

Příloha 1

SEZNAM SOUŘADNIC

| ČB | Y | X |
|-----|-----------|------------|
| 7 | 733037,41 | 1012094,10 |
| 101 | 732016,58 | 1013866,39 |
| 102 | 732398,34 | 1012354,88 |
| 103 | 731428,14 | 1012850,50 |
| 104 | 731605,30 | 1014458,00 |
| 106 | 731139,59 | 1014108,12 |
| 107 | 731228,65 | 1013564,28 |
| 108 | 731821,00 | 1013493,48 |
| 111 | 733572,56 | 1011312,12 |
| 128 | 732427,78 | 1014639,74 |
| 129 | 732879,71 | 1014798,80 |
| 130 | 733168,78 | 1014600,75 |
| 142 | 732832,36 | 1014159,57 |
| 143 | 733556,76 | 1014145,94 |
| 144 | 733729,91 | 1014708,93 |
| 145 | 733406,52 | 1014769,72 |
| 146 | 733171,77 | 1015063,21 |
| 181 | 735140,70 | 1014545,97 |
| 185 | 737006,93 | 1012903,70 |
| 188 | 730692,79 | 1013285,74 |
| 222 | 732693,68 | 1014688,42 |
| 223 | 734205,41 | 1013892,41 |
| 224 | 731495,88 | 1014956,77 |
| 228 | 733456,73 | 1012986,69 |
| 230 | 733594,00 | 1013327,12 |
| 231 | 732603,74 | 1013501,58 |
| 232 | 734363,65 | 1015326,25 |
| 327 | 735299,10 | 1013731,79 |
| 343 | 735203,86 | 1014222,90 |
| 346 | 734760,24 | 1014427,66 |
| 347 | 734458,36 | 1014283,28 |
| 348 | 734650,48 | 1014705,54 |

VÝPOČET SMĚRNÍKŮ, STRAN A SMĚROVÝCH SOUČINITELŮ

| B | | Y_B | X_B | $X_B + Y_B$ | $X_B - Y_B$ | $\text{tg } \varphi = \frac{ \Delta Y_{AB} }{ \Delta X_{AB} }$ | $\text{tg } \psi = \frac{ p }{ q }$ | |
|-----------------|-----------------|------------------|--|--|--|---|---------------------------------------|----------------------------------|
| A | | Y_A | X_A | $X_A + Y_A$ | $X_A - Y_A$ | $\text{cotg } \varphi = \frac{ \Delta X_{AB} }{ \Delta Y_{AB} }$ | $\text{cotg } \psi = \frac{ q }{ p }$ | |
| ΔY_{AB} | ΔX_{AB} | $\sigma_{AB} =$ | $\Delta Y_{AB} = Y_B - Y_A$ | $\Delta X_{AB} = X_B - X_A$ | $p = \Delta X_{AB} + \Delta Y_{AB}$ | $q = \Delta X_{AB} - \Delta Y_{AB}$ | φ | ψ |
| + | + | = φ | $\sin \varphi$ | $\cos \varphi$ | $a = \frac{\rho \sin \varphi}{s}$ | $b = \frac{\rho \cos \varphi}{s}$ | | |
| + | - | = $2R - \varphi$ | | | | | | |
| - | - | = $2R + \varphi$ | $s = \frac{\Delta Y_{AB}}{\sin \varphi}$ | $s = \frac{\Delta X_{AB}}{\cos \varphi}$ | $= \sqrt{\Delta Y_{AB}^2 + \Delta X_{AB}^2}$ | kontr. $a = b \cdot \text{tg } \varphi$ $b = a \cdot \text{cotg } \varphi$ | σ_{AB} | kontrola: $\sigma_{AB} + R/2$ |
| - | + | = $4R - \varphi$ | | | | | | |
| (1) | | (2) | (3) | (4) | (5) | (6) | | (7) |
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VÝPOČET SOUŘADNIC BODŮ POLYGONOVÝCH POŘADŮ

| Číslo pořadu | Číslo bodu | Úhly a úhlové vyrovnání | | | Směrníky σ | | | Strany s | | Souřadnice a souřadnicové vyrovnání | |
|--------------|------------|-------------------------|--|--|-------------------|--|--|-----------|-----|-------------------------------------|-----|
| | | | | | | | | | | Y | X |
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| Předepsal: | | | | | | | | Vypočetl: | | | |

