

Python 3.6.8 |Anaconda custom (64-bit)| (default, Feb 21 2019, 18:30:04) [MSC v.1916 64 bit (AMD64)] on win32

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>>>

RESTART: C:\ObjDetAPI\models-master\research\object\_detection\0  
Tracker\_Evaluator.py

True

Frame: 2      Total Penalty: 0.0834963372070725  
              GT\_area: 25038  
              ST\_area: 24931  
              Overlap\_area: 23896  
              IOU: 0.9165036627929275  
              Centre Distance: 4.0  
              Category: True Positive

-----  
Frame: 3      Total Penalty: 0.15765080265559062  
              GT\_area: 23868  
              ST\_area: 24931  
              Overlap\_area: 23460  
              IOU: 0.9258455345514819  
              Centre Distance: 2.5  
              Category: True Positive

-----  
Frame: 4      Total Penalty: 0.27465724648872925  
              GT\_area: 25038  
              ST\_area: 24931  
              Overlap\_area: 23432  
              IOU: 0.8829935561668614  
              Centre Distance: 6.0  
              Category: True Positive

-----  
Frame: 5      Total Penalty: 0.33663958211188916  
              GT\_area: 24440  
              ST\_area: 24931  
              Overlap\_area: 23896  
              IOU: 0.9380176643768401  
              Centre Distance: 2.5  
              Category: True Positive

-----  
Frame: 6      Total Penalty: 0.43395097077380895  
              GT\_area: 23970  
              ST\_area: 24931  
              Overlap\_area: 23200  
              IOU: 0.9026886113380802  
              Centre Distance: 4.5  
              Category: True Positive

-----  
Frame: 7      Total Penalty: 0.5169068798823135  
              GT\_area: 24592  
              ST\_area: 24931  
              Overlap\_area: 23690  
              IOU: 0.9170440908914954  
              Centre Distance: 3.5  
              Category: True Positive

-----  
Frame: 8     Total Penalty: 0.5992676019489179  
             GT\_area: 24360  
             ST\_area: 24931  
             Overlap\_area: 23587  
             IOU: 0.9176392779333956  
             Centre Distance: 3.0  
             Category: True Positive

-----  
Frame: 9     Total Penalty: 0.6561331210874859  
             GT\_area: 24514  
             ST\_area: 24931  
             Overlap\_area: 23999  
             IOU: 0.943134480861432  
             Centre Distance: 1.0  
             Category: True Positive

-----  
Frame: 10    Total Penalty: 0.7332774621046246  
             GT\_area: 23200  
             ST\_area: 24931  
             Overlap\_area: 23100  
             IOU: 0.9228556589828613  
             Centre Distance: 0.5  
             Category: True Positive

-----  
Frame: 11    Total Penalty: 0.80018913869153  
             GT\_area: 23460  
             ST\_area: 24931  
             Overlap\_area: 23358  
             IOU: 0.9330883234130947  
             Centre Distance: 0.5  
             Category: True Positive

-----  
Frame: 12    Total Penalty: 0.8802466650577812  
             GT\_area: 23129  
             ST\_area: 24931  
             Overlap\_area: 23028  
             IOU: 0.9199424736337488  
             Centre Distance: 2.0  
             Category: True Positive

-----  
Frame: 13    Total Penalty: 0.9363214314129213  
             GT\_area: 23533  
             ST\_area: 24931  
             Overlap\_area: 23533  
             IOU: 0.9439252336448598  
             Centre Distance: 3.0  
             Category: True Positive

-----  
Frame: 14    Total Penalty: 1.0017419921605848  
             GT\_area: 23300  
             ST\_area: 24931  
             Overlap\_area: 23300  
             IOU: 0.9345794392523364

Centre Distance: 1.5  
Category: True Positive

-----  
Frame: 15    Total Penalty: 1.1068721514000859  
             GT\_area: 22310  
             ST\_area: 24931  
             Overlap\_area: 22310  
             IOU: 0.894869840760499  
             Centre Distance: 1.0  
             Category: True Positive

-----  
Frame: 16    Total Penalty: 1.2692001767500518  
             GT\_area: 20884  
             ST\_area: 24931  
             Overlap\_area: 20884  
             IOU: 0.8376719746500341  
             Centre Distance: 0.5  
             Category: True Positive

-----  
Frame: 17    Total Penalty: 1.3729665720009443  
             GT\_area: 22344  
             ST\_area: 24931  
             Overlap\_area: 22344  
             IOU: 0.8962336047491075  
             Centre Distance: 0.5  
             Category: True Positive

-----  
Frame: 18    Total Penalty: 1.5003581728192028  
             GT\_area: 21755  
             ST\_area: 24931  
             Overlap\_area: 21755  
             IOU: 0.8726083991817416  
             Centre Distance: 0.0  
             Category: True Positive

-----  
Frame: 19    Total Penalty: 1.683844044686834  
             GT\_area: 20520  
             ST\_area: 24931  
             Overlap\_area: 20430  
             IOU: 0.8165141281323688  
             Centre Distance: 0.5  
             Category: True Positive

-----  
Frame: 20    Total Penalty: 1.8370669398775603  
             GT\_area: 21111  
             ST\_area: 24931  
             Overlap\_area: 21111  
             IOU: 0.8467771048092736  
             Centre Distance: 1.0  
             Category: True Positive

-----  
Frame: 21    Total Penalty: 2.0194503180011814  
             GT\_area: 20384  
             ST\_area: 24931

Overlap\_area: 20384  
IOU: 0.8176166218763788  
Centre Distance: 1.0  
Category: True Positive

-----  
Frame: 22 Total Penalty: 2.1928488980822047  
GT\_area: 20608  
ST\_area: 24931  
Overlap\_area: 20608  
IOU: 0.8266014199189764  
Centre Distance: 0.5  
Category: True Positive

-----  
Frame: 23 Total Penalty: 2.369937663073581  
GT\_area: 20516  
ST\_area: 24931  
Overlap\_area: 20516  
IOU: 0.8229112350086238  
Centre Distance: 0.5  
Category: True Positive

-----  
Frame: 24 Total Penalty: 2.5253666470694096  
GT\_area: 21056  
ST\_area: 24931  
Overlap\_area: 21056  
IOU: 0.8445710160041715  
Centre Distance: 0.5  
Category: True Positive

-----  
Frame: 25 Total Penalty: 2.6669215214772755  
GT\_area: 21755  
ST\_area: 24931  
Overlap\_area: 21565  
IOU: 0.858445125592134  
Centre Distance: 1.0  
Category: True Positive

-----  
Frame: 26 Total Penalty: 2.8133657074305063  
GT\_area: 21280  
ST\_area: 24931  
Overlap\_area: 21280  
IOU: 0.8535558140467691  
Centre Distance: 0.0  
Category: True Positive

-----  
Frame: 27 Total Penalty: 2.9521888593297483  
GT\_area: 21470  
ST\_area: 24931  
Overlap\_area: 21470  
IOU: 0.8611768481007581  
Centre Distance: 2.0  
Category: True Positive

-----  
Frame: 28 Total Penalty: 3.0612097570073384

GT\_area: 22213  
ST\_area: 24931  
Overlap\_area: 22213  
IOU: 0.8909791023224098  
Centre Distance: 2.0  
Category: True Positive

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Frame: 29    Total Penalty: 3.19481851718543  
GT\_area: 21600  
ST\_area: 24931  
Overlap\_area: 21600  
IOU: 0.8663912398219085  
Centre Distance: 3.5  
Category: True Positive

---

Frame: 30    Total Penalty: 3.3077301533011094  
GT\_area: 22116  
ST\_area: 24931  
Overlap\_area: 22116  
IOU: 0.8870883638843208  
Centre Distance: 3.0  
Category: True Positive

---

Frame: 31    Total Penalty: 3.4114965485520017  
GT\_area: 22344  
ST\_area: 24931  
Overlap\_area: 22344  
IOU: 0.8962336047491075  
Centre Distance: 3.5  
Category: True Positive

---

Frame: 32    Total Penalty: 3.52829892310577  
GT\_area: 22019  
ST\_area: 24931  
Overlap\_area: 22019  
IOU: 0.8831976254462316  
Centre Distance: 3.0  
Category: True Positive

---

Frame: 33    Total Penalty: 3.6388039168886106  
GT\_area: 22176  
ST\_area: 24931  
Overlap\_area: 22176  
IOU: 0.8894950062171594  
Centre Distance: 4.0  
Category: True Positive

---

Frame: 34    Total Penalty: 3.7626086670428363  
GT\_area: 23730  
ST\_area: 24931  
Overlap\_area: 22725  
IOU: 0.8761952498457742  
Centre Distance: 5.0  
Category: True Positive

-----  
Frame: 35    Total Penalty: 3.9134587329962294  
             GT\_area: 25536  
             ST\_area: 24931  
             Overlap\_area: 23175  
             IOU: 0.8491499340466071  
             Centre Distance: 6.5  
             Category: True Positive

-----  
Frame: 36    Total Penalty: 4.088319656165678  
             GT\_area: 23625  
             ST\_area: 24931  
             Overlap\_area: 21952  
             IOU: 0.8251390768305518  
             Centre Distance: 8.0  
             Category: True Positive

-----  
Frame: 37    Total Penalty: 4.2570582912642045  
             GT\_area: 24416  
             ST\_area: 24931  
             Overlap\_area: 22400  
             IOU: 0.8312613649014733  
             Centre Distance: 8.0  
             Category: True Positive

-----  
Frame: 38    Total Penalty: 4.466935743146588  
             GT\_area: 23712  
             ST\_area: 24931  
             Overlap\_area: 21470  
             IOU: 0.7901225481176167  
             Centre Distance: 10.5  
             Category: True Positive

-----  
Frame: 39    Total Penalty: 4.640589104179382  
             GT\_area: 24300  
             ST\_area: 24931  
             Overlap\_area: 22275  
             IOU: 0.8263466389672058  
             Centre Distance: 8.5  
             Category: True Positive

-----  
Frame: 40    Total Penalty: 4.80383380293401  
             GT\_area: 24182  
             ST\_area: 24931  
             Overlap\_area: 22374  
             IOU: 0.8367553012453719  
             Centre Distance: 8.0  
             Category: True Positive

-----  
Frame: 41    Total Penalty: 4.983653419619467  
             GT\_area: 23504  
             ST\_area: 24931  
             Overlap\_area: 21825  
             IOU: 0.8201803833145435

Centre Distance: 8.5  
Category: True Positive

-----  
Frame: 42    Total Penalty: 5.166666072161205  
             GT\_area: 23608  
             ST\_area: 24931  
             Overlap\_area: 21825  
             IOU: 0.8169873474582616  
             Centre Distance: 8.5  
             Category: True Positive

-----  
Frame: 43    Total Penalty: 5.351667000321592  
             GT\_area: 23956  
             ST\_area: 24931  
             Overlap\_area: 21952  
             IOU: 0.8149990718396138  
             Centre Distance: 8.5  
             Category: True Positive

-----  
Frame: 44    Total Penalty: 5.5159648968537125  
             GT\_area: 23504  
             ST\_area: 24931  
             Overlap\_area: 22050  
             IOU: 0.8357021034678794  
             Centre Distance: 7.5  
             Category: True Positive

