 22		Company: Region:	Oustomer SAS Danmark	Forecast Info Period: 0:MAY2008 3:1 Local times!	WAY2006	
Phone:	Postalcode La 12-345678 Fax nr	ndvetter	Department: Phone: Fax:	CPHCS 45 3232 4639			
e-onail:	somemail@ho	tmail.com	e-mail:	CMOS.SKD@SA3.DK			
Reservatio Amival	ons (single roc		ning Flight	Departure	Next Fight	Rooms	Nights
01MAY200		SK 9	13:8	02NAY2006 07:55	SK 0433	3	1
01MAY230		SK 10		02MAY2006 06:45	SK 1439	-	1
01MAY230		SK 34		02MAY2006 19:05	SK 1631	3	1
01MAY200		SK 14		02MAY2006 09:20	SK 0435	2	1
OIMAY230		Ska		02WAY2006 15:30	SK 0430	5	1
02MAY200		SK04		03MAY2006 07:35	SK 0433	3	1
02MAY230		SK#		03NAY2006 06:45	SK 1439	3	1
02MAY200		SKO		03MAY2006 19:05	SK 1631	3	1
32MAY230		SK1		03MAY2006 09:20	SK 0435	2	1
32MAY230		SKO		08WAY2006 18:29	SK 0449	3	7 ::::::::::::::::::::::::::::::::::::
33MAY230		SK#		04MAY2006 06:45	SK 1439	3	1
33MAY230		SK 10		04MAY2006 07:35		3	7 3000-400-00-00-00-00-00-00-00-00-00-00-00
33MAY230		SKA		04NAY2006 15:30		3	
33MAY230		SK 14		04MAY2006 09:30		2	1
O3MAY2X		SK#	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	04MAY2006 19:05	SK 1831	3	
	<b>関係 支援 性的</b>	SKO	138	05NAY2006 06:45	SK 1439	3	7
34MAY230 34MAY230		SKI		05WAY2006 07:35	SK 0433	0.000.000	and the second second

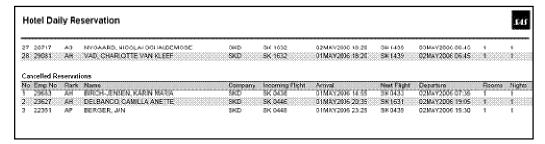
Picture [1] Forecast Report

# 1.3 Reservation Reports

Hotel reservations are generated in PDF format. The report contains information of the hotel, the SAS region and the crew that will need a room at the hotel. Details about crew, such as employee number, rank and name is included in the report. The company responsible for the flight, arriving and departing flight details are also shown. If crew has a deadhead flight this is indicated with a 'P' after the flight number. The number of rooms is always one for crew assigned on a flight, but if there is a flight with more than one unassigned position this will be presented as one row and the number of rooms will be more than one. The 'Nights' column in the report indicates the number of nights crew will stay at the hotel. Below there are two examples of the hotel reservation report PDF, the first shows the first page of report and the next shows how cancelled flights are reported:

