

PowerShell Basics

A Practical Explanation

Objects, Properties, Methods

Pipelines: ByValue vs ByPropertyName

Golden Commands (These you should commit to memory)

Object Properties – A practical example

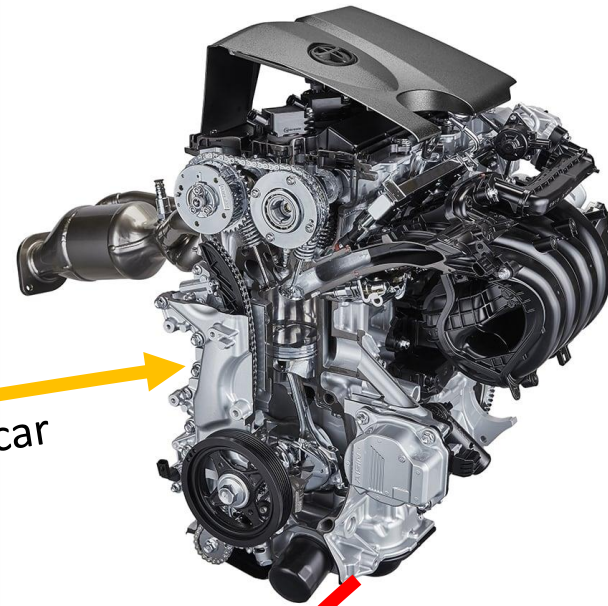
Car is the object



The engine is a property of the car

An object has **properties** that are immediately apparent
For example, a car has the following:

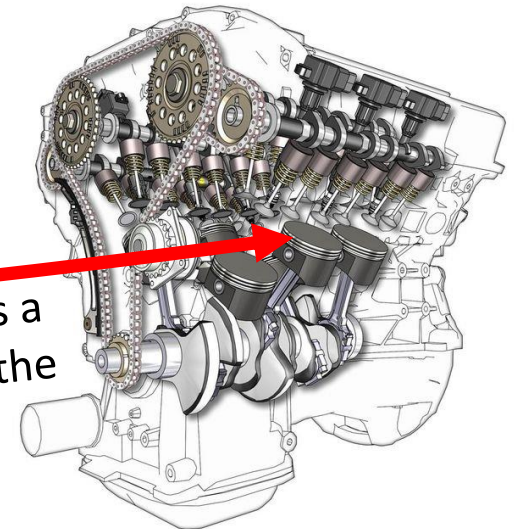
- Engine
- Seats
- Doors
- Wheels



But the **Engine** is also an object
It has the following properties:

- Pistons
- Cam shaft
- Crank shaft
- Con Rods
- Valves

The piston is a
property of the
engine



Object Methods – A practical example

Methods are actions that can be performed on the object

Car is an object

Methods (actions) relate to the object that they are a part of



Car Methods

StartEngine()
StopEngine()
OpenDoor()
CloseDoor()
ChangeGears()
Accelerate()
Brake()

