Notice

DESCRIPTION CN112306325A

Interactive control method and device

[0001]

Technical Field

[0002]

The present application belongs to the field of communication technology, and specifically relates to an interactive control method and device.

[0003]

Background Art

[0004]

With the rapid development of science and technology, more and more applications are involved in people's lives.
It provides great convenience for communication and information sharing between people.

[0005]

People usually install multiple applications with different functions in their electronic devices according to their respective needs to meet various demands in life.
For example, through chat applications, you can meet the need to chat with friends remotely; through financial applications, you can meet the need to pay when shopping.

[0006]

However, no matter which application is used, it is necessary to use the relevant functions through cumbersome operations in the application.
Especially when different electronic devices communicate data through applications, the process is still cumbersome and complicated, the whole process is time-consuming and not convenient enough.

[0007]

Summary of the invention

[0008]

The purpose of the embodiments of the present application is to provide an interactive control method and device that can solve the problem in the prior art that when different electronic devices communicate data through applications, the process is cumbersome and time-consuming.

[0009]

In order to solve the above technical problems, this application is implemented as follows:

[0010]

In a first aspect, an embodiment of the present application provides an interactive control method, the method comprising:

[0011]

Receiving a first input to a first electronic device;

[0012]

In response to the first input, displaying a target interface on the first electronic device, wherein the target interface includes at least one identifier, the at least one identifier is an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device;

[0013]

receiving a second input for a target identifier among the at least one identifier;

[0014]

In response to the second input, the first electronic device is controlled to perform a preset operation through a first target application; wherein the first target application is a target application corresponding to the target identifier.

[0015]

Optionally, in response to the first input, displaying a target interface on the first electronic device includes:

[0016]

In response to the first input, when all the target applications are not running in the foreground, a target interface including an icon of at least one of the target applications is displayed on the first electronic device; when any of the target applications is running in the foreground, a target interface including at least one function control in the target application running in the foreground is displayed on the first electronic device.

[0017]

Optionally, displaying a target interface including at least one icon of the target application on the first electronic device includes:

[0018]

Determine an interaction mode; wherein the interaction mode includes an add friend mode and a share file mode;

[0019]

In the case where the interaction mode is the adding friend mode, a target interface including an icon of at least one third target application is displayed on the first electronic device; wherein the third target application is a target application that is a non-friend relationship between the current login accounts on the first electronic device and the second electronic device respectively;

[0020]

When the interaction mode is a file sharing mode, a target interface including an icon of at least one fourth target application is displayed on the first electronic device; wherein the fourth target application is a target application that is a friend of the current login account on the first electronic device and the second electronic device respectively.

[0021]

Optionally, in a case where the current login accounts of the first target application on the first electronic device and the second electronic device are not in a friend relationship, the preset operation includes an add friend operation.

[0022]

Optionally, when the currently logged-in accounts of the first target application on the first electronic device and the second electronic device are friends, the preset operation includes a file sharing operation.

[0023]

In a second aspect, an embodiment of the present application provides an interactive control device, the device comprising:

[0024]

A first receiving module, configured to receive a first input for a first electronic device;

[0025]

A first response module, configured to display a target interface on the first electronic device in response to the first input, wherein the target interface includes at least one identifier, the at least one identifier is an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device;

[0026]

A second receiving module, configured to receive a second input for a target identifier in the at least one identifier;

[0027]

The second response module is used to control the first electronic device to perform a preset operation through a first target application in response to the second input; wherein the first target application is a target application corresponding to the target identifier.

[0028]

Optionally, the first response module includes:

[0029]

A first response unit, configured to, in response to the first input, display a target interface including an icon of at least one of the target applications on the first electronic device when the target applications are all not running in the foreground;

[0030]

The second response unit is used to display a target interface including at least one function control in the target application running in the foreground on the first electronic device when any of the target applications is running in the foreground.

[0031]

Optionally, the first response unit is specifically used to determine an interaction mode; wherein the interaction mode includes an add friend mode and a share file mode; when the interaction mode is the add friend mode, a target interface including an icon of at least one third target application is displayed on the first electronic device; wherein the third target application is a target application that is a non-friend relationship between the current login accounts on the first electronic device and the second electronic device respectively; when the interaction mode is the share file mode, a target interface including an icon of at least one fourth target application is displayed on the first electronic device; wherein the fourth target application is a target application that is a friend relationship between the current login accounts on the first electronic device and the second electronic device respectively.

[0032]

Optionally, in a case where the current login accounts of the first target application on the first electronic device and the second electronic device are not in a friend relationship, the preset operation includes an add friend operation.

[0033]

Optionally, when the currently logged-in accounts of the first target application on the first electronic device and the second electronic device are friends, the preset operation includes a file sharing operation.

[0034]

In a third aspect, an embodiment of the present application provides an electronic device, which includes a processor, a memory, and a program or instruction stored in the memory and executable on the processor, wherein the program or instruction, when executed by the processor, implements the steps of the method described in the first aspect.

[0035]

In a fourth aspect, an embodiment of the present application provides a readable storage medium, on which a program or instruction is stored, and when the program or instruction is executed by a processor, the steps of the method described in the first aspect are implemented.

[0036]

In a fifth aspect, an embodiment of the present application provides a chip, comprising a processor and a communication interface, wherein the communication interface is coupled to the processor, and the processor is used to run a program or instruction to implement the method described in the first aspect.