-----  
Frame: 45    Total Penalty: 5.6822098456810854  
             GT\_area: 23625  
             ST\_area: 24931  
             Overlap\_area: 22077  
             IOU: 0.8337550511726274  
             Centre Distance: 7.0  
             Category: True Positive

-----  
Frame: 46    Total Penalty: 5.838213651580229  
             GT\_area: 23520  
             ST\_area: 24931  
             Overlap\_area: 22176  
             IOU: 0.8439961941008564  
             Centre Distance: 7.0  
             Category: True Positive

-----  
Frame: 47    Total Penalty: 5.974688935583914  
             GT\_area: 23625  
             ST\_area: 24931  
             Overlap\_area: 22500  
             IOU: 0.8635247159963156  
             Centre Distance: 6.0  
             Category: True Positive

-----  
Frame: 48    Total Penalty: 6.128434713907525  
             GT\_area: 23175  
             ST\_area: 24931

Overlap\_area: 22050  
IOU: 0.8462542216763893  
Centre Distance: 7.0  
Category: True Positive

-----  
Frame: 49    Total Penalty: 6.24686047419375  
             GT\_area: 22400  
             ST\_area: 24931  
             Overlap\_area: 22176  
             IOU: 0.8815742397137746  
             Centre Distance: 4.5  
             Category: True Positive

-----  
Frame: 50    Total Penalty: 6.388244230102646  
             GT\_area: 22644  
             ST\_area: 24931  
             Overlap\_area: 21978  
             IOU: 0.8586162440911044  
             Centre Distance: 5.5  
             Category: True Positive

-----  
Frame: 51    Total Penalty: 6.537166866661443  
             GT\_area: 21631  
             ST\_area: 24931  
             Overlap\_area: 21408  
             IOU: 0.8510773634412022  
             Centre Distance: 6.0  
             Category: True Positive

-----  
Frame: 52    Total Penalty: 6.692595850657272  
             GT\_area: 21056  
             ST\_area: 24931  
             Overlap\_area: 21056  
             IOU: 0.8445710160041715  
             Centre Distance: 3.5  
             Category: True Positive

-----  
Frame: 53    Total Penalty: 6.859336053617442  
             GT\_area: 20774  
             ST\_area: 24931  
             Overlap\_area: 20774  
             IOU: 0.8332597970398299  
             Centre Distance: 2.5  
             Category: True Positive

-----  
Frame: 54    Total Penalty: 6.990527911771215  
             GT\_area: 22077  
             ST\_area: 24931  
             Overlap\_area: 21854  
             IOU: 0.8688081418462272  
             Centre Distance: 5.0  
             Category: True Positive

-----  
Frame: 55    Total Penalty: 7.11394855274029



GT\_area: 21854  
ST\_area: 24931  
Overlap\_area: 21854  
IOU: 0.8765793590309253  
Centre Distance: 4.5  
Category: True Positive

-----  
Frame: 56 Total Penalty: 7.238532404170236  
GT\_area: 21825  
ST\_area: 24931  
Overlap\_area: 21825  
IOU: 0.8754161485700533  
Centre Distance: 4.0  
Category: True Positive

-----  
Frame: 57 Total Penalty: 7.361953045139311  
GT\_area: 21854  
ST\_area: 24931  
Overlap\_area: 21854  
IOU: 0.8765793590309253  
Centre Distance: 3.5  
Category: True Positive

-----  
Frame: 58 Total Penalty: 7.489304535252022  
GT\_area: 21756  
ST\_area: 24931  
Overlap\_area: 21756  
IOU: 0.8726485098872889  
Centre Distance: 3.5  
Category: True Positive

-----  
Frame: 59 Total Penalty: 7.625560601996236  
GT\_area: 21534  
ST\_area: 24931  
Overlap\_area: 21534  
IOU: 0.863743933255786  
Centre Distance: 1.0  
Category: True Positive

-----  
Frame: 60 Total Penalty: 7.784759992313512  
GT\_area: 20962  
ST\_area: 24931  
Overlap\_area: 20962  
IOU: 0.8408006096827243  
Centre Distance: 2.5  
Category: True Positive

-----  
Frame: 61 Total Penalty: 7.916042331569859  
GT\_area: 21658  
ST\_area: 24931  
Overlap\_area: 21658  
IOU: 0.8687176607436525  
Centre Distance: 2.5  
Category: True Positive

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-----  
Frame: 62   Total Penalty: 8.06397061362834  
            GT_area: 21243  
            ST_area: 24931  
            Overlap_area: 21243  
            IOU: 0.8520717179415186  
            Centre Distance: 0.0  
            Category: True Positive  
-----  
Frame: 63   Total Penalty: 8.1943304066571  
            GT_area: 21681  
            ST_area: 24931  
            Overlap_area: 21681  
            IOU: 0.8696402069712407  
            Centre Distance: 1.0  
            Category: True Positive  
-----  
Frame: 64   Total Penalty: 8.316748279987491  
            GT_area: 21879  
            ST_area: 24931  
            Overlap_area: 21879  
            IOU: 0.8775821266696081  
            Centre Distance: 0.0  
            Category: True Positive  
-----  
Frame: 65   Total Penalty: 8.390672310311185  
            GT_area: 23088  
            ST_area: 24931  
            Overlap_area: 23088  
            IOU: 0.9260759696763066  
            Centre Distance: 0.5  
            Category: True Positive  
-----  
Frame: 66   Total Penalty: 8.48649678586371  
            GT_area: 22542  
            ST_area: 24931  
            Overlap_area: 22542  
            IOU: 0.9041755244474751  
            Centre Distance: 1.5  
            Category: True Positive  
-----  
Frame: 67   Total Penalty: 8.586412553382061  
            GT_area: 22440  
            ST_area: 24931  
            Overlap_area: 22440  
            IOU: 0.9000842324816494  
            Centre Distance: 1.5  
            Category: True Positive  
-----  
Frame: 68   Total Penalty: 8.708830426712453  
            GT_area: 21879  
            ST_area: 24931  
            Overlap_area: 21879  
            IOU: 0.8775821266696081
```

Centre Distance: 2.0  
Category: True Positive

-----  
Frame: 69    Total Penalty: 8.82639490467162  
             GT\_area: 22000  
             ST\_area: 24931  
             Overlap\_area: 22000  
             IOU: 0.8824355220408326  
             Centre Distance: 0.5  
             Category: True Positive

-----  
Frame: 70    Total Penalty: 8.909223511626816  
             GT\_area: 22866  
             ST\_area: 24931  
             Overlap\_area: 22866  
             IOU: 0.9171713930448037  
             Centre Distance: 1.0  
             Category: True Positive

-----  
Frame: 71    Total Penalty: 9.000956695213516  
             GT\_area: 22644  
             ST\_area: 24931  
             Overlap\_area: 22644  
             IOU: 0.9082668164133008  
             Centre Distance: 2.5  
             Category: True Positive

-----  
Frame: 72    Total Penalty: 9.105645636691996  
             GT\_area: 22321  
             ST\_area: 24931  
             Overlap\_area: 22321  
             IOU: 0.8953110585215194  
             Centre Distance: 2.0  
             Category: True Positive

-----  
Frame: 73    Total Penalty: 9.17477977042818  
             GT\_area: 23638  
             ST\_area: 24931  
             Overlap\_area: 23415  
             IOU: 0.9308658662638148  
             Centre Distance: 1.5  
             Category: True Positive

-----  
Frame: 74    Total Penalty: 9.257608377383377  
             GT\_area: 22866  
             ST\_area: 24931  
             Overlap\_area: 22866  
             IOU: 0.9171713930448037  
             Centre Distance: 2.0  
             Category: True Positive

-----  
Frame: 75    Total Penalty: 9.372489353031268  
             GT\_area: 23296  
             ST\_area: 24931

Overlap\_area: 22644  
IOU: 0.8851190243521089  
Centre Distance: 3.5  
Category: True Positive

-----  
Frame: 76 Total Penalty: 9.457519246353138  
GT\_area: 24075  
ST\_area: 24931  
Overlap\_area: 23415  
IOU: 0.9149701066781291  
Centre Distance: 2.0  
Category: True Positive

-----  
Frame: 77 Total Penalty: 9.573893630589591  
GT\_area: 22866  
ST\_area: 24931  
Overlap\_area: 22422  
IOU: 0.8836256157635468  
Centre Distance: 4.0  
Category: True Positive

-----  
Frame: 78 Total Penalty: 9.663405277745793  
GT\_area: 23540  
ST\_area: 24931  
Overlap\_area: 23100  
IOU: 0.910488352843798  
Centre Distance: 2.0  
Category: True Positive

-----  
Frame: 79 Total Penalty: 9.747842492092374  
GT\_area: 24525  
ST\_area: 24931  
Overlap\_area: 23638  
IOU: 0.9155627856534201  
Centre Distance: 2.0  
Category: True Positive

-----  
Frame: 80 Total Penalty: 9.874257001470765  
GT\_area: 23415  
ST\_area: 24931  
Overlap\_area: 22542  
IOU: 0.8735854906216091  
Centre Distance: 4.0  
Category: True Positive

-----  
Frame: 81 Total Penalty: 10.003555752671533  
GT\_area: 23754  
ST\_area: 24931  
Overlap\_area: 22660  
IOU: 0.8707012487992315  
Centre Distance: 4.0  
Category: True Positive

-----  
Frame: 82 Total Penalty: 10.155707488795763

GT\_area: 23976  
ST\_area: 24931  
Overlap\_area: 22440  
IOU: 0.8478482638757698  
Centre Distance: 5.5  
Category: True Positive

-----  
Frame: 83    Total Penalty: 10.299358223267465  
             GT\_area: 24860  
             ST\_area: 24931  
             Overlap\_area: 22969  
             IOU: 0.8563492655282977  
             Centre Distance: 5.5  
             Category: True Positive

-----  
Frame: 84    Total Penalty: 10.477968666789423  
             GT\_area: 25088  
             ST\_area: 24931  
             Overlap\_area: 22557  
             IOU: 0.8213895564780423  
             Centre Distance: 6.5  
             Category: True Positive

-----  
Frame: 85    Total Penalty: 10.64623087082333  
             GT\_area: 25200  
             ST\_area: 24931  
             Overlap\_area: 22763  
             IOU: 0.8317377959660918  
             Centre Distance: 6.5  
             Category: True Positive

-----  
Frame: 86    Total Penalty: 10.784424438378853  
             GT\_area: 25200  
             ST\_area: 24931  
             Overlap\_area: 23205  
             IOU: 0.8618064324444774  
             Centre Distance: 4.5  
             Category: True Positive

-----  
Frame: 87    Total Penalty: 10.956117240952235  
             GT\_area: 25086  
             ST\_area: 24931  
             Overlap\_area: 22660  
             IOU: 0.8283071974266184  
             Centre Distance: 6.0  
             Category: True Positive

-----  
Frame: 88    Total Penalty: 11.110254954155014  
             GT\_area: 24743  
             ST\_area: 24931  
             Overlap\_area: 22763  
             IOU: 0.8458622867972204  
             Centre Distance: 5.0  
             Category: True Positive

-----  
Frame: 89    Total Penalty: 11.248352491576549  
            GT\_area: 25197  
            ST\_area: 24931  
            Overlap\_area: 23205  
            IOU: 0.8619024625784645  
            Centre Distance: 4.0  
            Category: True Positive

-----  
Frame: 90    Total Penalty: 11.371039930719684  
            GT\_area: 25197  
            ST\_area: 24931  
            Overlap\_area: 23426  
            IOU: 0.8773125608568647  
            Centre Distance: 3.0  
            Category: True Positive

-----  
Frame: 91    Total Penalty: 11.54563562293812  
            GT\_area: 25410  
            ST\_area: 24931  
            Overlap\_area: 22763  
            IOU: 0.825404307781565  
            Centre Distance: 5.5  
            Category: True Positive

-----  
Frame: 92    Total Penalty: 11.73605309056715  
            GT\_area: 24961  
            ST\_area: 24931  
            Overlap\_area: 22321  
            IOU: 0.8095825323709694  
            Centre Distance: 7.0  
            Category: True Positive

-----  
Frame: 93    Total Penalty: 11.865889276836246  
            GT\_area: 25872  
            ST\_area: 24931  
            Overlap\_area: 23638  
            IOU: 0.8701638137309038  
            Centre Distance: 3.5  
            Category: True Positive

-----  
Frame: 94    Total Penalty: 12.002490912182681  
            GT\_area: 27028  
            ST\_area: 24931  
            Overlap\_area: 24075  
            IOU: 0.8633983646535648  
            Centre Distance: 3.5  
            Category: True Positive

-----  
Frame: 95    Total Penalty: 12.085543008850511  
            GT\_area: 24486  
            ST\_area: 24931  
            Overlap\_area: 23638  
            IOU: 0.9169479033321696

Centre Distance: 0.5  
Category: True Positive

-----  
Frame: 96 Total Penalty: 12.268511150698572  
GT\_area: 25488  
ST\_area: 24931  
Overlap\_area: 22671  
IOU: 0.8170318581519389  
Centre Distance: 8.5  
Category: True Positive

-----  
Frame: 97 Total Penalty: 12.363618586160003  
GT\_area: 24360  
ST\_area: 24931  
Overlap\_area: 23415  
IOU: 0.9048925645385686  
Centre Distance: 0.0  
Category: True Positive

-----  
Frame: 98 Total Penalty: 12.470393591882136  
GT\_area: 24698  
ST\_area: 24931  
Overlap\_area: 23415  
IOU: 0.8932249942778668  
Centre Distance: 1.5  
Category: True Positive

-----  
Frame: 99 Total Penalty: 12.565766074195508  
GT\_area: 24336  
ST\_area: 24931  
Overlap\_area: 23400  
IOU: 0.9046275176866277  
Centre Distance: 0.5  
Category: True Positive

-----  
Frame: 100 Total Penalty: 12.6525731052946  
GT\_area: 24592  
ST\_area: 24931  
Overlap\_area: 23638  
IOU: 0.9131929689009078  
Centre Distance: 0.5  
Category: True Positive

-----  
Frame: 101 Total Penalty: 12.763717831687218  
GT\_area: 25016  
ST\_area: 24931  
Overlap\_area: 23504  
IOU: 0.8888552736073819  
Centre Distance: 2.5  
Category: True Positive

-----  
Frame: 102 Total Penalty: 12.850307986870808  
GT\_area: 25252  
ST\_area: 24931

Overlap\_area: 23956  
IOU: 0.9134098448164105  
Centre Distance: 1.0  
Category: True Positive

-----  
Frame: 103 Total Penalty: 13.028300079395658  
GT\_area: 24378  
ST\_area: 24931  
Overlap\_area: 22246  
IOU: 0.8220079074751506  
Centre Distance: 6.5  
Category: True Positive

-----  
Frame: 104 Total Penalty: 13.137901249706713  
GT\_area: 24174  
ST\_area: 24931  
Overlap\_area: 23129  
IOU: 0.8903988296889437  
Centre Distance: 3.5  
Category: True Positive

-----  
Frame: 105 Total Penalty: 13.293692741264628  
GT\_area: 25095  
ST\_area: 24931  
Overlap\_area: 22900  
IOU: 0.8442085084420851  
Centre Distance: 6.0  
Category: True Positive

-----  
Frame: 106 Total Penalty: 13.43439296008301  
GT\_area: 26051  
ST\_area: 24931  
Overlap\_area: 23562  
IOU: 0.8592997811816192  
Centre Distance: 6.0  
Category: True Positive

-----  
Frame: 107 Total Penalty: 13.626119578788046  
GT\_area: 30366  
ST\_area: 24931  
Overlap\_area: 24717  
IOU: 0.8082733812949641  
Centre Distance: 2.5  
Category: True Positive

-----  
Frame: 108 Total Penalty: 13.92628239037574  
GT\_area: 35624  
ST\_area: 24931  
Overlap\_area: 24931  
IOU: 0.6998371884123064  
Centre Distance: 0.5  
Category: True Positive

-----  
Frame: 109 Total Penalty: 14.333618481280508



GT\_area: 42066  
ST\_area: 24931  
Overlap\_area: 24931  
IOU: 0.5926639090952313  
Centre Distance: 7.0  
Category: True Positive

---

Frame: 110 Total Penalty: 15.674501356169595  
GT\_area: 45080  
ST\_area: 24931  
Overlap\_area: 24931  
IOU: 0.5530390417036379  
Centre Distance: 11.5  
Category: False Positive

---

Frame: 111 Total Penalty: 17.008584570709864  
GT\_area: 44896  
ST\_area: 24931  
Overlap\_area: 24931  
IOU: 0.5553055951532431  
Centre Distance: 11.5  
Category: False Positive

---

Frame: 112 Total Penalty: 18.57846159044009  
GT\_area: 46995  
ST\_area: 24931  
Overlap\_area: 23219  
IOU: 0.4767076600899255  
Centre Distance: 27.0  
Category: False Positive

---

Frame: 113 Total Penalty: 20.217143907439727  
GT\_area: 47400  
ST\_area: 24931  
Overlap\_area: 22577  
IOU: 0.4537725610001206  
Centre Distance: 29.5  
Category: False Positive

---

Frame: 114 Total Penalty: 21.830892977610816  
GT\_area: 45828  
ST\_area: 24931  
Overlap\_area: 22363  
IOU: 0.4620836432763038  
Centre Distance: 29.0  
Category: False Positive

---

Frame: 115 Total Penalty: 23.344593345491063  
GT\_area: 45800  
ST\_area: 24931  
Overlap\_area: 23433  
IOU: 0.4954332107065838  
Centre Distance: 31.5  
Category: False Positive

-----  
Frame: 116 Total Penalty: 24.880189832961612  
GT\_area: 44550  
ST\_area: 24931  
Overlap\_area: 22791  
IOU: 0.4881345041764832  
Centre Distance: 33.5  
Category: False Positive

-----  
Frame: 117 Total Penalty: 26.416601340796188  
GT\_area: 44576  
ST\_area: 24931  
Overlap\_area: 22791  
IOU: 0.48786283072180836  
Centre Distance: 34.0  
Category: False Positive

-----  
Frame: 118 Total Penalty: 27.870004781637476  
GT\_area: 43956  
ST\_area: 24931  
Overlap\_area: 23433  
IOU: 0.5155321863862367  
Centre Distance: 36.5  
Category: False Positive

-----  
Frame: 119 Total Penalty: 29.314891929895463  
GT\_area: 42140  
ST\_area: 24931  
Overlap\_area: 22898  
IOU: 0.5183709505806714  
Centre Distance: 39.5  
Category: False Positive

-----  
Frame: 120 Total Penalty: 31.834316767475737  
GT\_area: 37036  
ST\_area: 24931  
Overlap\_area: 8556  
IOU: 0.16019172080657543  
Centre Distance: 85.5  
Category: False Positive

-----  
Frame: 121 Total Penalty: 34.281516636091276  
GT\_area: 32757  
ST\_area: 24931  
Overlap\_area: 8976  
IOU: 0.18426671046148793  
Centre Distance: 77.0  
Category: False Positive

-----  
Frame: 122 Total Penalty: 36.703862884883804  
GT\_area: 30624  
ST\_area: 24931  
Overlap\_area: 8970  
IOU: 0.19255125040249008

Centre Distance: 76.5  
Category: False Positive

-----  
Frame: 123 Total Penalty: 39.10357225121433  
GT\_area: 29575  
ST\_area: 24931  
Overlap\_area: 9088  
IOU: 0.20009687788982342  
Centre Distance: 77.0  
Category: False Positive

-----  
Frame: 124 Total Penalty: 41.5081383005699  
GT\_area: 29559  
ST\_area: 24931  
Overlap\_area: 9024  
IOU: 0.19847798354814586  
Centre Distance: 78.0  
Category: False Positive

-----  
Frame: 125 Total Penalty: 43.86124471167366  
GT\_area: 26568  
ST\_area: 24931  
Overlap\_area: 9135  
IOU: 0.21563119629874422  
Centre Distance: 71.5  
Category: False Positive

-----  
Frame: 126 Total Penalty: 46.34566749692441  
GT\_area: 22200  
ST\_area: 24931  
Overlap\_area: 6912  
IOU: 0.1718590715830826  
Centre Distance: 79.5  
Category: False Positive

-----  
Frame: 127 Total Penalty: 48.8329078530075  
GT\_area: 20448  
ST\_area: 24931  
Overlap\_area: 6624  
IOU: 0.17091988130563798  
Centre Distance: 78.5  
Category: False Positive

-----  
Frame: 128 Total Penalty: 51.327172308130734  
GT\_area: 20300  
ST\_area: 24931  
Overlap\_area: 6525  
IOU: 0.1685785149589211  
Centre Distance: 78.5  
Category: False Positive

-----  
Frame: 129 Total Penalty: 53.8460658876806  
GT\_area: 19872  
ST\_area: 24931

Overlap\_area: 6192  
IOU: 0.16036880681671026  
Centre Distance: 79.5  
Category: False Positive

-----  
Frame: 130 Total Penalty: 56.38324276456522  
GT\_area: 19856  
ST\_area: 24931  
Overlap\_area: 5986  
IOU: 0.15427437437179453  
Centre Distance: 80.5  
Category: False Positive

-----  
Frame: 131 Total Penalty: 58.90760221108492  
GT\_area: 19110  
ST\_area: 24931  
Overlap\_area: 6027  
IOU: 0.15854685116009892  
Centre Distance: 77.5  
Category: False Positive

-----  
Frame: 132 Total Penalty: 61.43590459347572  
GT\_area: 19126  
ST\_area: 24931  
Overlap\_area: 5986  
IOU: 0.15723253920306796  
Centre Distance: 78.0  
Category: False Positive

-----  
Frame: 133 Total Penalty: 63.97088508762396  
GT\_area: 19479  
ST\_area: 24931  
Overlap\_area: 5960  
IOU: 0.15500650195058518  
Centre Distance: 78.0  
Category: False Positive

-----  
Frame: 134 Total Penalty: 66.54768876327279  
GT\_area: 21014  
ST\_area: 24931  
Overlap\_area: 5680  
IOU: 0.14106544145039115  
Centre Distance: 80.0  
Category: False Positive

-----  
Frame: 135 Total Penalty: 69.07160680863271  
GT\_area: 27946  
ST\_area: 24931  
Overlap\_area: 7242  
IOU: 0.15869398488002628  
Centre Distance: 81.0  
Category: False Positive

-----  
Frame: 136 Total Penalty: 71.55462249643253

GT\_area: 29322  
ST\_area: 24931  
Overlap\_area: 7975  
IOU: 0.17232810406672716  
Centre Distance: 79.5  
Category: False Positive

-----  
Frame: 137 Total Penalty: 74.04573891612571  
GT\_area: 37740  
ST\_area: 24931  
Overlap\_area: 9089  
IOU: 0.16962786010227315  
Centre Distance: 85.0  
Category: False Positive

-----  
Frame: 138 Total Penalty: 76.79381869086372  
GT\_area: 40128  
ST\_area: 24931  
Overlap\_area: 5040  
IOU: 0.08397340842066679  
Centre Distance: 113.5  
Category: False Positive

-----  
Frame: 139 Total Penalty: 79.53515388509493  
GT\_area: 45114  
ST\_area: 24931  
Overlap\_area: 5560  
IOU: 0.08622160192292781  
Centre Distance: 116.5  
Category: False Positive

-----  
Frame: 140 Total Penalty: 82.29322355105712  
GT\_area: 46144  
ST\_area: 24931  
Overlap\_area: 5304  
IOU: 0.08064344467926594  
Centre Distance: 117.5  
Category: False Positive

-----  
Frame: 141 Total Penalty: 85.0981218614219  
GT\_area: 46864  
ST\_area: 24931  
Overlap\_area: 4384  
IOU: 0.06503389654507424  
Centre Distance: 122.5  
Category: False Positive

-----  
Frame: 142 Total Penalty: 87.88322915946874  
GT\_area: 47328  
ST\_area: 24931  
Overlap\_area: 4830  
IOU: 0.07163090065105518  
Centre Distance: 120.5  
Category: False Positive

```
-----  
Frame: 143 Total Penalty: 90.67865454547945  
GT_area: 47502  
ST_area: 24931  
Overlap_area: 4624  
IOU: 0.06819153799643116  
Centre Distance: 121.0  
Category: False Positive  
-----  
Frame: 144 Total Penalty: 93.51481618267326  
GT_area: 45978  
ST_area: 24931  
Overlap_area: 3672  
IOU: 0.05461278760206434  
Centre Distance: 123.5  
Category: False Positive  
-----  
Frame: 145 Total Penalty: 96.37008923357013  
GT_area: 43384  
ST_area: 24931  
Overlap_area: 3144  
IOU: 0.048242316367709565  
Centre Distance: 123.0  
Category: False Positive  
-----  
Frame: 146 Total Penalty: 99.180419341709  
GT_area: 42320  
ST_area: 24931  
Overlap_area: 3999  
IOU: 0.0632232972870423  
Centre Distance: 114.5  
Category: False Positive  
-----  
Frame: 147 Total Penalty: 101.94496369004985  
GT_area: 40656  
ST_area: 24931  
Overlap_area: 4773  
IOU: 0.07848521721971914  
Centre Distance: 104.5  
Category: False Positive  
-----  
Frame: 148 Total Penalty: 104.69560457421534  
GT_area: 38868  
ST_area: 24931  
Overlap_area: 4896  
IOU: 0.0831197052781692  
Centre Distance: 99.5  
Category: False Positive  
-----  
Frame: 149 Total Penalty: 107.44376219959916  
GT_area: 38610  
ST_area: 24931  
Overlap_area: 4921  
IOU: 0.08394745820539065
```

Centre Distance: 99.0  
Category: False Positive

-----  
Frame: 150 Total Penalty: 110.2584331927371  
GT\_area: 34950  
ST\_area: 24931  
Overlap\_area: 3484  
IOU: 0.061776335620689043  
Centre Distance: 102.5  
Category: False Positive

-----  
Frame: 151 Total Penalty: 113.11895015909441  
GT\_area: 32802  
ST\_area: 24931  
Overlap\_area: 2565  
IOU: 0.04649434454756381  
Centre Distance: 105.5  
Category: False Positive

-----  
Frame: 152 Total Penalty: 116.01251169727342  
GT\_area: 31455  
ST\_area: 24931  
Overlap\_area: 1932  
IOU: 0.03547948727366217  
Centre Distance: 107.0  
Category: False Positive

-----  
Frame: 153 Total Penalty: 118.88739766104248  
GT\_area: 31020  
ST\_area: 24931  
Overlap\_area: 2240  
IOU: 0.041704678743646556  
Centre Distance: 103.5  
Category: False Positive

-----  
Frame: 154 Total Penalty: 121.80931736570331  
GT\_area: 30654  
ST\_area: 24931  
Overlap\_area: 1410  
IOU: 0.02602676511305953  
Centre Distance: 109.0  
Category: False Positive

-----  
Frame: 155 Total Penalty: 124.76191732119622  
GT\_area: 29845  
ST\_area: 24931  
Overlap\_area: 852  
IOU: 0.01580001483569468  
Centre Distance: 111.0  
Category: False Positive

-----  
Frame: 156 Total Penalty: 127.71296054027223  
GT\_area: 29625  
ST\_area: 24931

Overlap\_area: 876  
IOU: 0.01631892697466468  
Centre Distance: 110.0  
Category: False Positive

-----  
Frame: 157 Total Penalty: 130.6388947039733  
GT\_area: 30353  
ST\_area: 24931  
Overlap\_area: 1332  
IOU: 0.02468861209964413  
Centre Distance: 108.0  
Category: False Positive

-----  
Frame: 158 Total Penalty: 133.57337294639643  
GT\_area: 30464  
ST\_area: 24931  
Overlap\_area: 1184  
IOU: 0.021840585858958515  
Centre Distance: 109.5  
Category: False Positive

-----  
Frame: 159 Total Penalty: 136.49844139617198  
GT\_area: 30099  
ST\_area: 24931  
Overlap\_area: 1341  
IOU: 0.02497718340814692  
Centre Distance: 108.0  
Category: False Positive

-----  
Frame: 160 Total Penalty: 139.44813282945967  
GT\_area: 29274  
ST\_area: 24931  
Overlap\_area: 894  
IOU: 0.016769522237436926  
Centre Distance: 109.0  
Category: False Positive

-----  
Frame: 161 Total Penalty: 142.38097916098397  
GT\_area: 29512  
ST\_area: 24931  
Overlap\_area: 1192  
IOU: 0.022384556158569793  
Centre Distance: 107.5  
Category: False Positive

-----  
Frame: 162 Total Penalty: 145.38097916098397  
GT\_area: 28920  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0  
Centre Distance: 113.5  
Category: False Positive

-----  
Frame: 163 Total Penalty: 148.36422382773313



GT\_area: 31964  
ST\_area: 24931  
Overlap\_area: 316  
IOU: 0.005585111083617597  
Centre Distance: 117.0  
Category: False Positive

---

Frame: 164 Total Penalty: 151.28629472157277  
GT\_area: 31944  
ST\_area: 24931  
Overlap\_area: 1440  
IOU: 0.025976368720122666  
Centre Distance: 110.5  
Category: False Positive

---

Frame: 165 Total Penalty: 154.15722281007922  
GT\_area: 31070  
ST\_area: 24931  
Overlap\_area: 2310  
IOU: 0.0430239704978488  
Centre Distance: 104.5  
Category: False Positive

---

Frame: 166 Total Penalty: 157.01035044392435  
GT\_area: 32319  
ST\_area: 24931  
Overlap\_area: 2672  
IOU: 0.04895745538495364  
Centre Distance: 104.0  
Category: False Positive

---

Frame: 167 Total Penalty: 159.84486037661193  
GT\_area: 32912  
ST\_area: 24931  
Overlap\_area: 3024  
IOU: 0.05516335577080939  
Centre Distance: 103.5  
Category: False Positive

---

Frame: 168 Total Penalty: 162.68113519834463  
GT\_area: 31416  
ST\_area: 24931  
Overlap\_area: 2916  
IOU: 0.05457505942243267  
Centre Distance: 101.5  
Category: False Positive

---

Frame: 169 Total Penalty: 165.5639072551217  
GT\_area: 31070  
ST\_area: 24931  
Overlap\_area: 2106  
IOU: 0.03907598107431116  
Centre Distance: 105.5  
Category: False Positive

