MAPAS DE CALIDAD Y VARIABILIDAD VITICOLAS

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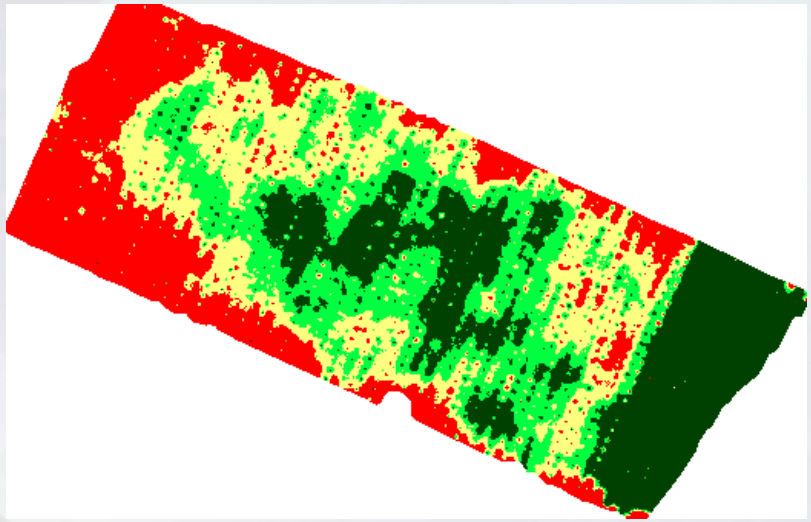
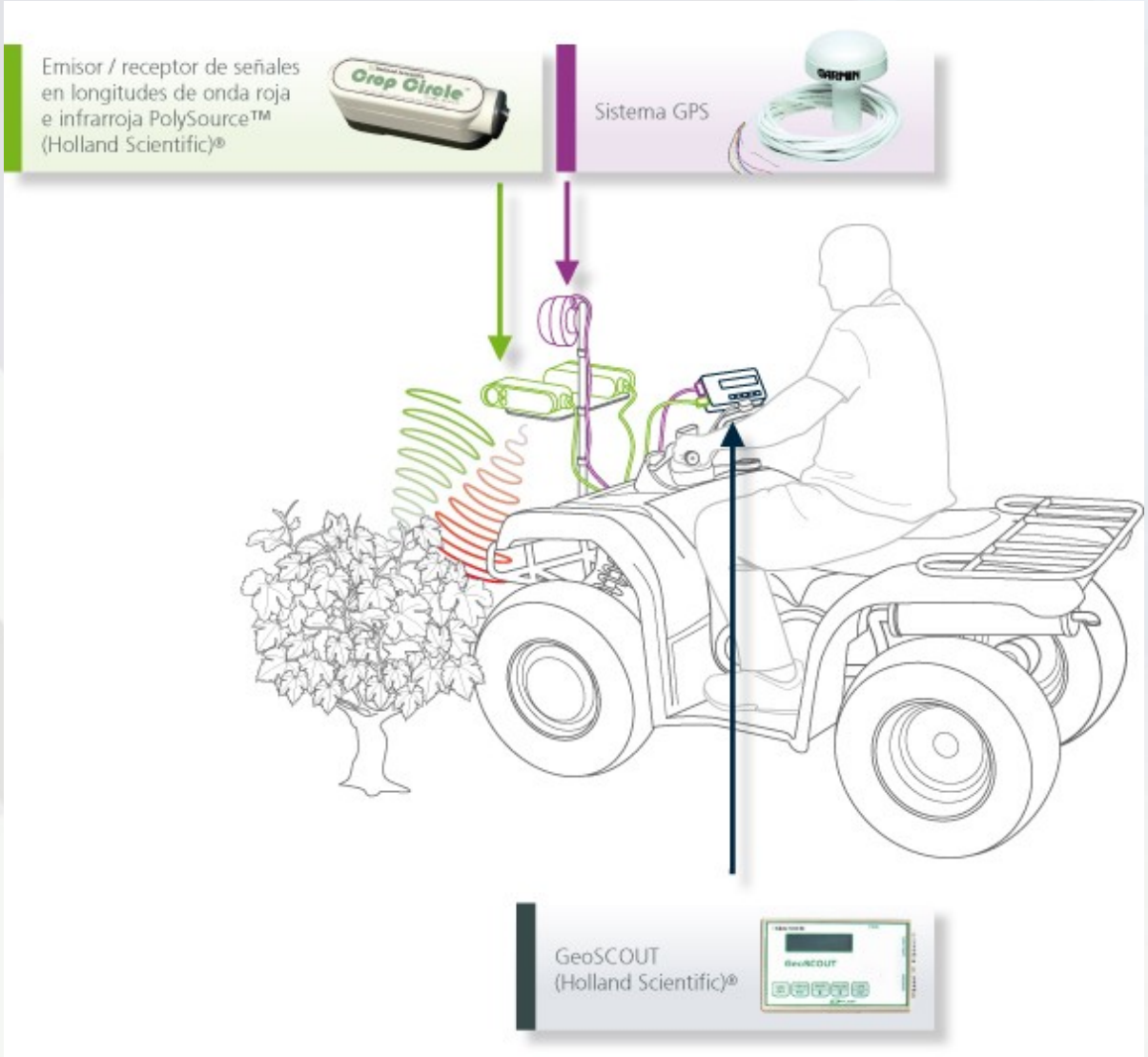
enosat
Teledetección y Sistemas de Información Geográfica Aplicadas

¿Que se hace?



