

Loadable Code

Guardant Code / Code Time models allow the loading and execution of the source code inside the dongle. The source code (aka loadable code) needs to be preprepared (or written) specifically for this purpose.

GrdUtil.exe provides a convenient service for dealing with the loadable code, including its automatic conversion from BIN file into a format suitable for writing into dongle (GCEXE), and then for recording GCEXE into Flash memory.

Working with the Loadable Code field from within the application is handled using the special Guardant API functions: GrdCodeGetInfo, GrdCodeLoad, GrdCodeRun (see details in ***GrdAPI.chm***).

The dialog of creating a field is made in the form of a wizard containing several pages:

- Adding Loadable Code Field
- Loadable Code Properties
- Time Dependencies of the Loadable Code (for Guardant Code Time)
- Loadable Code Settings

Click **[Next]** to move to the next page after completing the current dialog.

Adding the field

In order to create a **Loadable Code** field, select the **Edit | Add new field** command from the menu.

In the dialog box that appears, select **Loadable Code** and define the field's name.

The **Loadable Code** protected item has a fixed size of 160 bytes.

Loadable Code Properties

A field of **Loadable Code** type is a special case of a **protected item**, i.e. it is protected with hardware locks from reading and writing. Its state can be programmed and later controlled from within the application.

Activation and deactivation services only are accessible to the loadable code, which control the state of the protected item and provide access to its contents from within the application. Operations with these services are identical to the operations with protected items and algorithms. See the section [Hardware algorithm services](#) for more information.

Time Dependencies of the Loadable Code

In Guardant Code Time dongle (*Guardant Code Time contains a realtime clock*) mask, the **Loadable Code Properties** page is followed by the **Time dependencies** page, on which are located the elements designed to limit the operating time of the protected application.

The notion of the time restriction technology is based upon the fact that the algorithm's workability depends on the dongle's built-in timer (RTC).

See **Limiting the Application Operation's Time** chapter for information on the **Time dependencies** dialog.