```
-----  
Frame: 170 Total Penalty: 168.4362689710487  
GT_area: 31330  
ST_area: 24931  
Overlap_area: 2296  
IOU: 0.04254609469100343  
Centre Distance: 104.5  
Category: False Positive  
-----  
Frame: 171 Total Penalty: 171.29237513662164  
GT_area: 32400  
ST_area: 24931  
Overlap_area: 2624  
IOU: 0.04796461147567953  
Centre Distance: 105.0  
Category: False Positive  
-----  
Frame: 172 Total Penalty: 174.2067800339617  
GT_area: 32026  
ST_area: 24931  
Overlap_area: 1580  
IOU: 0.02853170088664969  
Centre Distance: 110.5  
Category: False Positive  
-----  
Frame: 173 Total Penalty: 177.09532574992102  
GT_area: 33499  
ST_area: 24931  
Overlap_area: 2093  
IOU: 0.03715142801356125  
Centre Distance: 110.0  
Category: False Positive  
-----  
Frame: 174 Total Penalty: 179.9957048985437  
GT_area: 32568  
ST_area: 24931  
Overlap_area: 1848  
IOU: 0.03320695045911125  
Centre Distance: 110.5  
Category: False Positive  
-----  
Frame: 175 Total Penalty: 182.9190902236755  
GT_area: 31088  
ST_area: 24931  
Overlap_area: 1395  
IOU: 0.02553822495606327  
Centre Distance: 111.5  
Category: False Positive  
-----  
Frame: 176 Total Penalty: 185.79894989804808  
GT_area: 32880  
ST_area: 24931  
Overlap_area: 2226  
IOU: 0.04004677520913916
```

Centre Distance: 108.0  
Category: False Positive

-----  
Frame: 177 Total Penalty: 188.73067414703272  
GT\_area: 32232  
ST\_area: 24931  
Overlap\_area: 1272  
IOU: 0.022758583671789734  
Centre Distance: 113.5  
Category: False Positive

-----  
Frame: 178 Total Penalty: 191.6103921673  
GT\_area: 31725  
ST\_area: 24931  
Overlap\_area: 2184  
IOU: 0.04009399324423557  
Centre Distance: 107.0  
Category: False Positive

-----  
Frame: 179 Total Penalty: 191.86011016370256  
GT\_area: 32480  
ST\_area: 24931  
Overlap\_area: 24610  
IOU: 0.7502820035974513  
Centre Distance: 4.5  
Category: True Positive

-----  
Frame: 180 Total Penalty: 192.09839044224023  
GT\_area: 31740  
ST\_area: 24931  
Overlap\_area: 24503  
IOU: 0.7617197214623228  
Centre Distance: 2.5  
Category: True Positive

-----  
Frame: 181 Total Penalty: 192.3523163502012  
GT\_area: 32665  
ST\_area: 24931  
Overlap\_area: 24610  
IOU: 0.7460740920390468  
Centre Distance: 4.0  
Category: True Positive

-----  
Frame: 182 Total Penalty: 192.5818059888918  
GT\_area: 31373  
ST\_area: 24931  
Overlap\_area: 24503  
IOU: 0.7705103613093928  
Centre Distance: 3.0  
Category: True Positive

-----  
Frame: 183 Total Penalty: 192.80357408337898  
GT\_area: 30324  
ST\_area: 24931

Overlap\_area: 24182  
IOU: 0.7782319055128246  
Centre Distance: 3.0  
Category: True Positive

-----  
Frame: 184 Total Penalty: 193.01675840472657  
GT\_area: 30228  
ST\_area: 24931  
Overlap\_area: 24289  
IOU: 0.7868156786524133  
Centre Distance: 1.5  
Category: True Positive

-----  
Frame: 185 Total Penalty: 193.21518127313465  
GT\_area: 29900  
ST\_area: 24931  
Overlap\_area: 24396  
IOU: 0.8015771315919172  
Centre Distance: 1.5  
Category: True Positive

-----  
Frame: 186 Total Penalty: 193.4043348430335  
GT\_area: 30030  
ST\_area: 24931  
Overlap\_area: 24610  
IOU: 0.8108464301011499  
Centre Distance: 1.5  
Category: True Positive

-----  
Frame: 187 Total Penalty: 193.57468088488358  
GT\_area: 29106  
ST\_area: 24931  
Overlap\_area: 24503  
IOU: 0.8296539581499289  
Centre Distance: 0.5  
Category: True Positive

-----  
Frame: 188 Total Penalty: 193.7514656992629  
GT\_area: 29337  
ST\_area: 24931  
Overlap\_area: 24503  
IOU: 0.8232151856206954  
Centre Distance: 0.0  
Category: True Positive

-----  
Frame: 189 Total Penalty: 193.91160878959735  
GT\_area: 28044  
ST\_area: 24931  
Overlap\_area: 24182  
IOU: 0.8398569096655437  
Centre Distance: 1.0  
Category: True Positive

-----  
Frame: 190 Total Penalty: 194.05153475469518

GT\_area: 27830  
ST\_area: 24931  
Overlap\_area: 24396  
IOU: 0.8600740349021682  
Centre Distance: 1.0  
Category: True Positive

---

Frame: 191 Total Penalty: 194.191460719793  
GT\_area: 27830  
ST\_area: 24931  
Overlap\_area: 24396  
IOU: 0.8600740349021682  
Centre Distance: 1.0  
Category: True Positive

---

Frame: 192 Total Penalty: 194.30960340348264  
GT\_area: 26216  
ST\_area: 24931  
Overlap\_area: 23968  
IOU: 0.8818573163103867  
Centre Distance: 1.5  
Category: True Positive

---

Frame: 193 Total Penalty: 194.4833200925577  
GT\_area: 28044  
ST\_area: 24931  
Overlap\_area: 23968  
IOU: 0.8262833109249491  
Centre Distance: 0.0  
Category: True Positive

---

Frame: 194 Total Penalty: 194.6016984512292  
GT\_area: 26680  
ST\_area: 24931  
Overlap\_area: 24182  
IOU: 0.8816216413285209  
Centre Distance: 0.5  
Category: True Positive

---

Frame: 195 Total Penalty: 194.76593662986318  
GT\_area: 27480  
ST\_area: 24931  
Overlap\_area: 23861  
IOU: 0.8357618213660245  
Centre Distance: 1.5  
Category: True Positive

---

Frame: 196 Total Penalty: 194.9264564014999  
GT\_area: 27588  
ST\_area: 24931  
Overlap\_area: 23968  
IOU: 0.8394802283632797  
Centre Distance: 2.0  
Category: True Positive