A bordo de un quad dos sensores rojo/infrarrojo conectados a un GPS captan planta por planta su nivel de actividad fotosintética y masa foliar.

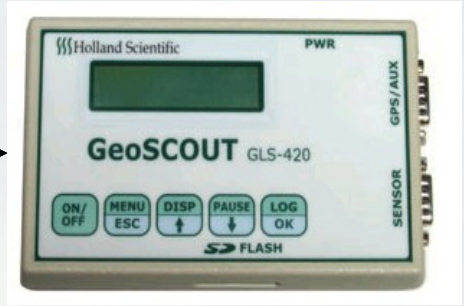
El software gvSIG y Sextante traducen estos datos en distintos mapas de variabilidad vitícolas


Emisor / receptor de señales en longitudes de onda roja e infrarroja PolySource™ (Holland Scientific)®
Crop Circle
Sistema GPS
GeoSCOUT (Holland Scientific)®

Metodos y sistemas

Mediante Geoscout , se va generando una tabla en formato CSV donde se integran dos fuentes de datos:

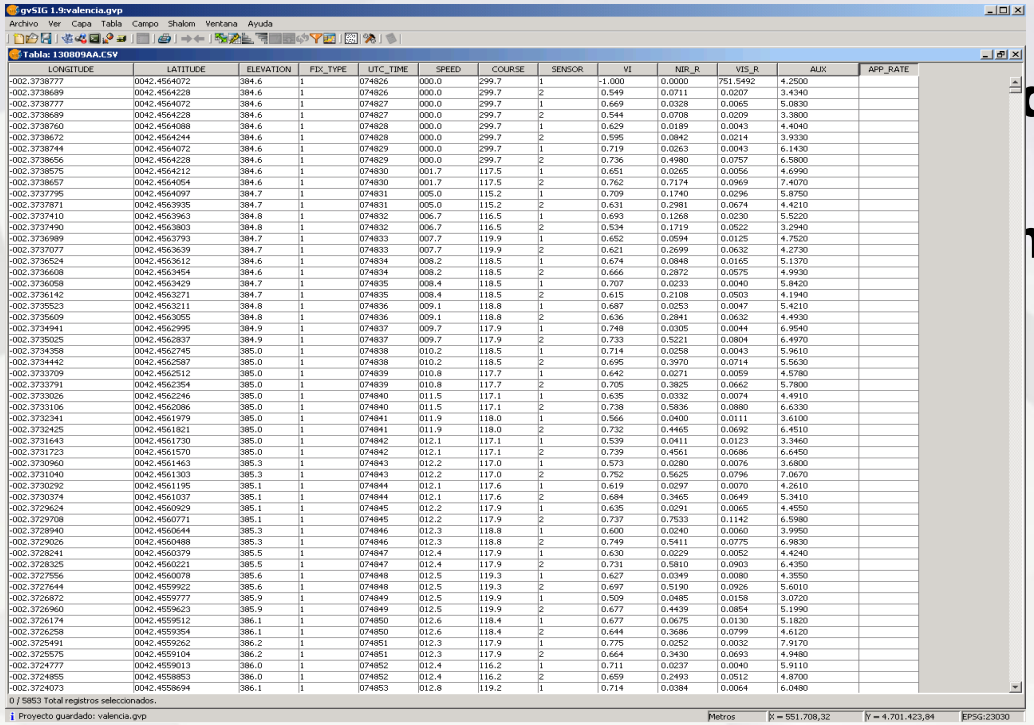
señal GPS



sensores infrarrojos

Importacion de los datos

La tabla CSV se importa en gvSIG



LONGITUDE	LATITUDE	ELEVATION	FIX_TYPE	UTC_TIME	SPEED	COURSE	SENSOR	VI	NIR_R	VIS_R	AUX	APP_RATE
-002.3738777	0042.4564072	384.6	1	074826	000.0	299.7	1	-1.000	0.0000	751.5492	4.2500	
-002.3738689	0042.4564228	384.6	1	074826	000.0	299.7	2	0.549	0.0711	0.0207	3.4340	
-002.3738777	0042.4564072	384.6	1	074827	000.0	299.7	1	0.669	0.0328	0.0065	5.0830	
-002.3738689	0042.4564228	384.6	1	074827	000.0	299.7	2	0.544	0.0708	0.0209	3.3800	
-002.3738760	0042.4564088	384.6	1	074828	000.0	299.7	1	0.629	0.0189	0.0043	4.4040	
-002.3738672	0042.4564244	384.6	1	074828	000.0	299.7	2	0.595	0.0842	0.0214	3.9330	
-002.3738744	0042.4564072	384.6	1	074829	000.0	299.7	1	0.719	0.0263	0.0043	6.1430	
-002.3738656	0042.4564228	384.6	1	074829	000.0	299.7	2	0.736	0.4980	0.0757	6.5800	
-002.3738575	0042.4564212	384.6	1	074830	001.7	117.5	1	0.651	0.0265	0.0056	4.6990	
-002.3738657	0042.4564054	384.6	1	074830	001.7	117.5	2	0.762	0.7174	0.0969	7.4070	
-002.3737795	0042.4564097	384.7	1	074831	005.0	115.2	1	0.709	0.1740	0.0296	5.8750	
-002.3737871	0042.4563935	384.7	1	074831	005.0	115.2	2	0.631	0.2981	0.0674	4.4210	
-002.3737410	0042.4563963	384.8	1	074832	006.7	116.5	1	0.693	0.1268	0.0230	5.5220	
-002.3737490	0042.4563803	384.8	1	074832	006.7	116.5	2	0.534	0.1719	0.0522	3.2940	
-002.3736989	0042.4563793	384.7	1	074833	007.7	119.9	1	0.652	0.0594	0.0125	4.7520	
-002.3737077	0042.4563639	384.7	1	074833	007.7	119.9	2	0.621	0.2699	0.0632	4.2730	
-002.3736524	0042.4563612	384.6	1	074834	008.2	118.5	1	0.674	0.0848	0.0165	5.1370	
-002.3736608	0042.4563454	384.6	1	074834	008.2	118.5	2	0.666	0.2872	0.0575	4.9930	
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-002.3736142	0042.4563271	384.7	1	074835	008.4	118.5	2	0.615	0.2108	0.0503	4.1940	
-002.3735523	0042.4563211	384.8	1	074836	009.1	118.8	1	0.687	0.0253	0.0047	5.4210	
-002.3735609	0042.4563055	384.8	1	074836	009.1	118.8	2	0.636	0.2841	0.0632	4.4930	
-002.3734941	0042.4562995	384.9	1	074837	009.7	117.9	1	0.748	0.0305	0.0044	6.9540	