[0037]

In an embodiment of the present application, a first input to a first electronic device can be received; in response to the first input, a target interface is displayed on the first electronic device, wherein the target interface includes at least one identifier, at least one identifier being an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device.
This ensures that the first electronic device and the second electronic device have the same application installed and interact with each other through the same application.
By performing a second input on the target identifier in the target interface, the corresponding target application program can be triggered to perform a preset operation.

Therefore, there is no need to enter the target application. By inputting in the target interface, the function in the target application can be triggered to achieve communication between the first electronic device and the second electronic device, which shortens the operation time and improves convenience.

[0038]

BRIEF DESCRIPTION OF THE DRAWINGS

[0039]

FIG1 is a flowchart of the steps of an interactive control method provided in an embodiment of the present application;

[0040]

FIG2 is one of the schematic diagrams showing the target interface provided in the embodiment of the present application;

[0041]

FIG3 is a second schematic diagram showing a target interface provided in an embodiment of the present application;

[0042]

4 is a schematic diagram showing a target interface including an application name, a current login account, and an account association identifier provided in an embodiment of the present application;

[0043]

FIG5 is a schematic diagram of a target interface in a first target display mode in an embodiment of the present application;

[0044]

FIG6 is a schematic diagram showing a target interface including a mode adjustment control provided in an embodiment of the present application;

[0045]

FIG7 is a schematic diagram of a process of adding friends provided in an embodiment of the present application;

[0046]

FIG8 is a third schematic diagram showing a target interface provided in an embodiment of the present application;

[0047]

FIG9 is a schematic diagram of a file sharing process provided in an embodiment of the present application;

[0048]

FIG10 is a flowchart of a process for sending application information via NFC provided in an embodiment of the present application;

[0049]

11 is a flowchart of a process for collecting application information provided in an embodiment of the present application;

[0050]

FIG12 is a flowchart of steps for sharing path information provided in an embodiment of the present application;

[0051]

FIG13 is a schematic diagram of adjusting an application zoom image provided in an embodiment of the present application;

[0052]

FIG14 is a flowchart of the actual application of sharing path information provided by an embodiment of the present application;

[0053]

FIG15 is a structural block diagram of an interactive control device provided in an embodiment of the present application;

[0054]

FIG16 is a schematic diagram of a hardware structure of an electronic device provided in an embodiment of the present application;

[0055]

FIG. 17 is a second schematic diagram of the hardware structure of the electronic device provided in an embodiment of the present application.

[0056]

DETAILED DESCRIPTION

[0057]

The technical solutions in the embodiments of the present application will be clearly and completely described below in conjunction with the drawings in the embodiments of the present application. Obviously, the described embodiments are only part of the embodiments of the present application, rather than all of the embodiments.
Based on the embodiments in this application, all other embodiments obtained by ordinary technicians in this field without making any creative work shall fall within the scope of protection of this application.

[0058]

The terms "first", "second" and the like in the description and claims of the present application are used to distinguish similar objects but not to describe a particular sequence or order.
It should be understood that the data used in this way can be interchangeable under appropriate circumstances so that the embodiments of the present application can be implemented in an order other than those illustrated or described herein, and the objects distinguished by "first", "second", etc. are generally of the same category, and the number of objects is not limited. For example, the first object can be one or more.
In addition, "and/or" in the specification and claims represents at least one of the connected objects, and the character "/" generally indicates that the previously and subsequently associated objects are in an "or" relationship.

[0059]

The interactive control method provided in the embodiment of the present application is described in detail below through specific embodiments and their application scenarios in conjunction with the accompanying drawings.

[0060]

The present application provides an interactive control method, the method comprising:

[0061]

The second electronic device sends application information to the first electronic device; wherein the application information includes: information of applications installed on the second electronic device.

[0062]

In this step, the first electronic device and the second electronic device can communicate with each other.
For example, the first electronic device and the second electronic device both support near field communication (NFC), and the two communicate via NFC, but the present invention is not limited thereto.
The first electronic device and the second electronic device can also communicate via Bluetooth.
Preferably, the first electronic device and the second electronic device may be terminal devices such as mobile phones and tablets.

[0063]

Before the second electronic device communicates with the first electronic device, the second electronic device collects application information of the application programs installed on the second electronic device.
Preferably, the first electronic device will also collect application information of the application programs installed by itself, and send the collected application information to the second electronic device.
The application information here includes at least the identifier of the application and the identifier of the current login account of the application.

[0064]

The first electronic device receives the application information sent by the second electronic device.

[0065]

The first electronic device determines a target application according to the application information; wherein the target application is an application installed by both the first electronic device and the second electronic device.

[0066]

In this step, the same application program installed on both the first electronic device and the second electronic device is determined, and the number of the target application program can be one or at least two.

[0067]

The first electronic device displays a target interface.

[0068]

In this step, the target interface includes at least one identifier, at least one identifier is an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device.

[0069]

The first electronic device receives a first input of a target identifier among the at least one identifier by a user;

[0070]

In this step, the first input may be a click input, a slide input, a long press input, etc.

[0071]

In response to the first input, the first electronic device controls the first electronic device to perform a preset operation through a first target application; wherein the first target application is a target application corresponding to the target identifier.

[0072]

In an embodiment of the present application, a first input to a first electronic device can be received; in response to the first input, a target interface is displayed on the first electronic device, wherein the target interface includes at least one identifier, at least one identifier is an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device.
This ensures that the first electronic device and the second electronic device have the same application installed and interact with each other through the same application.
By performing a second input on the target identifier in the target interface, the corresponding target application program can be triggered to perform a preset operation. Therefore, there is no need to enter the target application. By inputting in the target interface, the function in the target application can be triggered to achieve communication between the first electronic device and the second electronic device, which shortens the operation time and improves convenience.