	Hotel			Customer	Res	ervation toto	1			-		
Company: Adress: Phone: Pax: I-mail:	12-345678 Fax or	22 - Land-otter	Company: Region: Department: Phone: Fax: e-mail:	SAS Donmark CP4-CS 45 3232 4639 CMOS SKD@SAS DK	Check in a	Danes: 01MAY2006 02MAY2006 ex)	•					
Yew Rese												
o Empl	AND DESCRIPTION OF THE PARTY OF	Name			Company	Incoreing Flight	Arival		Next Flight	Departure	Rooms	Neg
o Emple 29663	vo Rank	Name BIRCHJENSE	N, KARINIMA		Company StD	Incoming Flight SK 0435	Arival 0 MAY2006	14:55	Next Faght SK 0433	Departure 02MAY2006 W 35	Rooms 1	Negr
29663	vo Rank AH			RIA							Rooms 1	Neg 1
29663 20271 22969	NO PAINK S AH I AH I AP	BIRCHJENSE	CLE	RIA	SID	SK 0435	0 MAY2006 02MAY2006 0 MAY2006	14:55 14:55	5K 0433 5K 0433 SK 0433	02MAY2006 97:35	Rooms 1 3	Neg. 1 1 1
29663 20271 22969 24970	NO Rank S AH AH O AP O AH	BIRCHJENSE HVAN PERM KROGH, MAR KRUSE, JETT	CCC GT BLÆSILI E	iria )	SID SID SID SID	SK 0436 SK 0436 SK 0438 SK 0438	0 9MAY2006 02MAY2006 0 9MAY2006 0 9MAY2006	14:55 14:55 14:55	SK 0433 SK 0433 SK 0433 SK 0433	02MAY2006 97:35 03MAY2006 97:35 02MAY2006 97:35 02MAY2006 97:35	Rooms 1 1 1 1	Neg 1 1 1
29663 20271 22969 24970 23949	NO Rank S AH AH O AP O AH O AP	BIRCHJENSE HVAN PERM KROGH, MAR KRUSE, JETT PEDGRGEN, I	LLE GIT BLÆSILE E JENT BROON	RIA	SID SID SID SID SID	SK 0436 SK 0436 SK 0456 SK 0456 SK 0456	0 MAY2006 02MAY2006 0 MAY2006 0 MAY2006 02MAY2006	14:55 14:55 14:55 14:55	SK 0433 SK 0433 SK 0433 SK 0433 SK 0433	(2MAY2006 97.35 93MAY2006 97.35 (2MAY2006 97.35 92MAY2006 97.35 93MAY2006 97.35	Rooms 1 5 1 1 1 1	Neg 1 1 1 1
29663 20271 22969 24970 25949 25639	NO Pank S AH L AH O AP O AH O AH	BIRCHJENSE HVAN PERM KROGH, MAR KRUSE, JETT PEDENSEN, I STEFFENS, V	LLE GIT BLÆSILI E DENT BROON IBEKE	rkia O	SID SID SID SID SID SID	SK 6436 SK 6436 SK 6436 SK 6438 SK 6436 SK 6436	0 9/AY2006 02/AY2006 0 9/AY2006 0 9/AY2006 02/AY2006 02/AY2006	14:55 14:55 14:55 14:55 14:55	SK 0433 SK 0433 SK 0433 SK 0433 SK 0433 SK 0433	(2MAY2006 97.35 03MAY2006 97.35 (2MAY2006 97.35 02MAY2006 97.35 03MAY2006 97.35	Rooms 1 9 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	N-9 1 1 1 1 1
