

The AndroidManifest.xml File >

<service>

SYNTAX:

CONTAINED IN:

<application>

CAN CONTAIN:

<intent-filter>
<meta-data>

DESCRIPTION:

Declares a service (a <u>Service</u> subclass) as one of the application's components. Unlike activities, services lack a visual user interface. They're used to implement long-running background operations or a rich communications API that can be called by other applications.

All services must be represented by <service> elements in the manifest file. Any that are not declared there will not be seen by the system and will never be run.

ATTRIBUTES:

android:enabled

Whether or not the service can be instantiated by the system — "true" if it can be, and "false" if not. The default value is "true".

The \leq application \geq element has its own <u>enabled</u> attribute that applies to all application components, including services. The \leq application \geq and \leq service> attributes must both be "true" (as they both are by default) for the service to be enabled. If either is "false", the service is disabled; it cannot be instantiated.

android:exported

Whether or not components of other applications can invoke the service or interact with it — "true" if they can, and "false" if not. When the value is "false", only components of the same application or applications with the same user ID can start the service or bind to it.

The default value depends on whether the service contains intent filters. The absence of any filters means that it can be invoked only by specifying its exact class name. This implies that the service is intended only for application-internal use (since others would not know the class name). So in this case, the default value is "false". On the other hand, the presence of at least one filter implies that the service is intended for external use, so the default value is "true".

This attribute is not the only way to limit the exposure of a service to other applications. You can also use a permission to limit the external entities that can interact with the service (see the <u>permission</u> attribute).

android:icon

An icon representing the service. This attribute must be set as a reference to a drawable resource containing the image definition. If it is not set, the icon specified for the application as a whole is used instead (see the

<application> element's icon attribute).

The service's icon — whether set here or by the \leq application \geq element — is also the default icon for all the service's intent filters (see the \leq intent-filter \geq element's \underline{icon} attribute).

android: label

A name for the service that can be displayed to users. If this attribute is not set, the label set for the application as a whole is used instead (see the sapplication> element's label attribute).

The service's label — whether set here or by the $\frac{\text{application}}{\text{element}}$ element — is also the default label for all the service's intent filters (see the $\frac{\text{intent-filter}}{\text{element}}$ element's $\frac{\text{label}}{\text{attribute}}$).

The label should be set as a reference to a string resource, so that it can be localized like other strings in the user interface. However, as a convenience while you're developing the application, it can also be set as a raw string.

android:name

The name of the <u>Service</u> subclass that implements the service. This should be a fully qualified class name (such as, "com.example.project.RoomService"). However, as a shorthand, if the first character of the name is a period (for example, ".RoomService"), it is appended to the package name specified in the <a href="mailto:smaller:mai

There is no default. The name must be specified.

android:permission

The name of a permission that that an entity must have in order to launch the service or bind to it. If a caller of startService(), bindService(), or stopService(), has not been granted this permission, the method will not work and the Intent object will not be delivered to the service.

If this attribute is not set, the permission set by the <application> element's <application> element's permission attribute applies to the service. If neither attribute is set, the service is not protected by a permission.

For more information on permissions, see the <u>Permissions</u> section in the introduction and a separate document, <u>Security and Permissions</u>.

android:process

The name of the process where the service is to run. Normally, all components of an application run in the default process created for the application. It has the same name as the application package. The $\frac{\texttt{application}}{\texttt{element}}$ element's $\frac{\texttt{process}}{\texttt{process}}$ attribute can set a different default for all components. But component can override the default with its own $\frac{\texttt{process}}{\texttt{process}}$ attribute, allowing you to spread your application across multiple processes.

If the name assigned to this attribute begins with a colon (':'), a new process, private to the application, is created when it's needed and the service runs in that process. If the process name begins with a lowercase character, the service will run in a global process of that name, provided that it has permission to do so. This allows components in different applications to share a process, reducing resource usage.

SEE ALSO:

<application> <activity>

INTRODUCED IN:

API Level 1

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