



# Project

# 1

# Greeting and Introducing



## Project Objectives

- To understand the basic concepts of Metro services;
- To realize the importance of Metro transportation;
- To know the development of Metro traffic;
- To master the sentence patterns related to Metro service;
- To know the culture of world-class Metro transportation.



## Section | Practice and Learn



### Mini Talks

*In the following, there are 5 mini talks. Please practice the 5 mini talks with your partner and try to remember the patterns of the dialogues.*

#### 1. Meeting for the First Time

A: Good afternoon, Mr. Lee! I'm Liu Jun from Beijing Construction Company. I'm manager in charge of the project. Nice to meet you!

B: Hi, good afternoon, Mr. Liu! Nice to meet you! I have heard that your project is fantastic! When will the project be finished?

A: It will be finished in the middle of June.

B: Cheers!

#### 2. Talking About a Metro Project

A: Good morning, Mr. Black! How's everything going?

B: Good morning, Mr. White! It's OK, thanks!

A: How about the project you told me last time? Is it going well?

B: Yeah, actually, it's going very smooth. We'll build a Metro line in the southern part of Hefei City.

A: That's great! Congratulations on your great job!

#### 3. Asking about Directions

A: Hi, Sir! Could you tell me from which gate could I enter into the Metro station and reach Educational District in this city?

B: Go along this lobby, please. Turn right from the next corner, and you will see the Entrance B. You can arrive at the Educational District station by the Metro there.

A: Thank you very much!

#### 4. Asking about Ticket

A: Hello, what can I do for you?

B: Good morning, Madam. Could I know when is the last train leaving for Shanghai today?

A: It leaves at 5 p. m. tonight. And you can book a ticket now.

B: Thank you very much! Then could I have two tickets for the train leaving at 5 p. m.?

A: Surely.

B: Thanks very much!

### 5. Inquire on Time

A: Excuse me, Madam. Could you tell me what time is it now?

B: Well, it's half past nine. If you want to take the next train, then you should hurry up.

A: Thanks very much!

B: You are welcome.



### Words and Expressions

**construction** 建设

**charge** 收费

**project** 项目, 工程

**metro** 地铁

**actually** 实际上, 事实上

**direction** 方向

**entrance** 入口

**educational district** 教育园区



### Exercises

*Make mini talks according to the following requirements, and then act out the mini talks that you have made, using the patterns of the above talks.*

1. To introduce for the first time meeting;
2. To ask about time;
3. To talk about the directions;
4. To inquire how to buy a ticket;
5. To make a mini dialogue using the word "Metro".



### Dialogues

*In this part, there is a dialogue. Read the dialogue and then finish the exercises with your partner.*



A: Nice to meet you, Mr. Lee! I'm Mr. Smith, supervisor of this Metro project.

B: Nice to meet you, Mr. Smith! The office has told me that you are coming to supervise the project. Welcome!

A: Frankly speaking, I have viewed the most part of this project. I have to say that you have done a great job! The project you have finished is fantastic!

B: Thanks! There is an old Chinese saying, "Success belongs to the persevering efforts." We just have tried our best.

A: And you are very efficient. The project is built so fast that I even can't believe it.

B: Chinese are hard-working. We are proud of this.

A: Yes. I agree with you. When we do something, we do our best.

B: Yeah. That's the belief of our engineers.

A: Well, all in all, thank you very much for your great work and efforts. Hoping to cooperate with you next time!

B: Me, too. Then see you next time, Mr. Smith!

A: Thanks! See you!



### Exercises

*Answer the following questions according to the dialogue and try to make dialogues with your partner.*

1. What is this project talked about in the above dialogue?
2. Has the project been finished already?
3. What does Mr. Smith think about the project?
4. Is Mr. Lee a good engineer? Why?
5. What good characters does Mr. Lee have?

## Section II Listening Comprehension



### Mini Sentences

*Listen to the 10 sentences and try to translate the sentences into Chinese.*

1. This station is Shuang lin Station. Please get off the train from the door on right side.
2. To Summer Palace Station, please take Bus No. 5.
3. Hefei is a city with a history of 2,200 years and modern transportation.
4. The transportation in the city of Hefei includes cars, buses, trains, Metros and airplanes.
5. Metro services are very important to a city.
6. Metros are also an important part to a city's transportation.
7. Many interesting places in Hefei are very ancient with a long history.
8. The speed of Metros is a signal of technological modernization.
9. There are many kinds of traffic carriers in the present transportation.
10. You can enter the Metro station from Gate 8.

**Listen and Match**

*Match the English sentences in the following with their Chinese meaning.*

	The luggage you can take in a train is limited.
	You can book a ticket by telephone.
	To Dongzhimen Station, please go to Entrance 6.
	When the light is green, you can pass the road.
	If you have any question, please ask the assistant in the station.
	Trains and Metros may go across the bridges.
	You can see many good views from the window of the train.
	The speed of a train means that we are in the modern world.
	Advanced technology makes people's lives more convenient.
	Don't take any drink when you are going to take a Metro.

**Mini Practice**

*Listen to 10 short sentences and answer the following questions.*

1. Who is in charge of the project?
2. What must be done before you take on a Metro?



3. By what means can you book a ticket?
4. Who is not satisfied with the crowded people?
5. What is the bad behavior the two people were talking about?
6. What are the polite words to apologize?
7. Which number should you call when there is an emergency?
8. Can you eat food in a Metro?
9. Why can you eat food in a train?
10. What would the boy like to become when he grows up?

**Listen and Complete**

*Listen to the passage and then fill in the blanks about what you have heard.*

Nowadays, many people would like to take \_\_\_\_\_ to their workplaces instead of a bus, for Metros are more \_\_\_\_\_ than buses. The name “Metro” is always referred to the train run \_\_\_\_\_. However, there are many \_\_\_\_\_ about the word “Metro”, and the original meaning of this word means “a \_\_\_\_\_ that passes underneath an \_\_\_\_\_ such as a road, usually a tunnel”. The second meaning of this word means “an underground \_\_\_\_\_ transit rail system used in \_\_\_\_\_ parts of the world”. Of course, as the rapid \_\_\_\_\_ of modern people’s \_\_\_\_\_, “Metro”, this word is always called as a train’s name.

**Listen and Answer**

*Listen to the passage again and then answer the following questions according to what you have heard in the MP3.*

1. Why would many people like to take a Metro to their workplaces instead of a bus?
2. What is the main meaning of the word “Metro” in this passage?
3. How many meanings does the word “Metro” may have?
4. Is Metro a rail system underground?
5. How about the people’s modern lives we can know from the listening?

**Section III Read and Learn**

*In this section, there is a passage, read the passage and then finish the exercises.*

**Metro China International Exhibition**

Figure 1.1 China International Exhibition

METRO CHINA 2015 is planned to be held at China International Exhibition Center, Beijing, from the 17th to 20th of November 2015, covering a floor space of 22,000 square meters. It will be hosted by Urban Rail Transit Committee of China Communications and Transportation Association (CCTA) and organized by China Academy of Railway Sciences, MOR and China World Trade Center Co., Ltd.

First staged in 2005, the biennial METRO CHINA has grown to be China's most professional, influential and largest international exhibition for the urban rail transit industry. The show has served as an ideal platform for the exhibitors from around the world to best display their state-of-the-art technology and equipment, improve their corporate image, understand the needs of China's urban rail transit development, seek business partners, tap market potentials and conduct exchanges and cooperation in the world's most populous nation with the fastest-growing economy.

