

# How to create your own type definitions and reuse them

You can create a simple or complex type definition that can be consistently and easily reused with other variables without having to copy and paste the contents of the original one.

This is done using the TYPEDEF clause in the data description.

Here's an example of a record that holds a time structure to be reused with many time-type variables. You can 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.
```

You would 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.
```

This way a variable will contain the 3 children fields: ws-hrs, ws-mins and ws-secs every time.

You can then use them in 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
```

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