-002.3735025	0042.4562837	384.9	1	074837	009.7	117.9	2	0.733	0.5221	0.0804	6.4970	
-002.3734358	0042.4562745	385.0	1	074838	010.2	118.5	1	0.714	0.0258	0.0043	5.9610	
-002.3734442	0042.4562587	385.0	1	074838	010.2	118.5	2	0.695	0.3970	0.0714	5.5630	
-002.3733709	0042.4562512	385.0	1	074839	010.8	117.7	1	0.642	0.0271	0.0059	4.5790	
-002.3733791	0042.4562354	385.0	1	074839	010.8	117.7	2	0.705	0.3825	0.0662	5.7800	
-002.3733026	0042.4562246	385.0	1	074840	011.5	117.1	1	0.635	0.0332	0.0074	4.4910	
-002.3733106	0042.4562086	385.0	1	074840	011.5	117.1	2	0.738	0.5836	0.0880	6.6330	
-002.3732341	0042.4561979	385.0	1	074841	011.9	118.0	1	0.566	0.0400	0.0111	3.6100	
-002.3732425	0042.4561821	385.0	1	074841	011.9	118.0	2	0.732	0.4465	0.0692	6.4510	
-002.3731643	0042.4561730	385.0	1	074842	012.1	117.1	1	0.539	0.0411	0.0123	3.3460	
-002.3731723	0042.4561570	385.0	1	074842	012.1	117.1	2	0.739	0.4561	0.0686	6.6450	
-002.3730960	0042.4561463	385.3	1	074843	012.2	117.0	1	0.573	0.0280	0.0076	3.6800	
-002.3731040	0042.4561303	385.3	1	074843	012.2	117.0	2	0.752	0.5625	0.0796	7.0670	
-002.3730292	0042.4561195	385.1	1	074844	012.1	117.6	1	0.619	0.0297	0.0070	4.2610	
-002.3730374	0042.4561037	385.1	1	074844	012.1	117.6	2	0.684	0.3465	0.0649	5.3410	
-002.3729624	0042.4560929	385.1	1	074845	012.2	117.9	1	0.635	0.0291	0.0065	4.4550	
-002.3729708	0042.4560771	385.1	1	074845	012.2	117.9	2	0.737	0.7533	0.1142	6.5980	
-002.3728940	0042.4560644	385.3	1	074846	012.3	118.8	1	0.600	0.0240	0.0060	3.9950	
-002.3729026	0042.4560488	385.3	1	074846	012.3	118.8	2	0.749	0.5411	0.0775	6.9830	
-002.3728241	0042.4560379	385.5	1	074847	012.4	117.9	1	0.630	0.0229	0.0052	4.4240	
-002.3728325	0042.4560221	385.5	1	074847	012.4	117.9	2	0.731	0.5810	0.0903	6.4350	
-002.3727556	0042.4560078	385.6	1	074848	012.5	119.3	1	0.627	0.0349	0.0080	4.3550	
-002.3727644	0042.4559922	385.6	1	074848	012.5	119.3	2	0.697	0.5190	0.0926	5.6010	
-002.3726872	0042.4559777	385.9	1	074849	012.5	119.9	1	0.509	0.0485	0.0158	3.0720	
-002.3726960	0042.4559623	385.9	1	074849	012.5	119.9	2	0.677	0.4439	0.0854	5.1990	
-002.3726174	0042.4559512	386.1	1	074850	012.6	118.4	1	0.677	0.0675	0.0130	5.1820	
-002.3726258	0042.4559354	386.1	1	074850	012.6	118.4	2	0.644	0.3686	0.0799	4.6120	
-002.3725491	0042.4559262	386.2	1	074851	012.3	117.9	1	0.775	0.0252	0.0032	7.9170	
-002.3725575	0042.4559104	386.2	1	074851	012.3	117.9	2	0.664	0.3430	0.0693	4.9480	
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-002.3724855	0042.4558853	386.0	1	074852	012.4	116.2	2	0.659	0.2493	0.0512	4.8700	
-002.3724073	0042.4558694	386.1	1	074853	012.8	119.2	1	0.714	0.0384	0.0064	6.0480	

