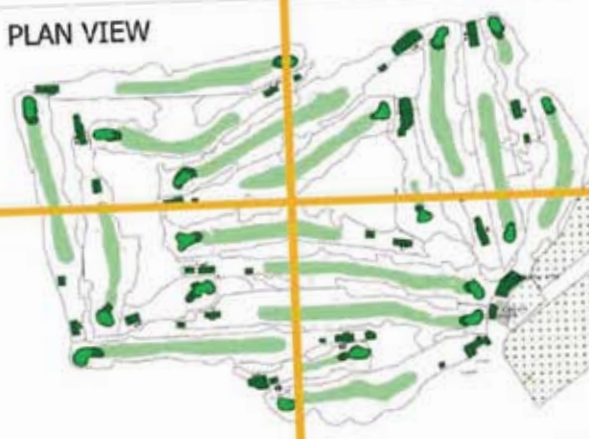




PLAN VIEW





# GIS for you

Ian Phythian looks at the benefits that can be derived from turning to your computer for assistance

## Many of us now have access to the internet and have at some time downloaded applications for our own use.

As a golf course GIS analyst my mission is to inform and educate golf club personnel the latest technology available as a freeware. Most of us now are computer literate to some degree and also we are all aware of downloadable content from the internet.

There are many downloadable programmes available for the public and there are specific ones that could directly benefit golf clubs and I would like to show you how free downloadable GIS technology can be harnessed and applied to your working lives at the golf club and your careers. Indeed many golf club personnel are simply unaware of GIS and the immediate benefit it can bring!

## WHAT IS GIS?

GIS stands for (Geographic Information System). Apply this technology and you can view your golf course in great detail.

GIS is based on showing many layers of golf course features.

### Measurements

Area measurements to all individual greens, tees, fairways or any other areas.

Accurate length measurements for planning new drainage.