Market potential: By the end of 2013, eighteen cities on the mainland China, including Beijing, Shanghai, Tianjin, Chongqing, Guangzhou, Shenzhen, Wuhan, Nanjing, Shenyang, Changchun, Dalian, Chengdu, Xi'an, Suzhou, Hangzhou, Harbin and Zhengzhou had put into service 76 urban rail lines (both Metro and light rail), totaling 2,331 km in length, and 1,518 stations. It is planned that the 28-approved



cities will spend RMB 1,200 billion yuan (US \$192.15 billion) in completing 87 lines of 2,500 km by 2015. By 2020 some 40 cities will have finished Metro or urban rails, increasing the country's total mileage to 7,000 km.



Figure 1.2 A Metro Tunnel

#### Authoritative Organizers

Hosted by the authoritative institution in the urban rail transit industry—CCTA

Jointly organized by two industry leaders—CWTC and CARS

Co-organized by 30-plus companies engaged in planning, construction, management and operation of Metro projects.

#### Influential Brand

China's most professional trade show for the urban rail transit industry, with the biggest exhibition space and the largest numbers of both exhibitors and visitors.

Where the exhibitors meet the most professional visitors who are senior government officials, decision makers, experts, scholars and technical staff.

#### Multiple Events

Multi-subject conferences and seminars held concurrently

Outdoor display of vehicles

#### Organizers

China Academy of Railways Sciences (<http://www.rails.com.cn>)

China World Trade Center Co., Ltd. (<http://www.cwtc.com>)



Approved by  
Ministry of Commerce, P. R. China  
Host  
China Communications and Transportation Association (CCTA), Urban Rail  
Transit Committee

Organizers

China World Trade Center Co. , Ltd.  
China Academy of Railway Sciences, Ministry of Railways, P. R. China  
Beijing Infrastructure Investment Co. , Ltd.  
Beijing Metro Operation Co. , Ltd.  
Beijing MTR Construction Administration Corporation

Co-organizers

Shanghai Shentong Metro Co. , Ltd.  
Tianjin Metro Co. , Ltd.  
Tianjin Binhai Mass Transit Development Co. , Ltd.  
Chongqing Rail Transit Co. , Ltd.  
Guangzhou Metro Corporation  
Guangdong Guangfo Rail Transit Co. , Ltd.



Figure 1.3 China International Exhibition



Shenzhen Metro Co. , Ltd.  
Shenzhen Metro Line 3 Investment Co. , Ltd.  
Nanjing Metro Co. , Ltd.  
Changchun Rail Transit Co. , Ltd.  
Dalian Modern Rail Transit Co. , Ltd.  
Wuhan Metro Group Co. , Ltd.  
Shenyang Metro Co. , Ltd.  
Chengdu Metro Co. , Ltd.  
Hangzhou Metro Group Co. , Ltd.  
Xi'an Metro Co. , Ltd.  
Harbin Metro Group Co. , Ltd.  
Suzhou Rail Transit Co. , Ltd.  
Qingdao Metro Co. , Ltd.  
Foshan Metro Co. , Ltd.  
Shijiazhuang Rail Transit Project Construction Office  
Wuxi Metro Development Co. , Ltd.  
Zhengzhou Metro Development Co. , Ltd.  
Nanchang Metro Development Co. , Ltd.  
Nanning Rail Transit Co. , Ltd.  
Kunming Rail Transit Co. , Ltd.  
Guiyang Urban Rail Transit Co. , Ltd.  
Hefei Construction Investment and Holding Co. , Ltd.  
Fuzhou Metro Co. , Ltd.  
Changsha Rail Transit Group Co. , Ltd.

Exhibition Profile:

- China's localization of urban rail equipment
- China's operation and management of urban rail transit
- Domestic and overseas up-to-date technology and equipment
- Urban rail vehicles
- Urban rail signaling
- Comprehensive monitoring
- Power supply and distribution
- Electromechanical systems

- Safety supporting
- Informationization
- Maintenance and detecting
- AFC
- Survey and design
- Engineering and construction
- Engineering consultancy and supervision
- Earthquake resistance and disaster prevention

**Words and Expressions**

<b>exhibition</b>	[ˌɛksɪˈbɪʃn]	<i>n.</i>	展览;展览会
<b>association</b>	[ˌəʃəʊʃɪˈeɪʃn]	<i>n.</i>	协会;联合
<b>China Communications and Transportation Association (CCTA)</b>			中国交通运输协会
<b>China Academy of Railway Sciences</b>			中国铁道科学研究院
<b>professional</b>	[ˌprəˈfeʃənl]	<i>adj.</i>	专业的;职业的
<b>influential</b>	[ˌɪnfluˈenʃl]	<i>adj.</i>	有影响的;有权势的
<b>transit</b>	[ˈtrænzɪt]	<i>v.</i>	通过;运送
<b>display</b>	[dɪˈspleɪ]	<i>n.</i>	陈列品,展览品 <i>v.</i> 展示,陈列
<b>corporate</b>	[ˈkɔ:pəreɪt]	<i>adj.</i>	法人的;社团的;公司的
<b>potential</b>	[pəˈtenʃl]	<i>adj.</i>	潜在的
<b>conduct</b>	[kənˈdʌkt]	<i>v.</i>	处理;进行;陪同
<b>mainland</b>	[ˈmeɪnlænd]	<i>n.</i>	大陆
<b>approve</b>	[əˈpru:v]	<i>v.</i>	赞成,同意;批准
<b>authoritative</b>	[əˈθɔ:rətetɪv]	<i>adj.</i>	权威性的
<b>organize</b>	[ˈɔ:gənaɪz]	<i>v.</i>	组织;安排
<b>urban</b>	[ˈɜ:bən]	<i>adj.</i>	城市的
<b>multiple</b>	[ˈmʌltɪpl]	<i>adj.</i>	多个的,许多的
<b>domestic</b>	[dəˈmestɪk]	<i>adj.</i>	家庭的,家的;国内的

**Notes of the Passage**

1. METRO CHINA 2015 is planned to be held at China International Exhibition Center, Beijing, from the 17th to 20th of November 2015, covering a floor space of 22,000 square meters.



这句话中“is planned”是被动语态，“to be held”构成不定式结构的被动语态，其中“to”是这个不定式结构的不定式符号。例如：

- (1) Xiao Wang is elected to be the manager.
- (2) Xiao Wang wants to be the manager.
- (3) Xiao Wang wants to be elected as the manager.

这三个句子虽然乍一看好像相似，但是它们的句式结构和意思却不相同。这三句话的意思如下：

- (1) 小王被选为经理。(is 的被动语态)
- (2) 小王想当经理。(want to do sth. 句型)
- (3) 小王想被选为经理。(want to do sth. 句型的被动语态)

这句话中“covering a floor space of 22,000 square meters”是 cover 的现在分词结构作状语，对全句起到修饰和补充说明的作用。例如：

- The man was walking ahead, leading us to the deep of the mountain.
- Mr. Lee is talking to us, pointing his finger to the window.
- Linda is singing, recalling the good old days.

2. It will be hosted by Urban Rail Transit Committee of China Communications and Transportation Association (CCTA) and organized by China Academy of Railway Sciences, MOR and China World Trade Center Co., Ltd.

这句话中“It will be hosted by”是将来时的被动语态的形式，其中“host”是“主办”的意思。

同中文一样，在英文中，一个英语单词往往有多种含义。host 这个词也有多种意思，例如：

The 2008 Olympics was held by China. 这句话中的 host 是动词，表示“主办”的意思。这句话可译为：中国主办了 2008 年奥运会。

I would like to propose a vote of thanks to our host. 这句话中的 host 是名词，表示“主办者，主人”的意思。这句话可译为：我提议对我们的主人表示感谢。

host 这个词也常常表示“男主人”的意思，与之相对，女主人常常用“hostess”表示。

在英文中，公司的名字往往较长，所以对于具有较长名称的公司，可以用其名字的缩写来表示这家公司，如本句话中的 Urban Rail Transit Committee of China Communications and Transportation Association，可以缩写为 CCTA，译为：中国交通运输协会城市轨道交通委员会。

3. Market potential: By the end of 2013, eighteen cities on the mainland China, including Beijing, Shanghai, Tianjin, Chongqing, Guangzhou, Shenzhen, Wuhan,

Nanjing, Shenyang, Changchun, Dalian, Chengdu, Xi'an, Suzhou, Hangzhou, Harbin and Zhengzhou had put into service 76 urban rail lines (both Metro and light rail), totaling 2,331 km in length, and 1,518 stations.