dos los campos

nsformarla en shp de puntos,

gvSIG 1.9:valencia.gvp

Archivo Ver Capa Tabla Campo Shalom Ventana Ayuda

Tabla: 130809AA.CSV

LONGITUDE	LATITUDE	ELEVATION	FIX_TYPE	UTC_TIME	SPEED	COURSE	SENSOR	VI	NIR_R	VIS_R	AUX	APP_RATE
-002.3738777	0042.4564072	384.6	1	074826	000.0	299.7	1	-1.000	0.0000	751.5492	4.2500	
-002.3738689	0042.4564228	384.6	1	074826	000.0	299.7	2	0.549	0.0711	0.0207	3.4340	
-002.3738777	0042.4564072	384.6	1	074827	000.0	299.7	1	0.669	0.0328	0.0065	5.0830	
-002.3738689	0042.4564228	384.6	1	074827	000.0	299.7	2	0.544	0.0708	0.0209	3.3800	
-002.3738760	0042.4564088	384.6	1	074828	000.0	299.7	1	0.629	0.0189	0.0043	4.4040	
-002.3738672	0042.4564244	384.6	1	074828	000.0	299.7	2	0.595	0.0842	0.0214	3.9330	
-002.3738744	0042.4564072	384.6	1	074829	000.0	299.7	1	0.719	0.0263	0.0043	6.1430	
-002.3738656	0042.4564228	384.6	1	074829	000.0	299.7	2	0.736	0.4980	0.0757	6.5800	
-002.3738575	0042.4564212	384.6	1	074830	001.7	117.5	1	0.651	0.0265	0.0056	4.6990	
-002.3738657	0042.4564054	384.6	1	074830	001.7	117.5	2	0.762	0.7174	0.0969	7.4070	
-002.3737795	0042.4564097	384.7	1	074831	005.0	115.2	1	0.709	0.1740	0.0296	5.8750	
-002.3737871	0042.4563935	384.7	1	074831	005.0	115.2	2	0.631	0.2981	0.0674	4.4210	
-002.3737410	0042.4563963	384.8	1	074832	006.7	116.5	1	0.693	0.1268	0.0230	5.5220	
-002.3737490	0042.4563803	384.8	1	074832	006.7	116.5	2	0.534	0.1719	0.0522	3.2940	
-002.3736989	0042.4563793	384.7	1	074833	007.7	119.9	1	0.652	0.0594	0.0125	4.7520	
-002.3737077	0042.4563639	384.7	1	074833	007.7	119.9	2	0.621	0.2699	0.0632	4.2730	
-002.3736524	0042.4563612	384.6	1	074834	008.2	118.5	1	0.674	0.0848	0.0165	5.1370	
-002.3736608	0042.4563454	384.6	1	074834	008.2	118.5	2	0.666	0.2872	0.0575	4.9930	
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-002.3735523	0042.4563211	384.8	1	074836	009.1	118.8	1	0.687	0.0253	0.0047	5.4210	
-002.3735609	0042.4563055	384.8	1	074836	009.1	118.8	2	0.636	0.2841	0.0632	4.4930	
-002.3734941	0042.4562995	384.9	1	074837	009.7	117.9	1	0.748	0.0305	0.0044	6.9540	
-002.3735025	0042.4562837	384.9	1	074837	009.7	117.9	2	0.733	0.5221	0.0804	6.4970	
-002.3734358	0042.4562745	385.0	1	074838	010.2	118.5	1	0.714	0.0258	0.0043	5.9610	
-002.3734442	0042.4562587	385.0	1	074838	010.2	118.5	2	0.695	0.3970	0.0714	5.5630	
-002.3733709	0042.4562512	385.0	1	074839	010.8	117.7	1	0.642	0.0271	0.0059	4.5780	
