

# Basic Parts of User Client Process

## D2000 OBJApi - basic parts of user client process

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### Initializing the communication

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Before calling a function from the interface [D2000 ObjApi](#), it is necessary at first to call the initialization function - [ConnectKernel](#), that provides connection with the process [D2000 Server](#). After calling the function [ConnectKernel](#), then there is calling the function [SendChildren](#) that provides acceptance of the definition of user process' children.

### Handling NewObjectValuemessage

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When the connection is established with the [D2000 Server](#), we use the parameter [ConnectKernel](#) to define a service procedure that will receive asynchronous messages about a change of the object value or status. Such messages are to be sent for each object, which is opened by calling the function [OpenObject](#) and for all children of given process.

### Handling NewDefinition message

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After connecting the [D2000 Server](#), it is possible to request for definition of user process children by calling the function [SendChildren](#). When calling this function, we define a service procedure that will receive *NewDefinition* configuration messages.

### Executive part

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In this part, we can call [functions](#) of the interface [D2000 ObjApi](#) which are used to:

- open and close an object. For the open object, there are sent the messages *NewObjectValue* about a change of its value or its status.
- get current object value,
- set up the object value,
- get data from the archive database,
- get data from the log database (not yet implemented),
- get the list of objects of given type, all objects, or objects matching the entered mask.

### Stopping the communication

Before terminating the user process, it is necessary to stop correctly the communication with [D2000 Server](#) by calling the function [LogoffProc](#). Automatic restart of the user process is executed, if the following conditions are met:

- while the user process was terminating, there was connected [D2000 Server](#) and the connection was not terminated correctly by calling [LogoffProc](#),
- the process [D2000 Server](#) is running on the same computer as the user process,
- own executable file of the user process is placed in the subdirectory **Bin** of the [installation directory](#) containing all executable files of D2000 System,
- the process must not be configured as "service" using the parameter */X*, always must run as a standard process communicating with user.