Příloha 5

TRANSFORMACE

1) výpočet prvků "a" a "b" (alespoň na šest desetinných míst)

| bod | y' | x' | y | x |
|---------------|----|----|---|---|
| | | | | |
| | | | | |
| Δ_{AB} | | | | |

$$\Delta S_{\max} = 0.012\sqrt{S} + 0.16$$

$S'_{AB} =$ $S_{AB} =$ $\Delta S =$ $\Delta S \max =$

$$a = \frac{\Delta y_{AB} \Delta x'_{AB} - \Delta x_{AB} \Delta y'_{AB}}{\Delta y'_{AB}{}^2 + \Delta x'_{AB}{}^2} =$$

$$b = \frac{\Delta y_{AB} \Delta y'_{AB} + \Delta x_{AB} \Delta x'_{AB}}{\Delta y'_{AB}{}^2 + \Delta x'_{AB}{}^2} =$$

2) kontrola prvků "a" a "b" dosazením

$$\Delta y_{AB} = a \Delta x'_{AB} + b \Delta y'_{AB} =$$

$$\Delta x_{AB} = b \Delta x'_{AB} - a \Delta y'_{AB} =$$

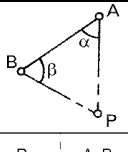
3) výpočet vlastní transformace

| bod | y' | x' | $\Delta y'$ | $\Delta x'$ | y_n | x_n |
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$\Delta y' = y'_n - y'_{n-1}$ $y_n = y_{n-1} + a \Delta x' + b \Delta y'$
 $\Delta x' = x'_n - x'_{n-1}$ $x_n = x_{n-1} + b \Delta x' - a \Delta y'$

Příloha 6

PROTÍNÁNÍ VPŘED Z ÚHLŮ

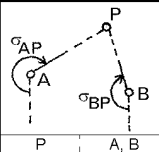
|  | | Y_A | X_A | α | $a = \cotg \alpha$ | | |
|---|---|-----------------------------|-----------------------------|----------|--------------------|---|--|
| | | Y_B | X_B | β | $b = \cotg \beta$ | | |
| P A, B | | $\Delta Y_{BA} = Y_A - Y_B$ | $\Delta X_{BA} = X_A - X_B$ | | $J = a + b$ | $Y_P = \frac{\Delta X_{BA} + b \Delta Y_{BA} + J Y_B}{J}$ | $X_P = \frac{-\Delta Y_{BA} + b \Delta X_{BA} + J X_B}{J}$ |
| (1) | | (2) | (3) | (4) | (5) | (6) | (7) |
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Předepsal:

Vypočetl:

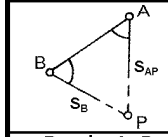
Příloha 8

PROTÍNÁNÍ VPŘED Z ORIENTOVANÝCH SMĚRŮ

|  | | Y_A | X_A | σ_{AP} | $a = \cotg \sigma_{AP}$ | $Q = \frac{-\Delta X_{BA} + a\Delta Y_{BA}}{J}$ | |
|---|---|-----------------------------|-----------------------------|---------------|-------------------------|---|------------------|
| | | Y_B | X_B | σ_{BP} | $b = \cotg \sigma_{BP}$ | | |
| P | | $\Delta Y_{BA} = Y_A - Y_B$ | $\Delta X_{BA} = X_A - X_B$ | | $J = a - b$ | $Y_P = Y_B + Q$ | $X_P = bQ + X_B$ |
| (1) | | (2) | (3) | (4) | (5) | (6) | (7) |
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| Předeepsal: | | | | Vypočetl: | | | |

