## Graduated Steps Explanation

This document attempts to explain the differences between the way Flex and Version 5 calculate the retail price when using graduated steps (normal steps will be exactly the same in version 5 and Flex). Flex uses a much more accurate method, but it does mean that the same steps and formula in both systems will return different results. Flex is the correct result however.

Example Steps

| Max Cost Price | Max Retail Price | Multiplier |  |
| :--- | :--- | :--- | :--- |
| $£ 0.50$ | $£ 2.15$ | 4.3 |  |
| $£ 15.00$ | $£ 48.75$ | 3.25 |  |
| $£ 40.00$ | $£ 90.00$ | 2.25 | Step 2 |
| $£ 999.00$ | $£ 1,528.50$ | 1.53 | Step 1 |

Steps include all prices UP TO the cost price on each line. In this example, the Item Cost Price is $£ 125$, which would fall into the $£ 999$ step, because the cost price is between $£ 40$ and $£ 999$.

In these examples the step which the cost of the item falls into will be referred to as Step 1 and will be written in Red. Step 2 will be the previous step in the list and will be written in Blue.

## Flex Calculation

Step 1 Max Cost - Step 2 Max Cost = Step Cost Range
$999-40=959$
Item Cost Price - Step 2 Max Cost = Adjusted Item Cost Price
$125-40=85$
(Adjusted Item Cost Price / Step Cost Range) * $100=$ Percentage
$(85 / 959) * 100=8.86 \%(8.863399374348279)$
Step 1 Max Retail Price - Step 2 Max Retail Price = Step Price Range
$1528.50-90.00=1438.50$
$($ Step Price Range / 100) * Percentage $=$ Step Price.
$(1438.50 / 100) * 8.86 \%=127.50$
Step Price + Step 2 Max Retail Price $=$ Final Retail Price
$127.50+90=£ 217.50$

## OFW Calculation

$($ Step 2 Multiplier - Step 1 Multiplier $)=$ Multiplier Difference
$(2.25-1.53)=0.72$
Step 1 Max Cost - Step 2 Max Cost = Step Cost Range
$999-40=959$
Item Cost Price - Step 2 Max Cost $=$ Adjusted Item Cost Price
$125-40=85$
(Multiplier Difference / Step Cost Range) * Adjusted Item Cost Price $=$ Multiplier Adjustment $(0.72 / 959) * 85=0.063(0.0638164754953076)$

Step 2 Multiplier - Multiplier Adjustment $=$ Cost Multiplier
$2.25-0.063(0.0638164754953076)=2.18(2.1861183524504692)$
Item Cost Price * Cost Multiplier $=$ Final Retail Price
$125 * 2.18(2.1861183524504692)=273.27$