[0073]

As shown in FIG1 , an interactive control method provided in an embodiment of the present application includes:

[0074]

Step 101: Receive a first input to a first electronic device.

[0075]

In this step, application information sent by the second electronic device is received.

[0076]

In this step, a first input is performed on the first electronic device through the second electronic device.
The first electronic device and the second electronic device can communicate with each other.
For example, the first electronic device and the second electronic device both support NFC, and the two communicate through NFC, but the present invention is not limited thereto.
The first electronic device and the second electronic device can also communicate via Bluetooth.

[0077]

Step 102: In response to a first input, display a target interface on a first electronic device.

[0078]

In this step, the target interface includes at least one identifier, at least one identifier is an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device.
So after receiving the first input, the target application is first determined.
Whether two applications are the same application can be distinguished by the application identifier, but is not limited thereto.
The same application here is the target application.
The identification of the target application includes but is not limited to the icon of the application.

[0079]

The target interface may be presented in the current display screen of the first electronic device in a floating or page jumping manner, but is not limited thereto.
The logo or function control of the target application is located at any position of the target interface.
When there are multiple identifiers or function controls of the target application, the multiple identifiers or function controls are arranged in the target interface.
Here, the target interface may display all or part of the logo or function control. When part of the logo or function control is displayed, the logo or function control that is not displayed may be displayed in the target interface by inputting the displayed logo or function control.
The input may be a sliding input, but is not limited thereto.
Taking the display of logos in the target interface as an example, referring to FIG. 2 , the input area 22 of the target interface 21 includes logos of a preset number of target application programs, namely, application 1, application 2, application 3, and other applications.
When the number of target application identifiers is greater than a preset number, only the identifiers of the preset number of target application programs may be displayed in the target interface 21 in the manner shown in FIG. 2 , and the identifiers of the remaining target application programs may be hidden.
By inputting the identifier of the displayed target application, the identifier of the hidden target application can be displayed, while hiding the identifier of the currently displayed target application, so as to ensure that the identifiers of a preset number of target applications are displayed simultaneously in the target interface 21 .

Continuing to refer to FIG. 3 , the logo displayed in FIG. 2 can be hidden by sliding the logo in the input area 22 to the left or right, and the hidden logo can be displayed in the target interface 21 .

[0080]

Step 103: Receive a second input for a target identifier among the at least one identifier.

[0081]

In this step, the second input may be a click input, a slide input, a long press input, etc. Preferably, the target identifier is an icon or a functional control for receiving the second input.

[0082]

Step 104: In response to the second input, control the first electronic device to perform a preset operation through the first target application.

[0083]

In this step, the first target application is the target application corresponding to the target identifier.
The preset operation is the operation required to implement the function corresponding to a functional control in the target application.
That is, executing the preset operation will trigger a functional control of the target application to implement its corresponding function.

[0084]

In an embodiment of the present application, a first input to a first electronic device can be received; in response to the first input, a target interface is displayed on the first electronic device, wherein the target interface includes at least one identifier, at least one identifier is an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device.
This ensures that the first electronic device and the second electronic device have the same application installed and interact with each other through the same application.
By performing a second input on the target identifier in the target interface, the corresponding target application program can be triggered to perform a preset operation.

Therefore, there is no need to enter the target application. By inputting in the target interface, the function in the target application can be triggered to achieve communication between the first electronic device and the second electronic device, which shortens the operation time and improves convenience.

[0085]

Optionally, in response to the first input, displaying a target interface on the first electronic device includes:

[0086]

In response to the first input, when all target applications are not running in the foreground, a target interface including an icon of at least one target application is displayed on the first electronic device; when any target application is running in the foreground, a target interface including at least one function control in the target application running in the foreground is displayed on the first electronic device.

[0087]

Optionally, the target interface also includes: the name of the target application, the current login account of the target application in the first electronic device, and at least one of an account association identifier; wherein the account association identifier is an identifier used to indicate whether the target application has a friend relationship with the current login account on the first electronic device and the second electronic device, respectively. Preferably, the target interface also includes a device ID (identity mark) of the second electronic device.
Referring to Figure 4, when it is determined that the target applications include Application 1, Application 2, Application 3 and Application 4, the name of the target application, the current login account of the target application, the account association identifier and the device ID of the second electronic device are displayed in the first target area 42 of the target interface 41.
Therefore, the relevant information of the same application installed on both the first electronic device and the second electronic device can be obtained through the content displayed on the target interface 41.

[0088]

Here, the application program not running in the foreground may be an application program running in the background of the electronic device, or may be an application program not running in the electronic device.
The application that is not running in the electronic device is an application for which there is no corresponding process in the electronic device.
The first electronic device can display different contents on the target interface according to its own state when receiving the first input, so as to facilitate user operation.
The case where all target applications are running in non-foreground can be understood as the case where all target applications are running in non-foreground or the case where the first electronic device is displaying the desktop.
At this point, the icon of each target application will be displayed on the target interface.
Trigger the functions of different target applications through different icons.
Preferably, the same functions of different target applications will be triggered by different icons.

[0089]

Usually, electronic devices can ensure that only one application is running in the foreground at the same time.
When a target application is running in the foreground, all or part of the function controls of the target application will be displayed on the target interface.
Trigger different functions of the same target application through different function controls.
Preferably, the target interface also includes a switching control; the target interface can be switched between the first target display mode and the second target display mode by the switching control; wherein the first target display mode and the second target display mode are two parallel display modes of the target interface.
In the first target display mode, the function controls of the target application will be displayed in the target interface.
The second target display mode is that the icon of the target application will be displayed in the target interface.
As shown in FIG5 , it is a schematic diagram of a target interface in the first target display mode in an embodiment of the present application.
The target application is a dating software, which has functional controls for adding friends, sharing interfaces, transferring red envelopes, sharing files, etc.
The first target area 52 of the target interface 51 in Figure 5 is provided with functional controls for respectively realizing functions such as adding friends, sharing interface, transferring red envelopes, sharing files, etc.; the second target area 53 is provided with

device information of the second electronic device and related information of the dating software; the third target area 54 is provided with a switching control.

[0090]

In the embodiment of the present application, the content displayed in the target interface is flexibly adjusted according to the state of the first electronic device when receiving the first input, thereby facilitating user operation.

[0091]

Optionally, displaying a target interface including an icon of at least one target application on the first electronic device includes:

[0092]

Determine an interaction mode; wherein the interaction mode includes an adding friend mode and a sharing file mode;

[0093]

When the interaction mode is the adding friend mode, a target interface including an icon of at least one third target application is displayed on the first electronic device; wherein the third target application is a target application that is a non-friend relationship between the current login accounts on the first electronic device and the second electronic device respectively;

[0094]

When the interaction mode is the file sharing mode, a target interface including an icon of at least one fourth target application is displayed on the first electronic device; wherein the fourth target application is a target application that is a friend of the current login account on the first electronic device and the second electronic device respectively.

[0095]

Here, friend relationship refers to a preset relationship between different accounts in the application; when two accounts are friends, they can send messages to each other through the application.
In different interaction modes, different functions will be triggered when input is made to the displayed target application's identifier.

Specifically, in the add friend mode, when an input is made to the icon of the displayed target application, the add friend function of the target application will be triggered.
In the add shared file mode, when you input the icon of the displayed target application, the shared file function of the target application will be triggered.
Preferably, a mode adjustment control for adjusting the interaction mode may be displayed on the target interface.
As shown in FIG. 6 , the target interface 63 displays mode adjustment controls, namely, an add friend control 61 and a file sharing control 62 .
The icon of the target application displayed in the input area 64 can be adjusted by the trigger mode adjustment control.

[0096]

In the embodiment of the present application, by adjusting the interaction mode, the friend adding function and the file sharing function can be implemented respectively, thereby meeting more needs of users.

[0097]

Optionally, in a case where the current login accounts of the first target application on the first electronic device and the second electronic device are not in a friend relationship, the preset operation includes an add friend operation.

[0098]

Here, non-friend relationship is opposed to friend relationship. Friend relationship refers to a preset relationship between different accounts in an application. When two accounts are friends, they can send messages to each other through the application.
The add friend operation refers to an account in an application sending an add friend notification to another account in the application to establish a friend relationship.
For example, adding friends in a social application can establish friendships between different accounts.

[0099]

The following description is made by taking the preset operation including adding a friend as an example, referring to FIG. 7 , including:

[0100]

Step 701, receiving and displaying device information and application status.

[0101]

In this step, the second electronic device collects its own device information and application information and sends them to the first electronic device.
The first electronic device selects the device information and application status information therein for display.

[0102]

Step 702, identifying and displaying applications to which no friends have been added.

[0103]

In this step, the first electronic device determines the same application based on the received application information.
The same application is installed on both the first electronic device and the second electronic device.
Displays apps that do not have a friend relationship within the same app.
The friend relationship refers to the friend relationship between currently logged-in accounts in the same application.
The icons of the same application are displayed here, and each icon corresponds to the add friend operation of the same application.

[0104]

Step 703, click the icon for adding a friend.

[0105]

In this step, the object clicked is the icon of the same application.

[0106]

Step 704: the system automatically starts the application in the background and sends a friend request.

[0107]

In this step, after clicking an icon, a friend request will be sent through the same application corresponding to the icon.

For example, application A in the first electronic device and application B in the second electronic device are the same application. By clicking the icon of the corresponding application A, application A can be triggered to send a friend add request to the current login account of application B through the current login account.

[0108]

In the embodiment of the present application, the adding friend operation can be triggered without entering the target application.
The user can freely choose which target application's adding friend operation to trigger, thereby facilitating the user to add friends.

[0109]

Optionally, when the currently logged-in accounts of the first target application on the first electronic device and the second electronic device are friends, the preset operation includes a file sharing operation.

[0110]

Here, the file sharing operation is used to share a local file of the first electronic device to the second electronic device, but is not limited thereto.
Preferably, the target interface also includes a first sharing control; wherein the first sharing control corresponds to an NFC sharing operation or a cloud sharing operation.
That is to say, an NFC sharing operation can be triggered by inputting into the first sharing control, and files on the first electronic device can be shared to the second electronic device through the NFC module of the first electronic device; or a cloud sharing operation can be triggered by inputting into the first sharing control, and files on the first electronic device or files on the cloud of the first electronic device can be shared to the cloud of the second electronic device through cloud sharing.
Of course, the target interface may also include a second sharing control. When the first sharing control corresponds to the NFC sharing operation, the second sharing control corresponds to the cloud sharing operation; when the first sharing control corresponds to the cloud sharing operation, the second sharing control corresponds to the NFC sharing operation.

[0111]

As shown in FIG8 , it is a schematic diagram showing a target interface; wherein the input area 82 of the target interface 81 includes an icon of a target application, an NFC sharing control, and a cloud sharing control.
After the user inputs any one of the three, the user will automatically enter the file manager interface of the first electronic device to classify and select files.
After selecting the shared file, share the file.

[0112]

The process of the file sharing method in the embodiment of the present application is explained below with a specific step flow chart.

[0113]

As shown in FIG9 , the process of the file sharing method includes:

[0114]

Step 901, select the method to be used for sharing.

[0115]

In this step, each application identifier in the target interface corresponds to a file sharing operation of a target application, that is, corresponds to a sharing method.
It is up to the user to choose how to share.

[0116]

Step 902, click the corresponding application to enter the file selection.

[0117]

In this step, click the icon on the target interface to enter the file selection and select the shared file.
After entering the file selection, the file manager interface of the first electronic device will be entered.
The user chooses to share the file.

[0118]

Step 903: Select a file to send.

[0119]

Step 904, determine whether it is cloud sharing or NFC sharing; if so, execute step 905, if not, execute step 907.

[0120]

Step 905: Send/copy the file to the directory specified by the other party's cloud application.

[0121]

In this step, if it is NFC sharing, the shared file is directly sent to the second electronic device via NFC.
If it is cloud sharing, determine whether the shared file already exists in the cloud of the first electronic device. If it exists in the cloud of the first electronic device, then you only need to copy it from the cloud of the first electronic device to the cloud of the second electronic device. If the shared file exists locally on the first electronic device, first synchronize the shared file to the cloud of the first electronic device, and then copy the shared file to the cloud of the second electronic device through the cloud of the first electronic device.

[0122]

Step 906: Send the cloud application path link to the other party via SMS or other means.

[0123]

Step 907: Send the file to the other party's application through a third-party application. That is to say, the sharing of files is achieved by utilizing the file transfer method between the same applications.

[0124]

In the embodiment of the present application, no matter which target application's identifier is inputted first, the file sharing operation can be triggered.
Users can freely choose which target application to trigger the file sharing operation, making it convenient for users to share files.

[0125]

Optionally, receiving a first input for a first electronic device includes:

[0126]

The application information sent by the second electronic device is received via NFC or Bluetooth.

[0127]

In this step, the first electronic device and the second electronic device may be terminal devices such as mobile phones and tablets.
Here, when the first electronic device receives the first input, it will receive application information sent by the second electronic device, wherein the application information includes: information about all or part of the application programs installed on the second electronic device.
That is, the second electronic device has installed all the application programs indicated by the application information.
Both the first electronic device and the second electronic device are provided with NFC modules, so as to ensure that the two can communicate via NFC.
Alternatively, the first electronic device and the second electronic device are both provided with Bluetooth modules, thereby ensuring that the two can communicate via Bluetooth.
Referring to FIG. 10 , the sending of application information through NFC is taken as an example for explanation, which includes:

[0128]

Step 1001, turn on NFC related functions;

[0129]

Step 1002: Identify the NFC device.

[0130]

Step 1003, determine whether the NFC device type is the target type; if so, execute step 1005, if not, execute step 1004.
The target type of NFC devices are mobile terminal devices that can communicate with each other via NFC.

[0131]

Step 1004: Process according to other NFC functions.
For example, if the NFC device is a radio frequency card, this step is used to read the data content in the radio frequency card.

[0132]

Step 1005: Send application information of the first electronic device, and receive application information sent by the second electronic device via NFC.

[0133]

As shown in FIG11 , the flowchart of the steps for collecting application information provided by this application includes:

[0134]

Step 1101, turn on NFC related functions.

[0135]

Step 1102, collecting software sets; that is, collecting information on software installed on the second electronic device.

[0136]

Step 1103, read the user status in the software.

[0137]

Step 1104, determine whether the software is effectively installed; if not, end; if so, execute step 1105.

[0138]

Step 1105: Generate an application list including application information of each application according to the software information and the user status.

[0139]

It should be noted that the focus of each embodiment of the present application is on the method steps therein, and the execution subject may be the first electronic device or the second electronic device.
Most of the above embodiments are described with the execution subject being the first electronic device.

When the execution subject is the second electronic device, the first electronic device in the above embodiments is the second electronic device; and the second electronic device is the first electronic device.
That is, the first electronic device can collect its own application information and send the collected application information to the second electronic device.
The second electronic device will perform the same steps as the first electronic device.

[0140]

In the embodiment of the present application, application information is received via NFC or Bluetooth, which improves the convenience of application information transmission.

[0141]

Optionally, the target interface further includes: a second target area displaying a path sharing control and an application zoom map; as shown in FIG12 , the method further includes:

[0142]

Step 1201: receiving a second input from a user for applying a zoomed image.

[0143]

In this step, when the application is running in the first electronic device, the first electronic device will record the path of one or more pages, and generate application thumbnails according to the one or more pages.
The second input may be a click input, a slide input, a long press input, etc., but is not limited thereto.
When the number of application zoom images is at least two, part or all of the application zoom images may be displayed in the second target area.
When a portion of the application zoom image is displayed in the second target area, the remaining portion of the application zoom image is in a hidden state.
The displayed application zoom image can be adjusted by inputting, such as sliding input, but not limited to this, to adjust part of the displayed application zoom image to a hidden state; and adjust part or all of the hidden application zoom image to a displayed state and display it in the second target area.
Referring to FIG. 13 , the displayed application zoom image can be adjusted by sliding left and right.

[0144]

Step 1202 , generating a sharing path in response to a second input.