Příloha 9

PROTÍNÁNÍ VPŘED Z DÉLEK

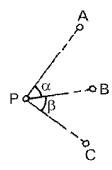
|  | | Y_A | X_A | S_{AP} | $a = \frac{m}{k}$ | $m = \frac{S_{AB}^2 + S_{AP}^2 - S_{BP}^2}{2S_{AB}}$ | $n = \frac{S_{AB}^2 + S_{BP}^2 - S_{AP}^2}{2S_{AB}}$ |
|---|---|-----------------------------|-----------------------------|----------|-------------------|---|--|
| | | Y_B | X_B | S_{BP} | $b = \frac{n}{k}$ | $k = \sqrt{S_{AP}^2 - m^2}$ | $k = \sqrt{S_{BP}^2 - n^2}$ |
| P | | $\Delta Y_{BA} = Y_A - Y_B$ | $\Delta X_{BA} = X_A - X_B$ | S_{AB} | $J = a + b$ | $Y_P = \frac{\Delta X_{BA} + b\Delta Y_{BA} + JY_B}{J}$ | $X_P = \frac{-\Delta Y_{BA} + b\Delta X_{BA} + JX_B}{J}$ |
| (1) | | (2) | (3) | (4) | (5) | (6) | (7) |
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Předepsal:

Vypočetl:

Příloha 10

PROTÍNÁNÍ ZPĚT

|  | | $\Delta Y_{BA} = Y_A - Y_B$ | $\Delta X_{BA} = X_A - X_B$ | | | $\Delta Y_{BM} = \Delta Y_{BA} - a \Delta X_{BA}$ | $\Delta X_{BM} = \Delta X_{BA} + a \Delta Y_{BA}$ |
|---|-----|-----------------------------|-----------------------------|--------------|--------------------|---|---|
| | | Y_A | X_A | α | $a = \cotg \alpha$ | $p = \Delta Y_{BM} + \Delta Y_{CB} + b \Delta X_{CB}$ | $q = \Delta X_{BM} + \Delta X_{CB} - b \Delta Y_{CB}$ |
| | | Y_B | X_B | | | $K = -p/q$ | $L = -q/p$ |
| | | Y_C | X_C | β | $b = \cotg \beta$ | $J = K + L$ | $Q = \frac{\Delta Y_{BM} + K \Delta X_{BM}}{J}$ |
| | | $\Delta Y_{CB} = Y_B - Y_C$ | $\Delta X_{CB} = X_B - X_C$ | | | $Y_P = Y_B + L Q$ | $X_P = Q + X_B$ |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) | |
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Předepsal:

Vypočetl:

Příloha 11

VÝPOČET CENTRAČNÍCH ZMĚN SMĚRŮ

Str.:

| Číslo a název trigonometrického bodu: | | | Centrační prvky zjištěny dne : $\varepsilon_0 = 4R - \alpha'_c$ $\sin \delta\alpha = \frac{e}{s} \sin \varepsilon$ $\alpha = \alpha' + \delta\alpha$ | | | |
|---------------------------------------|---|--|---|---|-----------|-----------------------------------|
| Situace : ↑ S | | | $\varepsilon = \varepsilon' - 2R - \delta\alpha$ $\varepsilon = \varepsilon' + 2R + \delta\alpha$ | | | |
| e = _____ α'c = _____ | | | Úhly v míře | | | |
| Směry na | Osnova Při neměřených smě- rech označen původ s.....ze směrníku d.....doplněním | Osnova orien- tovaná na EC $\varepsilon = (2) + \varepsilon_0$ | sin ε s sin δα | Centrační změna δα | | Poznámka případně (2) + (5) |
| | | | | vypočtená | kontrolní | |
| | | | | Znaménko při ε v intervalu 0 - 2R + 2R - 4R - | | |
| číslo a název bodu | | | | | | |
| (1) | (2) | (3) | (4) | (5) | (6) | (7) |
| | $\varepsilon_0 =$ | | | | | |
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