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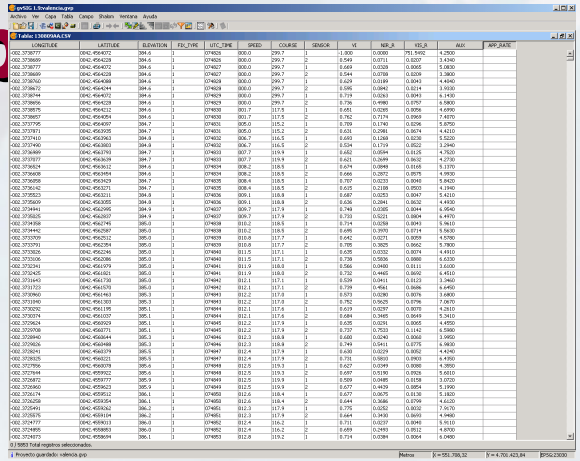
-002.3733026	0042.4562246	385.0	1	074840	011.5	117.1	1	0.635	0.0332	0.0074	4.4910	
-002.3733106	0042.4562086	385.0	1	074840	011.5	117.1	2	0.738	0.5836	0.0880	6.6330	
-002.3732341	0042.4561979	385.0	1	074841	011.9	118.0	1	0.566	0.0400	0.0111	3.6100	
-002.3732425	0042.4561821	385.0	1	074841	011.9	118.0	2	0.732	0.4465	0.0692	6.4510	
-002.3731643	0042.4561730	385.0	1	074842	012.1	117.1	1	0.539	0.0411	0.0123	3.3460	
-002.3731723	0042.4561570	385.0	1	074842	012.1	117.1	2	0.739	0.4561	0.0686	6.6450	
-002.3730960	0042.4561463	385.3	1	074843	012.2	117.0	1	0.573	0.0280	0.0076	3.6800	
-002.3731040	0042.4561303	385.3	1	074843	012.2	117.0	2	0.752	0.5625	0.0796	7.0670	
-002.3730292	0042.4561195	385.1	1	074844	012.1	117.6	1	0.619	0.0297	0.0070	4.2610	
-002.3730374	0042.4561037	385.1	1	074844	012.1	117.6	2	0.684	0.3465	0.0649	5.3410	
-002.3729624	0042.4560929	385.1	1	074845	012.2	117.9	1	0.635	0.0291	0.0065	4.4550	
-002.3729708	0042.4560771	385.1	1	074845	012.2	117.9	2	0.737	0.7533	0.1142	6.5980	
-002.3728940	0042.4560644	385.3	1	074846	012.3	118.8	1	0.600	0.0240	0.0060	3.9950	
-002.3729026	0042.4560488	385.3	1	074846	012.3	118.8	2	0.749	0.5411	0.0775	6.9830	
-002.3728241	0042.4560379	385.5	1	074847	012.4	117.9	1	0.630	0.0229	0.0052	4.4240	
-002.3728325	0042.4560221	385.5	1	074847	012.4	117.9	2	0.731	0.5810	0.0903	6.4350	
-002.3727556	0042.4560078	385.6	1	074848	012.5	119.3	1	0.627	0.0349	0.0080	4.3550	
-002.3727644	0042.4559922	385.6	1	074848	012.5	119.3	2	0.697	0.5190	0.0926	5.6010	
-002.3726872	0042.4559777	385.9	1	074849	012.5	119.9	1	0.509	0.0485	0.0158	3.0720	
-002.3726960	0042.4559623	385.9	1	074849	012.5	119.9	2	0.677	0.4439	0.0854	5.1990	
-002.3726174	0042.4559512	386.1	1	074850	012.6	118.4	1	0.677	0.0675	0.0130	5.1820	
-002.3726258	0042.4559354	386.1	1	074850	012.6	118.4	2	0.644	0.3686	0.0799	4.6120	
-002.3725491	0042.4559262	386.2	1	074851	012.3	117.9	1	0.775	0.0252	0.0032	7.9170	
-002.3725575	0042.4559104	386.2	1	074851	012.3	117.9	2	0.664	0.3430	0.0693	4.9480	
-002.3724777	0042.4559013	386.0	1	074852	012.4	116.2	1	0.711	0.0237	0.0040	5.9110	
-002.3724855	0042.4558853	386.0	1	074852	012.4	116.2	2	0.659	0.2493	0.0512	4.8700	
-002.3724073	0042.4558694	386.1	1	074853	012.8	119.2	1	0.714	0.0384	0.0064	6.0480	

