

## Self Upgrade & State Migration

Three examples on how to handle updates and [state migration](#) :

1. [State Migration](#)
2. : How to implement amigrate
3. method to migrate state between contract updates.
4. [State Versioning](#)
5. : How to use readily use versioning on a state, to simplify updating it later.
6. [Self Update](#)
7. : How to implement a contract that can update itself.

## State Migration

The [State Migration example](#) shows how to handle state-breaking changes between contract updates.

It is composed by 2 contracts:

1. Base: A Guest Book where people can write messages.
2. Update: An update in which we remove a parameter and change the internal structure.
3. Rust

contracts/basic-updates/update/src/migrate.rs loading ... [See full example on GitHub](#)

## The Migration Method

The migration method deserializes the current state (OldState ) and iterates through the messages, updating them to the newPostedMessage that includes thepayment field.

tip Notice that migrate is actually an [initialization method](#) that ignores the existing state (`!#init(ignore_state)`), thus being able to execute and rewrite the state.

## State Versioning

The [State Versioning example](#) shows how to use [Enums](#) to implement state versioning on a contract.

Versioning simplifies updating the contract since you only need to add a new new version of the structure. All versions can coexist, thus you will not need to change previously existing structures.

The example is composed by 2 contracts:

1. Base: The Guest Book contract using versionedPostedMessages
2. (PostedMessagesV1
3. ).
4. Update: An update that adds a new version ofPostedMessages
5. (PostedMessagesV2
6. ).
7. Rust

contracts/enum-updates/update/src/versioned\_msg.rs loading ... [See full example on GitHub](#)

## Self Update

The [Self Update example](#) shows how to implement a contract that can update itself.

It is composed by 2 contracts:

1. Base: A Guest Book where people can write messages, implementing `update_contract`
2. method.
3. Update: An update in which we remove a parameter and change the internal structure.
4. Rust

contracts/self-updates/base/src/update.rs loading ... [See full example on GitHub](#) [Edit this page](#) Last updated on Dec 9, 2023  
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