

CLAIMS

1. A computer implemented method comprising:

receiving, at a computing device, a first instruction to start a main application installed on the device, the main application including multiple sub-applications;

in response to receiving the first instruction, determining, by the computing device, one or more sub-applications to load in the process of starting the main application, comprising:

obtaining, by the computing device, application loading information for the main application, wherein the application loading information is generated based on usage frequency information of the multiple sub-applications in a preset duration and identifies sub-applications to be loaded in the process of starting the main application; and

loading, by the computing device, the sub-applications identified in the obtained application loading information in the process of starting the main application.

2. The method of claim 1, wherein the step of obtaining application loading information for the main application comprises:

obtaining application loading information which is generated based on a sub-application pre-selected by a user and identifies the pre-selected sub-application; or

obtaining application loading information which is generated based on i) a number of sub-applications pre-selected by a user, and ii) usage frequency information of the number of preselected sub-applications in a preset duration, the application loading information identifying sub-applications to be loaded in the process of starting the main application.

3. The method of claim 2, wherein the preselected sub-application comprises a sub-application selected through a load setting function of the main application for selecting a sub-application that is used frequently by the user to be loaded in the process of starting the main application.

4. The method of claim 1, wherein, before the step of obtaining application loading information for the main application, the method further comprises:

sending, by the computing device, request information for obtaining usage frequency information to a server;

in response to the sent request information, receiving, at the computing device and from the server, usage frequency information of sub-applications included in the main application in a preset duration;

sorting, by the computing device, the received usage frequency information in a descending order, and

determining, by the computing device, a sub-application whose usage frequency information is sorted at the forefront as the sub-application to be loaded in the process of starting the main application; and

generating, by the computing device, application loading information which identifies the sub-application; and

storing the application loading information in a designated directory of the device.

5. The method of claim 4, wherein the step of obtaining application loading information which corresponds to the main application comprises reading from the designated directory of

the device the application loading information for the main application.

6. The method of claim 1, wherein, before the step of obtaining application loading information for the main application, the method further comprises:

obtaining usage frequency information of sub-applications included in the main application in a preset duration from an installation directory of the main application of the device;

sorting the received usage frequency information in a descending order, and determining a sub-application whose usage frequency information is sorted at the forefront as the sub-application to be loaded in the process of starting the main application; and

generating application loading information which identifies the sub-application to be loaded in the process of starting the main application and

storing the application loading information in a designated directory of the device.

7. The method of claim 6, wherein the step of obtaining application loading information for the main application comprises reading, from the designated directory of the device, the application loading information for the main application.

8. The method of claim 1, wherein the step of loading the sub-applications identified in the obtained application loading information in the process of starting the main application comprises:

identifying the sub-applications in the process of starting the main application;

determining whether the device has an installation directory of the sub-application;

if yes, obtaining storage path information which corresponds to the installation directory of the sub-application; and

based on the obtained storage path information, calling a file in the installation directory of the sub-application in the main application and loading the sub-application.

9. The method of any one of claims 1 to 8, wherein the method further comprises:

obtaining an installation package which corresponds to the identified sub-application to be loaded in the process of starting the main application and installing the package on the device if the device does not have an installation directory of the identified sub-application to be loaded in the process of starting the main application; and

storing storage path information which corresponds to the installation directory of the sub-application to be loaded in the process of starting the main application into an installation directory of the main application.

10. The method of any one of claims 1 to 9, wherein the method further comprises:

receiving a second instruction for starting a first sub-application which is included in the main application;

in response to receiving the second instruction, determining whether the first sub-application is a sub-application loaded in the process of starting the main application;

determining whether the device has an installation directory of the first sub-application if the first sub-application is not a sub-application loaded in the process of starting the main application;

obtaining an installation package which corresponds to the first sub-application and

installing the package on the device if the device does not have the installation directory of the first sub-application;

storing storage path information which corresponds to the installation directory of the first sub-application into an installation directory of the main application;

obtaining storage path information which corresponds to the installation directory of the first sub-application if the device has the installation directory of the first sub-application; and

based on the obtained storage path information, calling a file in the installation directory of the first sub-application in the main application and loading the first sub-application.

11. An apparatus for loading a device application, the apparatus comprising a plurality of modules configured to perform the method of any one of claims 1 to 10.