英文中的冒号,往往表示解释说明,例如:She went to the deep of the mountain; a place nobody knew. 她去了大山深处:一个不为人知的地方。

中文中的地名,常常用汉语拼音翻译为英文,例如:Beijing 北京, Shanghai 上海, Tianjin 天津, Chongqing 重庆, Guangzhou 广州等。类似地,中国人名,一般也采用汉语拼音的方式进行翻译,如: Xiao Ming 小明, Lu Xun 鲁迅, Li Lei 李磊等。但是中国的一些名人和一些地名,尤其是一些古人有特殊的翻译方式,如孔子 Confucius, 孟子 Mencius, 清华大学 Tsinghua University 等。

4. By 2020 some 40 cities will have finished Metro or urban rails, increasing the country's total mileage to 7,000 km.

这句话的时态是将来完成时,其中 by 是完成时的符号。在英文中完成时态有两个英文标志:by 和 since。例如:The road will be finished by the end of next year. 又如:I have been working as a teacher since 2012.

#### 5. Authoritative organizers

Hosted by the authoritative institution in the urban rail transit industry—CCTA

Jointly organized by two industry leaders—CWTC and CARS

Co-organized by 30-plus companies engaged in planning, construction, management and operation of Metro projects.

这句话中的“Authoritative organizers”是“权威组织者”的意思。“authoritative”是“权威的;有权力的”意思。

#### **Exercise I Read the passage and then answer the following questions.**

1. Which city was the METRO CHINA 2015 International Exhibition held in?
2. Who hosted the METRO CHINA 2015 International Exhibition?
3. What is the METRO CHINA 2015 International Exhibition for?
4. What is the market potential of this exhibition?
5. What content did this exhibition include?
6. Do you think this exhibition is important? Why?

#### **Exercise II Fill out the blanks according to the passage.**

METRO CHINA 2015 is planned to be \_\_\_\_\_ at China International Exhibition Center, Beijing, from the 17th to 20th of November 2015, covering a floor \_\_\_\_\_ of 22,000 square meters. It will be hosted by \_\_\_\_\_ Rail Transit



Committee of China Communications and Transportation Association (CCTA) and \_\_\_\_\_ by China Academy of Railway Sciences, MOR and China World Trade Center Co., Ltd.

First \_\_\_\_\_ in 2005, the biennial METRO CHINA has grown to be China's most professional, influential and \_\_\_\_\_ international exhibition for the urban rail transit industry. The show has served as an ideal \_\_\_\_\_ for the exhibitors from around the world to best display their state-of-the-art \_\_\_\_\_ and equipment, improve their corporate image, understand the needs of China's urban rail transit development, \_\_\_\_\_ business partners, tap market potentials and conduct exchanges and \_\_\_\_\_ in the world's most populous nation with the fastest-growing economy.

**Exercise III Choose the best words to complete the following sentences.**

junction, locate, terminal, tunnel  
structure, construction, harbour, connect

1. The \_\_\_\_\_ of this building is very complicated.
2. The Town Hall is \_\_\_\_\_ in the east of this city.
3. You can change Line 1 from Line 2 in the western \_\_\_\_\_ called Dongzhimen Station.
4. The \_\_\_\_\_ underground is so huge that it can contain four cars running to the same direction at the same time.
5. Tianjin \_\_\_\_\_ is the 6th largest harbour in the world.
6. The road \_\_\_\_\_ the two towns was built by the Henan Construction Company.
7. A \_\_\_\_\_ of a bus line is always the last stop of a bus.
8. The \_\_\_\_\_ of a city is a great job, and always needs decades of years.

**Section IV Features of Scientific Article**

**科技英语文章的特点**

科技文章的特点是结构严谨、句式周密、逻辑性强、概念准确、行文简练、重点突出，主要以传达信息为主。

### 一、使用被动语句

It has two terminals across which electricity must pass, and *it is designed to drop the voltage of the current* as it flows from one terminal to the other.

句子中的斜体部分即为被动语态。

### 二、使用后置定语

A resistor is a component of a circuit *that resists the flow of electrical current*.

句子中的斜体部分为 that 引导的后置定语从句,修饰 resistor,并表明 resistor 的特性。

### 三、使用长句

为了将一个科学术语或者一个科学概念说清楚,科技文献中往往采用长句,这充分体现了科技文章的特点。

Capacitors are one of a large number of electronic devices widely used in the circuits for coupling, bypass, filtering, tuning circuits, energy conversion, control and so on.

电容器是电子设备中大量使用的电子元件之一,广泛应用于电路中的耦合、旁路、滤波、调谐回路、能量转换、控制等方面。



## Project

# 2

## Asking the Way and Giving Directions



### Project Objectives

- To realize the importance of Metro service;
- To know the basic ethics of Metro service;
- To master the capability of giving directions on Metro;
- To understand the basic items of Metro service on directions;
- To master the basic performance as a Metro service officer.



**Section | Practice and Learn** **Mini Talks**

*In the following, there are 5 mini talks. Please practice the 5 mini talks with your partner and try to remember the patterns of the dialogues.*

**1. Asking About the Platform**

A: Hi, Sir! Could you tell me from which platform could I get on the Metro to Binjiang Road?

B: Hi, Madam! Go along this way, please. Turn left from the next corner, and you will see the downstairs. Go down the stairs, and walk along. Then you will see an upstairs. Please go along the upstairs. And you will be on the platform you are looking for. I know this is a little confusing, but you know that each day there are too many passengers in the station. So we have to arrange them on the different platforms to catch the Metro.

A: I understand. Thank you very much, Sir!

**2. Taking a Metro in Tianjin for the First Time**

A: Good afternoon! Could you tell me how to get to Binjiang Road? It is said that it is the most prosperous area in Tianjin.

B: Hi, good afternoon! Welcome to Tianjin! You must be the first time in Tianjin?

A: Yes. So I'm very confused now. And I don't know where I am.

B: No worries! You can take Line 1 to Yingkoudao Station. Get out of the Metro station from Gate A. Then you will see Binjiang Road.

A: Thank you very much!

B: You are welcome! Have a nice day!

**3. Talking About the Way to the National Library**

A: Good day, Sir! Could you tell me from which stop I could reach the National Library, please?



B: Good day! It's easy. You get off the Metro in Dongzhimen Station and get out.

Then you will see the National Library.

A: Thank you!

B: You are welcome!

#### 4. Asking About the Airport

A: Hello, what can I do for you?

B: Good morning, Madam. Could I know how to get to the airport?

A: Well, you have to transfer from this line to Line 2. The airport is the last stop of Line 2.

B: Thank you very much! Then how could I transfer to Line 2?

A: You take the Metro to the terminus. From the terminus you can get to Line 2.

B: Thanks very much!

#### 5. Inquire on Time

A: Excuse me, Madam. Could you tell me what time it is now?

B: Well, it's half past nine. If you want to take the next Metro, you should be hurry.

A: Thanks very much!

B: You are welcome.