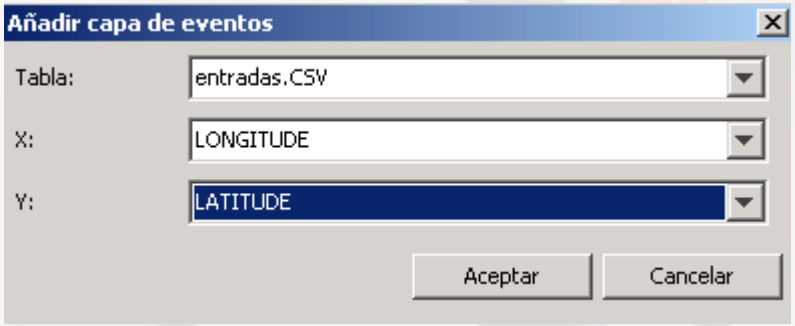
0 / 5853 Total registros seleccionados.

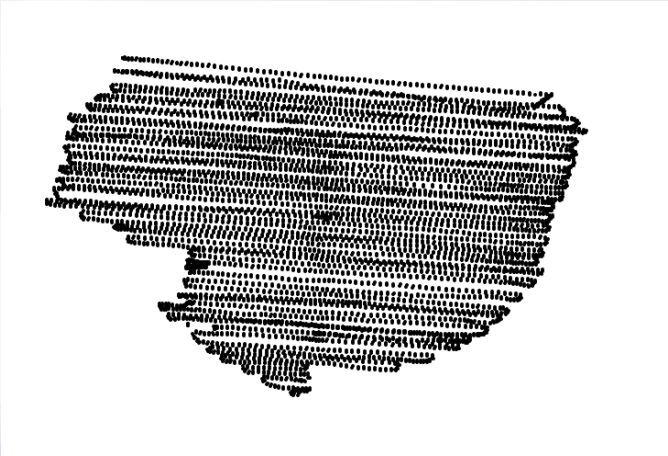
Proyecto guardado: valencia.gvp | Metros | X = 551.708,32 | Y = 4.701.423,84 | EPSG:23030

Convertir a point-shap



AÑADIR CAPA DE EVENTOS

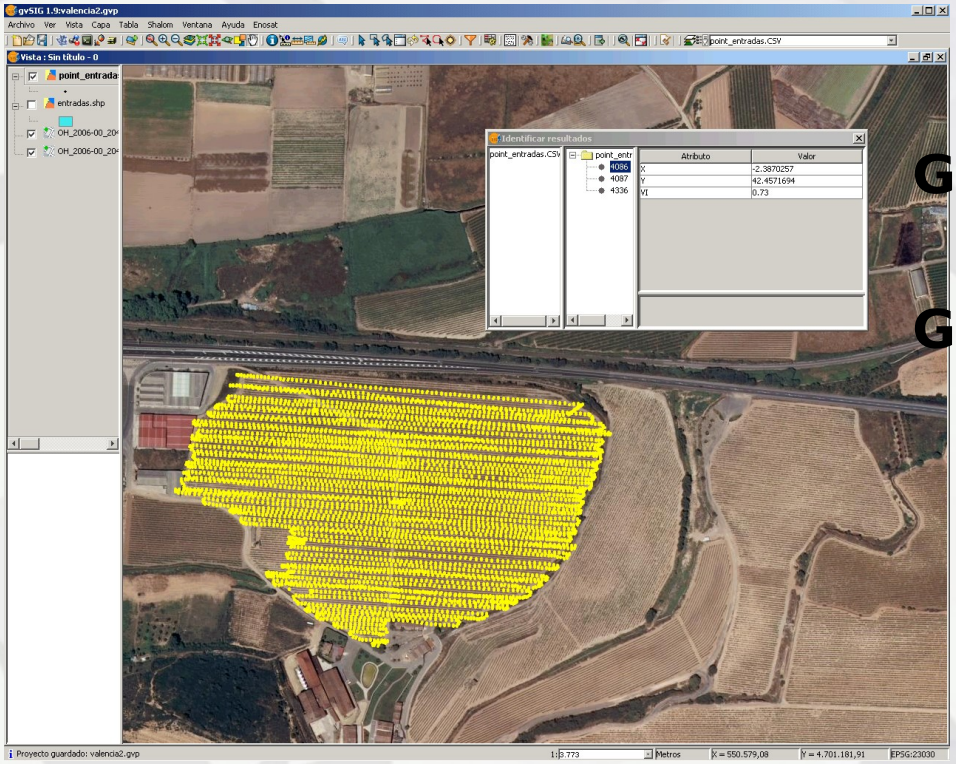




Un shape de puntos que podemos manipular y analizar

Georreferenciar:

