

PowerComms :

PowerComms SOKKIA

PC

, DXF

AutoCAD

가

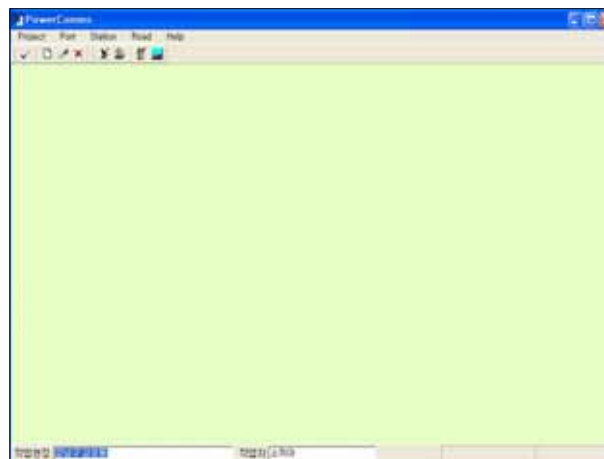
AutoCAD

1.

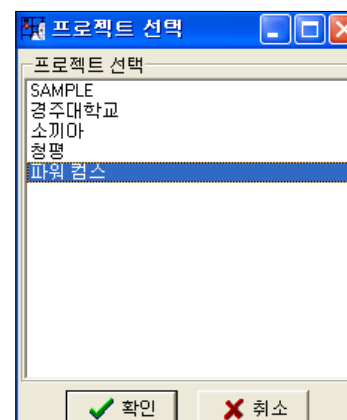
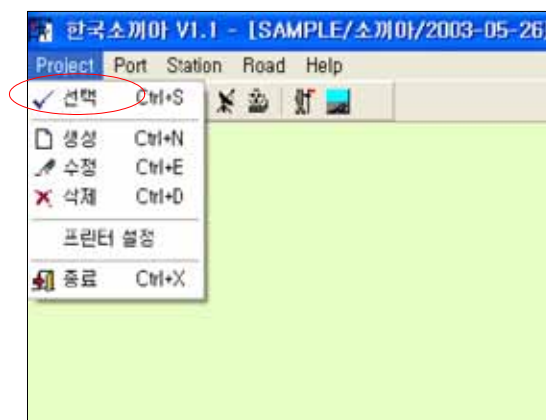
1-1.



1-2. PowerComms



1-3. [Project] [ ] [ ]



1-4.

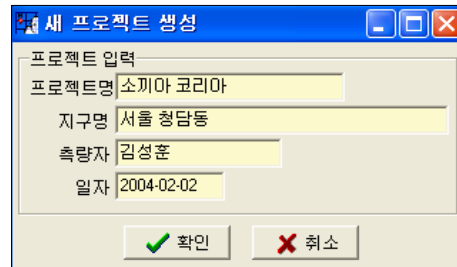
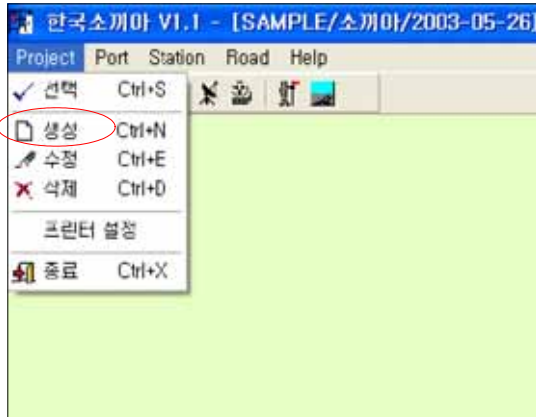
[Project]

[     ]

[     ]

가

✓ 확인

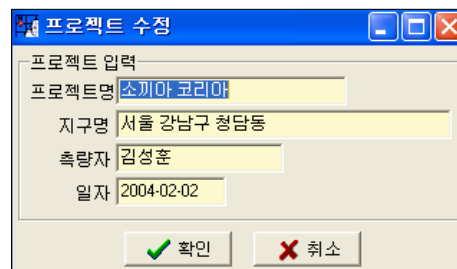
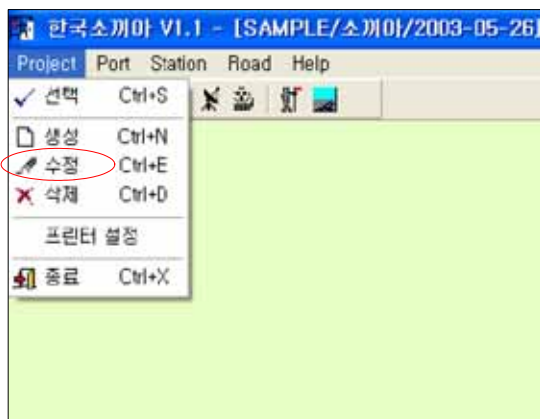


1-5.

가

✓ 확인

[     ]

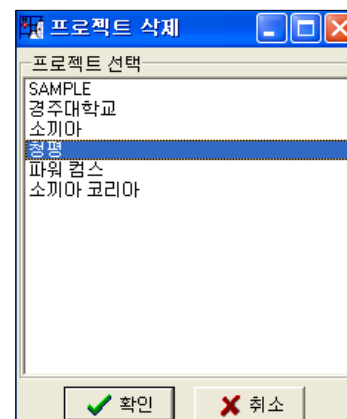
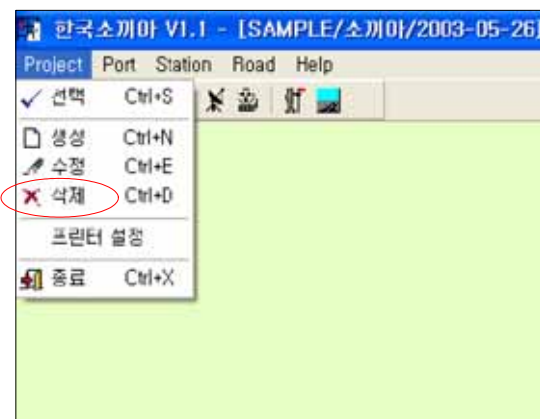


1-6.

가

✓ 확인

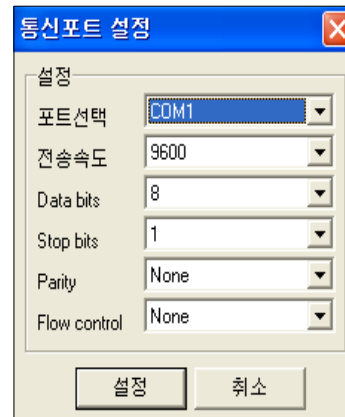
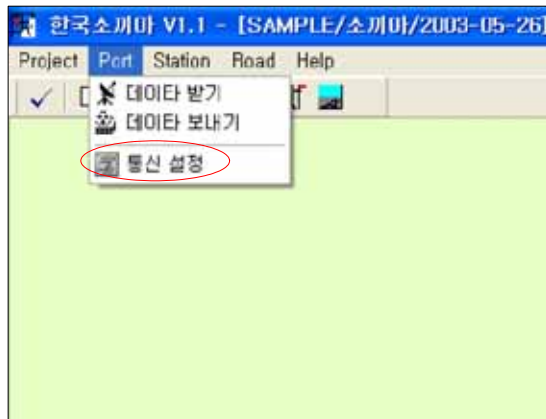
[     ]



## 2. Data

2-1.

[Port] [ ] [ ]  
[ ] 설정



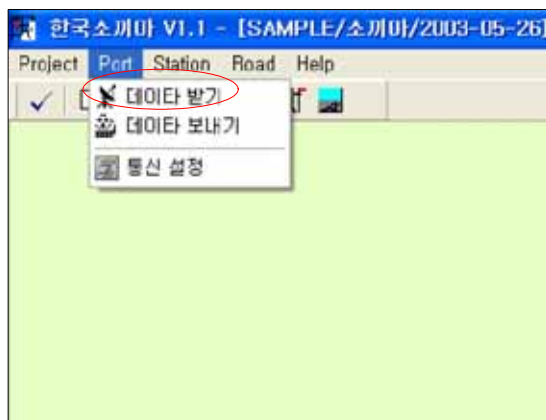
)

9600

가

2-2.

[Port] [ ]

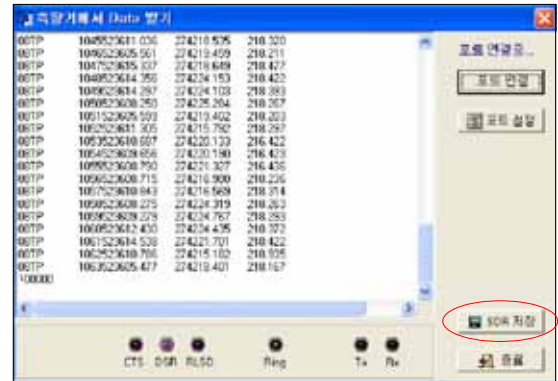
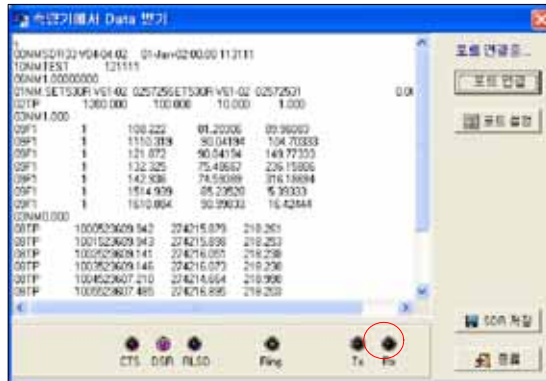


2-3. 포트 연결

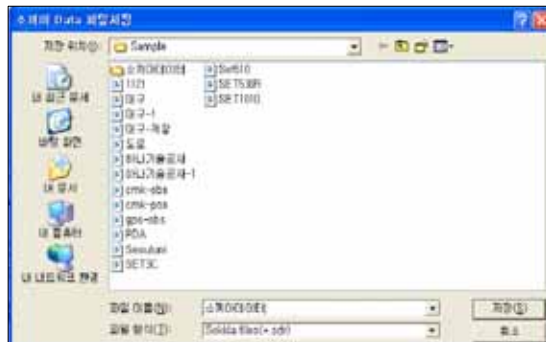


2-4.