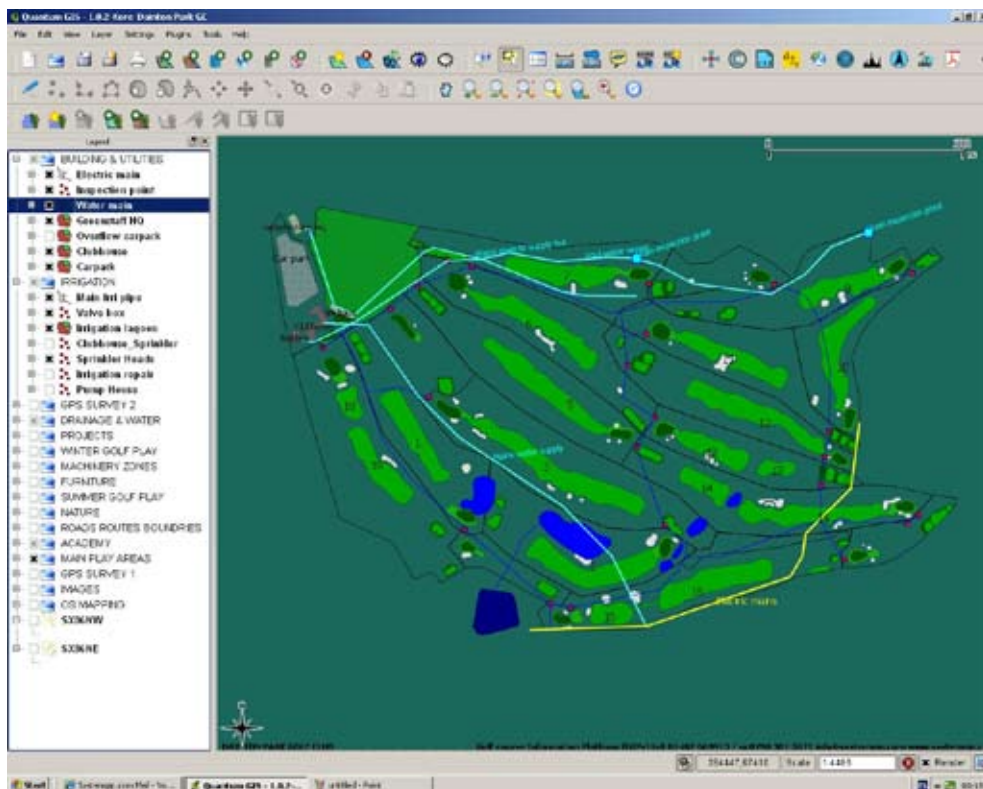
### Print outs/Job Sheets

Ideal for those extra summer staff! It's an excellent communication/discussion tool for general maintenance tasks as well as "the" on going working document for the golf club infrastructure.

### Set up for any golf course

GIS can be set up for 9, 18, 27, 36, 45 holes and in addition cater for leisure and hotel groups with any number of courses worldwide with their correct geo location coordinates.

In addition it can be set up to specific named courses within the golf club if desired.



### Languages

As freeware GIS is developed for the international community many languages are available.

## GIS GOLF COURSE FEATURES

### Main play surfaces

This is all the main golf playing sports surfaces that make up your golf course. All greens, aprons, tees, tee banks, fairways, semi-rough, rough stage-1, rough stage-2, bunkers, banks and mounds, tee group banks, and hole zones.

### Drainage and water

Start to document your drain information into the GIS. Main drain, sand slit drain, waterfall feature, old clay drain, inspection, carrier drain, stream, rodding eye, gully pots, vermin traps locations and repair history.

### Irrigation

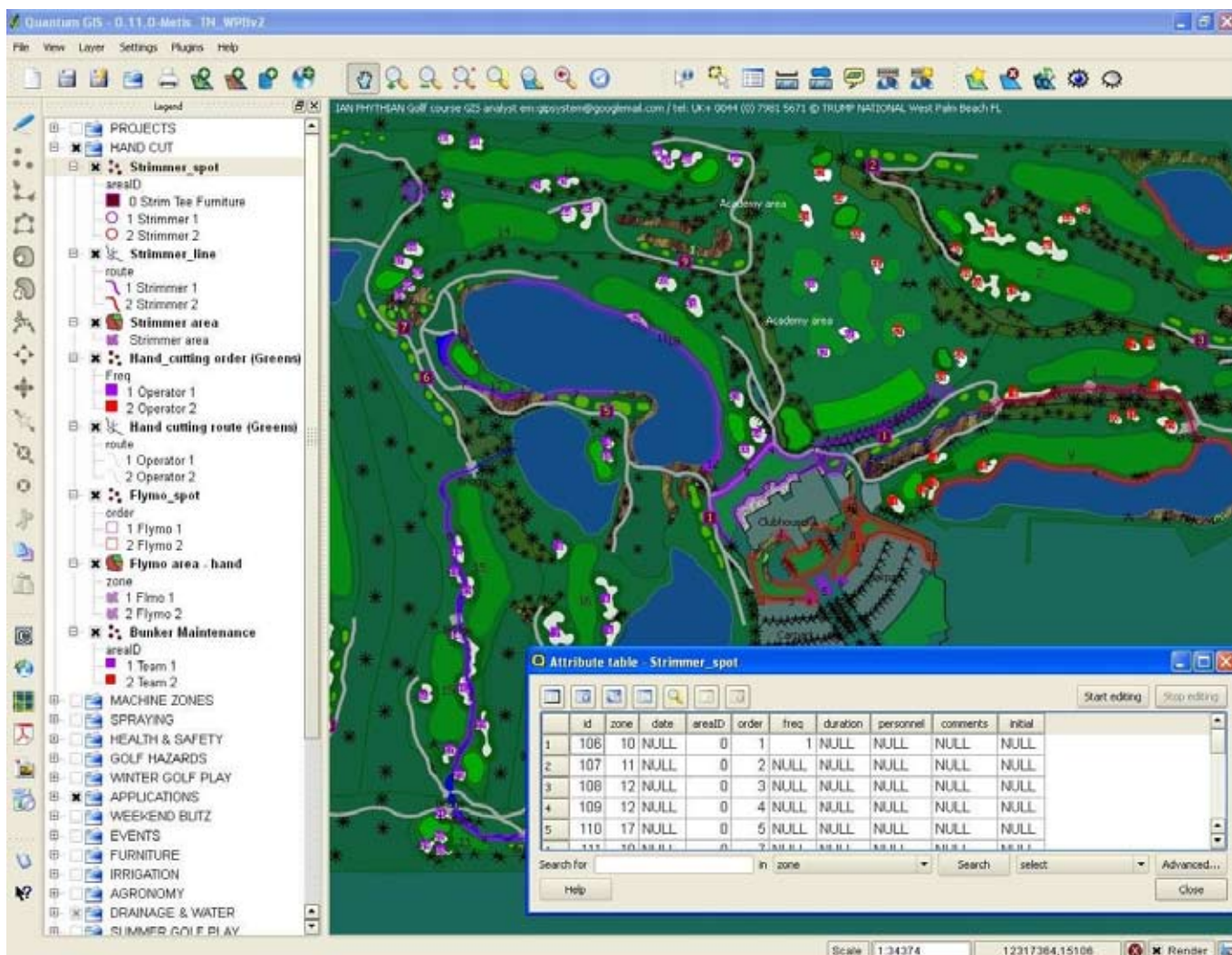
The main artery of your course, the main armoury against draught, no detail is enough! Each sprinkler