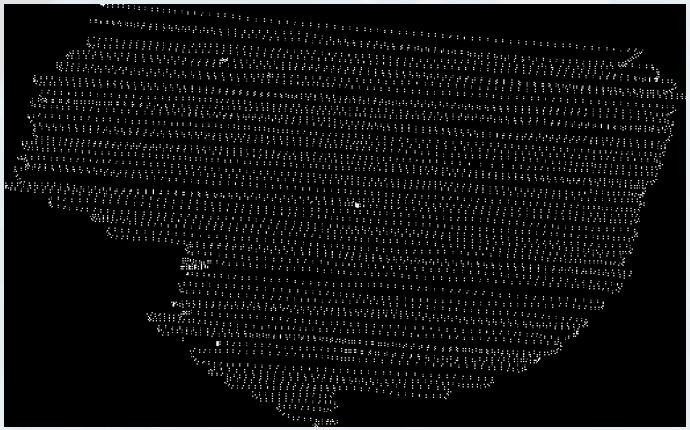
Georeferenciamos los puntos con ortofotografias aereas del Gobierno de La Rioja libres en Internet.



Gestor de geoprocesos: Reproy

Gestor de geoprocesos: Traslac

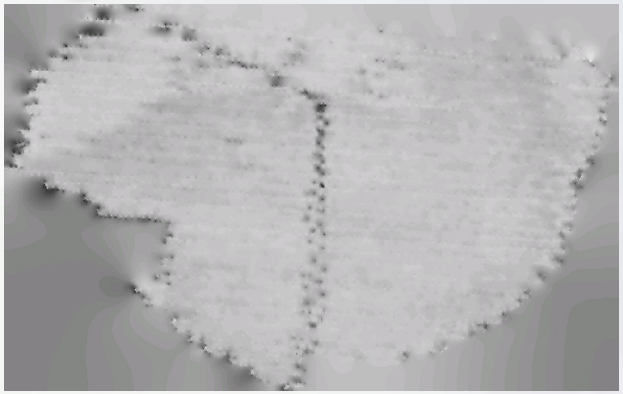
Sextante:



