Reservations and Ticketing with SABRE

Dennis L. Foster

MUNDUS

Table of Contents

Introduction

Objectives

After completing this unit, you should be able to do the following:

1. Identify the basic components of a computer reservation system.
2. Sign in and sign out.
3. Encode and decode airlines, cities, aircraft equipment, and countries.

The computer is one of the most influential inventions of the century-indeed, of all time. Almost every human endeavor has benefited in one way or another from the rapid spread of computers. Yet it was not long ago that computers were rare and their role in the affairs of humanity was minor. Sixty years ago, there were virtually no computers anywhere in the world. In 1950, there were about 250 computers. Today, more than 300 million computers are in use throughout the world.

Until the late 1960s, only the largest companies and government agencies could afford computers. The development of Large Scale Integration (LSI) allowed thousands of electrical circuits to be placed on a small slice of silicon, called a microprocessor. In 1982, IBM Corporation introduced the personal computer, or "PC." Today, the term PC is commonly used in a general sense to refer to any computer which uses a microprocessor.

Global Distribution Systems

A computer reservation system (CRS) is based on a large central computer, or mainframe, serving many sites, such as travel agencies and airport offices. A CRS that is distributed worldwide may also be referred to as a global distribution system (GDS). A small travel office may have as few as two terminals, whereas a busy airline reservation center may have more than 100 terminals.

The SABRE central computer is located in Tulsa, Oklahoma in the United States, and serves users in both hemispheres. The part of the mainframe that processes data is called the central processing unit, or CPU. Flight information, airfares, and reservation data are stored in the mainframe's storage unit.

A terminal is often referred to as a CRT (cathode ray tube), the type of television tube that is used for the display of information. Another abbreviation for a computer terminal is VDT (video display terminal). PCs are commonly used in travel agencies to communicate with computer reservation systems.

Computers and The Tourism Industry

Nowhere has the impact of computer technology been more profound than in the tourism industry. Over the last 30 years, the computer has become an essential tool of airlines, hotel chains, car rental companies, and travel agencies.

SABRE provides users with access to airline flight schedules, fare information, hotel rates, car rentals, and other essential travel data. When a reservation is booked by a travel agency, the information is stored by the system and transmitted to the vendor. In many cases, SABRE can

provide direct access to the airline's reservation system. SABRE provides availability and fare displays for more than 500 participating passenger carriers, 30 car rental companies, and most hotel chains and cruise lines.

Sign In/Sign Out

Before the system can be used to access airline fares or book passenger reservations, the travel agent must first "sign in" at the CRT. The sign-in procedure identifies the agent and the work area in which he or she will be working.

The work area is a temporary storage area assigned to each terminal. In the work area, the agent assembles information such as the traveler's name, contact telephone numbers, and the desired ticketing date. In general, the information may be entered in any order. Together, this collection of data is referred to as a passenger name record, or PNR. When the data is complete, the agent inputs the entry to end the transaction. This action sends the record to the central computer for permanent storage. The work area is then cleared so that another PNR can be assembled.

Sign-In

The sign-in entry is used to identify the agent and gain access to the computer. To sign in to SABRE, the agent inputs the following entry:

SI<Work Area><Sign-In Code>

Example:
SI*37634

This example will sign in to all work areas. The following will sign in to a specific work area:

SIA*01762

This entry will sign in only to area A.

Sign Out

Before leaving the terminal for an extended time, and at the conclusion of each business day, the agent is instructed to sign out, as follows:

SO*

This entry is used to sign out of all work areas. The following entry will sign out of a specific work area:

SOA

If the terminal is not used for one hour, the agent is signed out automatically.

Encoding and Decoding

The encoding function is used to convert a name to a code, whereas the decoding function is used to convert a code to a name.

City and Airport Codes

Cities and airports are indicated by three-letter codes. For example, Paris has the city code PAR, and Chicago has the code CHI. If a city has multiple airports, each airport has a different code. For example, CDG is the code for Paris-Charles de Gaulle, and ORY is the code for Paris-Orly. The city code NYC refers to all New York City airports, whereas JFK refers specifically to John F. Kennedy International and LGA refers to LaGuardia.

City and airport codes are designated by the International Standards Organization (ISO) based in Geneva, Switzerland. All computer reservation systems recognize these codes.

Encoding a City or Airport

The entry code W/-CC is used to encode a city, as follows:

W/-CC<City or airport>

Example
W/-CCLUXOR

This example will display the city code for Luxor. The entry code W/-AP is used to encode an airport, as follows:

W/-APHEATHROW

This entry will display the airport code for Heathrow.