### Words and Expressions

**prosperous** 繁荣的

**confused** 困惑的

**National Library** 国家图书馆

**transfer** 转换, 换乘

**terminus** 总站, 终点站



### Exercises

*Make mini talks according to the following requirements, and then act out the mini talks that you have made, using the patterns of the above talks.*

1. To point out a place to a passenger;
2. To ask about time;
3. To talk about the directions;
4. To inquire how to go to an interesting place;
5. To make a mini dialogue using the word "Metro".

 **Dialogues**

*In this part, there is a dialogue. Read the dialogue and then finish the exercises with your partner.*

A: Good morning! What can I do for you?

B: Good morning, Sir. I just got off an airplane from the airport, and I would like to find a hotel. Do you know where I could find a good hotel nearby?

A: Well, you have to transfer from this line to Line 1. In the downtown you can find the best and safest hotel.

B: Thank you very much! Then how could I transfer from this line to Line 1?

A: You will have to take the Metro on this line for 5 stops. Get off the Metro at the Fukang Road stop. Then go to Level 2 and take Line 1. Get off the Metro at the terminus and get out of the station. You will see the best hotel in the city is just opposite you.

B: Thanks very much! Your info is very helpful!

 **Exercises**

*Answer the following questions according to the dialogue and try to make dialogues with your partner.*

1. Where is the man going?
2. Has the man found the hotel yet?
3. What kind of hotel does the man want?
4. Has the staff told the man clearly?
5. Will the man find the hotel? Why?

**Section II Listening Comprehension** **Mini Sentences**

*Listen to the 10 sentences and try to translate the sentences into Chinese.*

1. Good morning, everyone. The train to Tiananmen is coming. Please stand



- behind the line and wait for the train.
2. Attention, please. The train to Shuanglin station will be delayed for 5 minutes.
  3. The train to the Tianjin Financial University is leaving. Please get on the train as soon as possible.
  4. The train is about to leave. Please stand still in the train.
  5. The train is arriving at Liuyuan station. Welcome to Liuyuan station.
  6. The next station is Liuyuan. Please get ready for your arrival.
  7. Yingkoudao station is the interchange station for Line 1.
  8. To maintain a good environment, please don't smoke or litter on the train.
  9. The train is leaving. Please stand back on the platform.
  10. Please stand clear of the door.

**Listen and Match**

Match the English sentences in the following with their Chinese meaning.

	Warmly welcome to the Interchange station for Line 1.
	Please don't smoke or litter on the train.
	Please stand clear of the door.
	Please get off the train from the right door.
	Please don't put your heavy luggage on the coat-hook.
	Please stand away from the platform screen doors.
	We wish you a good journey.
	Don't stand in the railway.
	Hold tightly when the train is to move.
	Please get ready for your arrival.

**Mini Practice**

Listen to 10 short sentences and answer the following questions.

1. Who is ordering the customer?
2. What is the train going to do?
3. Which station is the train leaving for?

4. Where is the train from?
5. Which station is the train in?
6. What should the passengers do?
7. Whom should be given the seats first?
8. What shouldn't be hung on the coat-hook?
9. Where should you go after getting off the train?
10. What does the city have?

 **Listen and Complete**

*Listen to the passage and then fill in the blanks about what you have heard.*

The next train at Platform 1 will be the \_\_\_\_\_ service for Tianjin Financial University. This is the 2:48 service from \_\_\_\_\_. The train now standing at Platform 2 is the 3:05 service from \_\_\_\_\_ to Tianjin Haihe Educational District. At Platform 3, the train just \_\_\_\_\_ is the 2:53 train service for Huidui \_\_\_\_\_ Center. We would like to \_\_\_\_\_ to the passengers at \_\_\_\_\_ waiting for the 14:50 first train service to Gegu. Because of the \_\_\_\_\_, regular \_\_\_\_\_ services between Xianshuigu and Gegu have been reduced to \_\_\_\_\_ trains per hour. That is, there will be running at 15 and 45 minutes every hour. Tianjin Railway Company would like to apologize for any inconvenience caused.

 **Listen and Answer**

*Listen to the passage again and then answer the following questions according to what you have heard in the MP3.*

1. Where is the next train at Platform 1 going?
2. Where is the train now standing at Platform 2 from?
3. What time does the train at Platform 3 arrive?
4. What caused the delay of the train at Platform 4?
5. What is the leaving time of the train at Platform 4 every hour?



## Section III Read and Learn

*In this section, there is a passage. Read the passage and then finish the exercises.*

### How to Give Directions



Figure 2.1 How to Give Directions

As a Metro officer, you must be familiar with every station and surrounding areas near the Metro lines. Also, you should know how to direct ways. When you are asked like “How can I get to Wangfujing Street?” or “How can I get to the washroom?” It’s OK to give the directions with short sentences like “Take Line 2 and get off right at the station. You can’t miss it.” Phrases like “The best way is to...” “The quickest way is to...” are also very useful.

When you give directions, remember to speak slowly and spell out a word if necessary. You should keep in mind some useful phrases and sentences. They are “Go straight ahead.” “Turn right till you see the traffic lights.” “Go across the street.” “The Metro station is just opposite to the post office.” etc.

You can repeat your directions so that they can be understood better and more clearly. If you don’t hear the questions clearly, you can say “I beg your pardon?” or just “Repeat, please.”

Sometimes simple drawings of the directions are helpful. Meantime, when you give directions, remember to use words like “Please” or “Excuse me, . . .” It is kind and polite.



Figure 2.2 Metro Way



### Words and Expressions

<b>subway</b>	[ˈsʌbweɪ]	<i>n.</i>	地铁
<b>metro</b>	[ˈmetrəʊ]	<i>n.</i>	地下铁道
<b>underground</b>	[ˈʌndəgraʊnd]	<i>n.</i>	地铁
<b>be familiar with</b>			对……熟悉
<b>surrounding</b>	[səˈraʊndɪŋ]	<i>n.</i>	环境
<b>direct</b>	[dɪˈrekt]	<i>v.</i>	指导; 指示
<b>direction</b>	[dɪˈrekʃn]	<i>n.</i>	方向
<b>washroom</b>	[ˈwɒʃru:m]	<i>n.</i>	洗手间, 厕所
<b>traffic</b>	[ˈtræfɪk]	<i>n.</i>	交通; 运输量

### Notes of the Passage

1. “As a Metro officer, you must be familiar with every station and surrounding areas near the subway lines.”

这句话中的 *as* 是“作为”的意思。英语单词 *as* 有很多意思, 在大学英语中常用的意思如下:

(1) 作为副词 *adv.*, 译为“同样地, 一样地”, 例如: I can finish the work as well. (= I can finish the work, too.)

(2) 作为介词 *prep.*, 译为“作为”, 例如: As a musician, he spends most of his life in music. As a student, you should study hard and whole-heartedly.



(3)作为连词 conj. ,译为“像,像……一样;尽管”,例如:Li Lei is as tall as Han Meimei. As the poor medical conditions at that time, many people died of cancer. His wife was reading and studying, as he was playing outside.

2. “. . . remember to speak slowly and spell out a word if necessary.”

本句话中的“if necessary”是省略句。其完整的句子应该是:if it is necessary.

英文中的“省略”不仅是一种以无为有的表达方法,更是一种简便至极、虽无胜有的修辞手段。按照句式结构,英文的省略句可以分为下列几种:

(1)简单句的省略。

①名词所有格之后的省略:

She is coming to her aunt's (house).

②含 there be 结构中的省略:

(There is) An old woman standing in front of the tree.

③独立主格结构中的分词如为 being 或 having been 时的省略:

The classes (being) over, we all left the classroom.

④不定式的省略:

a. 并列的不定式:

She began to sing and (to) dance.

b. 为避免重复,作某些动词 hope、want 等宾语或 tell、order、ask 的宾补时,省略不定式短语,只保留不定式符号 to。

—Do you want to go to the banquet with me tonight?