29663 20271 22969 24970 25949 25939 20417	NO Rank AH AH AP AH AP AP AH AP AH AP AH	BIRCHJENSE HVAN PERN KROSH, MAR KRUSE, JETT PEDISSEN, U STEFFENS, V DANNSJØ, JO	ELE CAT BLÆSILE E SENT BRUUN IBEKE SHN PETER C	rkia ) XISTA	SID SID SID SID SID SID SID	SK 6436 SK 6436 SK 6438 SK 6438 SK 6436 SK 6438 SK 6446	0 MAY2006 02MAY2006 0 MAY2006 0 MAY2006 02MAY2006 02MAY2006 02MAY2006	14:55 14:55 14:55 14:55 14:55 20:35	5K 0403 5K 0403 5K 0433 5K 0433 5K 0433 5K 0433 5K 1631	02MAY2006 07:35 03MAY2006 07:35 02MAY2006 07:35 02MAY2006 07:35 03MAY2006 07:35 03MAY2006 07:35 03MAY2006 07:35	Rixins 1 2 4 5 1 1 1 1 1 1 1 1	Nig 1 1 1 1 1 1
29663 20271 22969 24970 25949 25939 20417	NO Rank AH AH AP AP AP AP AH AS AH	BIRCH JENSE HVAN PERN KROSH, MAR KRUSE, JETT PEDONSEN, U STEFFENS, V GANNSJØ, JO DELBANGO, V	CLE GIT BLÆSILI E SENT BRUUN IBEKE OHN PETER O CAMILLA ANE	iria ) Mista Tre	SID SID SID SID SID SID	SK 0436 SK 0438 SK 0438 SK 0438 SK 0436 SK 0446 SK 0446	0 9/AY2006 02/AY2006 0 9/AY2006 0 9/AY2006 02/AY2006 02/AY2006	14:55 14:55 14:55 14:55 14:55 20:35	SK 0433 SK 0433 SK 0433 SK 0433 SK 0433 SK 0433 SK 1631 SK 1631	02MAY2006 97.35 03MAY2006 97.35 02MAY2006 97.35 02MAY2006 97.35 02MAY2006 97.35 02MAY2006 97.35 02MAY2006 90.5 02MAY2006 90.5	Rooms 1 5 4 5 4 5 1 1 1 1 1 1 1 1 1 1 1 1 1 1	Neg 1 1 1 1 1
29663 20271 22969 24970 25839 26117 28627 26111	NO RBINK AP	BIRCHJENSE HVAN PERN KROSH, MAR KRUSE, JETT PEDONSEN, U STEFFENS, V GANNSJØ, JO DELBANCO, M HANSSON, M	CLE CAT BLÆSILE E SENT BROOM IBEKE WHN PETER O CAMILLA ANE ARIE CECLIA	irja ) AISTA TITE	SID SID SID SID SID SID SID SID SID SID	SK 0436 SK 0438 SK 0438 SK 0438 SK 0438 SK 0438 SK 0446 SK 0446 SK 0446	0 9/AY2004 02/AY2004 0 9/AY2004 0 9/AY2004 02/AY2004 02/AY2004 0 9/AY2004 0 9/AY2004	14:55 14:55 14:55 14:55 14:55 20:35 20:35 20:35	SK 0433 SK 0433 SK 0433 SK 0433 SK 0433 SK 0433 SK 1631 SK 1631 SK 1631	02MAY2006 97.35 89MAY2006 97.35 02MAY2006 97.35 02MAY2006 97.35 03MAY2006 97.35 03MAY2006 90.5 02MAY2006 90.5 02MAY2006 90.5	Positis   1	Neg 1 1 1 1 1 1 1
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Picture [2] Hotel reservation report