```
-----  
Frame: 197 Total Penalty: 195.07359371780066  
GT_area: 27140  
ST_area: 24931  
Overlap_area: 23968  
IOU: 0.8528626836992492  
Centre Distance: 0.5  
Category: True Positive  
-----  
Frame: 198 Total Penalty: 195.18033904282294  
GT_area: 26096  
ST_area: 24931  
Overlap_area: 24075  
IOU: 0.8932546749777382  
Centre Distance: 1.5  
Category: True Positive  
-----  
Frame: 199 Total Penalty: 195.3096619140813  
GT_area: 26565  
ST_area: 24931  
Overlap_area: 23968  
IOU: 0.8706771287416448  
Centre Distance: 3.0  
Category: True Positive  
-----  
Frame: 200 Total Penalty: 195.37260217223914  
GT_area: 25942  
ST_area: 24931  
Overlap_area: 24610  
IOU: 0.9370597418421354  
Centre Distance: 1.0  
Category: True Positive  
-----  
Frame: 201 Total Penalty: 198.37260217223914  
GT_area: 25680  
ST_area: 24931  
Overlap_area: 0  
IOU: 0.0  
Centre Distance: 107.0  
Category: False Positive  
-----  
Frame: 202 Total Penalty: 200.3503910482774  
GT_area: 26076  
ST_area: 24931  
Overlap_area: 12963  
IOU: 0.3407370413205762  
Centre Distance: 193.5  
Category: False Positive  
-----  
Frame: 203 Total Penalty: 201.02627211285562  
GT_area: 28548  
ST_area: 24931  
Overlap_area: 23345  
IOU: 0.7747063118072609
```

Centre Distance: 273.0  
Category: False Positive

-----  
Frame: 204 Total Penalty: 198.68931854239676  
GT\_area: 26244  
ST\_area: 24931  
Overlap\_area: 32760  
IOU: 1.7789845234862884  
Centre Distance: 341.5  
Category: False Positive

-----  
Frame: 205 Total Penalty: 196.42187294265403  
GT\_area: 26487  
ST\_area: 24931  
Overlap\_area: 32760  
IOU: 1.755815199914246  
Centre Distance: 342.0  
Category: False Positive

-----  
Frame: 206 Total Penalty: 191.37546923035706  
GT\_area: 27440  
ST\_area: 24931  
Overlap\_area: 38148  
IOU: 2.6821345707656614  
Centre Distance: 398.5  
Category: False Positive

-----  
Frame: 207 Total Penalty: 185.04883490372274  
GT\_area: 28431  
ST\_area: 24931  
Overlap\_area: 40375  
IOU: 3.108878108878109  
Centre Distance: 435.0  
Category: False Positive

-----  
Frame: 208 Total Penalty: 177.2596167126139  
GT\_area: 29040  
ST\_area: 24931  
Overlap\_area: 42229  
IOU: 3.5964060637029465  
Centre Distance: 462.5  
Category: False Positive

-----  
Frame: 209 Total Penalty: 167.9392753185883  
GT\_area: 28920  
ST\_area: 24931  
Overlap\_area: 43306  
IOU: 4.106780464675201  
Centre Distance: 480.5  
Category: False Positive

-----  
Frame: 210 Total Penalty: 160.6682616465553  
GT\_area: 29750  
ST\_area: 24931

Overlap\_area: 42320  
IOU: 3.4236712240110023  
Centre Distance: 484.0  
Category: False Positive

-----  
Frame: 211 Total Penalty: 152.48756619240797  
GT\_area: 29036  
ST\_area: 24931  
Overlap\_area: 42550  
IOU: 3.726898484715775  
Centre Distance: 484.5  
Category: False Positive

-----  
Frame: 212 Total Penalty: 142.5057480105898  
GT\_area: 29274  
ST\_area: 24931  
Overlap\_area: 44030  
IOU: 4.327272727272727  
Centre Distance: 485.0  
Category: False Positive

-----  
Frame: 213 Total Penalty: 132.1670448289547  
GT\_area: 29161  
ST\_area: 24931  
Overlap\_area: 44160  
IOU: 4.446234393878373  
Centre Distance: 482.0  
Category: False Positive

-----  
Frame: 214 Total Penalty: 124.91865306311358  
GT\_area: 29988  
ST\_area: 24931  
Overlap\_area: 42483  
IOU: 3.416130588613702  
Centre Distance: 473.5  
Category: False Positive

-----  
Frame: 215 Total Penalty: 120.73027983993292  
GT\_area: 30976  
ST\_area: 24931  
Overlap\_area: 39445  
IOU: 2.396124407726886  
Centre Distance: 460.5  
Category: False Positive

-----  
Frame: 216 Total Penalty: 119.13210573680833  
GT\_area: 34160  
ST\_area: 24931  
Overlap\_area: 35760  
IOU: 1.5327247010415328  
Centre Distance: 421.5  
Category: False Positive

-----  
Frame: 217 Total Penalty: 118.73049077718231



GT\_area: 35321  
ST\_area: 24931  
Overlap\_area: 32016  
IOU: 1.13387165320867  
Centre Distance: 357.0  
Category: False Positive

---

Frame: 218 Total Penalty: 118.67883514804323  
GT\_area: 32943  
ST\_area: 24931  
Overlap\_area: 29184  
IOU: 1.0172185430463576  
Centre Distance: 351.0  
Category: False Positive

---

Frame: 219 Total Penalty: 120.358660650439  
GT\_area: 35478  
ST\_area: 24931  
Overlap\_area: 18460  
IOU: 0.4400581658680779  
Centre Distance: 256.5  
Category: False Positive

---

Frame: 220 Total Penalty: 122.9880340555992  
GT\_area: 34510  
ST\_area: 24931  
Overlap\_area: 6536  
IOU: 0.12354219827993573  
Centre Distance: 169.0  
Category: False Positive

---

Frame: 221 Total Penalty: 125.70885821107375  
GT\_area: 31144  
ST\_area: 24931  
Overlap\_area: 4774  
IOU: 0.09305861484181595  
Centre Distance: 90.5  
Category: False Positive

---

Frame: 222 Total Penalty: 126.2619797587794  
GT\_area: 28767  
ST\_area: 24931  
Overlap\_area: 16585  
IOU: 0.4468784522943443  
Centre Distance: 3.0  
Category: True Positive

---

Frame: 223 Total Penalty: 126.80072220798314  
GT\_area: 28288  
ST\_area: 24931  
Overlap\_area: 16799  
IOU: 0.4612575507962658  
Centre Distance: 8.5  
Category: True Positive

-----  
Frame: 224 Total Penalty: 127.33652687440879  
GT\_area: 27720  
ST\_area: 24931  
Overlap\_area: 16692  
IOU: 0.46419533357434856  
Centre Distance: 7.5  
Category: True Positive

-----  
Frame: 225 Total Penalty: 127.83842177459081  
GT\_area: 25272  
ST\_area: 24931  
Overlap\_area: 16692  
IOU: 0.49810509981797024  
Centre Distance: 3.0  
Category: True Positive

-----  
Frame: 226 Total Penalty: 128.31631895182068  
GT\_area: 23653  
ST\_area: 24931  
Overlap\_area: 16665  
IOU: 0.5221028227701369  
Centre Distance: 7.0  
Category: True Positive

-----  
Frame: 227 Total Penalty: 128.77209263486276  
GT\_area: 23760  
ST\_area: 24931  
Overlap\_area: 17160  
IOU: 0.5442263169579145  
Centre Distance: 4.5  
Category: True Positive

-----  
Frame: 228 Total Penalty: 129.22836914703873  
GT\_area: 24198  
ST\_area: 24931  
Overlap\_area: 17304  
IOU: 0.5437234878240377  
Centre Distance: 6.0  
Category: True Positive

-----  
Frame: 229 Total Penalty: 129.7165679048027  
GT\_area: 24966  
ST\_area: 24931  
Overlap\_area: 16892  
IOU: 0.5118012422360249  
Centre Distance: 7.5  
Category: True Positive

-----  
Frame: 230 Total Penalty: 130.21256984325677  
GT\_area: 24725  
ST\_area: 24931  
Overlap\_area: 16640  
IOU: 0.5039980615459171

Centre Distance: 7.0  
Category: True Positive

-----  
Frame: 231 Total Penalty: 130.7322551173008  
GT\_area: 24738  
ST\_area: 24931  
Overlap\_area: 16116  
IOU: 0.48031472595595026  
Centre Distance: 8.5  
Category: True Positive

-----  
Frame: 232 Total Penalty: 131.24230387458468  
GT\_area: 25185  
ST\_area: 24931  
Overlap\_area: 16480  
IOU: 0.4899512427161375  
Centre Distance: 8.0  
Category: True Positive

-----  
Frame: 233 Total Penalty: 131.75123270868784  
GT\_area: 25752  
ST\_area: 24931  
Overlap\_area: 16692  
IOU: 0.49107116589685507  
Centre Distance: 0.5  
Category: True Positive

-----  
Frame: 234 Total Penalty: 132.26626800895804  
GT\_area: 26180  
ST\_area: 24931  
Overlap\_area: 16692  
IOU: 0.4849646997298004  
Centre Distance: 3.0  
Category: True Positive

-----  
Frame: 235 Total Penalty: 132.7652419084291  
GT\_area: 27000  
ST\_area: 24931  
Overlap\_area: 17334  
IOU: 0.5010261005289476  
Centre Distance: 2.5  
Category: True Positive

-----  
Frame: 236 Total Penalty: 133.28538042280564  
GT\_area: 27206  
ST\_area: 24931  
Overlap\_area: 16906  
IOU: 0.4798614856234566  
Centre Distance: 1.5  
Category: True Positive

-----  
Frame: 237 Total Penalty: 133.79598977292866  
GT\_area: 26520  
ST\_area: 24931

Overlap\_area: 16906  
IOU: 0.48939064987697206  
Centre Distance: 2.5  
Category: True Positive

-----  
Frame: 238 Total Penalty: 134.31290581495105  
GT\_area: 26314  
ST\_area: 24931  
Overlap\_area: 16692  
IOU: 0.4830839579775996  
Centre Distance: 3.5  
Category: True Positive

-----  
Frame: 239 Total Penalty: 134.82607466156222  
GT\_area: 25086  
ST\_area: 24931  
Overlap\_area: 16377  
IOU: 0.4868311533888228  
Centre Distance: 7.0  
Category: True Positive

-----  
Frame: 240 Total Penalty: 135.3581952876576  
GT\_area: 23647  
ST\_area: 24931  
Overlap\_area: 15484  
IOU: 0.4678793739046353  
Centre Distance: 9.0  
Category: True Positive

-----  
Frame: 241 Total Penalty: 135.84540866240152  
GT\_area: 20855  
ST\_area: 24931  
Overlap\_area: 15520  
IOU: 0.5127866252560629  
Centre Distance: 4.0  
Category: True Positive

-----  
Frame: 242 Total Penalty: 137.73153089267856  
GT\_area: 18576  
ST\_area: 24931  
Overlap\_area: 11780  
IOU: 0.37129258990764963  
Centre Distance: 20.5  
Category: False Positive

-----  
Frame: 243 Total Penalty: 139.56676496740604  
GT\_area: 19135  
ST\_area: 24931  
Overlap\_area: 12324  
IOU: 0.3882553084241699  
Centre Distance: 19.0  
Category: False Positive

-----  
Frame: 244 Total Penalty: 141.33759411817897

GT\_area: 17200  
ST\_area: 24931  
Overlap\_area: 12245  
IOU: 0.40972361640902094  
Centre Distance: 14.5  
Category: False Positive

---

Frame: 245 Total Penalty: 143.44246113693234  
GT\_area: 16125  
ST\_area: 24931  
Overlap\_area: 9435  
IOU: 0.29837766041554664  
Centre Distance: 40.0  
Category: False Positive

---

Frame: 246 Total Penalty: 145.52224609026194  
GT\_area: 14688  
ST\_area: 24931  
Overlap\_area: 9300  
IOU: 0.3067383488901349  
Centre Distance: 37.5  
Category: False Positive

---

Frame: 247 Total Penalty: 147.60135903507887  
GT\_area: 13082  
ST\_area: 24931  
Overlap\_area: 8928  
IOU: 0.3069623517276947  
Centre Distance: 36.5  
Category: False Positive

---

Frame: 248 Total Penalty: 149.59606709020034  
GT\_area: 12660  
ST\_area: 24931  
Overlap\_area: 9435  
IOU: 0.3350973149595113  
Centre Distance: 32.5  
Category: False Positive

---

Frame: 249 Total Penalty: 151.64535391409527  
GT\_area: 12369  
ST\_area: 24931  
Overlap\_area: 8976  
IOU: 0.3169043920350233  
Centre Distance: 34.0  
Category: False Positive

---

Frame: 250 Total Penalty: 153.69710830006017  
GT\_area: 11077  
ST\_area: 24931  
Overlap\_area: 8648  
IOU: 0.31608187134502924  
Centre Distance: 33.0  
Category: False Positive

-----  
Frame: 251 Total Penalty: 155.67917896932204  
GT\_area: 10850  
ST\_area: 24931  
Overlap\_area: 9065  
IOU: 0.33930977691271147  
Centre Distance: 29.5  
Category: False Positive

-----  
Frame: 252 Total Penalty: 157.66156943496244  
GT\_area: 10128  
ST\_area: 24931  
Overlap\_area: 8880  
IOU: 0.33920317811986705  
Centre Distance: 28.5  
Category: False Positive

-----  
Frame: 253 Total Penalty: 159.8510072926129  
GT\_area: 9030  
ST\_area: 24931  
Overlap\_area: 7224  
IOU: 0.2701873807831843  
Centre Distance: 32.0  
Category: False Positive

-----  
Frame: 254 Total Penalty: 162.093908775542  
GT\_area: 7752  
ST\_area: 24931  
Overlap\_area: 6586  
IOU: 0.2523661723569759  
Centre Distance: 35.5  
Category: False Positive

-----  
Frame: 255 Total Penalty: 164.34119438642242  
GT\_area: 7904  
ST\_area: 24931  
Overlap\_area: 6586  
IOU: 0.2509047963731952  
Centre Distance: 35.5  
Category: False Positive

-----  
Frame: 256 Total Penalty: 166.68942457773215  
GT\_area: 6501  
ST\_area: 24931  
Overlap\_area: 5610  
IOU: 0.21725660289675472  
Centre Distance: 36.0  
Category: False Positive

-----  
Frame: 257 Total Penalty: 169.1603103558759  
GT\_area: 5070  
ST\_area: 24931  
Overlap\_area: 4498  
IOU: 0.1763714072854174

Centre Distance: 39.5  
Category: False Positive

-----  
Frame: 258 Total Penalty: 171.97233360324242  
GT\_area: 4324  
ST\_area: 24931  
Overlap\_area: 1725  
IOU: 0.06265891754449691  
Centre Distance: 41.0  
Category: False Positive

-----  
Frame: 259 Total Penalty: 174.883833378051  
GT\_area: 2499  
ST\_area: 24931  
Overlap\_area: 786  
IOU: 0.029500075063804233  
Centre Distance: 56.0  
Category: False Positive

-----  
Frame: 260 Total Penalty: 177.883833378051  
GT\_area: 780  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0  
Centre Distance: 58.5  
Category: False Positive

-----  
Frame: 261 Total Penalty: 180.883833378051  
GT\_area: 870  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0  
Centre Distance: 58.5  
Category: False Positive

-----  
Frame: 262 Total Penalty: 183.87500739307904  
GT\_area: 296  
ST\_area: 24931  
Overlap\_area: 74  
IOU: 0.002941994990657178  
Centre Distance: 59.5  
Category: False Positive

-----  
Frame: 263 Total Penalty: 186.86618140810708  
GT\_area: 12  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.002941994990657178  
Centre Distance: 291.0  
Category: False Positive

-----  
Frame: 264 Total Penalty: 189.85735542313512  
GT\_area: 9  
ST\_area: 24931

Overlap\_area: 0  
IOU: 0.002941994990657178  
Centre Distance: 315.0  
Category: False Positive

-----  
Frame: 265 Total Penalty: 192.84852943816315  
GT\_area: 6  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.002941994990657178  
Centre Distance: 308.0  
Category: False Positive

-----  
Frame: 266 Total Penalty: 195.8397034531912  
GT\_area: 20  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.002941994990657178  
Centre Distance: 310.5  
Category: False Positive

-----  
Frame: 267 Total Penalty: 198.83087746821923  
GT\_area: 12  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.002941994990657178  
Centre Distance: 309.5  
Category: False Positive

-----  
Frame: 268 Total Penalty: 201.82205148324726  
GT\_area: 2  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.002941994990657178  
Centre Distance: 309.0  
Category: False Positive

-----  
Frame: 269 Total Penalty: 204.8132254982753  
GT\_area: 2  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.002941994990657178  
Centre Distance: 307.5  
Category: False Positive

-----  
Frame: 270 Total Penalty: 207.80439951330334  
GT\_area: 16  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.002941994990657178  
Centre Distance: 322.5  
Category: False Positive

-----  
Frame: 271 Total Penalty: 210.79557352833137



GT\_area: 20  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.002941994990657178  
Centre Distance: 314.0  
Category: False Positive

---

Frame: 272 Total Penalty: 213.58265370874662  
GT\_area: 3800  
ST\_area: 24931  
Overlap\_area: 1904  
IOU: 0.07097327319491557  
Centre Distance: 46.5  
Category: False Positive

---

Frame: 273 Total Penalty: 216.00538351376053  
GT\_area: 7175  
ST\_area: 24931  
Overlap\_area: 5181  
IOU: 0.19242339832869082  
Centre Distance: 38.0  
Category: False Positive

---

Frame: 274 Total Penalty: 218.42897492032722  
GT\_area: 7420  
ST\_area: 24931  
Overlap\_area: 5214  
IOU: 0.1921361978111066  
Centre Distance: 38.0  
Category: False Positive

---

Frame: 275 Total Penalty: 220.843756362045  
GT\_area: 12470  
ST\_area: 24931  
Overlap\_area: 6105  
IOU: 0.1950728527607362  
Centre Distance: 45.5  
Category: False Positive

---

Frame: 276 Total Penalty: 222.62557578468883  
GT\_area: 16275  
ST\_area: 24931  
Overlap\_area: 11900  
IOU: 0.4060601924520576  
Centre Distance: 21.0  
Category: False Positive

---

Frame: 277 Total Penalty: 224.94352353987844  
GT\_area: 20832  
ST\_area: 24931  
Overlap\_area: 8477  
IOU: 0.2273507482701282  
Centre Distance: 52.5  
Category: False Positive