—Yes, I would love to (go to the banquet with you tonight).

c. 感官动词 see、hear、feel、notice、hear 或使役动词 let、make、have 等后跟不定式作宾补时省略 to。

I witness the girl killed in the street.

I had my sister finished my homework.

(2)并列句中的省略。

①并列句的省略是最常见的,一般说来,在后一并列句中凡是与上文相同的成分通常都会被省略。

She wanted to sing, (to) dance and (to) tell the world she was the best.

②简单句的并列结构中也常有省略的做法:

Would you like to go there by train or (by) bus?

(3)复合句中的省略。

①复合句中从句的句尾和主句相重复时,从句的句尾部分可省掉:



Lucuse is going to the gym, while Tom isn't (going to the gym).

②含有宾语从句的复合句。

在两个并列的 that 从句如主动词及其宾语、表语、状语等都一样时,可将第二个 that 从句的主动词及随带成分省略。

I think Camen will attend the meeting but Jim won't (attend the meeting).

③虚拟语气条件句中 if 的省略。

If 引导的条件从句中含有 were、had 时,可将 if 省略,并用倒装结构。

Were I you, I wouldn't go with him.

Had I known what was wrong, I wouldn't have furthered the experiment.

3. "You should learn in mind some useful phrases and sentences."

learn in mind 是“记在心里”的意思。如:

I keep the motto in mind, and push myself to learn something each day.

我把这句话记在心中,每天都提醒自己要学点东西。

It's all in the mind. We don't learn anything about the mind home or at school.

一切全都是心智的作用,我们在家里或学校都没学习过关于心智的事。

You need learn how to steal rest time in a busy work to purify your mind.

在忙碌的时候,要学会偷闲,让自己清静下来。

4. "You can repeat your directions so that they can be understood better and more clearly."

要注意, "... so that..." 句型和 "so... that..." 句型是不同的。

句型 "... so that..." 是“以便; 结果, 以至于”的意思, 例如:

Mary tilted her head back so that she could look at him.

玛丽把头向后仰, 以便能看到他。

He spun the steering-wheel so that we yawed from side to side.

他急速打着舵轮, 把我们搞得摇来晃去的。

I want to teach Irish so that it won't die out.

我想教爱尔兰语, 这样它就不会彻底消失。

而句型 "so... that..." 译为: “如此……以至于……”, 例如:

He got to the station so hurriedly that he caught the bus.

他到车站如此匆忙, 以至于他赶上了汽车。

She studied so hardly that she was often the first in class.

她学习如此努力, 以至于总是班里的第一名。



5. "Sometimes simple drawings of the directions are helpful."

本句中的 drawing 是由动词 draw 加上 ing 的形式,变成了动名词,并且作为本句话的主语。请观察下列几句中英文句子的区别:

改善人民生活是我国现代化的主要目标。

The improvement of people's lives is the main goal of China's modernization.

努力学习对人生是有益的。

Studying hard is beneficial to a person's life.

勤俭、节约是中华民族的传统美德。

Hardworking and thrifty are the traditional virtues of Chinese.

在汉语中使用动词较多,而英语中的名词较多。比较上面几句中英文例句,可以发现,中文中的划线部分的主语部分常用动词,如改善、努力学习、勤俭、节约;而英文中的主语常常用名词表示动作,如 studying、hardworking 等。所以有人说,中文是动态的语言,而英文是静态的语言。想掌握好英语,就一定要将英文中的动名词的用法学好,做到活学活用。

**Exercise I Read the passage and then answer the following questions.**

1. What should you do as a Metro officer?
2. How to respond when you are asked questions such as "How can I get to the washroom?"
3. Do you think that a Metro officer should learn some useful phrases? Why?
4. What will you do if a passenger didn't hear you clearly?
5. Could you say some sentences about giving directions?
6. What else could you do if a passenger cannot understand you?

**Exercise II Fill out the blanks according to the passage.**

As a Metro officer, you must be \_\_\_\_\_ with every station and \_\_\_\_\_ areas near the Metro lines. Also, you should know how to \_\_\_\_\_ ways. When you are asked like "How can I get to Wangfujing Street?" or "How can I get to the \_\_\_\_\_?" It's OK to give the directions with short sentences like "Take Line 2 and get off right at the \_\_\_\_\_ . You can't miss it." Phrases like "The best way is to..." "The quickest \_\_\_\_\_ is to..." are also very useful.

**Exercise III Choose the best words to complete the following sentences.**

handle, refund, destination, disabled  
purchase, contact, circumstance, verify

1. The train is leaving for Shanghai, so Shanghai will be the \_\_\_\_\_ of this train.
2. If you have any problem on a Metro, please \_\_\_\_\_ the Metro staff and they will help you.
3. In any \_\_\_\_\_, one should keep calm.
4. Please give your seat to the old, the \_\_\_\_\_ and the pregnant women.
5. To \_\_\_\_\_ a car is not expensive nowadays.
6. The website will first \_\_\_\_\_ your ID before you buy a train ticket.
7. Within half an hour after your purchase, you can get \_\_\_\_\_.
8. The Metro staff will help you \_\_\_\_\_ the problem.

## Section IV Basic Rules and Methods of Scientific Article Translation

### 科技英语翻译的标准和方法

翻译是人类最古老的语言和思维活动之一。所谓翻译,就是把一种语言文字所表达的意义用另一种语言文字,通过语言编码的转换,再次表达出来。古往今来,翻译促进民族之间相互融合,沟通思想、学术交流等方面起着重要的作用。

#### 一、翻译的标准

忠实:准确无误地表达原文的内容。

通顺:要求译文符合译入语的习惯表达法,即符合汉语的语法和修辞,使译文读起来顺口易懂。

简洁:译文要简短、精练、不重复啰嗦。

翻译是对译者所具有的两语言功力的考察。翻译要求译者的翻译不仅符合译入语的语言规范,更要忠实于原文,最大限度地表达原文作者的意思。例如:

1. Please keep clear of the door.

误译:请保持门干净。

正译:请远离门口。

2. I don't think Metros are all powered by electricity.

误译:我不认为地铁都是由电力驱动的。

正译:我认为并非所有的地铁都由电力驱动。

3. There is little electronics in the electric circuits.

误译:电路里还有一点儿电子。

正译:电路里几乎没有什么电子了。



4. Please do not do the business such as to handle, change, or refund your ticket by the site of 12306. cn later than 30 minutes before the train is leaving.

误译:请不要通过 12306. cn 网站做诸如购票、改签、退票等业务,晚于火车开车前 30 分钟。

正译:在 12306. cn 网站办理购票、改签、退票等业务,请不晚于开车前 30 分钟。

## 二、翻译的三个原则

在翻译过程中,为了使经过翻译加工的科技文章既能忠实地表达原文,又能符合译入语的规范,总体上来说,翻译要遵循三个原则,即信、达、雅。

“信、达、雅”是严复提出的翻译要求和原则,具体来说就是:

“信”是指译文要准确无误,就是要使译文忠于原文,如实地、恰当地运用现代汉语把原文翻译出来。

“达”是指译文要通顺畅达,就是要使译文符合现代汉语的语法及用语习惯,字通句顺,没有语病。

“雅”就是指译文要优美自然,就是要使译文生动、形象,完美地表达原文的写作风格。

## 三、翻译的基本方法

1. 顺译法:按照原文句子的顺序进行翻译。例如:

On 26 September 1855, the first passenger railway line in NSW opened from Sydney to “Parramatta Junction”, which was located just the west of present day Granville Railway Station.

这句话可译为:在 1855 年 9 月 26 日,新南威尔士州的第一条客运火车线自悉尼到帕拉马塔的中转站开放,这条火车线就坐落于今天的格兰维尔火车站的西面。

2. 倒译法:将原文从后向前翻译。例如:

There's something wrong with my transportation card.