Rasterizamos los puntos

Los interpolamos

Los reclasificamos



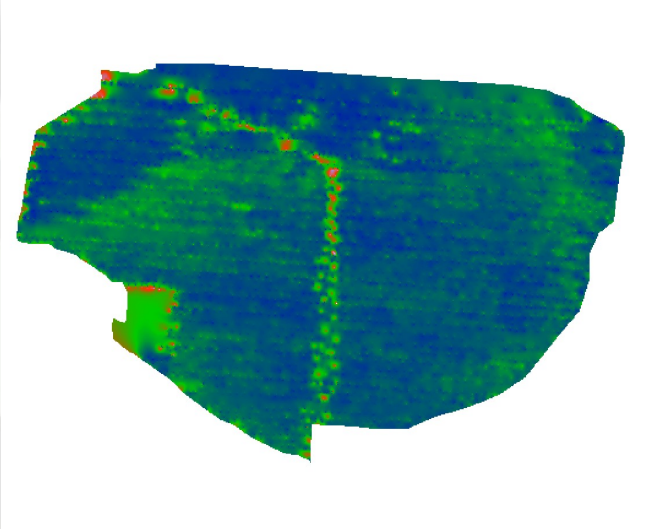
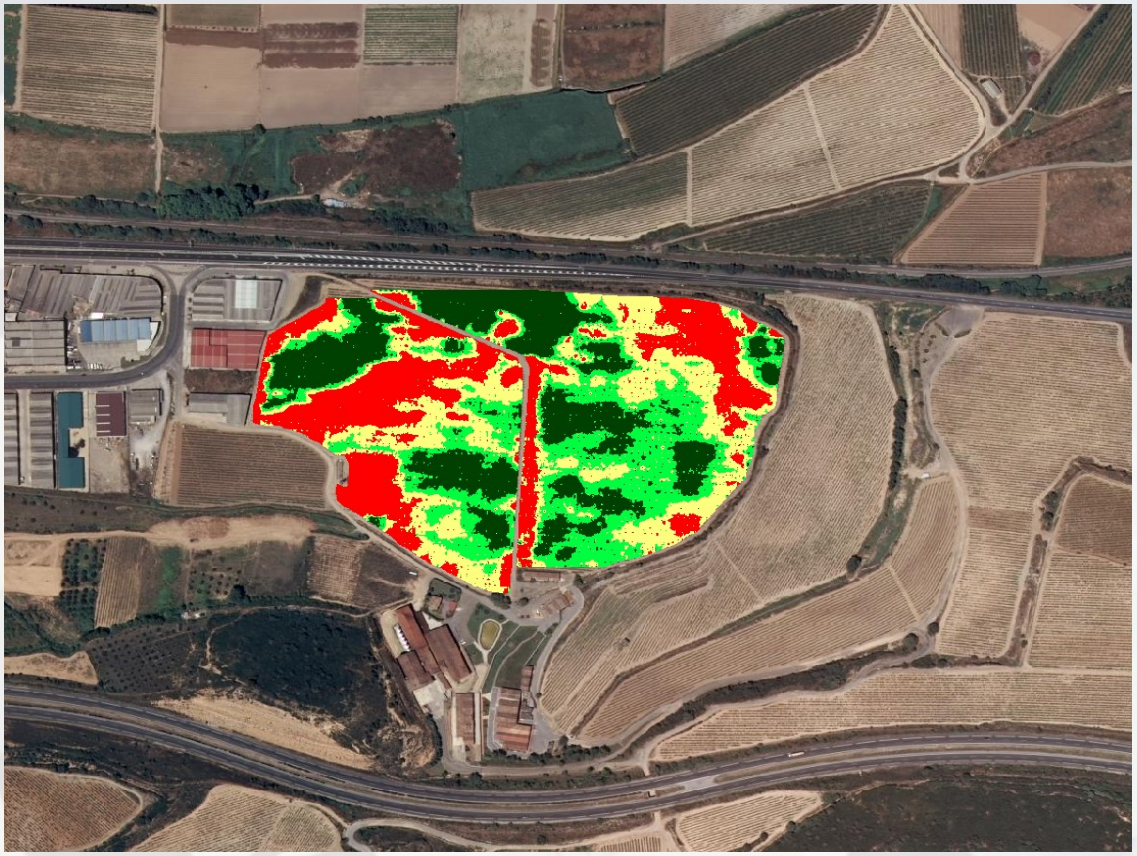
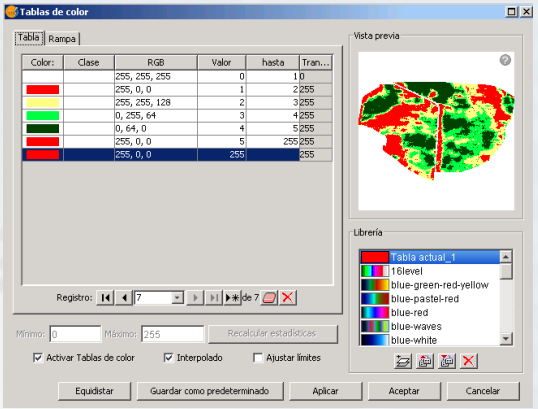


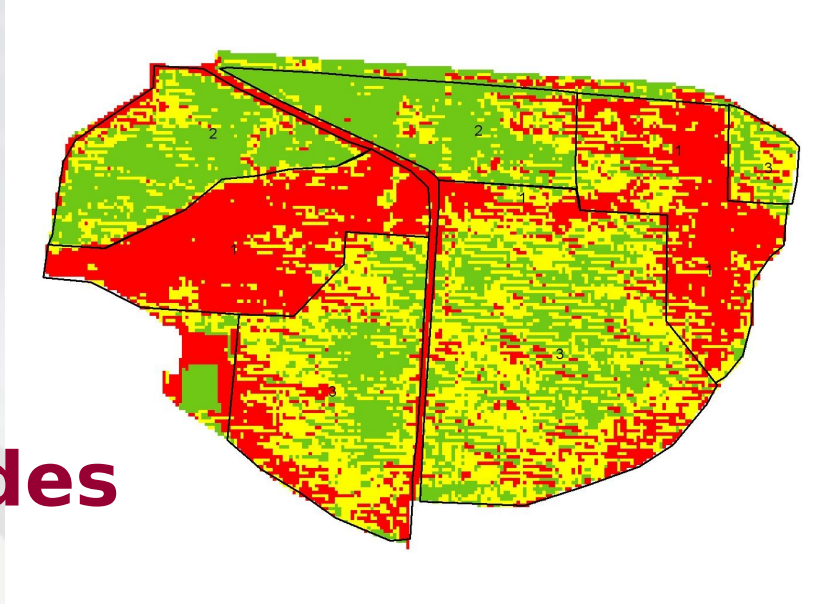
Tabla de colores

Por último mediante la tabla de colores lo dejamos:





Aplicaciones de estos mapas



Vendimia seleccionada

Predicción de enfermedades

Sectorización de riego

Homogenización de los viñedos

Ventajas del uso de gvSIG

Facilita la expansión del uso de Cropcircle

Ayuda a la implantación en bodegas

Adaptabilidad a criterios del cliente

GRACIAS POR SU ATENCIÓ

entajas del uso de gvSIG-Sextante

Permite adaptarse a los criterios técnicos del usuario

Facilita la expansión del