Decoding a City or Airport

The entry code W/* is used to decode either a city code or an airport code, as follows:

W/*<City or airport code>

Example
W/*FCO

Carrier Codes

Passenger carriers are referred to by two-letter and three-letter carrier codes. For example, the carrier code for Air France is AF, and the code for Lufthansa is LH. The International Air Transport Association (IATA), which represents more than 200 of the world's principal airlines, assigns carrier codes. IATA has also assigned a three-digit airline code to each carrier. For example, the airline code for American Airlines is 001, and the airline code for United Airlines is 016. Eventually, three-letter IATA codes will replace the two-letter carrier codes presently used.

For example, the three-letter code FIN will replace the two-letter carrier code AY, now used for Finnair.

The following are examples of carrier and airline codes for major international carriers.

AA	AAL	001	American Airlines
AF	AFR	057	Air France
AY	FIN	105	Finnair
AZ	AZA	055	Alitalia
BA	BAW	125	British Airways
CO	COA	005	Continental Airlines
DL	DAL	006	Delta Air Lines
IB	IBE	075	Iberia
JL	JAL	131	Japan Airlines
KL	KLM	074	KLM Royal Dutch Airlines
LH	DLH	220	Lufthansa German Airlines
OS	AUA	257	Austrian Airlines
SK	SAS	117	Scandinavian (SAS)
SU	AFL	555	Aeroflot
UA	UAL	016	United Airlines
US	USA	037	U.S. Airways

Encoding an Airline

The entry code W/-AL is used to encode an airline, as follows:

W/-AL<Carrier>

Example
W/-ALAER LINGUS

This example would be used to determine the carrier code for Aer Lingus.

Decoding an Airline

The entry code W/* is used to decode an airline code, as follows:

W/*<Carrier code>

Example
W/*AS

This example would be used to determine the name of the airline that has the carrier code AS.

Equipment Codes

Each type of passenger aircraft is indicated by a three-letter equipment code. For example, 747 is the equipment code for Boeing 747, and D10 is the code for McDonnell Douglas DC-10. Some passenger aircraft, such as the 727, DC-10, or L-1011, have more than one model. For example, three basic models of the 727 are used for passenger transportation, including the 727, 727-100, and 727-200. Equipment codes are used in flight availability displays to indicate the type of aircraft used on each flight. The following are examples of various equipment codes:

A3B	Airbus Industrie A-300B
DC9	McDonnell-Douglas DC-9
D10	McDonnell-Douglas DC-10
D9S	McDonnell-Douglas DC-9 Super Jet
L10	McDonnell-Douglas MD-80
310	Airbus Industrie A-310
320	Airbus Industrie A-320
733	Boeing 737-300
737	Boeing 737
73S	Boeing 737-200
747	Boeing 747
757	Boeing 757

The equipment code 73S represents a special configuration of the 737 aircraft. The S indicates that the airplanes have been configured for additional passenger seating. These specially configured aircraft are commonly referred to as "stretch jets." Similarly, the code 73M indicate a "multiple" configuration, designed to transport cargo as well as passengers.

Encoding Aircraft Equipment

The entry code W/EQ- is used to encode aircraft equipment, as follows:

W/EQ-<Equipment>

Example
W/EQ-FOKKER F27

This example would be used to determine the equipment code for the Fokker F27 aircraft.

Decoding Aircraft Equipment

The entry code W/EQ* is used to decode an equipment code, as follows:

W/EQ*<Equipment code>

Example
W/EQ*M80

This example would be used to determine the aircraft equipment for the code M80.

Review

1. Assume your ID code is 15432. Write the entry to sign on in work area A.
2. What entry is used to sign out from all work areas?
3. Write the entry to determine the airline code for Alitalia.
4. What entry would be used to decode the airline code CX?
5. Write the entry to decode the city code KHI.
6. Write the entry to display the city code for Seoul.
7. What entry will display the airport code for Gatwick?
8. Write the entry to display the equipment code for Fokker aircraft.
9. What entry would be used to decode the equipment code M80?
10. Write the entry to encode the airline Lufthansa.

Flight Availability

Objectives

After completing this unit, you should be able to do the following:

1. Sign in and sign out.
2. Display flight availability for a specified departure date and time.
3. Determine the origin and destination airports, departure time, arrival time, aircraft, meal service, flight number, and number of stopping points.
4. Display return, additional, and original availability.
5. Display connecting flights.
6. Change the date or time of an existing availability display.
7. Display availability by arrival time, class of service, or carrier.
8. Obtain a direct-access availability display from a carrier's reservation system.

The term **itinerary** refers to all the origin, destination, and intermediate points in a trip. Each portion of the itinerary is referred to as a **segment**. As an example, consider the following trip:

1. LAX - BOS
2. BOS - LAX

This example includes two flight segments. The first segment in the itinerary is called the originating or outbound segment, and the first point is called the originating point. In this example, Los Angeles (LAX) is the originating point, and Boston (BOS) is the turn-around point or destination. The flight that returns from the destination to the originating point is called the return flight. If a trip involves a connection, a separate segment is included in the itinerary for each connecting flight. For example, assume a passenger will travel from London to San Francisco, connecting in Chicago. After attending a meeting in San Francisco, he will be return on a nonstop flight to London. This passenger's itinerary will consist of the following air segments:

1. SFO - CHI
2. CHI - LON
3. LON - SFO

In this example, the passenger will depart from San Francisco (SFO), disembark in Chicago (CHI), and then board another flight to London (LON). The Chicago-London portion of the trip is a separate segment.

A point in a connection where a change of aircraft occurs is called a connecting point. Any point that is not a connecting point in an air itinerary is called a stopover point. In this example, Chicago is a connecting point, and London is a stopover point. The first city or airport in a flight segment is the departure or origin point, and the second city or airport is the arrival or destination point. Together, the departure point and arrival point form a "city pair."

A city pair availability display is a current list of regularly scheduled flights that operate between two specified points. To obtain an availability display, the agent must input the date of travel and the origin and destination points.

Date Format

Because flight schedules change frequently, it is important to specify the departure date when requesting availability. Dates are entered as codes, with the day entered as one or two digits and the month as a three-letter abbreviation. For example, 17 July is entered as 17JUL, and 3 December may be entered as either 3DEC or 03DEC.

Displaying Availability

The entry code for flight availability is the digit 1. This entry has the following format:

1<Date><City Pair><Departure Time>

Example:
110SEPCHIBOS10A

If a city is served by multiple airports, inputting the city code will display flights for all airports in the metropolitan area, whereas the airport code will display only flights for that airport. The time may be input in 12-hour format using A for "A.M." and P for "P.M.", or in 24-hour format.

Response:

```
10SEP  FRI   ORD/CDT     BOS/EDT‡1
1AA 1724 F7 Y7 B7 H7 Q7 ORDBOS 6  950A  111P S80 L 0 DCA /E
         G7 V7 K7 I7 O7 W7 M7 Z7
2AA 1198 F7 Y7 B7 H7 Q7 ORDBOS 6 1015A  141P S80 L 0 DCA /E
         G7 V7 K7 I7 O7 W7 M7 Z7
3UA  514 F9 A6 Y9 B9 M9 ORDBOS 7 1144P  253P 72S L 0 DCA /E
         H9 Q9 V9 W9 S9 T9 K9 L9 G9
4UA  518 F9 A9 Y9 B9 M9 ORDBOS 5 1245P  512P 757 S 0 DCA /E
         H9 Q9 V9 W9 S9 T9 K9 L9 G9
5UA  510 F5 A2 Y9 B9 M9 ORDBOS 8  144P  600P 733 L 0 X6 DCA /E
         H9 Q9 V9 W9 S9 T9 K9 L9 G9
6AA  528 F2 Y7 B7 H7 Q7 ORDBOS 8  140P  602P 100 L 0 DCA /E
         G7 V7 K7 I7 O7 W7 M7
  |    |            |            |    |      |    |  | | |
  1    2            3            4    5      6    7  8 9 10
```

1	Carrier	6	Arrival time
2	Flight number	7	Equipment code
3	Seat quota	8	Meal service
4	Departure/arrival points	9	Stops
5	Departure time	10	Direct Connect indicator

The first line of the display indicates the departure date, day of the week, board point, off point, and time difference. In the example above, the U.S. time zone is displayed for each point. The lines below the header are flight listings. Each flight listing is numbered on the left. Up to six flights may be displayed in each availability screen.

The first column gives the two-letter carrier code for each flight. The flight number is given to the right of the carrier code. To the right of the flight number are several columns consisting of a letter and a number. These columns indicate the number of seats that can be sold in each class of service. The letter indicates the class, and the number indicates the number of seats. This information is called the **seat quota**. The first 5 classes are shown after the flight number, and additional classes are displayed on a separate line below.

The classes offered on each flight vary, depending on the carrier, type of aircraft, route, and other factors. The maximum number that will be displayed for each class depends on the carrier's agreement with SABRE. More seats may actually be available than the maximum number displayed.