가 [SDR ]  
Data Rx가

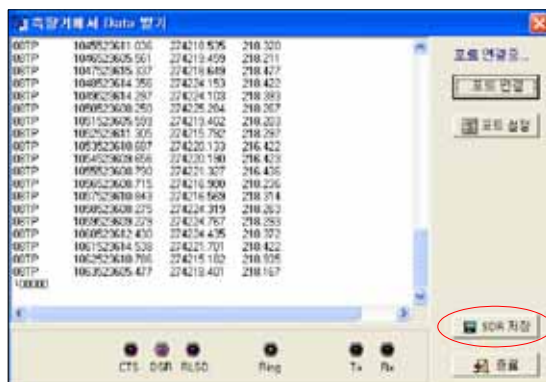


2-5. [SDR ]  
Data [ ]



2-6. [ ] Data

Data



## 2-7. PowerComms

PC  
PowerComms

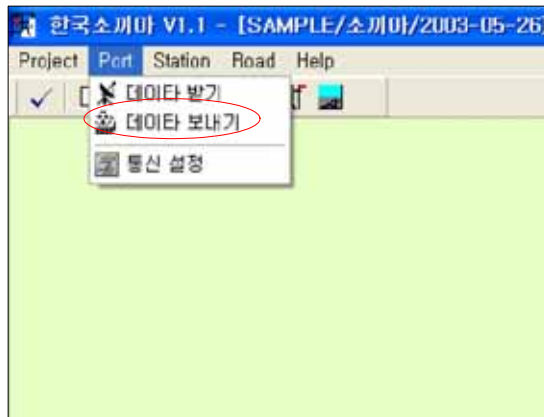
(Stake - out)

[Port]

[

]

Data



## 2-8. Data

Data

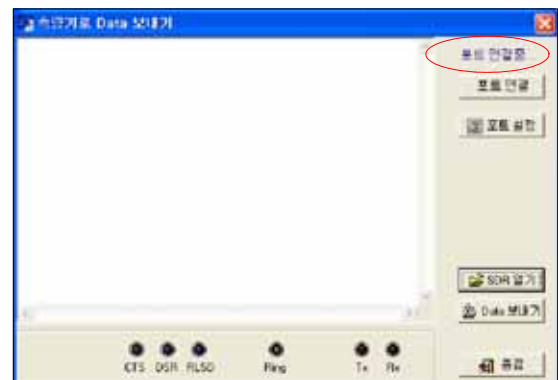
PowerComms

가

2-1, 2-2, 2-3

## 2-9. [ ]

Data



2-10. [SDR ]

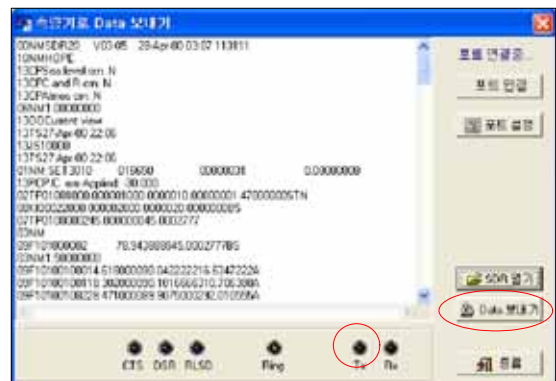
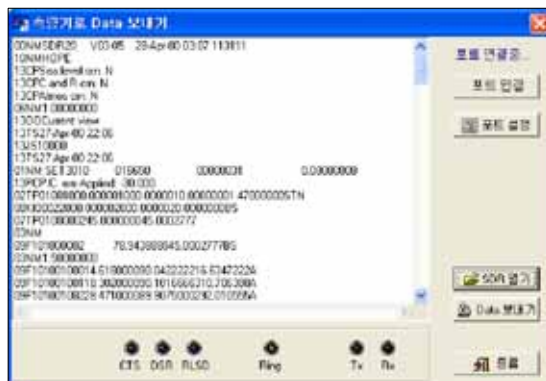


열기(O)

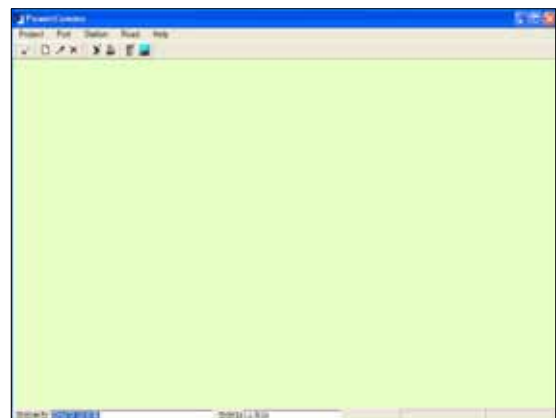
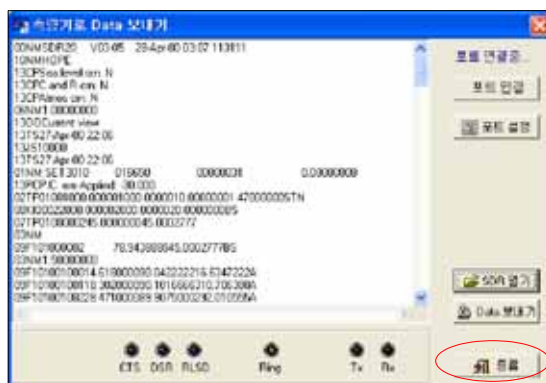


2-11. [Data ]

Data  
Data Tx가  
가



2-12. [ ]



3.

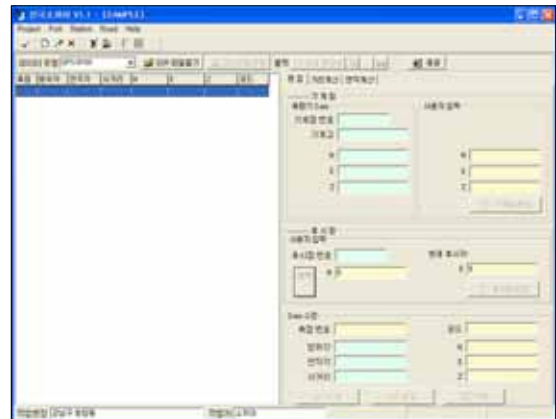
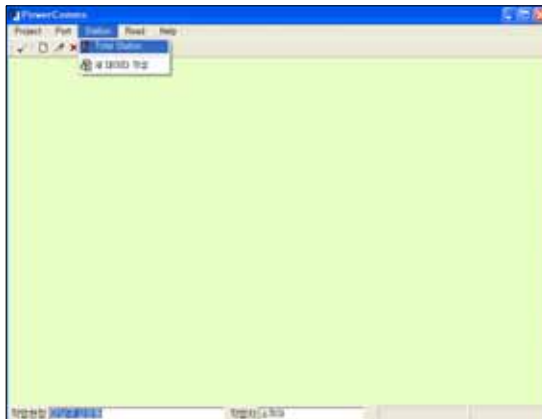
PowerComms

가

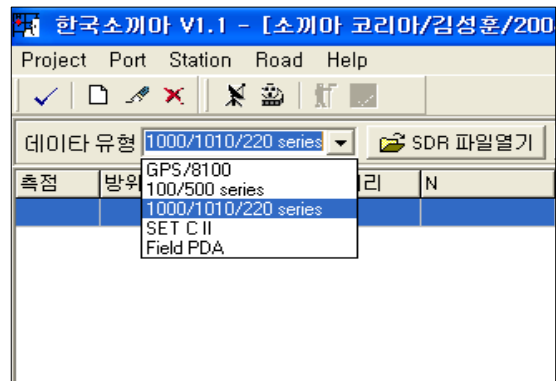
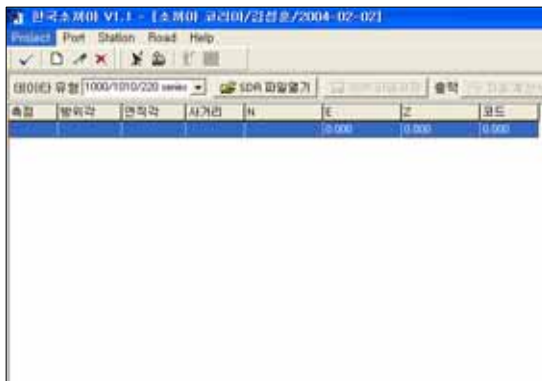
3-1.

1.

[Station] [Total Station]



3-2.



3-3.

GPS Radin, Radian IS/ SDR8100

SET X100, X110, X120, X130R, X00, X10, X30R series

SET X000, X010, X220, X030R series/ SDR33

SET XCII

Field PAD S/W

SET XC(Monmos )

GPS/8100

100/500 series

1000/1010/220series

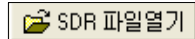
SET C II series

Field PAD

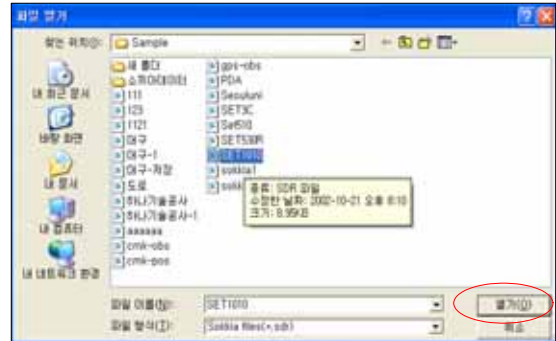
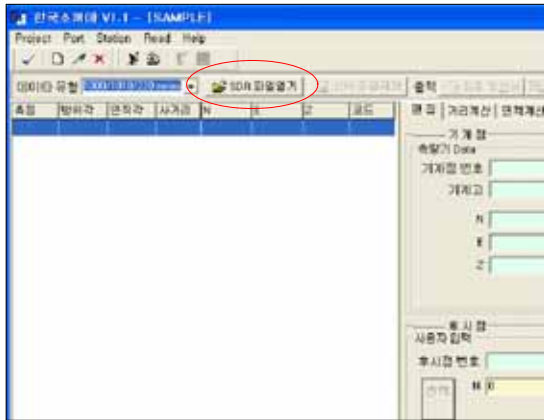
SET C IV series



3-4.



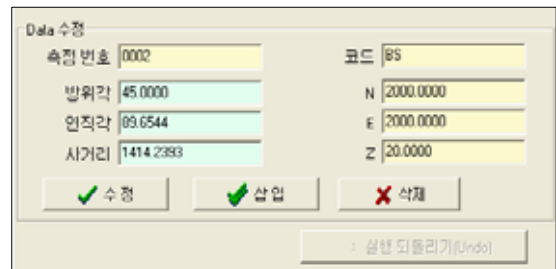
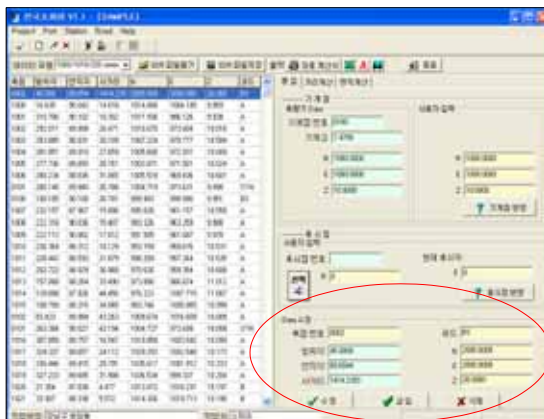
열기(O)



3-5.

가

Data



3-6. Data

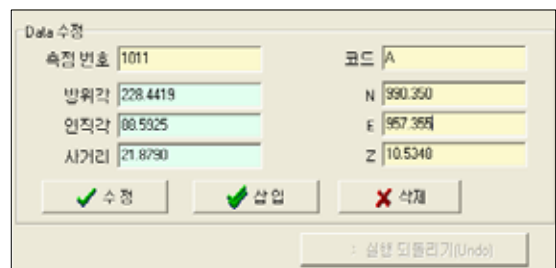
Data

수정

Data

속성	방위각	연직각	시거리	N	E	Z	코드
0002	45.000	89.554	1414.233	2000.000	2000.000	20.000	BS
1000	16.635	90.042	14.638	1014.006	1004.185	9.959	A
1001	310.706	90.152	18.302	1011.906	986.126	9.938	A
1002	292.011	89.908	20.471	1010.670	973.604	10.016	A
1003	293.685	89.631	30.108	1007.224	970.777	10.584	A
1004	291.851	89.919	27.659	1005.680	972.931	10.009	A
1005	277.736	89.683	20.761	1003.671	971.501	10.024	A
1006	280.254	89.836	31.085	1005.518	968.406	10.601	A
0101	280.146	89.545	26.788	1004.719	973.631	9.998	STN
0100	100.185	90.100	26.791	999.963	999.990	9.951	BS
1007	232.157	87.967	15.806	995.028	961.157	10.558	A
1008	222.316	90.036	15.407	993.326	963.259	9.988	A
1009	222.112	90.062	17.812	991.505	961.687	9.978	A
1010	230.364	88.312	18.129	993.159	959.676	10.521	A
1011	226.442	89.933	21.879	990.209	957.264	116.526	A
1012	202.722	88.929	36.368	970.626	955.354	10.688	A
1013	157.088	88.264	33.490	973.890	986.674	11.012	A
1014	129.888	87.525	44.456	976.223	1007.715	11.007	A
1015	108.799	88.315	34.085	993.746	1005.985	10.899	A
0102	83.423	89.964	43.263	1009.674	1016.609	10.009	A
0103	263.364	90.027	43.194	1004.227	973.699	10.009	STN

) 1011 N 990.209 990.350 E 957.264 957.355





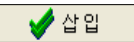
### 3-7. Data가

The screenshot shows a software window with a data table. A red circle highlights a row in the table. The table has columns for various data points, and the highlighted row contains the following values: 1005, 277.736, 89.893, 26.761, 1003.871, 971.501, 10.024, A.

1005	277.736	89.893	26.761	1003.871	971.501	10.024	A
1006	280.234	88.836	31.065	1005.510	969.436	10.601	A
0101	280.146	89.940	26.788	1004.719	973.631	9.998	STN
0100	100.105	90.100	26.781	999.983	999.990	9.951	BS
1007	232.157	87.967	15.806	995.028	961.157	10.558	A
1008	222.316	90.036	15.407	993.326	963.259	9.988	A
1009	222.112	90.062	17.812	991.505	961.687	9.978	A
1010	230.364	88.312	18.129	993.159	959.676	10.531	A
1011	228.561	88.582	21.718	990.350	957.355	10.535	A
1012	202.722	88.929	36.968	970.626	959.354	10.688	A
1013	157.068	88.264	33.490	973.890	986.674	11.012	A
1014	129.890	87.926	44.456	976.223	1007.715	11.007	A
1015	108.799	88.315	34.065	993.746	1005.865	10.999	A
0102	83.423	89.984	43.263	1009.674	1016.609	10.009	A
0101	263.384	90.027	43.194	1004.727	973.899	10.008	STN
1016	307.858	89.757	16.547	1019.858	1003.542	10.099	A
1017	324.337	89.657	24.112	1029.293	1002.548	10.173	A
1018	330.446	89.415	29.791	1035.617	1001.912	10.333	A

### 3-8. Data가 Data가

측점	방위각	연직각	사거리	N	E	Z	코드
0002	45.000	89.654	1414.239	2000.000	2000.000	20.000	BS
1000	16.635	90.042	14.618	1014.006	1004.185	9.959	A
1001	310.706	90.102	18.302	1011.936	986.126	9.938	A
1002	292.011	89.908	28.471	1010.670	973.604	10.016	A
1003	283.885	88.831	30.109	1007.224	970.777	10.584	A
1004	281.851	89.919	27.659	1005.680	972.931	10.009	A
1005	277.736	89.893	26.761	1003.871	971.501	10.024	A
1006	280.234	88.836	31.065	1005.510	969.436	10.601	A
0101	280.146	89.940	26.788	1004.719	973.631	9.998	STN
0100	100.105	90.100	26.781	999.983	999.990	9.951	BS
1007	232.157	87.967	15.806	995.028	961.157	10.558	A
1008	222.316	90.036	15.407	993.326	963.259	9.988	A
1009	222.112	90.062	17.812	991.505	961.687	9.978	A
1010	230.364	88.312	18.129	993.159	959.676	10.531	A
1011	228.561	88.582	21.718	990.350	957.355	10.535	A
1012	202.722	88.929	36.968	970.626	959.354	10.688	A
1013	157.068	88.264	33.490	973.890	986.674	11.012	A
1014	129.890	87.926	44.456	976.223	1007.715	11.007	A
1015	108.799	88.315	34.065	993.746	1005.865	10.999	A



Data 수정

측점 번호: 0102      코드: BS2

방위각: 100.1853      N: 1010.985

연직각: 90.1000      E: 1005.555

사거리: 26.7810      Z: 10.000

수정      삽입      삭제

실행 되틀리기(Undo)

) N 1010.985, E 1005.555, Z 10.000, BS2 102

### 3-9. Data가

The screenshot shows a software window with a data table. A red circle highlights a row in the table. The table has columns for various data points, and the highlighted row contains the following values: 1005, 277.736, 89.893, 26.761, 1003.871, 971.501, 10.024, A.

0002	45.000	89.654	1414.239	2000.000	2000.000	20.000	BS
1000	16.635	90.042	14.618	1014.006	1004.185	9.959	A
1001	310.706	90.102	18.302	1011.936	986.126	9.938	A
1002	292.011	89.908	28.471	1010.670	973.604	10.016	A
1003	283.885	88.831	30.109	1007.224	970.777	10.584	A
1004	281.851	89.919	27.659	1005.680	972.931	10.009	A
1005	277.736	89.893	26.761	1003.871	971.501	10.024	A
1006	280.234	88.836	31.065	1005.510	969.436	10.601	A
0101	280.146	89.940	26.788	1004.719	973.631	9.998	STN
0100	100.105	90.100	26.781	999.983	999.990	9.951	BS
1007	232.157	87.967	15.806	995.028	961.157	10.558	A
1008	222.316	90.036	15.407	993.326	963.259	9.988	A
1009	222.112	90.062	17.812	991.505	961.687	9.978	A
1010	230.364	88.312	18.129	993.159	959.676	10.531	A
1011	228.561	88.582	21.718	990.350	957.355	10.535	A
1012	202.722	88.929	36.968	970.626	959.354	10.688	A
1013	157.068	88.264	33.490	973.890	986.674	11.012	A
1014	129.890	87.926	44.456	976.223	1007.715	11.007	A

) 가 가

## Data

**✕ 삭제**

Data 수정

측점 번호	0100	코드	BS
받위각	100.1853	N	999.9831
연직각	90.1000	E	999.9898
사거리	26.7810	Z	9.9507

☒ 수정
 ☒ 삽입
 ☒ 삭제

↶ 실행 되돌리기(Undo)

)            0100

가

측점	방위각	연직각	사거리	N	E	Z	코드
0002	45.000	89.654	1414.239	2000.000	2000.000	20.000	BS
1000	16.635	90.042	14.618	1014.006	1004.185	9.959	A
1001	310.765	90.102	18.302	1011.936	986.126	9.938	A
1002	292.011	89.908	28.471	1010.670	973.604	10.016	A
1003	283.885	88.831	30.109	1007.224	970.777	10.584	A
1004	281.851	89.919	27.659	1005.680	972.931	10.009	A
1005	277.736	89.893	28.761	1003.871	971.501	10.024	A
1006	280.234	88.836	31.065	1005.518	969.436	10.601	A
0101	280.146	89.940	26.788	1004.719	973.631	9.998	STN
0102	78.895	89.995	32.533	1010.985	1005.555	10.000	BS2
1007	232.157	87.967	15.806	995.028	961.157	10.558	A
1008	222.316	90.036	15.407	993.326	963.259	9.988	A
1009	222.112	90.062	17.812	991.505	961.687	9.978	A
1010	230.364	88.312	18.129	993.159	959.676	10.531	A
1011	228.442	88.593	21.879	990.209	957.264	10.535	A
1012	202.722	88.929	36.968	970.626	959.354	10.688	A

3-11.

실행 되돌리기(Undo)

Key가

Data 수정

측점 번호	0102	코드	B52
방위각	78.8949	N	1010.9850
연직각	89.9954	E	1005.5550
사거리	32.5333	Z	10.0000

☒ 수정
 ☒ 삽입
 ☒ 삭제
 ☒ 실행 되돌리기(Undo)

) 3-10.

**0100**

가

0100

측점	방위각	연직각	사거리	N	E	Z	코드
0002	45.000	89.654	14.414.239	2000.000	2000.000	20.000	B5
1000	16.635	90.042	14.618	1014.006	1004.185	9.959	A
1001	310.706	90.102	10.302	1011.936	906.126	9.930	A
1002	232.011	89.908	28.471	1010.670	973.604	10.016	A
1003	263.065	88.831	30.109	1007.224	970.777	10.584	A
1004	281.851	89.919	27.659	1005.680	972.931	10.009	A
1005	277.736	89.893	28.761	1003.871	971.501	10.024	A
1006	280.234	88.936	31.065	1005.518	969.436	10.601	A
0101	280.146	89.940	26.788	1004.719	973.631	9.998	STN
0100	100.185	90.100	26.781	999.983	999.990	9.951	B5
0102	78.895	89.995	32.533	1010.985	1005.555	10.000	B52
1007	232.157	87.967	15.806	995.020	961.157	10.559	A
1009	222.316	90.036	15.407	993.326	963.259	9.989	A
1009	222.112	90.062	17.012	991.505	961.687	9.970	A
1010	230.364	88.312	18.129	993.159	959.676	10.531	A
1011	228.442	88.593	21.879	990.209	957.264	10.536	A
1012	202.722	88.929	36.968	970.626	939.354	10.688	A

67 실행 외출러거(Undel)

3-12.

SDR 파일저장

The screenshot shows the 'Import Data' dialog box in Microsoft Excel. The 'Import Data' button is circled in red. The dialog displays a table of data with columns for 'Date', 'Time', 'Location', 'Status', and 'Count'. The 'Import Data' button is located at the bottom right of the dialog.

)

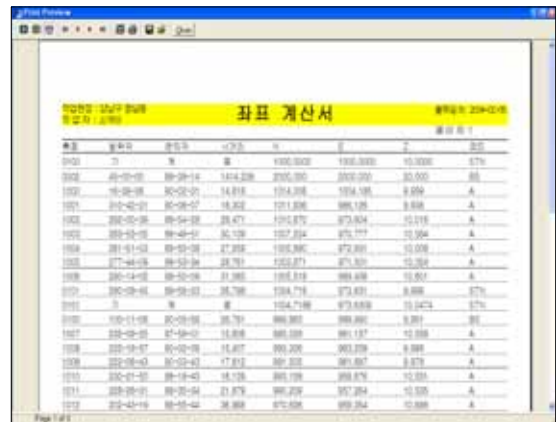
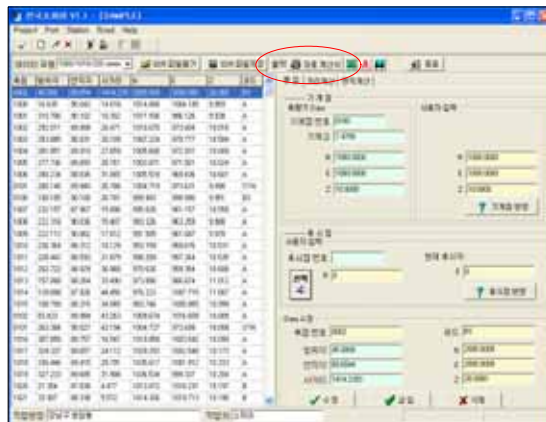
Figure 1. Sample directory structure

SDR 파일저장

3-13.

## 좌표 계산서




가



3-14.

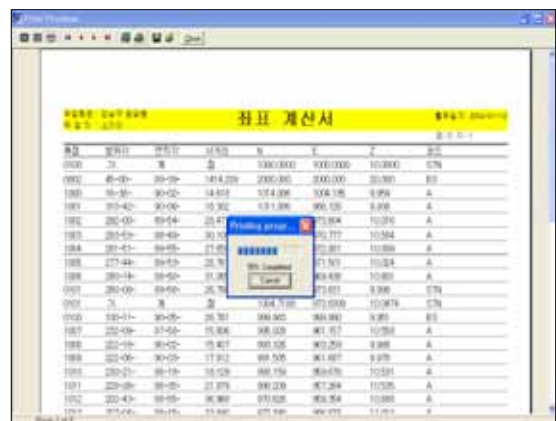
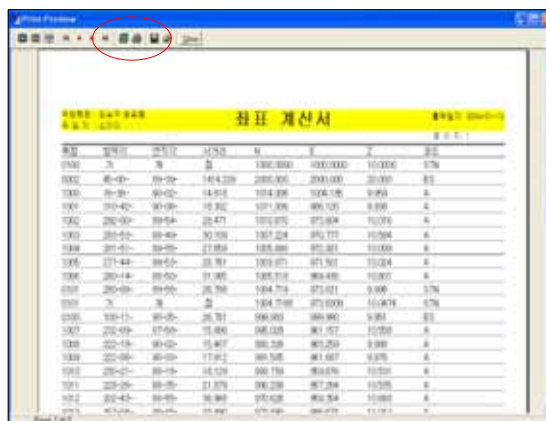


3-15.

- 1)  :
- 2)  :
- 3)  :

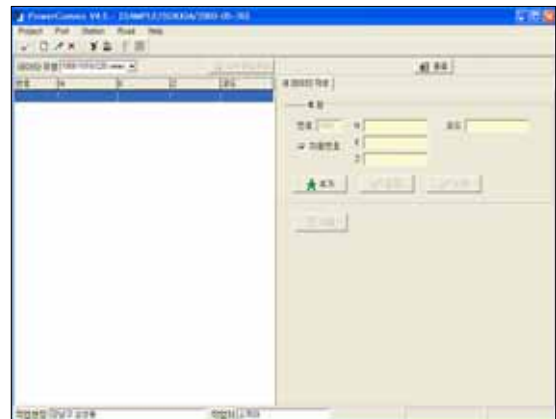
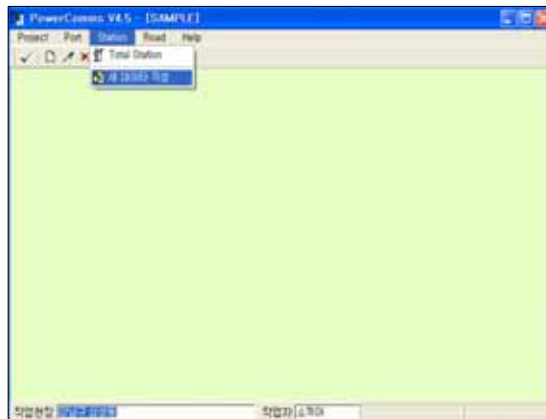
3-16.