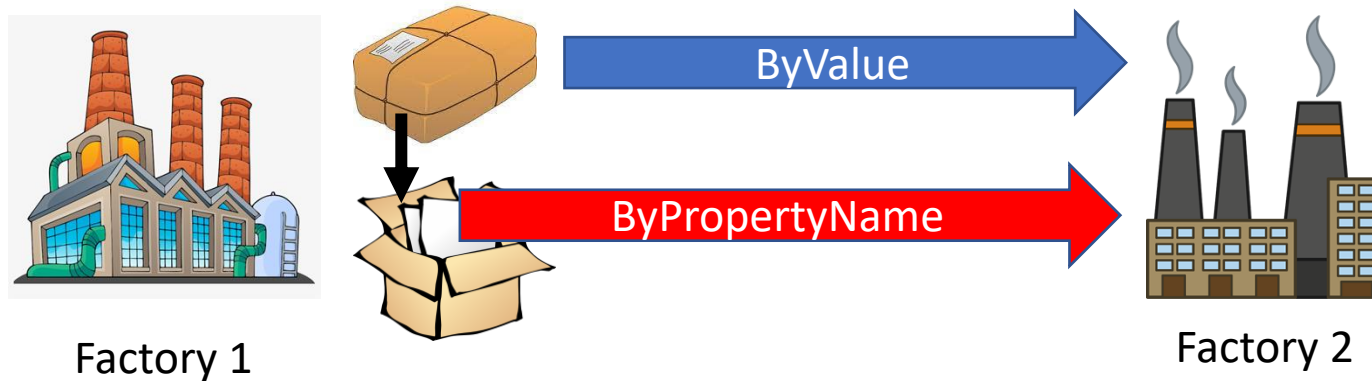
Engine is an object



Engine Methods

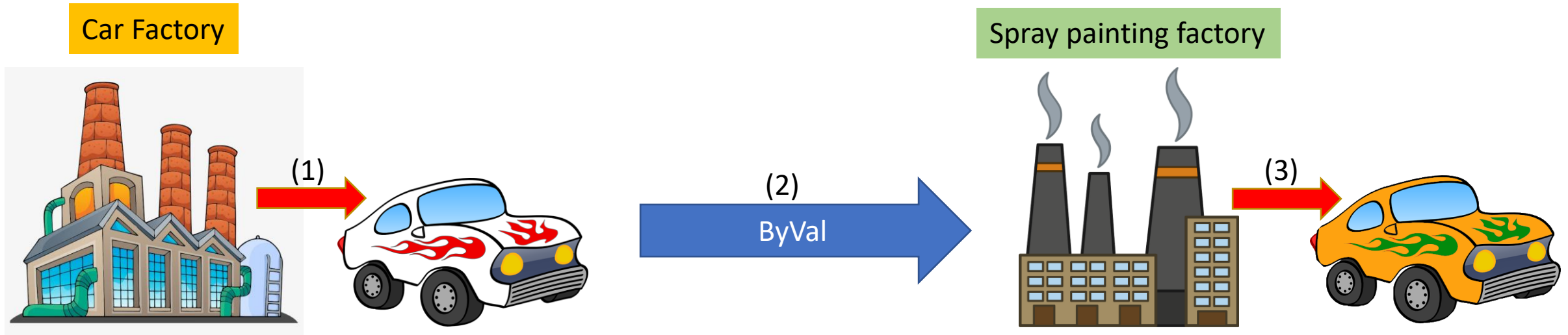
ChangeOil()
ReplaceOilFilter()
ReplaceSparkPlug()
CheckGasket()
ReplaceGasket()

PowerShell Pipelines described using factories



- Check if we can send an object created by “factory 1” to “factory 2”
 - This is called pipeline **ByValue**
- If “factory 2” cannot accept the entire object
 - We break the object down into its properties
 - Check to see if factory 2 will accept the individual properties
 - This is called pipeline **ByPropertyName**

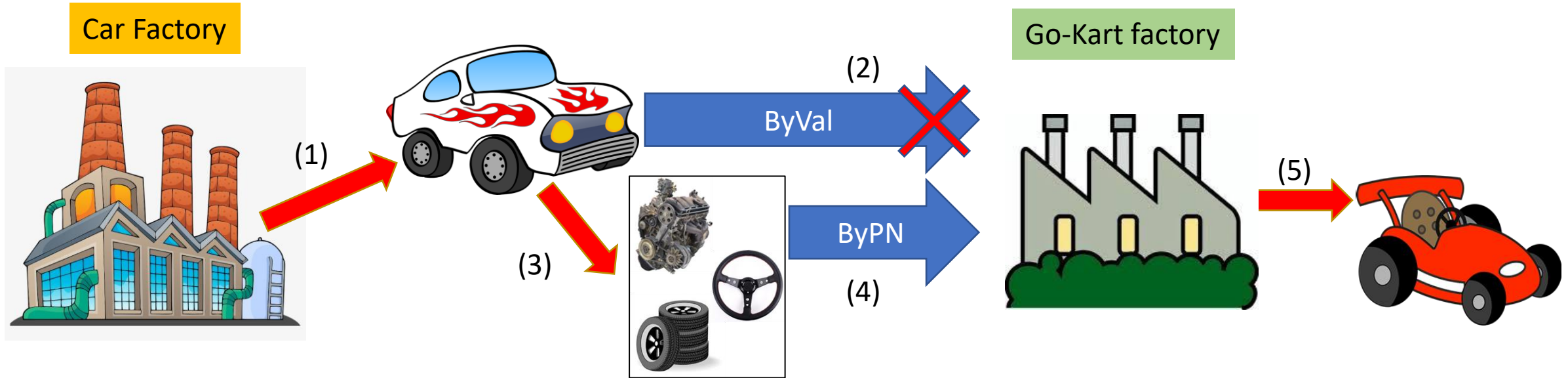
Pipeline via ByValue



In this practical example:

- (1) the first factory produces a car
- (2) the second factory can receive the whole car (Object)
- (3) the second factory paints it the correct color.

Pipeline via ByPropertyName



In this practical example:

- (1) The first factory produces a car
- (2) The second factory cannot receive the whole car (ByValue)
- (3) Car is broken down into parts (Properties)
- (4) The relevant parts are sent the second factory (ByPropertyName)
- (5) The second factory makes something new from the parts sent.

Golden Commands