[0145]

In this step, the sharing path is the path of the page indicated by the application zoom image.
Preferably, the sharing path can be displayed on the path sharing control.

[0146]

Step 1203: Receive a third input from the user on the path sharing control.

[0147]

In this step, the third input may be a click input, a slide input, a long press input, etc., but is not limited thereto.

[0148]

Step 1204 , in response to the third input, sending the sharing path to the second electronic device.

[0149]

In this step, after receiving the sharing path, the second electronic device can directly open the corresponding page according to the sharing path.

[0150]

In the embodiment of the present application, a sharing path indicating the path of a preset page can be generated, and the sharing path can be sent to a second electronic device, thereby facilitating opening of a corresponding page on the second electronic device.

[0151]

Optionally, the target page also includes a third target area for displaying a path selection control.
By inputting into the path selection control, a target page in the first electronic device can be selected to generate a corresponding sharing path; thereby, the generated sharing path is sent to the second electronic device through the path sharing control.

The target page is any page of an application installed on the first electronic device.
See FIG. 14 , which is a flowchart of steps for sharing path information in an embodiment of the present application; including:

[0152]

Step 1401, determine whether the current path meets expectations.
Users can determine whether the current sharing path meets expectations through the sharing path displayed on the path sharing control.
If yes, execute step 1405; if no, execute step 1402.

[0153]

Step 1402, click to select a path.
Click the path selection control.

[0154]

Step 1403, enter the path interface selection mode; in the path interface selection mode, you can freely select the sharing page that meets your expectations.

[0155]

Step 1404, generating path information.
Based on the selected shared page, the path information pointing to the shared page is generated.

[0156]

Step 1405, click on the path information to synchronize.
Click the path sharing control to send the path information to the second electronic device.

[0157]

Optionally, the method further includes:

[0158]

Receiving friend adding information sent by the second electronic device through the first application;

[0159]

Displays the page in the target application to confirm adding a friend.

[0160]

In an embodiment of the present application, after receiving the friend adding information, a page for confirming the friend adding will be directly displayed, thereby facilitating user operation and improving the convenience of operation.

[0161]

It should be noted that the interactive control method provided in the embodiment of the present application can be executed by an interactive control device, or a control module in the interactive control device for executing the interactive control method.
In the embodiment of the present application, an interactive control device executing an interactive control method is taken as an example to illustrate the interactive control device provided in the embodiment of the present application.

[0162]

As shown in FIG15 , the embodiment of the present application further provides an interactive control device, which includes:

[0163]

The first receiving module 1501 is used to receive a first input to a first electronic device;

[0164]

A first response module 1502, configured to display a target interface on the first electronic device in response to the first input, wherein the target interface includes at least one identifier, at least one identifier is an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device;

[0165]

The second receiving module 1503 is used to receive a second input for a target identifier in the at least one identifier;

[0166]

The second response module 1504 is used to control the first electronic device to perform a preset operation through a first target application in response to the second input; wherein the first target application is a target application corresponding to the target identifier.

[0167]

Optionally, the first response module 1502 includes:

[0168]

A first response unit, configured to, in response to a first input, display a target interface including an icon of at least one target application on the first electronic device when all target applications are not running in the foreground;

[0169]

The second response unit is used to display a target interface including at least one function control in the target application running in the foreground on the first electronic device when any target application is running in the foreground.

[0170]

Optionally, the first response unit is specifically used to determine the interaction mode; wherein the interaction mode includes an add friend mode and a share file mode; when the interaction mode is the add friend mode, a target interface including an icon of at least one third target application is displayed on the first electronic device; wherein the third target application is a target application that is a non-friend relationship between the current login accounts on the first electronic device and the second electronic device respectively; when the interaction mode is the share file mode, a target interface including an icon of at least one fourth target application is displayed on the first electronic device; wherein the fourth target application is a target application that is a friend relationship between the current login accounts on the first electronic device and the second electronic device respectively.

[0171]

Optionally, in a case where the current login accounts of the first target application on the first electronic device and the second electronic device are not in a friend relationship, the preset operation includes an add friend operation.

[0172]

Optionally, when the currently logged-in accounts of the first target application on the first electronic device and the second electronic device are friends, the preset operation includes a file sharing operation.

[0173]

In an embodiment of the present application, a first input to a first electronic device can be received; in response to the first input, a target interface is displayed on the first electronic device, wherein the target interface includes at least one identifier, at least one identifier is an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device.
This ensures that the first electronic device and the second electronic device have the same application installed and interact with each other through the same application.
By performing a second input on the target identifier in the target interface, the corresponding target application program can be triggered to perform a preset operation. Therefore, there is no need to enter the target application. By inputting in the target interface, the function in the target application can be triggered to achieve communication between the first electronic device and the second electronic device, which shortens the operation time and improves convenience.

[0174]

The interactive control device in the embodiment of the present application may be a device, or a component, an integrated circuit, or a chip in a terminal.
The device may be a mobile electronic device or a non-mobile electronic device.
Exemplarily, the mobile electronic device may be a mobile phone, a tablet computer, a laptop computer, a PDA, an in-vehicle electronic device, a wearable device, an ultra-mobile personal computer (UMPC), a netbook or a personal digital assistant (PDA), etc., and the non-mobile electronic device may be a server, a network attached storage (NAS), a personal computer (PC), a television (TV), a teller machine or a self-service machine, etc., which is not specifically limited in the embodiments of the present application.

[0175]

The interactive control device in the embodiment of the present application may be a device having an operating system.

