



3. Virtual Functions

To abstract and decouple functionality, you need Virtual Functions.

Virtual Functions are found and executed at runtime using the following:

- Signature Key
- Hash Table
- Function Signature
- Objective Call

A Signature Key is a unique global string constant.

Hash Tables record functions by Signature Key.

A Function Signature is a `typedef` used to call Virtual Functions.

The Objective Call runs a Virtual Function for an object using the above.

Related functions:

```
MACRO: OSig(SIGNATURE);           // Used in typedef for call signature
sig_(SIGNATURE); // Create ConstChar Signature Key
pointer OResponds(Obj obj,SIG); // Get Virtual Function
various obj_(SIG,Obj obj,...); // Call Virtual Function
```

Class macros:

```
CodaClassZeros(...); // Generate zeros for class data
CodaClassZerosC(); // Generate all zero class data
CodaClass(CLASS,storage,SUPER); // Create a new object CLASS
CodaSig(SIGNATURE); // Register a Virtual Function
```