May I create my own type definitions and reuse them?

Author: Veryant Support
Saved From: http://support.veryant.com/support/phpkb/question.php?ID=304

It is so desirable to create a simple or complex type definition that may be consistently and easily reused with other variables without having to copy paste the contents of the original one.

The TYPEDEF clause in the data description is the answer to this.

Consider the following example of a record that holds a time structure that can be reused with many time type variables.You may create the type definition in the working-storage like this:

```
01 td-time       typedef.
   05 ws-hrs     pic 99.
   05 filler     pic x value ":".
   05 ws-mins    pic 99.
   05 filler     pic x value ":".
   05 ws-secs    pic 99.
```

Then you may define the actual variables based on that definition, like this:

```
01 init-time     usage td-time.
01 end-time      usage td-time.
01 first-time    usage td-time.
```

In this way, every time a variable will end up containing the 3 children fields: ws-hrs, ws-mins and ws-secs.

And you may use them on the procedure division as the following snippet demonstrates:

```
move 13 to ws-hrs  of init-time
move 20 to ws-mins of init-time
move 40 to ws-secs of init-time

move init-time     to end-time
add 5 to ws-hrs       of end-time
add 3 to ws-mins      of end-time
move end-time         to first-time
add 4 to ws-mins      of first-time
add 6 to ws-secs      of first-time
display "Init  time: " init-time  x"0d0a"
        "End   time: " end-time   x"0d0a"
        "First time: " first-time x"0d0a"
```

That would display the following on the console:

```
Init  time: 13:20:40
End   time: 18:23:40
First time: 18:27:46
```