

# Freezing and forgetting in noForth

- The last word of the noForth kernel is `NOFORTH\` . It is defined as

```
SHIELD NOFORTH\
```

A SHIELD ( 'name' -- ) is similar to a MARKER. The only difference: a SHIELD does not forget itself, a MARKER does.

Some tool words ( `DUMP .S WORDS SEE` etc. ) are added above the kernel and are followed by their shield `TOOLS\` .

- Now you want to add some new definitions:

```
:\ ... ;  
:\ ... ;  
FREEZE
```

When sent to noForth these definitions are compiled and `FREEZE` makes them resident. They will stay there even after a power off/on.

- What to do if you want to erase the just added and 'frozen' definitions?  
Execute

```
TOOLS\
```

The just added definitions are now removed and the new situation is automatically frozen. 'Forgotten' addresses in noForth vectors are replaced by their default values.

The word `NOFORTH\` removes all code that was added to the kernel but the word itself will always stay there. The tools can be reloaded: they are available in a file.

Of course you can reload a selection of the tool words and protect them again with

```
SHIELD TOOLS\ FREEZE      ( see end of the tools file )
```