这句话可译为:我的交通卡坏了。

3. 分译法:将原文分成若干句子进行翻译。例如:

The railway running through the tunnel is the oldest railway line in this country.

这句话可译为:铁路通过隧道,它是这个国家最古老的铁路线。

4. 惯译法:按照译入语的语言习惯,对原文进行翻译。例如:

People mountain people sea. 人山人海。

Practice is the sole criterion for testing truth.

实践是检验真理的唯一标准。



# Project **3** Names of Basic Metro Facilities



## Project Objectives

- To understand the basic terms on Metro facilities;
- To understand a little knowledge on Metro running and management;
- To realize the importance of Metro facilities;
- To master the sentence patterns related to Metro scientific articles;
- To understand the functions of various facilities.



## Section | Practice and Learn



### Mini Talks

*In the following, there are 5 mini talks. Please practice the 5 mini talks with your partner and try to remember the patterns of the dialogues.*

#### 1. Names of Metros in Different Countries

A: Hi, Li Ming, how are you these days?

B: Hi, how are you? What are your lessons going on Metros?

A: I must say that this class is great! I have learnt a lot about Metros in the class.

B: So let me give you a small quiz. You know that different countries give different names on Metros. So what do Americans call a Metro?

A: Oh, I have learnt this knowledge in class. Americans call a Metro as subway.

B: Right. Then what about British people? What do British call a Metro?

A: They call a Metro as a tube.

B: Perfect!

#### 2. A Ticket Vending Machine (TVM)

A: Excuse me, Sir. Where could I buy a ticket? I haven't seen any officer selling ticket here.

B: You can buy a ticket from the ticket vending machine over there.

A: Thanks! Pardon me, where is the ticket vending machine?

B: Go along this corridor, and you will see the machine on your left.

A: Thanks! Have a good day!

#### 3. Keep Off the Automatic Gate in a Metro

A: George, keep off the door.

B: Father, you needn't worry about the gate. It is automatic.

A: You'd better take care! Although the door is closed, but you may get off the Metro and fall down on the rail.

B: Father, you are too careful. That is impossible! Because the door is controlled by the Metro system. Before arriving at a station, it won't be open.

A: All right. Maybe you are right.

**4. Keep off the Platform Screen Door (PSD) on a Platform**

A: Hey, George, keep off the screen door and stand back the line.

B: Alright, thanks Father! I didn't pay attention to the line.

A: When you are on a platform, you should take care and comply with the rules.

B: Father, you are right. I know it is dangerous.

A: Then do you know the function of a platform screen door?

B: Surely. It protects the passengers from falling down.

A: That's right.

**5. There is Something Wrong with the Elevator**

A: Excuse me, Sir. I think there is something wrong with the elevator. Do you have another one? We need to pull a wheel chair by it.

B: Surely, Sir! We have a spare one. Please pull the wheel chair and follow me. I will show you.

A: Thank you very much! I guess you have a spare one.

B: Surely! This way, please.

**Words and Expressions**

**tube** 管道, 地铁

**corridor** 走廊

**platform screen door** 屏蔽门

**function** 功能

**wheel chair** 轮椅

**ticket vending machine** 自动售票机

**automatic gate** 自动门

**comply with** 遵守

**elevator** 电梯

**Exercises**

*Make mini talks according to the following requirements, and then act out the mini talks that you have made, using the patterns of the above talks.*

1. To talk about the doors in a Metro with a Metro officer;
2. To talk about a machine in a Metro with your classmate;
3. To imitate a situation when a passenger has cross the security line on the platform while he is waiting for a Metro;
4. To talk about how to buy a ticket from a ticket vending machine;
5. To talk about how to find an elevator in a Metro station.



### Dialogues

*In this part, there is a dialogue. Read the dialogue and then finish the exercises with your partner.*

A: Good morning, professor!

B: Good morning! Today let's talk about Metro control systems. What do you know about it?

A: Different countries have different Metro control systems.

B: Yes. That's because of the knowledge copyrights. For example, CTCS belongs to China, ATCS belongs to U. S. , ETCS belongs to Europe, and ATC belongs to Japan.

A: Are they totally different, or similar?

B: Well, to some extent, they are similar, but also different, such as Chinese Metro control systems have been developed from CTCS0 to CTCS4, and U. S. is using Advanced Metro Control System.

A: So professor, which system is the most advanced?

B: It's hard to say now, because every country is trying its best to develop better technology, for safety and quality.

A: So could I think that actually there is some competition existing in those countries?

B: In fact, there is. For not all of the countries have the advanced Metro technology, actually, there is intensive competition.

A: That's the reason why we should study hard and become talents in this field.

B: You are totally right.



### Exercises

*Answer the following questions according to the dialogue and try to make dialogues with your partner.*

1. What were the student and the professor talking about?
2. What do they think of the Metro control systems?
3. What do they say about the Chinese Metro control systems?
4. Why is there some competition existing in the Metro field?
5. Do you think the students should study hard? Why?



**Section II Listening Comprehension** **Mini Sentences**

*Listen to the 10 sentences and try to translate the sentences into Chinese.*

1. Metro control system is complicated.
2. An operator must be studying at least 6 months to control a Metro.
3. The maintenance of Metro control system is complex.
4. The control system is connected with wireless equipment.
5. In the 1900s, the western countries were advanced in the Metro technology.
6. The first automatic Metro control system was put into use in 1905.
7. ATO stands for automatic train operation.
8. ATP stands for automatic train protection.
9. Locomotive cab signaling is important in Metro control.
10. Track circuits are also important in Metro control.

 **Listen and Match**

*Match the English sentences in the following with their Chinese meaning.*

	The first model of open track circuit control machine appeared in USA in 1870.
	A balise is an electronic mode transferring information.
	CTCS often stands for Chinese train control system.
	A balise also refers to a machine used in different fields.
	Chinese Metro control system has experienced five developing phases.
	Moving block is an advanced technology used in the Metro control system.
	The speed and quality of Chinese Metro is being improved very fast.
	The full name of CBTC is communications-based train control.
	China Railway High-speed is the simple name of Chinese multiple units.
	Copy rights also exists in the Metro development.

 **Mini Practice**

*Listen to 10 short sentences and answer the following questions.*



1. What are the 5 development stages of China Metro control system?
2. What is a balise?
3. What is the simple name of Chinese multiple units?
4. Which country is mentioned in the talk?
5. Who developed China Metro control system?
6. Which two countries are competing with China's Metro R&D?
7. Is patent very important in the technology development?
8. What does CTCS stand for?
9. What equipment is mentioned in the talk?
10. Are all kinds of Metros quite similar?



### Listen and Complete

*Listen to the passage and then fill in the blanks about what you have heard.*

There are very similar \_\_\_\_\_ between Chinese Metros and European Metros in terms of Metro \_\_\_\_\_ mode and Metro control. ETCS (European Train Control \_\_\_\_\_), supported by the European \_\_\_\_\_ and the European Industrials, has been finalized as the \_\_\_\_\_ standard of Metro control systems in Europe after more than ten years' effort.

There is more than \_\_\_\_\_ kilometers of Metro operation line in China, which includes conventional lines with a \_\_\_\_\_ of 120 kilometers per hour, a dedicated \_\_\_\_\_ line with a speed of \_\_\_\_\_ kilometers per hour and the speed-raising lines with a speed of 160 kilometers per hour. A high speed line from Beijing to \_\_\_\_\_ with a speed of more than 300 kilometers per hour will be constructed in the next few years.



### Listen and Answer

*Listen to the passage again and then answer the following questions according to what you have heard in the MP3.*

1. How many Metro operation modes are mentioned in the passage?
2. What is the full name of ETCS?
3. Who supported European Metro Control System?
4. What line is with a speed of 120 kilometers per hour in China?
5. Which Chinese cities are mentioned in the passage?