Picture [3] Hotel reservation report with cancelled reservations

# 1.4 Performed Reports

Performed reports are generated in PDF format. A hotel performed contains information of the rooms booked for a hotel for a period. The performed report holds no personal information. The report shows information about the flight that crew has arrived and departed with, how many rooms that there were booked and for how many nights. An example of the performed PDF is shown below:

Hotel			Customer		Perfo	rmed Info		
	SAS Royal The street 63 Postalcode Stavanger 12-345678 Fax nr somemali@hotmail.com	Company: Department: Address: Contact:	c/o Manpower A 57 S-971 74 Lulea Sweden	3-971 74 Luleaa		Period: 01FEB2007-28FEB2007 Local times!		
Arrival			No. Of		Departure			
Company	Flight	Local Time	FC	cc	Date	Flight	Local Time	
Thu 01Feb		~~~						
SKN	SK 4059	0:19	0	1	Thu 01Feb	SK 4018	12:48	
SKN	SK 4059	0:19	0	3	Thu 01Feb	SK 4026	15:26	
SKN	SK 4059	0:19	2	0	Thu D1Feb	SK 4032	16:04	
SKN	SK 4137	8:22	2	0	Fri 02Feb	SK 4146	7:18	
SKN	SK 4512	11:47	0	3	Frt 02Feb	SK 4611	9:00	
SKN	SK 4019	12:18	0	1	Fri 02Feb	SK 4480	6:15	
SKN	SK 4019	12:18	0	1	Fri 02Feb	SK 4002	6:18	
SKN	SK 4630	14:45	2	0	Fri 02Feb	SK 4002	6:18	
SKN:	SK 4630	14:45	0	3	Fri 02Feb	SK 4146	7:18	
SKN	SK 4025	14:53	0	1.	Fri 02Feb	SK 4480	6:15	
SKN	SK 4163	16:05	11	0	Fri 02Feb	SK 4026	15:35	
SKN	SK 4035	16:30	2	0	Fri 02Feb	SK 4611	9:00	
SKN	SK 4035	16:30	0	1	Fri 02Feb	SK 4016	11:02	
SKN	SK 4167	16:39	.0	1	Fri 02Feb	SK 4611	9:00	
SKN	SK 4516	20:18	0	1	Fri 02Feb	SK 4006	7:27	Airport
SKN	SK 4047	20:22	2	0	Fri 02Feb	SK 4032	15:52	10 W 10 10 10 10 10 10 10 10 10 10 10 10 10
SKN	SK 4179	20:54	0	3	Fri 02Feb	SK 4008	8:08	Airport
SKN	SK 4179	20:54	2	0	Fri 02Feb	SK 4172	13:13	10
SKN	SK 4528	22:24	0	3	Fri 02Feb	SK 4018	13:05	
SKN	SK 4057	22:31	0	2	Fri 02Feb	SK 4026	15:35	
SKN	SK 4187	23:59	0	3	Fri 02Feb	SK 4615	17:20	
SKN	SK 4187	23:59	2	0	Fri 02Feb	SK 4048	21:05	
Fri 02Feb								
SKN	SK 4059	0:21	2	3	Fri 02Feb	SK 4038	17:33	
SKN	SK 4530	14:45	0	1	Sat 03Feb	SK 4002	6:25	
SKN	SK 4630	14:45	2	0	Sat 03Feb	SK 4154	8:04	
SKN	SK 4167	16:45	2	0	Sat 03Feb	SK 4002	6:25	

### 2 Process

The reservation process is automated. Reservations are sent nightly to the hotels but the reports can also be generated from the Studio Editor.

A hotel reservation is created for each duty that ends away from home base. If connection time between flights is shorter than 8 hours but more than 5 hours reservations will be made at hotel at the airport, also known as day at hotel. This rule is also applied for crew on simulator training away from home base. Hotels used are defined in two tables which lists all the preferred hotels. There it is also possible to mark if a hotel is to be used as a day hotel.

### 2.1 Hotel Reservation

The hotel reservation process is divided in two phases. First, the demand for rooms is calculated for the entire plan for the coming two days. Second, a hotel reservation report is generated for each hotel and directly sent to the hotels for booking. This process is done automatically by the system each night.

The system takes into consideration all duties with need for hotel rooms in that period, both duties assigned to crew and currently not assigned. The reservation data is also stored in the database to enable updated reservations to be generated.

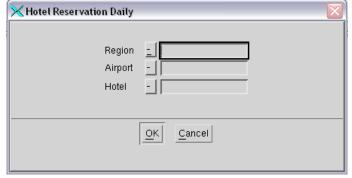
When there has been a change to the plan and the plan is saved an update of hotel reservations is performed. This update process will look at all modified rosters and open trips to see if there are any differences to the currently stored hotel reservations and update the reservations so that they will correspond to the updated plan.

Once every hour, updates will automatically be sent to the hotels if the changes require an update.

### 2.1.1 Manually create hotel reservations report

Hotel reservation reports can be run manually through the 'Reports' menu in Studio. A report can be generated for a SAS region and a hotel for a specific date, which must be in the planning period loaded in Studio.

Select Menu 'Reports', and 'Hotel Reservation Report'. Select Region and Hotel. Enter the date, which must be in the planning period loaded in Studio, and click 'Ok'.



Picture [4] Form for creating hotel reservations manually

# 2.2 Hotel Forecast

The hotel forecast report is automatically created each month. A forecast is calculated based on the current plan.

#### 2.3 Hotel Performed

Hotel performed report can be created manually. A performed report is calculated based on the performed schedule/plan.

### 2.3.1 Manually create hotel performed report

The hotel performed report is automatically created at the beginning of each month and covers the last month performed. A performed report is calculated based on the current plan.