```
-----  
Frame: 278 Total Penalty: 225.415605369  
GT_area: 25857  
ST_area: 24931  
Overlap_area: 17548  
IOU: 0.5279181708784597  
Centre Distance: 1.0  
Category: True Positive  
-----  
Frame: 279 Total Penalty: 225.9430296657952  
GT_area: 28416  
ST_area: 24931  
Overlap_area: 17120  
IOU: 0.47257570320479203  
Centre Distance: 6.5  
Category: True Positive  
-----  
Frame: 280 Total Penalty: 226.45436254806853  
GT_area: 27875  
ST_area: 24931  
Overlap_area: 17334  
IOU: 0.48866711772665766  
Centre Distance: 7.0  
Category: True Positive  
-----  
Frame: 281 Total Penalty: 226.97462259402494  
GT_area: 27875  
ST_area: 24931  
Overlap_area: 17120  
IOU: 0.47973995404360253  
Centre Distance: 5.0  
Category: True Positive  
-----  
Frame: 282 Total Penalty: 227.51667639037893  
GT_area: 28892  
ST_area: 24931  
Overlap_area: 16906  
IOU: 0.45794620364601674  
Centre Distance: 8.5  
Category: True Positive  
-----  
Frame: 283 Total Penalty: 228.04707111287377  
GT_area: 28980  
ST_area: 24931  
Overlap_area: 17227  
IOU: 0.4696052775051794  
Centre Distance: 3.5  
Category: True Positive  
-----  
Frame: 284 Total Penalty: 228.6129271514963  
GT_area: 30916  
ST_area: 24931  
Overlap_area: 16906  
IOU: 0.43414396137746847
```

Centre Distance: 8.0  
Category: True Positive

-----  
Frame: 285 Total Penalty: 229.13214981992283  
GT\_area: 27798  
ST\_area: 24931  
Overlap\_area: 17120  
IOU: 0.48077733157347863  
Centre Distance: 5.0  
Category: True Positive

-----  
Frame: 286 Total Penalty: 229.66228485121056  
GT\_area: 28625  
ST\_area: 24931  
Overlap\_area: 17120  
IOU: 0.4698649687122626  
Centre Distance: 6.0  
Category: True Positive

-----  
Frame: 287 Total Penalty: 230.18967001022116  
GT\_area: 28413  
ST\_area: 24931  
Overlap\_area: 17120  
IOU: 0.4726148409893993  
Centre Distance: 7.0  
Category: True Positive

-----  
Frame: 288 Total Penalty: 230.72907112405258  
GT\_area: 29358  
ST\_area: 24931  
Overlap\_area: 17120  
IOU: 0.46059888616858136  
Centre Distance: 7.5  
Category: True Positive

-----  
Frame: 289 Total Penalty: 231.2503506945464  
GT\_area: 27951  
ST\_area: 24931  
Overlap\_area: 17120  
IOU: 0.47872042950617977  
Centre Distance: 6.0  
Category: True Positive

-----  
Frame: 290 Total Penalty: 231.7870344108193  
GT\_area: 29140  
ST\_area: 24931  
Overlap\_area: 17120  
IOU: 0.46331628372709804  
Centre Distance: 4.5  
Category: True Positive

-----  
Frame: 291 Total Penalty: 232.31774902938787  
GT\_area: 28670  
ST\_area: 24931

Overlap\_area: 17120  
IOU: 0.46928538143143006  
Centre Distance: 5.5  
Category: True Positive

-----  
Frame: 292 Total Penalty: 232.84153290511074  
GT\_area: 27144  
ST\_area: 24931  
Overlap\_area: 16799  
IOU: 0.47621612427712895  
Centre Distance: 1.5  
Category: True Positive

-----  
Frame: 293 Total Penalty: 233.38664527987382  
GT\_area: 28798  
ST\_area: 24931  
Overlap\_area: 16799  
IOU: 0.45488762523693477  
Centre Distance: 3.0  
Category: True Positive

-----  
Frame: 294 Total Penalty: 233.92105157258533  
GT\_area: 27612  
ST\_area: 24931  
Overlap\_area: 16692  
IOU: 0.46559370728849964  
Centre Distance: 5.0  
Category: True Positive

-----  
Frame: 295 Total Penalty: 234.42377691540477  
GT\_area: 27261  
ST\_area: 24931  
Overlap\_area: 17334  
IOU: 0.49727465718056113  
Centre Distance: 3.0  
Category: True Positive

-----  
Frame: 296 Total Penalty: 234.93990306034615  
GT\_area: 24804  
ST\_area: 24931  
Overlap\_area: 16218  
IOU: 0.48387385505862696  
Centre Distance: 4.5  
Category: True Positive

-----  
Frame: 297 Total Penalty: 235.46196528476108  
GT\_area: 23000  
ST\_area: 24931  
Overlap\_area: 15500  
IOU: 0.4779377755850883  
Centre Distance: 3.5  
Category: True Positive

-----  
Frame: 298 Total Penalty: 235.97878430307344

GT\_area: 24232  
ST\_area: 24931  
Overlap\_area: 16016  
IOU: 0.48318098168763385  
Centre Distance: 0.5  
Category: True Positive

---

Frame: 299 Total Penalty: 236.4992334540685  
GT\_area: 23690  
ST\_area: 24931  
Overlap\_area: 15759  
IOU: 0.4795508490049297  
Centre Distance: 2.0  
Category: True Positive

---

Frame: 300 Total Penalty: 237.02047697738456  
GT\_area: 23587  
ST\_area: 24931  
Overlap\_area: 15708  
IOU: 0.47875647668393784  
Centre Distance: 3.0  
Category: True Positive

---

Frame: 301 Total Penalty: 237.52577153368583  
GT\_area: 25179  
ST\_area: 24931  
Overlap\_area: 16585  
IOU: 0.4947054436987323  
Centre Distance: 0.0  
Category: True Positive

---

Frame: 302 Total Penalty: 238.05523879392345  
GT\_area: 24948  
ST\_area: 24931  
Overlap\_area: 15960  
IOU: 0.4705327397623751  
Centre Distance: 2.5  
Category: True Positive

---

Frame: 303 Total Penalty: 238.57245134579998  
GT\_area: 24732  
ST\_area: 24931  
Overlap\_area: 16170  
IOU: 0.4827874481234885  
Centre Distance: 2.5  
Category: True Positive

---

Frame: 304 Total Penalty: 239.09380276873767  
GT\_area: 25312  
ST\_area: 24931  
Overlap\_area: 16264  
IOU: 0.4786485770623032  
Centre Distance: 1.5  
Category: True Positive

-----  
Frame: 305 Total Penalty: 239.61003128541532  
GT\_area: 24624  
ST\_area: 24931  
Overlap\_area: 16157  
IOU: 0.48377148332235465  
Centre Distance: 0.5  
Category: True Positive

-----  
Frame: 306 Total Penalty: 240.115848853583  
GT\_area: 25538  
ST\_area: 24931  
Overlap\_area: 16692  
IOU: 0.4941824318323119  
Centre Distance: 2.0  
Category: True Positive

-----  
Frame: 307 Total Penalty: 240.6244523188262  
GT\_area: 25080  
ST\_area: 24931  
Overlap\_area: 16478  
IOU: 0.4913965347568067  
Centre Distance: 1.5  
Category: True Positive

-----  
Frame: 308 Total Penalty: 241.13660080688362  
GT\_area: 25650  
ST\_area: 24931  
Overlap\_area: 16585  
IOU: 0.4878515119425815  
Centre Distance: 1.5  
Category: True Positive

-----  
Frame: 309 Total Penalty: 241.63560335422426  
GT\_area: 23976  
ST\_area: 24931  
Overlap\_area: 16324  
IOU: 0.5009974526593622  
Centre Distance: 1.5  
Category: True Positive

-----  
Frame: 310 Total Penalty: 242.12825515062227  
GT\_area: 24198  
ST\_area: 24931  
Overlap\_area: 16536  
IOU: 0.5073482036020004  
Centre Distance: 2.0  
Category: True Positive

-----  
Frame: 311 Total Penalty: 242.63563360974652  
GT\_area: 24530  
ST\_area: 24931  
Overlap\_area: 16324  
IOU: 0.4926215408757582

Centre Distance: 2.5  
Category: True Positive

-----  
Frame: 312 Total Penalty: 243.16713484778646  
GT\_area: 23108  
ST\_area: 24931  
Overlap\_area: 15326  
IOU: 0.46849876196007706  
Centre Distance: 9.5  
Category: True Positive

-----  
Frame: 313 Total Penalty: 244.8029062865562  
GT\_area: 23976  
ST\_area: 24931  
Overlap\_area: 15288  
IOU: 0.4547428537434189  
Centre Distance: 11.0  
Category: False Positive

-----  
Frame: 314 Total Penalty: 246.43368451944093  
GT\_area: 22360  
ST\_area: 24931  
Overlap\_area: 14820  
IOU: 0.4564072557050907  
Centre Distance: 10.5  
Category: False Positive

-----  
Frame: 315 Total Penalty: 246.95203786420936  
GT\_area: 22578  
ST\_area: 24931  
Overlap\_area: 15444  
IOU: 0.4816466552315609  
Centre Distance: 7.5  
Category: True Positive

-----  
Frame: 316 Total Penalty: 247.46644246351693  
GT\_area: 21840  
ST\_area: 24931  
Overlap\_area: 15288  
IOU: 0.4855954006924372  
Centre Distance: 7.5  
Category: True Positive

-----  
Frame: 317 Total Penalty: 249.0660577424397  
GT\_area: 23108  
ST\_area: 24931  
Overlap\_area: 15288  
IOU: 0.46679490702573967  
Centre Distance: 10.0  
Category: False Positive

-----  
Frame: 318 Total Penalty: 249.58844207184706  
GT\_area: 22366  
ST\_area: 24931

Overlap\_area: 15288  
IOU: 0.4776156705926458  
Centre Distance: 8.5  
Category: True Positive

-----  
Frame: 319 Total Penalty: 251.2103929133683  
GT\_area: 22152  
ST\_area: 24931  
Overlap\_area: 14820  
IOU: 0.4593497194929176  
Centre Distance: 10.5  
Category: False Positive

-----  
Frame: 320 Total Penalty: 251.72589853134585  
GT\_area: 21311  
ST\_area: 24931  
Overlap\_area: 15092  
IOU: 0.4844943820224719  
Centre Distance: 6.0  
Category: True Positive

-----  
Frame: 321 Total Penalty: 252.2338008070725  
GT\_area: 21424  
ST\_area: 24931  
Overlap\_area: 15288  
IOU: 0.4920977242733447  
Centre Distance: 7.0  
Category: True Positive

-----  
Frame: 322 Total Penalty: 252.72369289831687  
GT\_area: 19291  
ST\_area: 24931  
Overlap\_area: 14938  
IOU: 0.5101079087556345  
Centre Distance: 7.0  
Category: True Positive

-----  
Frame: 323 Total Penalty: 253.18449266899194  
GT\_area: 18025  
ST\_area: 24931  
Overlap\_area: 15048  
IOU: 0.5392002293249247  
Centre Distance: 6.0  
Category: True Positive

-----  
Frame: 324 Total Penalty: 253.63807813987754  
GT\_area: 16366  
ST\_area: 24931  
Overlap\_area: 14592  
IOU: 0.546414529114398  
Centre Distance: 6.5  
Category: True Positive

-----  
Frame: 325 Total Penalty: 254.07917250056988



GT\_area: 14157  
ST\_area: 24931  
Overlap\_area: 14014  
IOU: 0.5589056393076494  
Centre Distance: 5.0  
Category: True Positive

---

Frame: 326 Total Penalty: 254.61164211671044  
GT\_area: 11656  
ST\_area: 24931  
Overlap\_area: 11656  
IOU: 0.4675303838594521  
Centre Distance: 2.5  
Category: True Positive

---

Frame: 327 Total Penalty: 255.2332377205771  
GT\_area: 9434  
ST\_area: 24931  
Overlap\_area: 9434  
IOU: 0.378404396133328  
Centre Distance: 0.0  
Category: True Positive

---

Frame: 328 Total Penalty: 255.93312942167213  
GT\_area: 7482  
ST\_area: 24931  
Overlap\_area: 7482  
IOU: 0.30010829890497775  
Centre Distance: 1.5  
Category: True Positive

---

Frame: 329 Total Penalty: 256.6468192054754  
GT\_area: 7138  
ST\_area: 24931  
Overlap\_area: 7138  
IOU: 0.2863102161967029  
Centre Distance: 2.5  
Category: True Positive

---

Frame: 330 Total Penalty: 257.38120611334114  
GT\_area: 6622  
ST\_area: 24931  
Overlap\_area: 6622  
IOU: 0.26561309213429063  
Centre Distance: 1.5  
Category: True Positive

---

Frame: 331 Total Penalty: 258.1747964225947  
GT\_area: 5146  
ST\_area: 24931  
Overlap\_area: 5146  
IOU: 0.20640969074646023  
Centre Distance: 3.0  
Category: True Positive

