

Error Code Checking

As previously discussed, the Couchbase .NET Client has two forms of CRUD methods: those that return the primitive value (e.g. bool, integer, etc) of the result and those that return an `IOperationResult` object. The former methods have a signature that matches the operation's name (e.g. `Increment(..)`) and the latter methods have a signature with a prefix of the "Execute" (e.g. `ExecuteIncrement`).

The benefit of using the `IOperationResult` methods is that they give you additional information of about the result of the operation which allows you to handle specific error or failure cases or to determine what caused the error to occur. Of major importance is the `Success`, `StatusCode`, `Message` and `Exception` fields.

A description of each field:

- **Success** – returns Boolean true if operation was successful, otherwise false
- **StatusCode** – returns an integer value indicating the response status from the server or the IO portion of the client. There is also an enumeration describing the values and extension method that makes the conversion simple.
- **Message** – a string describing the error that occurred
- **Exception** – the exception caused by the error

Status Codes

Perhaps the most important field is the `StatusCode` field. Here is a table with the numerical value, enum value and description of each `StatusCode`:

Enum value	Numerical	Origin	Description
Success	0	Server	Operation was successful
KeyNotFound	1	Server	Key was not found on server
KeyExists	2	Server	Key already exists on server
ValueTooLarge	3	Server	Value is too large
InvalidArguments	4	Server	The operations arguments are invalid
ItemNotStored	5	Server	The item could not be stored.
IncrDecrOnNonNumericValue	6	Server	An attempt was made to increment or decrement a non-numeric value – e.g. a string
VBucketBelongsToAnotherServer	7	Server	The VBucket the key is mapped too has been changed. Common during rebalance scenarios and operation should be retried.
AuthenticationError	20	Server	SASL authentication has failed. Check the password or username of the server or bucket.
AuthenticationContinue	21	Server	Used during SASL authentication.
InvalidRange	22	Server	Invalid range was specified
UnknownCommand	81	Server	Operation was not recognized by server. Should never occur with a Couchbase supported client.