## Key



### 3-17. [Station] [ ]

PowerComms



### 3-18.

가






새 데이터 작성


속점

번호 1000 N 1000 코드 A1

☐ 자동번호 E 1000

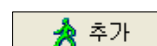
Z 100

 추가  삽입  수정

 삭제

번호	N	E	Z	코드
1000	1000	1000	100	A1

### 3-19. 가



가




새 데이터 작성


속점

번호 2000 N 2000 코드 B1

☐ 자동번호 E 2000

Z 200

 추가  삽입  수정

 삭제

번호	N	E	Z	코드
1000	1000	1000	100	A1
1001	1500	1500	100	A1
1002	1700	1700	150	A1
2000	2000	2000	200	B1

가

번호	N	E	Z	코트
1000	1000	1000	100	A1
1001	1500	1500	100	A1
1002	1700	1700	150	A1
2000	2000	2000	200	B1
2001	2500	2500	200	B1
2002	3000	3000	150	B1

)

☐ 자동번호

‘ , ,

 삽입




새 데이터 작성


속성

번호 2000 N 2000 코드 B1

☐ 자동번호 E 2000

Z 200

 추가  삽입  수정

 삭제

SDR 파일저장

SDR

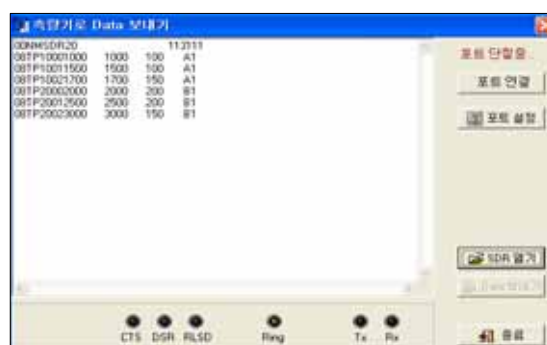
[ ] [ Data ]

SDR




SDR 열기

열기(0)



3-25. [                    ] [                    ]

2-1, 2-2, 2-3

 Data 보내기

가

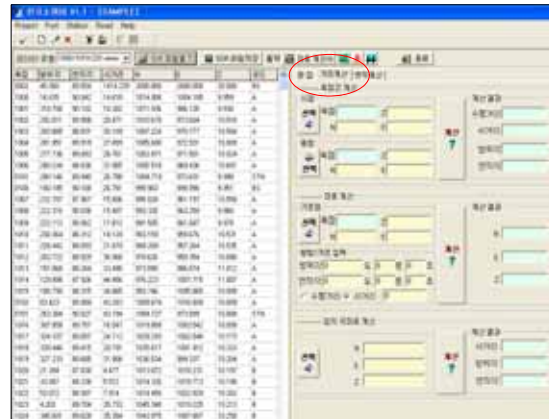
2-9, 2-10, 2-11, 2-12



4.

EXCEL AutoCAD

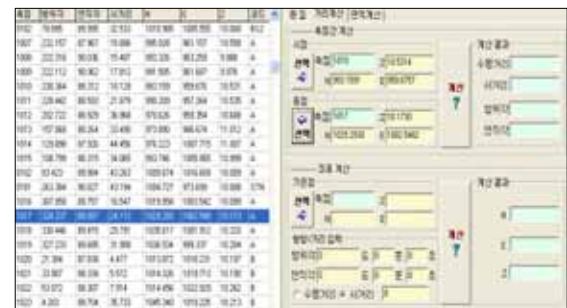
4-1. [ ]



4-2.



가

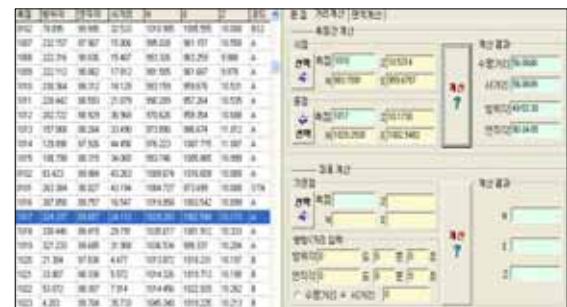
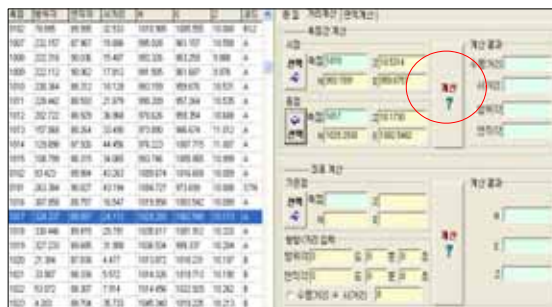


) 1010 , 1017

4-3.



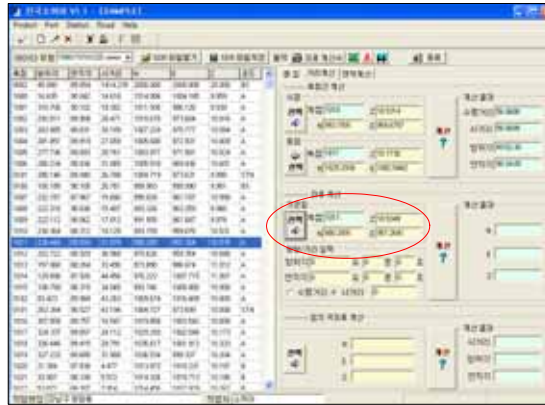
가




) 56.0688, 56.0699 49-52-30, 90-34-05.




4-4. [ ]



) 1011

[ ] 

----- 좌표 계산

기준점  
**선택**  속점 1011 Z 10.5348  
 N 990.2091 E 957.2641

방향/거리 입력  
 방위각 0 도 0 분 0 초  
 연직각 0 도 0 분 0 초  
☐ 수평거리 ☐ 사거리 0

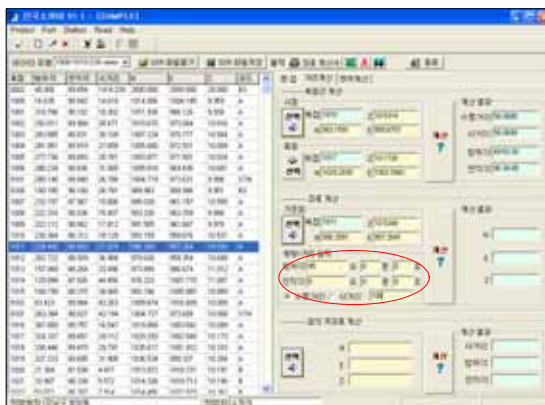
계산 결과  
 N  
 E  
 Z

**계산 ?**

4-5. /


**계산 ?**

가



) 45°, 100M

----- 좌표 계산

기준점  
**선택**  속점 1011 Z 10.5348  
 N 990.2091 E 957.2641

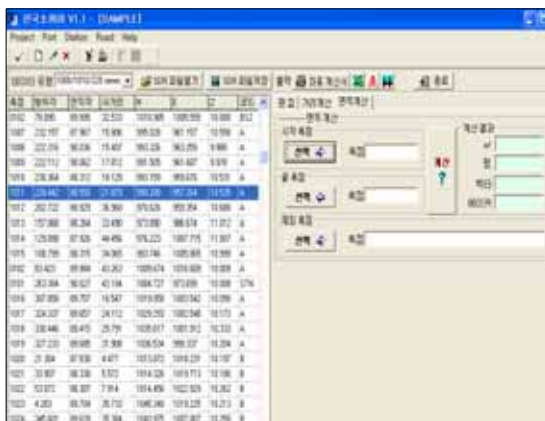
방향/거리 입력  
 방위각 44 도 0 분 0 초  
 연직각 0 도 0 분 0 초  
☒ 수평거리 ☐ 사거리 100

계산 결과  
 N 1062.1431  
 E 1026.7299  
 Z 10.5348


**계산 ?**


4-6. [ ]

[ ]



----- 좌표 계산

시작 속점  
**선택**  속점

끝 속점  
**선택**  속점

계산 결과  
 m  
 평  
 백터  
 에이커

**계산 ?**

4-7.

선택 ➡

선택 ⬅

측점	평지각	면적각	사거리	N	E	S	W	고도
1000	16.636	90.102	14.638	1014.086	1104.195	9.998	A	
1001	310.796	90.102	19.302	1011.306	986.126	9.938	A	
1002	252.811	89.998	20.471	1016.670	973.054	10.016	A	
1003	263.885	89.997	30.709	1007.224	970.777	10.584	A	
1004	291.851	89.999	27.889	1005.680	972.931	10.009	A	
1005	277.736	89.999	26.761	1003.371	971.501	10.024	A	

측점	평지각	면적각	사거리	N	E	S	W	고도
1017	24.337	89.997	24.112	1029.293	1002.548	10.179	A	
1018	330.446	89.415	29.791	1025.617	1001.810	10.333	A	
1019	127.233	89.585	21.900	1036.534	999.337	10.284	A	
1020	71.364	90.838	4.477	1013.877	1018.739	10.187	B	
1021	33.307	86.330	5.572	1014.325	1019.713	10.190	B	
1022	53.972	86.307	2.914	1014.436	1020.929	10.263	B	
1023	4.293	85.704	35.733	1045.340	1019.225	10.213	B	

) 1000 , 1020

4-8.

계산 ?

가

측점	평지각	면적각	사거리	N	E	S	W	고도
1000	16.636	90.102	14.638	1014.086	1104.195	9.998	A	
1001	310.796	90.102	19.302	1011.306	986.126	9.938	A	
1002	252.811	89.998	20.471	1016.670	973.054	10.016	A	
1003	263.885	89.997	30.709	1007.224	970.777	10.584	A	
1004	291.851	89.999	27.889	1005.680	972.931	10.009	A	
1005	277.736	89.999	26.761	1003.371	971.501	10.024	A	

면적 계산

시작 측점: 1000, 끝 측점: 1020

계산 결과: m² 2179.7339, 평 659.3695, 헥타 0.2180, 에이커 0.5386

4-9.