```
-----  
Frame: 332 Total Penalty: 260.701169211492  
GT_area: 3936  
ST_area: 24931  
Overlap_area: 3936  
IOU: 0.15787573703421443  
Centre Distance: 10.5  
Category: False Positive  
-----  
Frame: 333 Total Penalty: 263.3263193917083  
GT_area: 3159  
ST_area: 24931  
Overlap_area: 3120  
IOU: 0.12494993992791349  
Centre Distance: 14.0  
Category: False Positive  
-----  
Frame: 334 Total Penalty: 266.03863009614753  
GT_area: 2496  
ST_area: 24931  
Overlap_area: 2400  
IOU: 0.09589643185359811  
Centre Distance: 17.5  
Category: False Positive  
-----  
Frame: 335 Total Penalty: 268.91231923107404  
GT_area: 1800  
ST_area: 24931  
Overlap_area: 1080  
IOU: 0.042103621691162135  
Centre Distance: 46.0  
Category: False Positive  
-----  
Frame: 336 Total Penalty: 271.8839382130343  
GT_area: 1425  
ST_area: 24931  
Overlap_area: 247  
IOU: 0.009460339346585469  
Centre Distance: 78.0  
Category: False Positive  
-----  
Frame: 337 Total Penalty: 274.85026252291175  
GT_area: 1554  
ST_area: 24931  
Overlap_area: 294  
IOU: 0.011225230040853728  
Centre Distance: 76.5  
Category: False Positive  
-----  
Frame: 338 Total Penalty: 277.8134648904208  
GT_area: 1065  
ST_area: 24931  
Overlap_area: 315  
IOU: 0.012265877496982205
```

Centre Distance: 68.0  
Category: False Positive

-----  
Frame: 339 Total Penalty: 280.80871410852126  
GT\_area: 368  
ST\_area: 24931  
Overlap\_area: 40  
IOU: 0.0015835939665069876  
Centre Distance: 81.5  
Category: False Positive

-----  
Frame: 340 Total Penalty: 283.8039633266217  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 205.5  
Category: False Positive

-----  
Frame: 341 Total Penalty: 286.7992125447222  
GT\_area: 6  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 204.5  
Category: False Positive

-----  
Frame: 342 Total Penalty: 289.79446176282266  
GT\_area: 0  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 201.0  
Category: False Positive

-----  
Frame: 343 Total Penalty: 292.78971098092313  
GT\_area: 3  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 221.0  
Category: False Positive

-----  
Frame: 344 Total Penalty: 295.7849601990236  
GT\_area: 9  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 226.0  
Category: False Positive

-----  
Frame: 345 Total Penalty: 298.78020941712407  
GT\_area: 8  
ST\_area: 24931

Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 221.5  
Category: False Positive

-----  
Frame: 346 Total Penalty: 301.77545863522454  
GT\_area: 12  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 216.5  
Category: False Positive

-----  
Frame: 347 Total Penalty: 304.770707853325  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 254.5  
Category: False Positive

-----  
Frame: 348 Total Penalty: 307.7659570714255  
GT\_area: 6  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 258.0  
Category: False Positive

-----  
Frame: 349 Total Penalty: 310.76120628952594  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 250.5  
Category: False Positive

-----  
Frame: 350 Total Penalty: 313.7564555076264  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 241.5  
Category: False Positive

-----  
Frame: 351 Total Penalty: 316.7517047257269  
GT\_area: 6  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 238.0  
Category: False Positive

-----  
Frame: 352 Total Penalty: 319.74695394382735

GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 237.5  
Category: False Positive

---

Frame: 353 Total Penalty: 322.7422031619278  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 215.5  
Category: False Positive

---

Frame: 354 Total Penalty: 325.7374523800283  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 208.5  
Category: False Positive

---

Frame: 355 Total Penalty: 328.73270159812876  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 214.5  
Category: False Positive

---

Frame: 356 Total Penalty: 331.7279508162292  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 240.5  
Category: False Positive

---

Frame: 357 Total Penalty: 334.7232000343297  
GT\_area: 12  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 228.5  
Category: False Positive

---

Frame: 358 Total Penalty: 337.71844925243016  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 258.5  
Category: False Positive

-----  
Frame: 359 Total Penalty: 340.71369847053063  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 228.5  
Category: False Positive

-----  
Frame: 360 Total Penalty: 343.7089476886311  
GT\_area: 12  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 224.5  
Category: False Positive

-----  
Frame: 361 Total Penalty: 346.70419690673157  
GT\_area: 6  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 226.0  
Category: False Positive

-----  
Frame: 362 Total Penalty: 349.69944612483204  
GT\_area: 9  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 210.0  
Category: False Positive

-----  
Frame: 363 Total Penalty: 352.6946953429325  
GT\_area: 6  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 223.0  
Category: False Positive

-----  
Frame: 364 Total Penalty: 355.689944561033  
GT\_area: 0  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 242.5  
Category: False Positive

-----  
Frame: 365 Total Penalty: 358.68519377913344  
GT\_area: 9  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876

Centre Distance: 228.0  
Category: False Positive

-----  
Frame: 366 Total Penalty: 361.6804429972339  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 221.5  
Category: False Positive

-----  
Frame: 367 Total Penalty: 364.6756922153344  
GT\_area: 9  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 231.0  
Category: False Positive

-----  
Frame: 368 Total Penalty: 367.67094143343485  
GT\_area: 4  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 237.5  
Category: False Positive

-----  
Frame: 369 Total Penalty: 370.6661906515353  
GT\_area: 6  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 217.0  
Category: False Positive

-----  
Frame: 370 Total Penalty: 373.6614398696358  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 240.5  
Category: False Positive

-----  
Frame: 371 Total Penalty: 376.65668908773625  
GT\_area: 8  
ST\_area: 24931  
Overlap\_area: 0  
IOU: 0.0015835939665069876  
Centre Distance: 244.5  
Category: False Positive

-----  
Frame: 372 Total Penalty: 379.37215522748835  
GT\_area: 5544  
ST\_area: 24931

Overlap\_area: 2640  
IOU: 0.09484462008262978  
Centre Distance: 55.5  
Category: False Positive

-----  
Frame: 373 Total Penalty: 379.76568887849453  
GT\_area: 15862  
ST\_area: 24931  
Overlap\_area: 15400  
IOU: 0.6064663489938172  
Centre Distance: 5.0  
Category: True Positive

-----  
Frame: 374 Total Penalty: 380.1751775572215  
GT\_area: 15600  
ST\_area: 24931  
Overlap\_area: 15048  
IOU: 0.5905113212730055  
Centre Distance: 4.5  
Category: True Positive

-----  
Frame: 375 Total Penalty: 381.8474464647845  
GT\_area: 20904  
ST\_area: 24931  
Overlap\_area: 14062  
IOU: 0.4425770308123249  
Centre Distance: 16.5  
Category: False Positive

-----  
Frame: 376 Total Penalty: 383.526588717139  
GT\_area: 22018  
ST\_area: 24931  
Overlap\_area: 14352  
IOU: 0.44028591588182964  
Centre Distance: 16.0  
Category: False Positive

-----  
Frame: 377 Total Penalty: 385.1915660032109  
GT\_area: 21828  
ST\_area: 24931  
Overlap\_area: 14400  
IOU: 0.44500757130937296  
Centre Distance: 17.0  
Category: False Positive

-----  
Frame: 378 Total Penalty: 386.8297344882762  
GT\_area: 23843  
ST\_area: 24931  
Overlap\_area: 15228  
IOU: 0.45394383831157215  
Centre Distance: 16.0  
Category: False Positive

-----  
Frame: 379 Total Penalty: 388.4708525858415



GT\_area: 23826  
ST\_area: 24931  
Overlap\_area: 15200  
IOU: 0.4529606341448878  
Centre Distance: 15.5  
Category: False Positive

---

Frame: 380 Total Penalty: 390.0795194132282  
GT\_area: 23643  
ST\_area: 24931  
Overlap\_area: 15390  
IOU: 0.46377772420443586  
Centre Distance: 14.0  
Category: False Positive

---

Frame: 381 Total Penalty: 391.7778161791284  
GT\_area: 24150  
ST\_area: 24931  
Overlap\_area: 14852  
IOU: 0.4339010780332467  
Centre Distance: 17.0  
Category: False Positive

---

Frame: 382 Total Penalty: 393.44630932981335  
GT\_area: 25134  
ST\_area: 24931  
Overlap\_area: 15390  
IOU: 0.4438356164383562  
Centre Distance: 17.5  
Category: False Positive

---

Frame: 383 Total Penalty: 395.1744662977825  
GT\_area: 26015  
ST\_area: 24931  
Overlap\_area: 15168  
IOU: 0.423947677343619  
Centre Distance: 18.0  
Category: False Positive

---

Frame: 384 Total Penalty: 396.874587885049  
GT\_area: 26937  
ST\_area: 24931  
Overlap\_area: 15680  
IOU: 0.43329280424450095  
Centre Distance: 17.0  
Category: False Positive

---

Frame: 385 Total Penalty: 398.5545512173638  
GT\_area: 26908  
ST\_area: 24931  
Overlap\_area: 15840  
IOU: 0.44001222256173783  
Centre Distance: 16.5  
Category: False Positive

```
-----  
Frame: 386 Total Penalty: 400.2024004525535  
GT_area: 26568  
ST_area: 24931  
Overlap_area: 16000  
IOU: 0.45071692160342547  
Centre Distance: 15.0  
Category: False Positive  
-----
```

```
Frame: 387 Total Penalty: 401.92712947377  
GT_area: 27528  
ST_area: 24931  
Overlap_area: 15648  
IOU: 0.42509032626117194  
Centre Distance: 19.5  
Category: False Positive  
-----
```

```
Total Penalty: 401.92712947377  
True Positive: 202  
False Positive: 184  
True Negative: 0  
False Negative: 0  
Average Time: 0.06732990148771612  
>>>
```