

Shift Operators

Shift operators, just like bitwise operators, allow you to manipulate bits at a low level inside objects. There are 3 main shift operators in Dart and those are ">>" which shifts a value to the right, "<<" that shifts the value to the left and the ">>>" which shifts a value to the right as an unsigned value. Together these operators allow you to shift right and left your integers.

Further reading:

- [Bitwise and shift operators - dart.dev](https://dart.dev/bitwise-and-shift-operators)
- [Dart Operators - Javatpoint](https://www.javatpoint.com/dart/operators)
- [Bitwise and Shift Operators - Flutter by Example](https://flutterbyexample.com/bitwise-and-shift-operators/)
- [Bitwise and Shift Operators - educative.io](https://educative.io/answers/bitwise-and-shift-operators)
- [Shift operator - Wikipedia](https://en.cppreference.com/w/cpp/algorithm/shift)



Examples

```
1 // the hexadecimal value of 0x01 is equivalent to the
2 // binary value of 0001, hence shifting it to the left
3 // 1 place will change the vlaue to 0010, filling the
4 // right side with a zero. 0010 in base-10 is 2
5 print(0x01 << 1);
6 // the hexadecimal value of 0x02 is equal to 0010 in
7 // binary and shifting it to the left 2 places makes
8 // it equal to 1000, which is 8 in base-10
9 print(0x02 << 2);
10 // you can shift your values to the left and right
11 // as much as you want, but shifting a value to
12 // the left loses 1 binary value from the left
13 // with each shift, similar to how shifting a
14 // value to the right loses one binary value from
15 // the right with each shift
```