측점	평지각	면적각	사거리	N	E	S	W	고도
1000	16.636	90.102	14.638	1014.086	1104.195	9.998	A	
1001	310.796	90.102	19.302	1011.306	986.126	9.938	A	
1002	252.811	89.998	20.471	1016.670	973.054	10.016	A	
1003	263.885	89.997	30.709	1007.224	970.777	10.584	A	
1004	291.851	89.999	27.889	1005.680	972.931	10.009	A	
1005	277.736	89.999	26.761	1003.371	971.501	10.024	A	

제외 측점

선택 ➡, 측점:

4-10.

가

선택 ➡

측점	방위각	연직각	사거리	N	E	Z	코드
0002	45.000	89.654	1414.239	2000.000	2000.000	20.000	BS
1000	16.635	90.042	14.618	1014.006	1004.185	9.959	A
1001	310.706	90.102	18.302	1011.936	986.126	9.938	A
1002	292.011	89.908	28.471	1010.670	973.604	10.016	A
1003	283.885	88.831	30.109	1007.224	970.777	10.584	A
1004	281.851	89.919	27.659	1005.680	972.931	10.009	A
1005	277.736	89.893	28.761	1003.871	971.501	10.024	A
1006	280.234	88.836	31.065	1005.518	969.436	10.601	A
0101	280.146	89.940	26.788	1004.719	973.631	9.998	STN
0100	100.185	90.100	26.781	999.983	999.990	9.951	BS
1007	232.157	87.967	15.806	995.028	961.157	10.558	A
1008	222.316	90.036	15.407	993.326	963.259	9.988	A
1009	222.112	90.062	17.812	991.505	961.687	9.978	A
1010	230.364	88.312	18.129	993.159	959.676	10.531	A
1011	228.442	88.593	21.879	990.209	957.264	10.535	A

) 0101 , 0100

편집 | 거리계산 | 면적계산

..... 면적 계산

시작 측점:  측점 1000

끝 측점:  측점 1020

제외 측점:  측점 0101,0100

계산 결과

면적: 2179.7339 m²

평균: 659.3695

헥타: 0.2180

에이커: 0.5386

계산 ?

4-11.

계산 ?

PowerComms v1.1 - [Data] [2.1]

측점: 방위각, 연직각, 사거리, N, E, Z, 코드

0002 45.000 89.654 1414.239 2000.000 2000.000 20.000 BS

1000 16.635 90.042 14.618 1014.006 1004.185 9.959 A

1001 310.706 90.102 18.302 1011.936 986.126 9.938 A

1002 292.011 89.908 28.471 1010.670 973.604 10.016 A

1003 283.885 88.831 30.109 1007.224 970.777 10.584 A

1004 281.851 89.919 27.659 1005.680 972.931 10.009 A

1005 277.736 89.893 28.761 1003.871 971.501 10.024 A

1006 280.234 88.836 31.065 1005.518 969.436 10.601 A

0101 280.146 89.940 26.788 1004.719 973.631 9.998 STN

0100 100.185 90.100 26.781 999.983 999.990 9.951 BS

1007 232.157 87.967 15.806 995.028 961.157 10.558 A

1008 222.316 90.036 15.407 993.326 963.259 9.988 A

1009 222.112 90.062 17.812 991.505 961.687 9.978 A

1010 230.364 88.312 18.129 993.159 959.676 10.531 A

1011 228.442 88.593 21.879 990.209 957.264 10.535 A

편집 | 거리계산 | 면적계산

..... 면적 계산

시작 측점:  측점 1000

끝 측점:  측점 1020

제외 측점:  측점 0101,0100

계산 결과

면적: 2004.5462 m²

평균: 606.3752

헥타: 0.2005

에이커: 0.4953

계산 ?

4-12. PowerComms

OO.sdr

Excel

OO.xls

가

[ ]

OO.xls

PowerComms v1.1 - [Data] [2.1]

측점: 방위각, 연직각, 사거리, N, E, Z, 코드

0002 45.000 89.654 1414.239 2000.000 2000.000 20.000 BS

1000 16.635 90.042 14.618 1014.006 1004.185 9.959 A

1001 310.706 90.102 18.302 1011.936 986.126 9.938 A

1002 292.011 89.908 28.471 1010.670 973.604 10.016 A

1003 283.885 88.831 30.109 1007.224 970.777 10.584 A

1004 281.851 89.919 27.659 1005.680 972.931 10.009 A

1005 277.736 89.893 28.761 1003.871 971.501 10.024 A

1006 280.234 88.836 31.065 1005.518 969.436 10.601 A

0101 280.146 89.940 26.788 1004.719 973.631 9.998 STN

0100 100.185 90.100 26.781 999.983 999.990 9.951 BS

1007 232.157 87.967 15.806 995.028 961.157 10.558 A

1008 222.316 90.036 15.407 993.326 963.259 9.988 A

1009 222.112 90.062 17.812 991.505 961.687 9.978 A

1010 230.364 88.312 18.129 993.159 959.676 10.531 A

1011 228.442 88.593 21.879 990.209 957.264 10.535 A

PowerComms v1.1 - [Data] [2.1]

측점: 방위각, 연직각, 사거리, N, E, Z, 코드

0002 45.000 89.654 1414.239 2000.000 2000.000 20.000 BS

1000 16.635 90.042 14.618 1014.006 1004.185 9.959 A

1001 310.706 90.102 18.302 1011.936 986.126 9.938 A

1002 292.011 89.908 28.471 1010.670 973.604 10.016 A

1003 283.885 88.831 30.109 1007.224 970.777 10.584 A

1004 281.851 89.919 27.659 1005.680 972.931 10.009 A

1005 277.736 89.893 28.761 1003.871 971.501 10.024 A

1006 280.234 88.836 31.065 1005.518 969.436 10.601 A

0101 280.146 89.940 26.788 1004.719 973.631 9.998 STN

0100 100.185 90.100 26.781 999.983 999.990 9.951 BS

1007 232.157 87.967 15.806 995.028 961.157 10.558 A

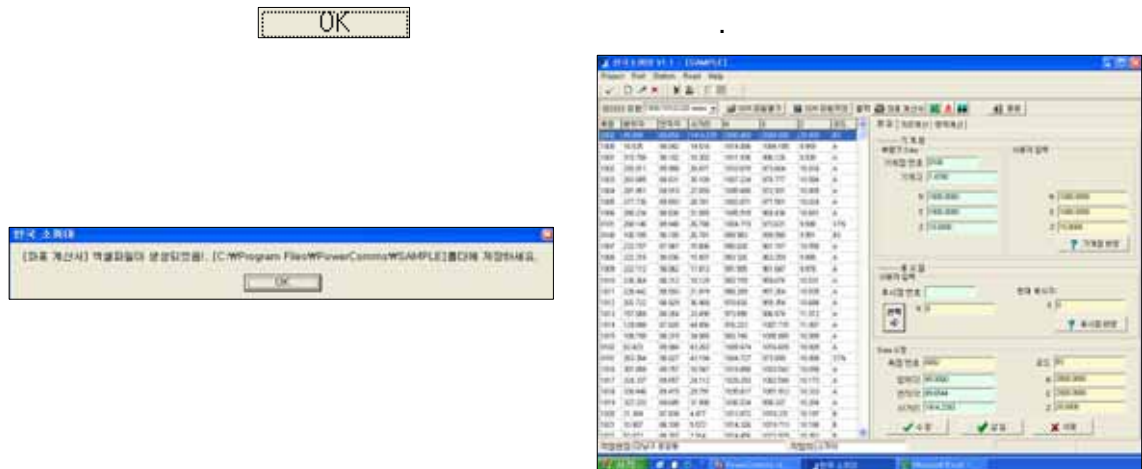
1008 222.316 90.036 15.407 993.326 963.259 9.988 A

1009 222.112 90.062 17.812 991.505 961.687 9.978 A

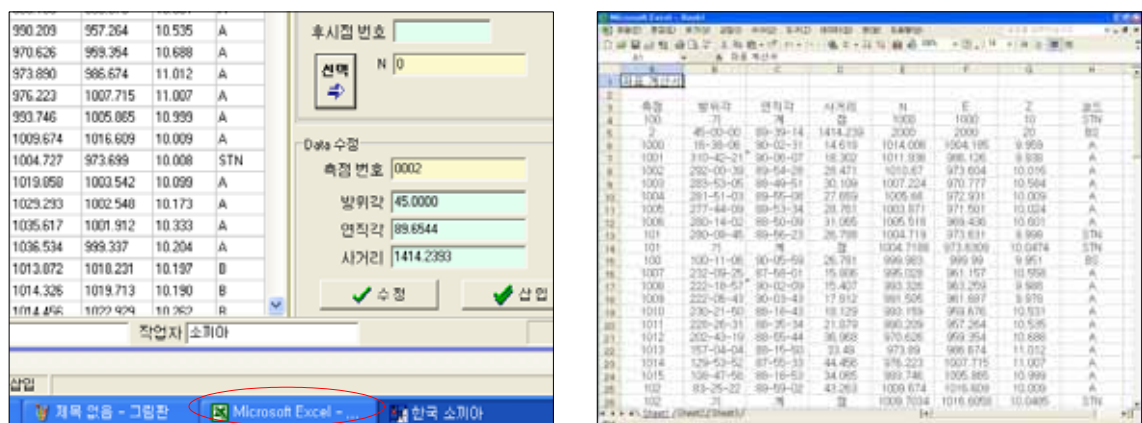
1010 230.364 88.312 18.129 993.159 959.676 10.531 A