The operating system may be an Android operating system, an iOS operating system, or other possible operating systems, which are not specifically limited in the embodiments of the present application.

[0176]

The interactive control device provided in the embodiment of the present application can implement each process implemented by the method embodiments of Figures 1 to 14, and will not be described again here to avoid repetition.

[0177]

Optionally, as shown in Figure 16, an embodiment of the present application also provides an electronic device 1600, including a processor 1602, a memory 1601, and a program or instruction stored in the memory 1601 and executable on the processor 1602. When the program or instruction is executed by the processor 1602, each process of the above-mentioned interactive control method embodiment is implemented, and the same technical effect can be achieved. To avoid repetition, it will not be repeated here.

[0178]

It should be noted that the electronic devices in the embodiments of the present application include the above-mentioned mobile electronic devices and non-mobile electronic devices.

[0179]

FIG. 17 is a schematic diagram of the hardware structure of an electronic device implementing an embodiment of the present application.

[0180]

The electronic device 1700 includes but is not limited to: a radio frequency unit 1701, a network module 1702, an audio output unit 1703, an input unit 1704, a sensor 1705, a display unit 1706, a user input unit 1707, an interface unit 1708, a memory 1709, and a processor 1710 and other components.

[0181]

Those skilled in the art will appreciate that the electronic device 1700 may also include a power source (such as a battery) for supplying power to each component, and the power source may be logically connected to the processor 1710 through a power management

system, thereby implementing functions such as managing charging, discharging, and power consumption management through the power management system.
The electronic device structure shown in FIG17 does not constitute a limitation on the electronic device. The electronic device may include more or fewer components than shown in the figure, or a combination of certain components, or a different arrangement of components, which will not be described in detail here.

[0182]

Here, the electronic device is taken as the first electronic device for example.

[0183]

The radio frequency unit 1701 or the network module 1702 is configured to receive a first input for a first electronic device.

[0184]

Display unit 1706 is used to display a target interface on the first electronic device in response to the first input, wherein the target interface includes at least one identifier, at least one identifier is an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device.

[0185]

The user input unit 1707 is used to receive a second input for a target identifier in the at least one identifier.

[0186]

The processor 1710 is further configured to control the first electronic device to execute a preset operation through a first target application in response to a second input; wherein the first target application is a target application corresponding to the target identifier.

[0187]

In an embodiment of the present application, a first input to a first electronic device can be received; in response to the first input, a target interface is displayed on the first electronic device, wherein the target interface includes at least one identifier, at least one identifier is an icon of at least one target application or at least one function control in the same target

application, and the target application is an application installed on both the first electronic device and the second electronic device.
This ensures that the first electronic device and the second electronic device have the same application installed and interact with each other through the same application.
By performing a second input on the target identifier in the target interface, the corresponding target application program can be triggered to perform a preset operation. Therefore, there is no need to enter the target application. By inputting in the target interface, the function in the target application can be triggered to achieve communication between the first electronic device and the second electronic device, which shortens the operation time and improves convenience.

[0188]

Optionally, the display unit 1706 is specifically used to respond to the first input and, when all target applications are not running in the foreground, display a target interface including an icon of at least one target application on the first electronic device; when any target application is running in the foreground, display a target interface including at least one function control in the target application running in the foreground on the first electronic device.

[0189]

In the embodiment of the present application, the content displayed in the target interface can be flexibly adjusted according to the state of the first electronic device when receiving the first input, thereby facilitating user operation.

[0190]

It should be understood that in an embodiment of the present application, the input unit 1704 may include a graphics processor (Graphics Processing Unit, GPU) 17041 and a microphone 17042, and the graphics processor 17041 processes image data of static pictures or videos obtained by an image capture device (such as a camera) in a video capture mode or an image capture mode.
The display unit 1706 may include a display panel 17061 , and the display panel 17061 may be configured in the form of a liquid crystal display, an organic light emitting diode, or the like.
The user input unit 1707 includes a touch panel 17071 and other input devices 17072 . Touch panel 17071 is also called a touch screen.

The touch panel 17071 may include two parts: a touch detection device and a touch controller.
Other input devices 17072 may include, but are not limited to, a physical keyboard, function keys (such as volume control keys, switch keys, etc.), a trackball, a mouse, and a joystick, which are not described in detail here.
The memory 1709 may be used to store software programs and various data, including but not limited to application programs and operating systems.
The processor 1710 may integrate an application processor and a modem processor, wherein the application processor mainly processes an operating system, a user interface, and application programs, and the modem processor mainly processes wireless communications.
It is understandable that the above-mentioned modem processor may not be integrated into the processor 1710.

[0191]

An embodiment of the present application also provides a readable storage medium, on which a program or instruction is stored. When the program or instruction is executed by a processor, the various processes of the above-mentioned interactive control method embodiment are implemented and the same technical effect can be achieved. To avoid repetition, it will not be repeated here.

[0192]

The processor is the processor in the electronic device described in the above embodiment. The readable storage medium includes a computer-readable storage medium, such as a computer read-only memory (ROM), a random access memory (RAM), a magnetic disk or an optical disk, etc.

[0193]

An embodiment of the present application further provides a chip, which includes a processor and a communication interface, wherein the communication interface is coupled to the processor, and the processor is used to run programs or instructions to implement the various processes of the above-mentioned interactive control method embodiment, and can achieve the same technical effect. To avoid repetition, it will not be repeated here.