## Section III Read and Learn

*In this section, there is a passage. Read the passage and then finish the exercises.*

### Control Systems

In the past 10 years, the independent and innovative communications-based Metro control system has experienced breakthroughs in key technologies by conducting pilot experiments, field tests, and demonstration projects. For the first time, the design theories and technical aspects of moving block systems, which cover the entire life cycle of fail-safe systems, are set up. The models and algorithms are proposed to control the safe operation of Metros.

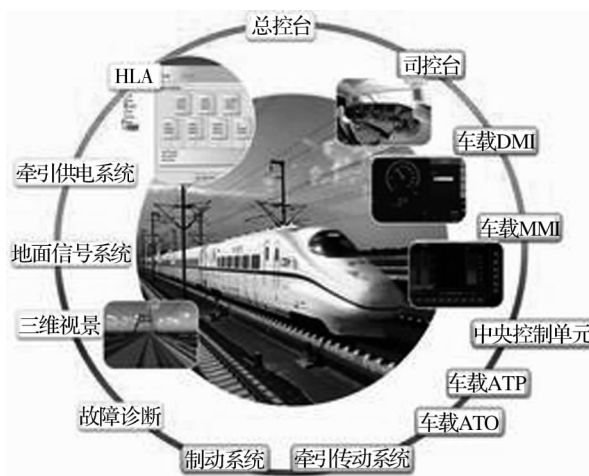


Figure 3.1 Metro Control Systems

The safety technologies for short-interval Metro sequencing are adopted to realize the 90s headway between consecutive Metros. The optimized automatic Metro operation strategies are used to save energy and allow Metros to safely reach their destinations. The highly dependable and bi-directional Metro-to-ground communication technologies are introduced for reliable transmission of safety related Metro-to-ground information in a complex environment which is compatible with multiple media, such as free waves, leaky waveguides, and leaky feeders. The simulation, tests, and verification technologies based on the minimum system and test cases were adopted to conduct the following: principle demonstration, functional tests, integrated tests, field failure data

replay, analysis and disposal, system upgrade, and maintenance.

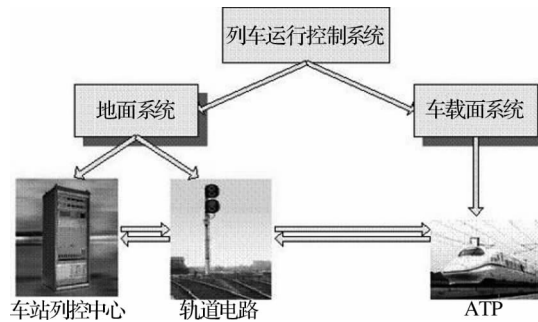


Figure 3.2 Metro Control Systems

The Chinese Metro Control System is a Metro control system used on railway lines in People's Republic of China. CTCS is similar to the European Train Control System (ETCS). It has two subsystems: ground subsystem and onboard subsystem. The ground subsystem may be based on balise, track circuit, radio communication network (GSM-R), and Radio Block Center (RBC). The onboard subsystem includes onboard computer and communication module.

CTCS has several levels; Conventional Metros in China were manually controlled and operated by drivers based on track side interlocking and blocking, in conjunction with various Metro signaling and surveillance devices. With the high-speed railway systems being rapidly developed in China recently, the old Track Based Train Control (TBTC) has gradually been replaced by the modern Communications Based Train Control (CBTC).

The Chinese Train Control System (CTCS) is a train control system implemented since 2002, which is specified for compliance with the high-speed and the conventional interoperability and directives. CTCS by nature is an automatic train protection (ATP) system, based on cab-signaling and signal aspects as well as continuous tracking to the data transmission on the Metro system. The movement authority (MA) and the corresponding line information are transmitted to the control unit of the train and then being displayed in the cab for the driver as commands or references. A train with complete CTCS equipment and functionality can operate on any CTCS line without much technical restriction.

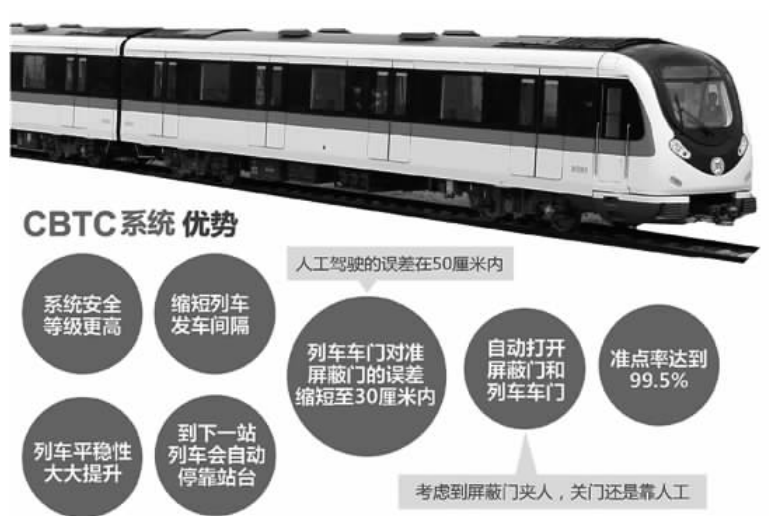


Figure 3.3 Metro CBTC System

Based on the signaling system of Chinese railway network, Chinese Train Control System (CTCS) has been divided into five levels, namely CTCS level-0, 1, 2, 3 and 4. The definition of the levels depends on how the line is equipped and the way the information is transmitted to the train. Interoperability is necessary for the train control system to achieve joint operation among Dedicated Passenger Lines (DPL, another name for high-speed railway in China) and rebuilt lines, where CTCS levels-2, 3 and 4 are back-compatible with lower levels.



### Words and Expressions

<b>independent</b>	[ˌɪndɪˈpendənt]	<i>adj.</i>	独立的;自主的
<b>innovative</b>	[ɪˈnɒvətɪv]	<i>adj.</i>	创新的
<b>breakthrough</b>	[ˈbreɪkθruː]	<i>n.</i>	突破
<b>demonstration</b>	[demənˈstreɪʃ(ə)n]	<i>n.</i>	证明;示范
algorithm	[ˈælgəˌrɪð(ə)m]	<i>n.</i>	算法
<b>consecutive</b>	[kənˈsekjʊtɪv]	<i>adj.</i>	连续的
<b>compatible</b>	[kəmˈpætəb(ə)l]	<i>adj.</i>	兼容的

**CTCS: Chinese Train Control System** 中国列车控制系统

**ETCS: European Train Control System** 欧洲列车控制系统

**GSM-R: Global System for Mobile Communications-Railway**  
铁路专用全球移动通信系统



<b>RBC: Radio Block Center</b>	无线闭塞中心
<b>TBTC: Track-based Train Control</b>	基于轨道的列车控制系统
<b>CBTC: Communications-based Train Control</b>	基于通信的列车控制系统
<b>ATP: Automatic Train Protection</b>	列车自动保护系统
<b>MA: movement authority</b>	移动授权
<b>corresponding</b> [kɒrə'spɒndɪŋ]	<i>adj.</i> 相应的;一致的
<b>DPL: Dedicated Passenger Lines</b>	客运专线

### Notes of the Passage

1. The highly dependable and bi-directional Metro-to-ground communication technologies are introduced for reliable transmission of safety related Metro-to-ground information in a complex environment which is compatible with multiple media, such as free waves, leaky waveguides, and leaky feeders.