To the right of the seat quota are the origin point and destination point. Note that the applicable airport code is shown for each point. The digit after the destination point indicates the **on-time performance**. The digit 6 indicates that the flight departs and arrives on time from 60 to 70 percent of the time. The on-time indicator is displayed only in North American displays. Note in this display that the flight times are in the 12-hour format. The time format may be set or changed by the agency. The 24-hour format is commonly used in Europe, Asia, and Africa, whereas the 12-hour format is the most often used in North America.

The scheduled arrival time is shown to the right of the departure time. In this example, the times are in 12-hour format.

The equipment code for each flight is shown to the right of the arrival time. Meal service The meal service code for each flight is shown to the right of the equipment code:

B	Full breakfast	D	Dinner
V	Continental breakfast	S	Snack
L	Lunch		

If no meal code is displayed, meal service is not provided on the flight.

The number on the right of the meal service code indicates the number of intermediate stops. Any exceptions to the frequency of operation are indicated to the right of the stops. The frequency of operation refers to the days of the week on which a flight operates. The frequency exception indicates any days on which the flight does not operate. Days of the week are indicated by the following digits:

1	Monday	2	Tuesday
3	Wednesday	4	Thursday
5	Friday	6	Saturday
7	Sunday		

For example, X6 indicates that a flight does not operate on Saturday.

The code DCA indicates a Direct Connect Availability carrier. The availability information is obtained directly from the carrier's system. If seats are booked, the reservation is made simultaneously on the carrier's system, as well.

The link status may be one of the following:

DCA	Direct Connect Availability
DC	Direct Connect Sell
AB	Answer Back
AT	Answer Back/Total Access
TA	Total Access

If seats are booked with a Direct Connect airline, the reservation is made simultaneously on the carrier's system. When a reservation is booked with an Answer Back participant, the segment is transmitted by Sabre to the carrier, which then confirms the booking. Seats can be booked directly on the system of a Total Access airline by means of a special entry format, which you will learn later.

Connecting Flight Segments

Assume an agent has obtained the following display:

```
19SEP  SUN   MEM/CDT     LAS/PDT-2
1NW     979 F9 Y9 B9 M9 MEMLAS 4  820P  951P 320 0 DCA
            H9 Q9 V0 K0
2NW     777 F5 Y9 B0 M0 MEMLAS 9  840A  105P 757 SL 1 DCA
            H0 Q0 V0 K0
3DL    2015 F7 A7 Y7 B7 MEMDFW 3  115P  240P 72S S/S/ 0 DCA
            M7 H7 Q7 K7 L0
4DL     845 F7 A7 Y7 B7    LAS 7  330P  413P 757 S 0 DCA
            M7 H7 Q7 K7 L0
5CO/NW 6085 A9 D9 F9 Y9 MEMIAH    155P  331P D9S 0 DCA
            H9 K9 B9 V9 Q5 T5
6CO       5 A9 D9 F4 Y9    LAS N  515P  615P 72S D/D/D/S 0 DCA
            H9 K9 B5 V0 Q0 T0
```

The flights in lines 3 and 4 are connecting flights. DL 2015 departs from MEM to DFW, where passengers must transfer to DL 845, which continues to LAS. The origin point of the continuing flight is omitted, indicating that is the same as the destination point of the previous segment. Note the flight in line 5 has two carrier codes, indicating a code-sharing or joint venture flight.

Return Availability

After flight availability has been obtained, the following format may be used to display flights for the return trip:

1R<Return Date><Departure Time>

Example
1R23SEP2P

This example will display return flights on 23 September, departing at about 2P. If the date is omitted, the display will default to the same date as the original availability entry.

Additional Availability

In many cases, more flights exist than can be displayed on one screen. To display additional flights, the following entry may be input:

1*

Changing the Time

After city pair availability has been requested, availability may be displayed for an alternate departure time, by means of the following format:

1*<Alternate Time>

Example:
1*2P

The system responds by displaying availability for flights departing as close as possible to the specified time.

Changing the Date

After city pair availability has been requested, an alternate date can be specified as follows:

1<Alternate Date>

Example:
121MAY

Sabre responds by displaying availability on the specified date, using the same city pair requested in the most recent availability entry.

To move the date forward one day, the following entry may be used:

1‡1

To display availability for the same city pair three days earlier, the following entry may be used:

1-3

When the date is moved forward or back, an alternate departure time may also be specified, as follows:

1-7*10A

The example above will move the date back seven days and display flights departing around 10A.

Changing the Departure or Arrival Point

The entry code 1*D may be used to change only the departure point of an existing availability display, as follows:

1*DMIA

This example above will change the departure point to Miami. The arrival point will remain the same as in the existing availability display. The entry code 1*A may be used to change only the arrival point, as follows:

1*AICT

The example above will change the arrival point to Wichita.

