**Lab #5**

Tasks 1:

A.) Points 100, 104, 105, 200.

Image 27

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

Image 28

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

B.) Points 100, 104, 105, 200, 201.

Image 27

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

Image 28

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

C.) Points 100, 104, 105, 200, 201, 202.

Image 27

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

Image 28

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

D.) All

Image 27

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

Image 28

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

Task 2:

S = 5000, σobs = 15 µm

c = 153.358 mm

xmax = 161.574

Task 3:

A.A.) Points 100, 104, 105, 200.

Image 27

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

Image 28

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

A.B.) Points 100, 104, 105, 200, 201.

Image 27

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

Image 28

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

A.C.) Points 100, 104, 105, 200, 201, 202.

Image 27

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

Image 28

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

A.D.) All

Image 27

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

Image 28

|  |  |
| --- | --- |
| XC (m) |  |
| YC (m) |  |
| ZC (m) |  |
| ω (°) |  |
| ϕ (°) |  |
| κ (°) |  |

B.A.) Points 100, 104, 105, 200

Image 27

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Correlation Coefficient Matrix** | | | | | | | |
|  | XC (m) | YC (m) | ZC (m) | ω (°) | ϕ (°) | κ (°) |
| XC (m) | 1.0000 |  |  |  |  |  |
| YC (m) |  | 1.0000 |  |  |  |  |
| ZC (m) |  |  | 1.0000 |  |  |  |
| ω (°) |  |  |  | 1.0000 |  |  |
| ϕ (°) |  |  |  |  | 1.0000 |  |
| κ (°) |  |  |  |  |  | 1.0000 |

Image 28

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Correlation Coefficient Matrix** | | | | | | | |
|  | XC (m) | YC (m) | ZC (m) | ω (°) | ϕ (°) | κ (°) |
| XC (m) | 1.0000 |  |  |  |  |  |
| YC (m) |  | 1.0000 |  |  |  |  |
| ZC (m) |  |  | 1.0000 |  |  |  |
| ω (°) |  |  |  | 1.0000 |  |  |
| ϕ (°) |  |  |  |  | 1.0000 |  |
| κ (°) |  |  |  |  |  | 1.0000 |

B.B.) Points 100, 104, 105, 200, 201

Image 27

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Correlation Coefficient Matrix** | | | | | | | |
|  | XC (m) | YC (m) | ZC (m) | ω (°) | ϕ (°) | κ (°) |
| XC (m) | 1.0000 |  |  |  |  |  |
| YC (m) |  | 1.0000 |  |  |  |  |
| ZC (m) |  |  | 1.0000 |  |  |  |
| ω (°) |  |  |  | 1.0000 |  |  |
| ϕ (°) |  |  |  |  | 1.0000 |  |
| κ (°) |  |  |  |  |  | 1.0000 |

Image 28

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Correlation Coefficient Matrix** | | | | | | | |
|  | XC (m) | YC (m) | ZC (m) | ω (°) | ϕ (°) | κ (°) |
| XC (m) | 1.0000 |  |  |  |  |  |
| YC (m) |  | 1.0000 |  |  |  |  |
| ZC (m) |  |  | 1.0000 |  |  |  |
| ω (°) |  |  |  | 1.0000 |  |  |
| ϕ (°) |  |  |  |  | 1.0000 |  |
| κ (°) |  |  |  |  |  | 1.0000 |

B.C.) Points 100, 104, 105, 200, 201, 202

Image 27

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Correlation Coefficient Matrix** | | | | | | | |
|  | XC (m) | YC (m) | ZC (m) | ω (°) | ϕ (°) | κ (°) |
| XC (m) | 1.0000 |  |  |  |  |  |
| YC (m) |  | 1.0000 |  |  |  |  |
| ZC (m) |  |  | 1.0000 |  |  |  |
| ω (°) |  |  |  | 1.0000 |  |  |
| ϕ (°) |  |  |  |  | 1.0000 |  |
| κ (°) |  |  |  |  |  | 1.0000 |

Image 28

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Correlation Coefficient Matrix** | | | | | | | |
|  | XC (m) | YC (m) | ZC (m) | ω (°) | ϕ (°) | κ (°) |
| XC (m) | 1.0000 |  |  |  |  |  |
| YC (m) |  | 1.0000 |  |  |  |  |
| ZC (m) |  |  | 1.0000 |  |  |  |
| ω (°) |  |  |  | 1.0000 |  |  |
| ϕ (°) |  |  |  |  | 1.0000 |  |
| κ (°) |  |  |  |  |  | 1.0000 |

B.D.) All

Image 27

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Correlation Coefficient Matrix** | | | | | | | |
|  | XC (m) | YC (m) | ZC (m) | ω (°) | ϕ (°) | κ (°) |
| XC (m) | 1.0000 |  |  |  |  |  |
| YC (m) |  | 1.0000 |  |  |  |  |
| ZC (m) |  |  | 1.0000 |  |  |  |
| ω (°) |  |  |  | 1.0000 |  |  |
| ϕ (°) |  |  |  |  | 1.0000 |  |
| κ (°) |  |  |  |  |  | 1.0000 |

Image 28

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| --- | --- | --- | --- | --- | --- | --- | --- |
| **Correlation Coefficient Matrix** | | | | | | | |
|  | XC (m) | YC (m) | ZC (m) | ω (°) | ϕ (°) | κ (°) |
| XC (m) | 1.0000 |  |  |  |  |  |
| YC (m) |  | 1.0000 |  |  |  |  |
| ZC (m) |  |  | 1.0000 |  |  |  |
| ω (°) |  |  |  | 1.0000 |  |  |
| ϕ (°) |  |  |  |  | 1.0000 |  |
| κ (°) |  |  |  |  |  | 1.0000 |

C.A.) Points 100, 104, 105, 200.

Residuals and RMS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Image 27** | | **Image 28** | |
| **ID** | **vX** | **vY** | **vX** | **vY** |
| **100** |  |  |  |  |
| **104** |  |  |  |  |
| **105** |  |  |  |  |
| **200** |  |  |  |  |
|  |  |  |  |  |
| **RMS** |  |  |  |  |

C.B.) Points 100, 104, 105, 200, 201.

Residuals and RMS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Image 27** | | **Image 28** | |
| **ID** | **vX** | **vY** | **vX** | **vY** |
| **100** |  |  |  |  |
| **104** |  |  |  |  |
| **105** |  |  |  |  |
| **200** |  |  |  |  |
| **201** |  |  |  |  |
|  |  |  |  |  |
| **RMS** |  |  |  |  |

C.C.) Points 100, 104, 105, 200, 201, 202.

Residuals and RMS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Image 27** | | **Image 28** | |
| **ID** | **vX** | **vY** | **vX** | **vY** |
| **100** |  |  |  |  |
| **104** |  |  |  |  |
| **105** |  |  |  |  |
| **200** |  |  |  |  |
| **201** |  |  |  |  |
| **202** |  |  |  |  |
|  |  |  |  |  |
| **RMS** |  |  |  |  |

C.D.) All

Residuals and RMS

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | **Image 27** | | **Image 28** | |
| **ID** | **vX** | **vY** | **vX** | **vY** |
| **100** |  |  |  |  |
| **104** |  |  |  |  |
| **105** |  |  |  |  |
| **200** |  |  |  |  |
| **201** |  |  |  |  |
| **202** |  |  |  |  |
| **203** |  |  |  |  |
|  |  |  |  |  |
| **RMS** |  |  |  |  |

Task 4:

Task 5: