

WHAT IS CLAIMED IS:

1. A method for determining transmission direction information, applied to user equipment, wherein the method comprises:

acquiring direction configuration information dynamically sent by a base station, the direction configuration information being indicative of transmission direction information of information transmission resource;

determining, according to the direction configuration information, a target information transmission unit indicated with undetermined transmission direction; and

determining transmission direction information for the target information transmission unit according to a preset rule,

wherein the target information transmission unit is used for scheduling of the information transmission resource;

wherein when the target information transmission unit is a basic information transmission unit with transmission direction information not being indicated, determining the transmission direction information for the target information transmission unit in any one of following manners:

determining, according to direction indication information of an indicated transmission unit, the transmission direction information for the target information transmission unit, wherein the indicated transmission unit is a basic information transmission unit within a same detection time range as the target information transmission unit; or

determining the transmission direction information of the target information transmission unit as unknown configuration; or

determining the transmission direction information of the target information transmission unit according to first preset direction configuration information, and

wherein when the target information transmission unit is a basic information transmission unit with different transmission directions being indicated in different direction configuration information, determining the transmission direction information for the target information transmission unit in any one of following manners:

determining, according to latest direction indication information as obtained, the

transmission direction information for the target information transmission unit; or
determining the transmission direction information of the target information
transmission unit as unknown configuration; or
re-determining the transmission direction information of the target information
transmission unit according to first preset direction configuration information.

2. The method according to claim 1, wherein the direction configuration information comprises at least direction indication information of a basic information transmission unit.

3. The method according to claim 2, wherein the determining, according to the direction configuration information, a target information transmission unit indicated with undetermined transmission direction comprises:

determining, according to the direction configuration information, whether each basic information transmission unit in a preset detection time range has corresponding direction indication information; and

determining, when at least one basic information transmission unit within the preset detection time range has no corresponding direction indication information, the at least one basic information transmission unit as the target information transmission unit.

4. The method according to claim 2, wherein the determining, according to the direction configuration information, a target information transmission unit indicated with undetermined transmission direction comprises:

determining, according to the direction configuration information, at least two pieces of direction indication information for a preset basic information transmission unit;

determining whether the at least two pieces of direction indication information are consistent with each other; and

determining, when the at least two pieces of direction indication information are not consistent with each other, the preset basic information transmission unit as the target information transmission unit.

5. The method according to claim 4, wherein the direction configuration information further comprises identification information of the basic information transmission unit;

the determining, according to the direction configuration information, at least two pieces of direction indication information for a preset basic information transmission unit comprises:

determining whether there is a repeated indication identifier according to the identification information of the basic information transmission unit comprised in each piece of direction configuration information; and

determining, when the repeated indication identifier is present, the at least two pieces of direction indication information corresponding to the repeated indication identifier.

~~6. The method according to claim 3, comprising determining the transmission direction information for the target information transmission unit in any one of following manners:~~

~~determining, according to direction indication information of an indicated transmission unit, the transmission direction information for the target information transmission unit, wherein the indicated transmission unit is a basic information transmission unit within a same detection time range as the target information transmission unit; or~~

~~determining the transmission direction information of the target information transmission unit as unknown configuration; or~~

~~determining the transmission direction information of the target information transmission unit according to first preset direction configuration information.~~

~~7. The method according to claim 4 or 5, comprising determining the transmission direction information for the target information transmission unit in any one of following manners:~~

~~determining, according to latest direction indication information as obtained, the transmission direction information for the target information transmission unit; or~~

~~determining the transmission direction information of the target information transmission unit as unknown configuration; or~~

~~re-determining the transmission direction information of the target information transmission unit according to first preset direction configuration information.~~

~~86.~~ The method according to claim 4 or 5, wherein when the basic information transmission unit is composed of unit time domain resource with smaller resource granularity, and the direction indication information has a direction indication granularity based on the unit time domain resource;

the determining transmission direction information for the target information

transmission unit according to a preset rule comprises:

determining, according to at least two pieces of direction indication information corresponding to the target information transmission unit, target unit time domain resource with inconsistent direction indication; and

determining, according to second preset direction configuration information, the transmission direction information for the target unit time domain resource, wherein, compared with the first preset direction configuration information, the second preset direction configuration information is indicative of transmission direction information of the unit time domain resource with smaller resource granularity.

97. A device for determining transmission direction information provided in user equipment, wherein the device comprises:

an information acquiring module, configured to acquired direction configuration information dynamically sent by a base station, the direction configuration information being indicative of transmission direction information of information transmission resource;

a target determining module, configured to determine, according to the direction configuration information, a target information transmission unit indicated with undetermined transmission direction; and

a direction information determining module, configured to determine transmission direction information for the target information transmission unit according to a preset rule,

wherein the target information transmission unit is used for scheduling of the information transmission resource;

wherein when the target information transmission unit is a basic information transmission unit with transmission direction information not being indicated, the direction information determining module comprises any one of:

a first direction information determining sub-module, configured to determine, according to direction indication information of an indicated transmission unit, the transmission direction information for the target information transmission unit, wherein the indicated transmission unit is a basic information transmission unit within a same detection time range as the target information transmission unit; or
a second direction information determining sub-module, configured to determine

the transmission direction information of the target information transmission unit as unknown configuration; or

a third direction information determining sub-module, configured to determine the transmission direction information of the target information transmission unit according to first preset direction configuration information, and

wherein when the target information transmission unit is a basic information transmission unit with different transmission directions being indicated in different direction configuration information, the direction information determining module comprises any one of:

a fourth direction information determining sub-module, configured to determine, according to latest direction indication information as obtained, the transmission direction information for the target information transmission unit; or

a fifth direction information determining sub-module, configured to determine the transmission direction information of the target information transmission unit as unknown configuration; or

a sixth direction information determining sub-module, configured to re-determine the transmission direction information of the target information transmission unit according to first preset direction configuration information.