[0194]

It should be understood that the chip mentioned in the embodiments of the present application can also be called a system-level chip, a system chip, a chip system or a system-on-chip chip, etc.

[0195]

It should be noted that, in this article, the terms "comprises", "includes" or any other variations thereof are intended to cover non-exclusive inclusion, so that a process, method, article or apparatus that includes a series of elements includes not only those elements, but also other elements not explicitly listed, or also includes elements inherent to such process, method, article or apparatus.
Without more constraints, an element defined by the phrase "comprising a..." does not exclude the existence of other identical elements in the process, method, article or apparatus comprising the element.
In addition, it should be pointed out that the scope of the methods and devices in the embodiments of the present application is not limited to performing functions in the order shown or discussed, but may also include performing functions in a substantially simultaneous manner or in a reverse order according to the functions involved. For example, the described methods may be performed in an order different from that described, and various steps may be added, omitted, or combined.
Additionally, features described with reference to certain examples may be combined in other examples.

[0196]

Through the description of the above implementation methods, those skilled in the art can clearly understand that the above embodiment methods can be implemented by means of software plus a necessary general hardware platform, and of course by hardware, but in many cases the former is a better implementation method.
Based on this understanding, the technical solution of the present application can essentially or the part that contributes to the prior art can be embodied in the form of a software product. The computer software product is stored in a storage medium (such as ROM/RAM, disk, or CD-ROM), and includes a number of instructions for enabling a terminal (which can be a mobile phone, computer, server, or network device, etc.) to execute the methods described in the various embodiments of the present application.

[0197]

The embodiments of the present application are described above in conjunction with the accompanying drawings, but the present application is not limited to the above-mentioned specific implementation methods. The above-mentioned specific implementation methods are merely illustrative and not restrictive. Under the guidance of the present application, ordinary technicians in this field can also make many forms without departing from the purpose of the present application and the scope of protection of the claims, all of which are within the protection of the present application.

Notice

CLAIMS CN112306325A

1.

An interactive control method, characterized in that the method comprises:
Receiving a first input to a first electronic device;
In response to the first input, displaying a target interface on the first electronic device, wherein the target interface includes at least one identifier, the at least one identifier is an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device;
receiving a second input for a target identifier among the at least one identifier;
In response to the second input, the first electronic device is controlled to perform a preset operation through a first target application; wherein the first target application is a target application corresponding to the target identifier.

2.

The method according to claim 1, wherein displaying a target interface on the first electronic device in response to the first input comprises:
In response to the first input, when all the target applications are not running in the foreground, a target interface including an icon of at least one of the target applications is displayed on the first electronic device; when any of the target applications is running in the foreground, a target interface including at least one function control in the target application running in the foreground is displayed on the first electronic device.

3.

The method according to claim 2, characterized in that displaying a target interface including at least one icon of the target application on the first electronic device comprises:
Determine an interaction mode; wherein the interaction mode includes an add friend mode and a share file mode;
In the case where the interaction mode is the adding friend mode, a target interface including an icon of at least one third target application is displayed on the first electronic device; wherein the third target application is a target application that is a non-friend relationship between the current login accounts on the first electronic device and the second electronic device respectively;
When the interaction mode is a file sharing mode, a target interface including an icon of at least one fourth target application is displayed on the first electronic device; wherein the fourth target application is a target application that is a friend of the current login account on the first electronic device and the second electronic device respectively.

4.

The method according to claim 1 is characterized in that, when the current login accounts of the first target application on the first electronic device and the second electronic device are not in a friend relationship, the preset operation includes an add friend operation.

5.

The method according to claim 1 is characterized in that, when the current login accounts of the first target application on the first electronic device and the second electronic device are friends, the preset operation includes a file sharing operation.

6.

An interactive control device, characterized in that the device comprises:
A first receiving module, configured to receive a first input for a first electronic device;
A first response module, configured to display a target interface on the first electronic device in response to the first input, wherein the target interface includes at least one identifier, the at least one identifier is an icon of at least one target application or at least one function control in the same target application, and the target application is an application installed on both the first electronic device and the second electronic device;
A second receiving module, configured to receive a second input for a target identifier in the at least one identifier;

The second response module is used to control the first electronic device to perform a preset operation through a first target application in response to the second input; wherein the first target application is a target application corresponding to the target identifier.

7.

The device according to claim 6, characterized in that the first response module comprises:
A first response unit, configured to, in response to the first input, display a target interface including an icon of at least one of the target applications on the first electronic device when the target applications are not running in the foreground;
The second response unit is used to display a target interface including at least one function control in the target application running in the foreground on the first electronic device when any of the target applications is running in the foreground.

8.

The device according to claim 7 is characterized in that the first response unit is specifically used to determine an interaction mode; wherein the interaction mode includes an add friend mode and a share file mode; when the interaction mode is the add friend mode, a target interface including an icon of at least one third target application is displayed on the first electronic device; wherein the third target application is a target application that is a non-friend relationship between the current login accounts on the first electronic device and the second electronic device respectively; when the interaction mode is the share file mode, a target interface including an icon of at least one fourth target application is displayed on the first electronic device; wherein the fourth target application is a target application that is a friend relationship between the current login accounts on the first electronic device and the second electronic device respectively.

9.

The device according to claim 6 is characterized in that, in the case that the current login accounts of the first target application on the first electronic device and the second electronic device are not in a friend relationship, the preset operation includes an add friend operation.

10.

The device according to claim 6 is characterized in that, when the current login accounts of the first target application on the first electronic device and the second electronic device are friends, the preset operation includes a file sharing operation.