这句话的句子结构较长,为了使大家看明白这句话的句子结构,现用括号将这句话的定语部分标注出来: The (highly dependable and bi-directional Metro-to-ground) communication technologies are introduced [for reliable transmission of safety related Metro-to-ground information][in a complex environment] (which is compatible with multiple media, such as free waves, leaky waveguides, and leaky feeders). 其中,( )表示定语部分, [ ]表示状语部分。

这句话可译为:为了在复杂环境中的地铁对地面信息传输的安全性,引入了高度可靠的和双向地铁对地面通信技术,它与多媒体,例如自由波、泄露波导和泄露馈线相兼容。

2. The simulation, tests, and verification technologies based on the minimum system and test cases were adopted to conduct the following: principle demonstration, functional tests, integrated tests, field failure data replay, analysis and disposal, system upgrade, and maintenance.

为了使大家看明白这句话的句子结构,现用括号将这句话的定语部分标注出来,( )表示定语部分。这句话的句子结构为: The simulation, tests, and verification technologies (based on the minimum system and test cases) were adopted to conduct the following: principle demonstration, functional tests, integrated tests, field failure data replay, analysis and disposal, system upgrade, and maintenance.

这句话可译为:基于最小系统和测试实例的模拟、测试和验证技术被采用于进行如下操作:原理演示,功能测试,集成测试,现场故障数据重放,分析和处理,系统的升级和

维护。

3. CTCS has several levels: Conventional Metros in China were manually controlled and operated by drivers based on trackside interlocking and blocking, in conjunction with various Metro signaling and surveillance devices.

为了使大家看明白这句话的句子结构,现用括号将这句话的定语部分标注出来,( )表示定语部分,[ ]表示状语部分。这句话的句子结构为:CTCS has several levels: Conventional train [in China] were manually controlled and operated [by drivers](based on trackside interlocking and blocking), [in conjunction with various train signaling and surveillance devices].

这句话可译为:中国列车运行控制系统有几个等级:中国的传统火车是基于轨侧联锁装置和阻塞装置,连同各种各样的火车信号装置和监视装置,由司机手动控制和操作的。

4. Interoperability is necessary for the Metro control system to achieve joint operation among Dedicated Passenger Lines (DPL, another name for high-speed railway in China) and rebuilt lines, where CTCS levels-2, 3 and 4 are back-compatible with lower levels.

where CTCS levels-2, 3 and 4 are back-compatible with lower levels,在本句话中是非限制性定语从句。这句话可译为:互可操作性对于地铁控制系统达到对于客运专线(DPL是中国高速铁路的另一个名字)的联合运行和重建线路是必须的,它使2级、3级和4级的中国列车运行控制系统能够和较低的级别向后兼容。

**Exercise I Read the passage and then answer the following questions.**

1. Could you talk about the breakthroughs of the train control systems in the past 10 years?
2. What are the two subsystems of Chinese Train Control System?
3. What is the ground subsystem based on?
4. What does the onboard subsystem include?
5. What are the several levels of Chinese Train Control System?
6. Could you talk about CTCS level-0, 1, 2, 3 and 4?

**Exercise II Fill out the blanks according to the passage.**

The Chinese Train Control System (CTCS) is a Metro \_\_\_\_\_ system implemented since 2002, which is specified for compliance with the high-speed and the conventional interoperability and directives. It has two subsystems: \_\_\_\_\_ subsystem and \_\_\_\_\_ subsystem. The ground subsystem may be based on \_\_\_\_\_, track circuit, radio communication network (GSM-R), and Radio Block Center (RBC).



The onboard subsystem includes onboard \_\_\_\_\_ and communications module. Based on the signaling system of Chinese railway network, Chinese Train Control System (CTCS) has been divided into \_\_\_\_\_ levels, namely CTCS level-0, 1, 2, 3 and 4.

**Exercise III Choose the best words to complete the following sentences.**

breakthrough, upgrade, compatible, analysis  
integrated, principle, interlocking, subsystem

1. During the recent years, Metro technology has experienced great \_\_\_\_\_.
2. Vehicles must run according to the \_\_\_\_\_ in order to keep safety.
3. New technologies must pass \_\_\_\_\_ tests before putting into use.
4. Windows software is \_\_\_\_\_ with its lower levels.
5. \_\_\_\_\_ is another technology in the Metro operation.
6. The Chinese Train Control System (CTCS) has two \_\_\_\_\_: ground subsystem and onboard subsystem.
7. Software should be \_\_\_\_\_ often to catch up with the passengers' demands.
8. After any accident, the experts need to make some \_\_\_\_\_ to avoid the similar affairs happening again.

## Section IV Common Ways in Translating Words

### 常见的译词法

#### 一、推演法 (deduction)

推演法,就是根据英文的原文释义推演出其汉语意思,其推演根据是英文词典中的汉语释义。例如:

Electricity is combined with numerous atoms.

正译:电是由数不清的原子组成的。

A temperature inductor is an electronic device that converting temperature into electronic data.

正译:温度感应器是将温度转换成电子数据的电子设备。

#### 二、移植法 (transplant)

移植法,就是词义的直译。例如:

People mountain people sea. 人山人海。



Long time no see. 好久不见。

microwave 微波

supermarket 超级市场

outdoor 户外

keyboard 键盘

### 三、引申法(extension)

引申法,是指为了适应译入语的语言规范,将原文进行语码转换或者词义的延伸和扩展。例如:

A temperature sensor is produced by using the temperature-dependent resistance. The most common used is platinum, which is 100 ohm resistance element (Pt 100) at 0 °C.

本句中 dependent 原意是“依赖的”的意思,但是因为本句的特殊性,所以译为“随着温度变化的”较为合适。因此本句话的意思是:温度传感器是使用电阻随温度变化的导电体制作的。最常用的是铂,在 0°C 时电阻为 100 欧姆的元件(Pt 100)。

### 四、替代法(substitution)

替代法,就是为了适应译入语的语言规范,使用同义词或者近义词来替代原文中的词义。例如:

原文单词	可译为
helpless	无用的
powerless	无功能的
incomplete	残缺的
infrequent	偶然的
semiconductor	半导体
bilateral	双边的

### 五、释义法(explanation)

由于翻译是将一种语言转换为另一种语言,因此两种语言不能完全对应的情况常常发生。释义法,就是在两种语言不能完全对应的情况下进行翻译转换时,并且在字典中又找不到合适的解释时,由译者对原文进行转换和加工,并推断解释原文的含意的方法。例如:

The semiconductor temperature inductor is generally integrated with the effect of amplificating and adjusting the circuits.

本句中 integrate 的原意是“整合”的意思,但是这个意思并不适合于本句的翻译,所以本句译为“集成”较为合适。本句话的意思是:半导体温度传感器一般集成有放大和调



整电路的作用。

#### 六、缀合法 (combination)

缀合法,就是在翻译时,将两个词义贴近而不完全一致的意思黏合在一起,从而形成一个有相似内涵而外延扩大的词义范围。例如:

Einstein elaborated on the experimental results of Max Planck.

本句话中 elaborate 的原意是“精心制作”的意思,经过认真分析,这句话如果将原意拓展为“精心研究”或者“认真研究”较为合适。本句话的意思是:爱因斯坦精心研究了麦克斯·普兰克的试验结果。又如:

Vacuum tubes were once commonplace in televisions and radios.

本句话中 commonplace 的原意是“普通的事,平常的事”的意思,本句话中将“普通的事”这一意思改为“普通的元件”较为合适。本句话的意思是:真空管曾经是电视机和收音机中普通的元件。

#### 七、音译法 (transliteration)

音译法,是现代翻译的一种常见的翻译方法。随着我国与国际世界的交流越来越多,越来越多的词语,尤其是地名和人名采用音译法。例如本书项目一的课文中出现的单词:Central Station——中央火车站, Parramatta——帕拉马塔(区), Devonshire Street——德文郡街, Darling Harbour——达令港等。