Original Availability

To redisplay the original availability display, the following entry may be used:

1*OA

When this entry is input, the system redisplays the availability display that was obtained before any follow-up entries were input.

Specifying a Connecting Point

A connecting point can be specified as follows:

120OCTLAXPAR09AORD

The connecting point is input at the end of the availability entry. The example above will display connections on 20 October from LAX to PAR, departing around 0900 and connecting at ORD. A minimum connecting time may also be specified, as follows:

120OCTLAXPAR0900ORD120

The example above specifies a minimum connecting time of 120 minutes.

A normal availability display can also be modified to show only flights via a specified connecting point. For example, assume the following availability entry has been input:

124APRDFWHNL10A

The example above will display all flights departing on 24 April from Dallas to Honolulu departing around 10A. The following entry will change the display to show only connections via San Francisco:

1SFO

After connecting flights have been requested, the following entry will change the display to the

original format:

1*ORIG

Note that this entry can only be made after connections have been requested.

Specifying an Arrival Time

The arrival time may be specified as follows:

122OCTATLSTL/2P

Note that a slash (/) is typed before the desired arrival time. The arrival time can also be specified in a return availability entry, as follows:

1R27OCT/4P

The example above requests return availability on 27 October, arriving around 4P.

Specifying a Class of Service

A class of service may be specified as follows:

112DECSTLPAR-B

Note that a dash (-) is typed before the class of service. This entry will display availability only in B class.

An existing display can be modified to show a specific class as follows:

1-Q

This example will display only availability in Q class.

Specifying a Carrier

A carrier may be specified as follows:

118SEPSFOHNL0900‡UA

Note that a cross (‡) is typed before the carrier code. This entry will display only United flights.

Both the carrier and class may be specified as follows:

118SEPSFOHNL9A‡UA-C

Nonstop/Direct Flights

The option /D may be included in an availability entry to show only direct flights, as follows:

118SEPSEAHNL0900/D

A direct flight is any flight that does not have a change of flight number at an intermediate connecting point.

Last Seat Availability

The Total Access function may be used to obtain data directly from the reservation system of a Total Access or Answer Back/Total Access airline. The Total Access display will show the actual number of seats in each class. This type of display is referred to as last seat availability.

The following format is used to change an existing availability display to a Total Access display:

1 ¤<Carrier>

Example
1 ¤SA

The example above will change the display to a Total Access display based on information obtained from the South African reservation system. Sabre responds as follows:

```
SA RESPONSE
 7SA 202 F0 J7 C7 Z0 Y7 M7 B7 K7 H7 JFKJNB 1120A  755A‡1 744 0
         S7 Q7 T7 V7 L7
 8SA7017 F4 J4 C4 Y4 K4             JFKMIA  920A 1223P   767 0
 9SA 204 F2 J7 C7 Z0 Y7 M7 B7 K7 H7    JNB  500P  340P‡1 744 1
         S7 Q7 T7 V7 L7
10SA7310 F4 Y4 K4                   JFKMIA 1216P  312P   AB6 0
11SA 204 F2 J7 C7 Z0 Y7 M7 B7 K7 H7    JNB  500P  340P‡1 744 1
         S7 Q7 T7 V7 L7
12SA7314 F4 Y4 K4                   EWRMIA 1253P  350P   757 0
13SA 204 F2 J7 C7 Z0 Y7 M7 B7          JNB  500P  340P‡1 744 1
_MD TO SEE MORE
```

A Total Access display remains in the agent's work area for approximately two minutes. After that, the display is replaced by a normal availability display.

The line numbers in a total access availability display always start with line 7 and may reach as high as 16, whereas the lines in a normal Sabre display are always numbered from 1 to 6.

A Total Access availability display may also be obtained as follows:

112JULNYCJNB10A¤SA

In this entry, ¤ is typed before the carrier code to link with the airline's system.

Specific Flight Availability

Availability may also be checked on a specific flight, if the carrier and flight number are known. The following format is used for this purpose:

1<Carrier><Flight><Class><Date><City pair>

Example
1UA440Y10MAYLGAMIA

The example above requests availability on UA 440 in Y class, departing 10MAY from LGA to MIA. Only airport codes may be used in this entry. If the requested class is sold out, an availability display will be shown, so that an alternate class or flight may be selected. The response may be one of the following:

AS	Flight is available to sell.
CR	Flight is closed/seats may be requested.
CN	Flight does not operate.
CL	Flight is closed/seats may be waitlisted.
CC	Flight is closed/waitlist is closed.
NO AVAIL	Availability is not maintained for the requested carrier.