1011 228.442 88.593 21.879 990.209 957.264 10.535 A

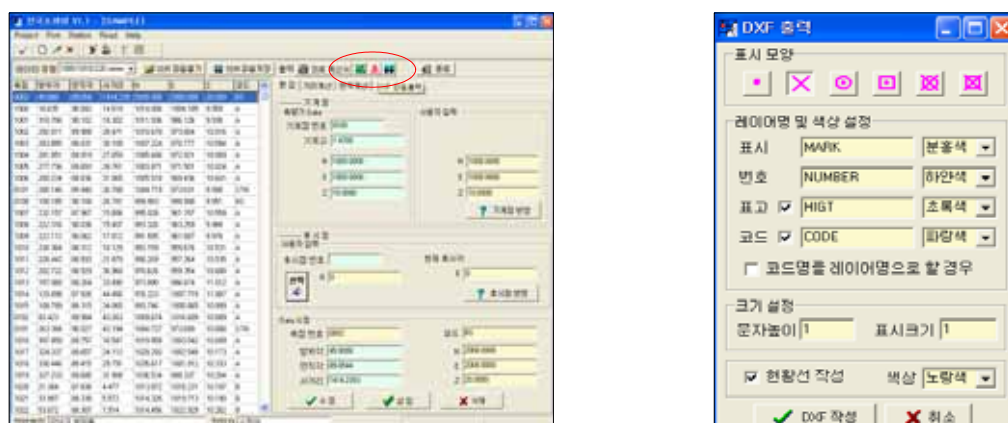
#### 4-13. [ m ] 가



#### 4-14. Microsoft Excel - ... Excel



#### 4-15. PowerComms OO.sdr DXF OO.dxf



#### 4-16. DXF

가

[ ]



표시	MARK	분홍색
번호	NUMBER	하얀색
표고	<input checked="" type="checkbox"/> HIGT	초록색
코드	<input checked="" type="checkbox"/> CODE	파랑색
<input type="checkbox"/> 코드명을 레이어명으로 할 경우		

) : ×  
: MARK- , : NUMBER- , : HIGT- , : CODE-

#### 4-17. [ ]

AutoCAD

가

AutoCAD

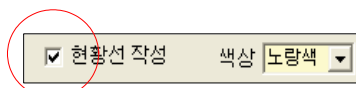


[ ] AutoCAD

문자높이	1	표시크기	1
------	---	------	---

[ ]

[ ]





4-18.

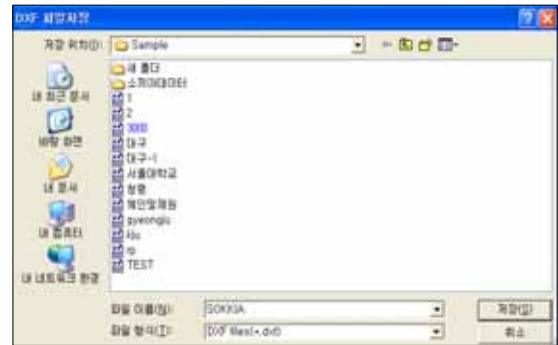
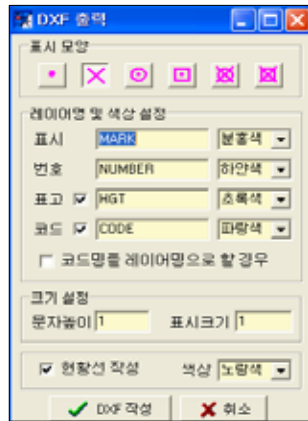
✓ DXF 작성

DXF

저장(S)

DXF

✗ 취소

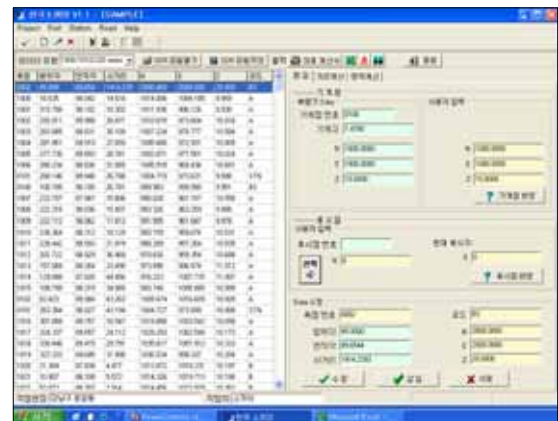
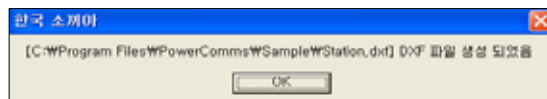


4-19.

DXF

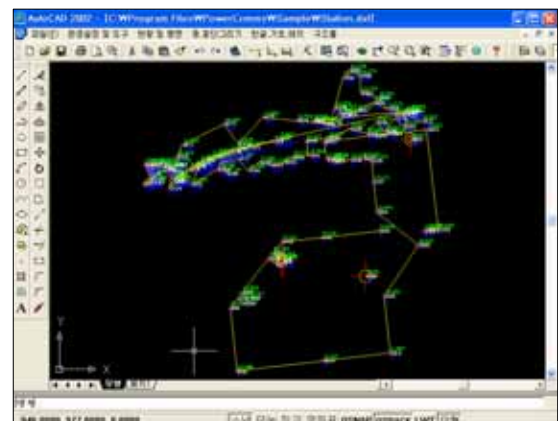
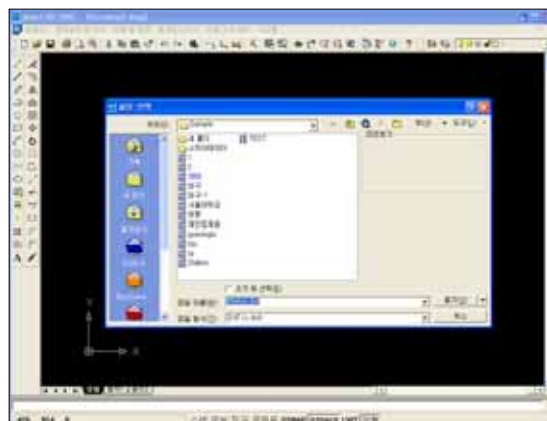
가

OK

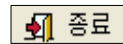


4-20. AutoCAD

OO.dxf



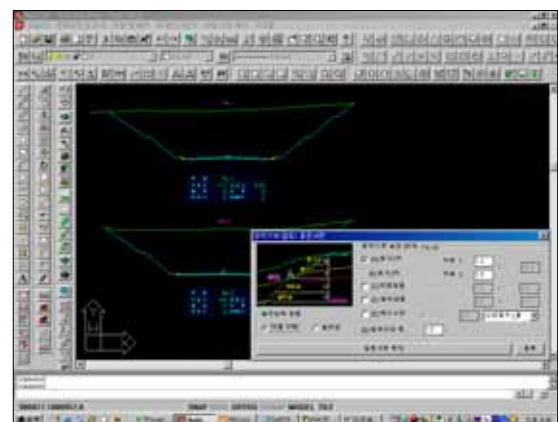
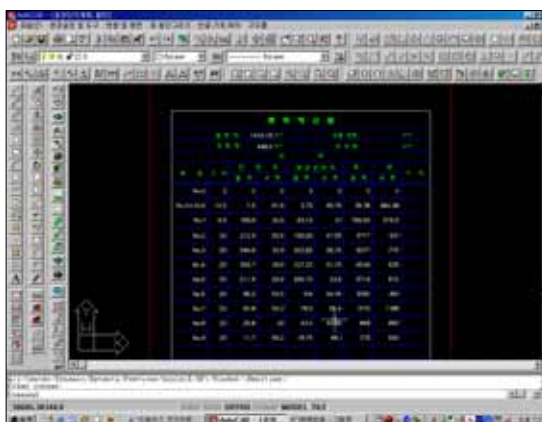
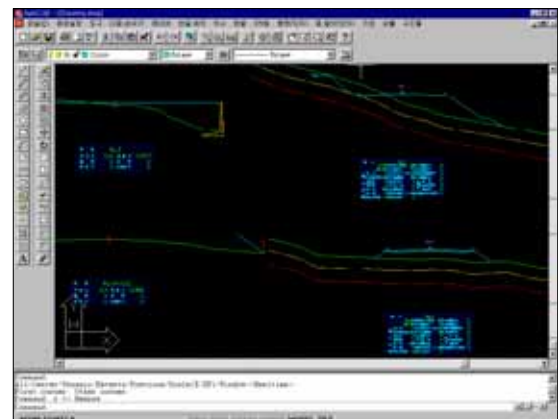
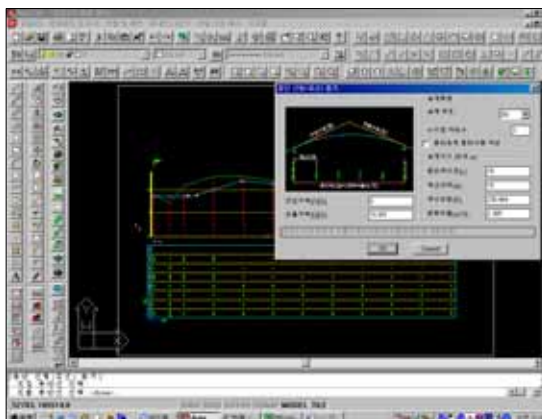
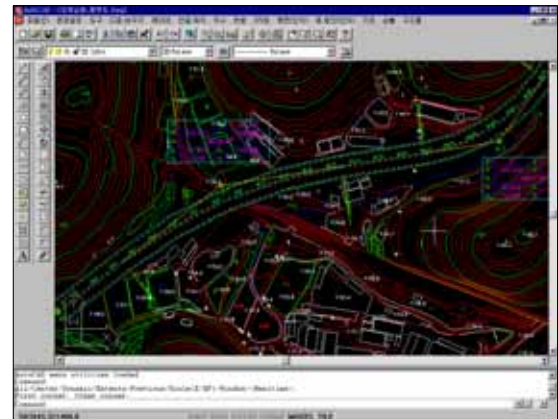
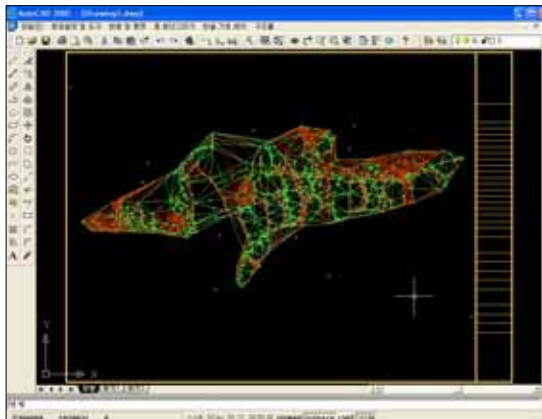
4-21.



