Empirical matrix **M** is given:

|  |  |  |
| --- | --- | --- |
| 0.8951 | 0.2664 | -0.1614 |
| -0.7502 | 1.7135 | 0.0367 |
| 0.0389 | -0.0685 | 1.0296 |

First white point chromaticities is given: x1, y1

Second white point chromaticities is given: x2, y2

For the first white point calculate

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X1 |  |  |  | x1/y1 |
| Y1 | = | **M** | × | 1 |
| Z1 |  |  |  | (1-x1-y1)/y1 |

Similarly, for the second white point calculate

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| X2 |  |  |  | x2/y2 |
| Y2 | = | **M** | × | 1 |
| Z2 |  |  |  | (1-x2-y2)/y2 |

Form a new matrix **N**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  |  | X2/X1 | 0 | 0 |
| **N** | = | 0 | Y2/Y1 | 0 |
|  |  | 0 | 0 | Z2/Z1 |

Calculate inverse matrix **M**-1 from matrix **M**

Then the Bradford matrix is the product of the three matrices

**M**-1 × (**N** × **M**)