408. The device according to claim 97, wherein the direction configuration information comprises at least direction indication information of a basic information transmission unit.

409. The device according to claim 408, wherein the target determining module comprises:

a first detecting sub-module, configured to determine, according to the direction configuration information, whether each basic information transmission unit in a preset detection time range has corresponding direction indication information; and

a first target determining sub-module, configured to determine, when at least one basic information transmission unit within the preset detection time range has no corresponding direction indication information, the at least one basic information transmission unit as the target information transmission unit.

410. The device according to claim 408, wherein the target determining module

comprises:

an indication information determining sub-module, configured to determine, according to the direction configuration information, at least two pieces of direction indication information for a preset basic information transmission unit;

a second detecting sub-module, configured to determine whether the at least two pieces of direction indication information are consistent with each other; and

a second target determining sub-module, configured to determine, when the at least two pieces of direction indication information are not consistent with each other, the preset basic information transmission unit as the target information transmission unit.

1311. The device according to claim 1210, wherein the direction configuration information further comprises identification information of the basic information transmission unit;

the indication information determining sub-module comprises:

a target identifier determining unit, configured to determine whether there is a repeated indication identifier according to the identification information of the basic information transmission unit comprised in each piece of direction configuration information; and

an indication information determining unit, configured to determine, when the repeated indication identifier is present, the at least two pieces of direction indication information corresponding to the repeated indication identifier.

~~14. The device according to claim 11, wherein the direction information determining module comprises any one of:~~

~~a first direction information determining sub-module, configured to determine, according to direction indication information of an indicated transmission unit, the transmission direction information for the target information transmission unit, wherein the indicated transmission unit is a basic information transmission unit within a same detection time range as the target information transmission unit; or~~

~~a second direction information determining sub-module, configured to determine the transmission direction information of the target information transmission unit as unknown configuration; or~~

~~a third direction information determining sub module, configured to determine the transmission direction information of the target information transmission unit according to first preset direction configuration information.~~

~~15. The device according to claim 12 or 13, wherein the direction information determining module comprises any one of:~~

~~a fourth direction information determining sub module, configured to determine, according to latest direction indication information as obtained, the transmission direction information for the target information transmission unit; or~~

~~a fifth direction information determining sub module, configured to determine the transmission direction information of the target information transmission unit as unknown configuration; or~~

~~a sixth direction information determining sub module, configured to re determine the transmission direction information of the target information transmission unit according to first preset direction configuration information.~~

~~12. The device according to claim 10 or 11, wherein when the basic information transmission unit is composed of unit time domain resource with smaller resource granularity, and the direction indication information has a direction indication granularity based on the unit time domain resource;~~

~~the direction information determining module comprises:~~

~~a target resource determining sub-module, configured to determine, according to at least two pieces of direction indication information corresponding to the target information transmission unit, target unit time domain resource with inconsistent direction indication; and~~

~~a direction information determining sub-module, configured to determine, according to second preset direction configuration information, the transmission direction information for the target unit time domain resource, wherein, compared with the first preset direction configuration information, the second preset direction configuration information is indicative of transmission direction information of the unit time domain resource with smaller resource granularity.~~

~~13. A non-transitory computer readable storage medium having stored thereon~~

computer instructions, wherein the instructions are executable by a processor to perform the method according to any of claims 1-86.

14. An apparatus for determining transmission direction information, provided in user equipment, comprising:

a processor; and

a memory for storing instructions executable by the processor;

wherein the processor is configured to perform:

acquiring direction configuration information dynamically sent by a base station, the direction configuration information being indicative of transmission direction information of information transmission resource;

determining, according to the direction configuration information, a target information transmission unit indicated with undetermined transmission direction; and

determining transmission direction information for the target information transmission unit according to a preset rule,

wherein the target information transmission unit is used for scheduling of the information transmission resource;

wherein when the target information transmission unit is a basic information transmission unit with transmission direction information not being indicated, determining the transmission direction information for the target information transmission unit in any one of following manners:

determining, according to direction indication information of an indicated transmission unit, the transmission direction information for the target information transmission unit, wherein the indicated transmission unit is a basic information transmission unit within a same detection time range as the target information transmission unit; or

determining the transmission direction information of the target information transmission unit as unknown configuration; or

determining the transmission direction information of the target information transmission unit according to first preset direction configuration information, and

wherein when the target information transmission unit is a basic information

transmission unit with different transmission directions being indicated in different direction configuration information, determining the transmission direction information for the target information transmission unit in any one of following manners:

determining, according to latest direction indication information as obtained, the transmission direction information for the target information transmission unit; or
determining the transmission direction information of the target information transmission unit as unknown configuration; or
re-determining the transmission direction information of the target information transmission unit according to first preset direction configuration information.