4-22. PowerComms

OO.sdr

PowerMap



) OO.sdr

PowerMap

( )



5.

IP

DXF

AutoCAD

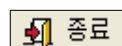
가

5-1. Totalstation

Road

가

Totalstation



Key

Totalstation

Road

5-2.

가

Road

Project

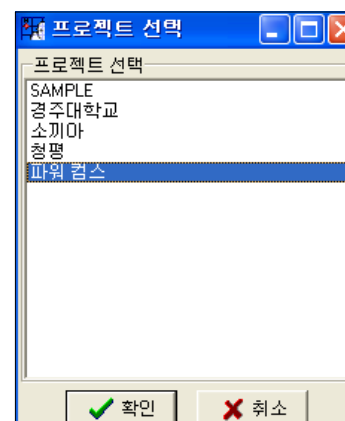
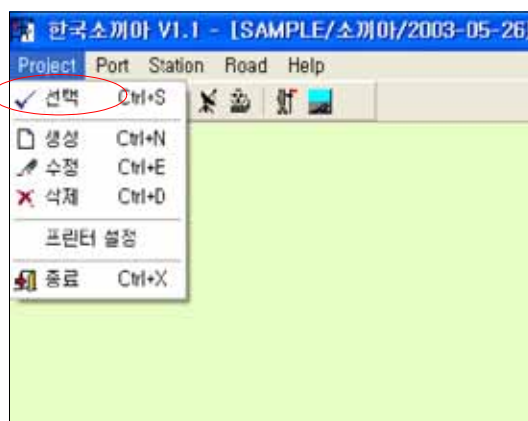
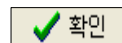
[Project]

[

]

[

]

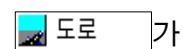


) Project

1.

5-3.

Road



가



5-4.

[BP ]

[EP ]

[BP 점] N 274182.506 E 231505.937

[IP 점]

N	E	R	A1	A2

N E R-반경

☐ 완회곡선 A1-진입 0 A2-진출 0

[EP 점] N E

[BP 점] N 274182.506 E 231505.937

[IP 점]

N	E	R	A1	A2

N E R-반경

☐ 완회곡선 A1-진입 0 A2-진출 0

[EP 점] N 278461.386 E 227529.751

) [BP ] N:274182.506, E: 231505.937, [EP ] N: 278461.386, E:227529.751

5-5. [IP ] IP N- , E-

R-

[IP ]

R-

[BP 점] N 274182.506 E 231505.937

[IP 점]

N	E	R	A1	A2

N 275435 E 230730 R-반경 2100

☐ 완회곡선 A1-진입 0 A2-진출 0

[EP 점] N 278461.306 E 227529.751

[BP 점] N 274182.506 E 231505.937

[IP 점]

N	E	R	A1	A2
275435	230730	2100	0	0

N 275435 E 230730 R-반경 2100

☐ 완회곡선 A1-진입 0 A2-진출 0

[EP 점] N 278461.306 E 227529.751

) [IP ] N:275435, E: 230730, R: 2100

5-6. 가 IP

☒ 완회곡선

A

A1- , A2-

[BP 점] N 274182.506 E 231505.937

[IP 점]

N	E	R	A1	A2
275435	230730	2100	0	0

N 276108 E 229184 R-반경 950

☐ 완회곡선 A1-진입 0 A2-진출 0

[EP 점] N 278461.386 E 227529.751

[BP 점] N 274182.506 E 231505.937

[IP 점]

N	E	R	A1	A2
275435	230730	2100	0	0
276108	229184	950	400	400

N 276108 E 229184 R-반경 950

☒ 완회곡선 A1-진입 400 A2-진출 400

[EP 점] N 278461.306 E 227529.751

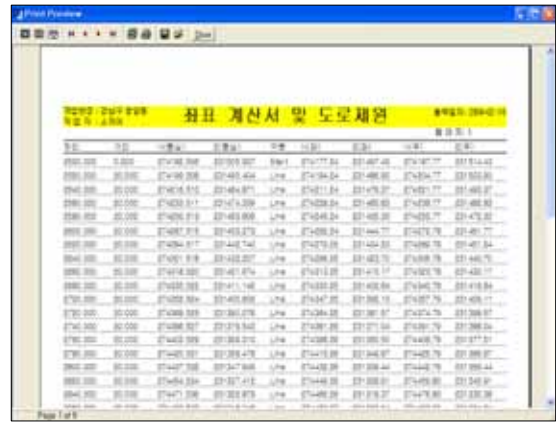
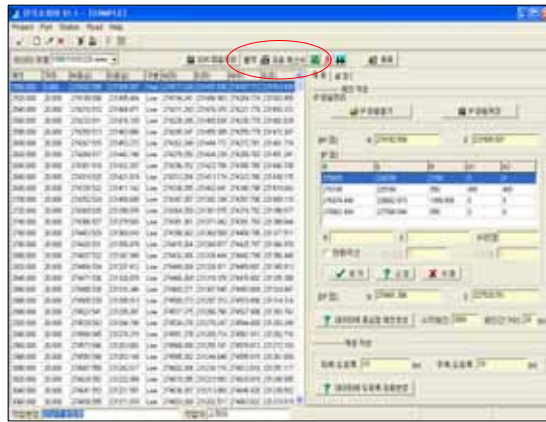
) [IP ] N:276108, E: 229184, R: 950, A-1: 400, A-2: 400



5-10.

좌표 계산서

가



5-11.




Close



5-12.

1)  :

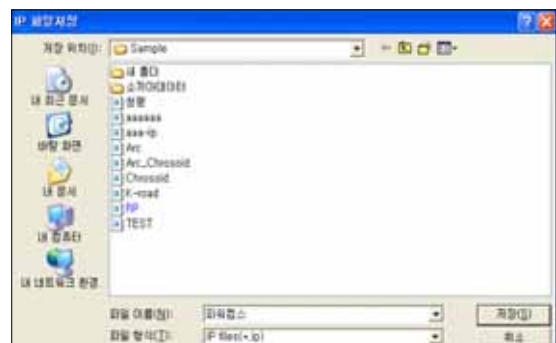
2)  :

3)  Close :

5-13.

IP

IP 파일저장



) :

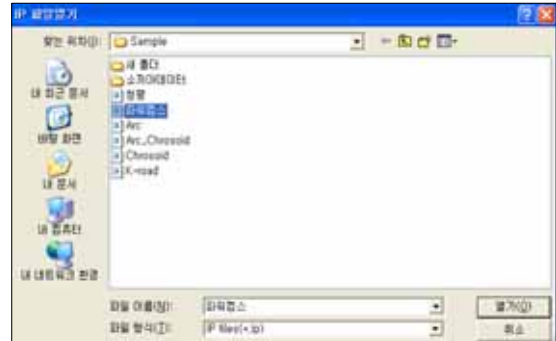
5-14.

IP 파일열기

IP

(SDR)

열기(O)

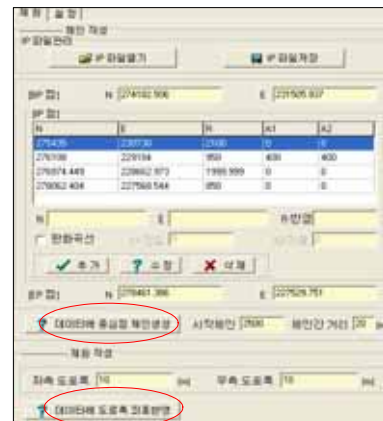
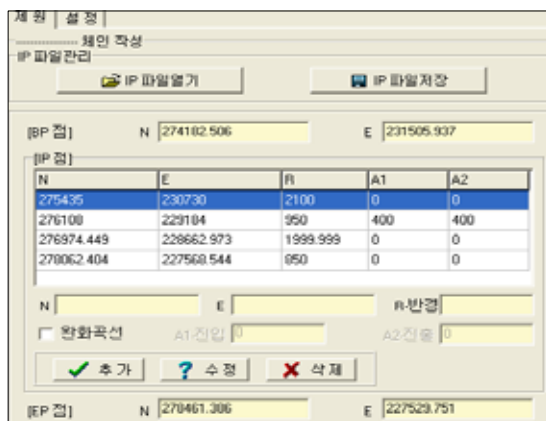


5-15.

IP

IP

가



5-16.

가

좌표 계산서