with its own unique ID, print out or email give to your irrigation specialist includes greens, tees, aprons, fairways, ornamental, academy, air release valve, pump house, filter, main pipe, valve box, location, span (cast) and repair history.

ABOVE: Example (fig 1) with golf course layers (left) with a comprehensive toolbox (top) to enable measuring, editing, printing to the golf course map (centre).

BELOW: Example (fig 2) we actually see a number of layers switched on including the irrigation with numbered irrigation heads.





ABOVE: Example (fig 3) showing spraying spot treatment (purple). Hand cut flymo & strimming (red).

**Projects**

This could be any new or proposed feature however large or small, proposed features such as location of new tee and bunker etc. Hand cutting - All those labour intensive jobs that compliment the main cutting programme, which is very labour and time consuming.

**Plan and work smarter.**

For example, strimming, flymo, bunker maintenance location, frequency, and duration.

**Roads, routes and boundaries**

Shows all the clubs assets, this could also be split to show land owned by the club ready for a future project as well as the existing established golf course boundary.

For example traffic flow, trolley line, track, footpath, perimeter fence line, cattle grid, electric fence, green staff track, bridge, buggy path, boundary fence and location.

**Buildings and utilities**

Different clubs have many different facilities and utility connections, it is good practice to know where they are.

For example electric transformer,

electric main, telephone line, miscellaneous, gas main, water main, pylon, sub station, club signpost, green staff HQ, clubhouse building, proshop location, repair history and locations.

**Furniture**

This highlights all your course extras. For example, course signage, bins, bench, practice net, toilet, ball washer and drinking water locations

**Clubhouse**

Covers your entire clubhouse and buildings infrastructure. For example, security lodge, building and out buildings, sport area (eg: tennis courts), buggy park, lawn, patio area, proshop and locations.

**Academy**

However big or small shows your academy area. Includes green, tee, fairway, bunker perimeter area and locations.

**ENVIRONMENTAL FEATURES**

**Spraying**

Intensive spraying record archive to keep up to date. For example, loca-

tion, frequency, zone, treatment, buffer zone and maintenance.

**Health and safety**

Be up to date with your staff's safety. Includes flash flood, water, risk assessment area and spot location.

**Agronomy**

Document your course health, follow your agronomist advice update your report view with your consultant. For example, Ph test, agronomy report, turf nursery and locations.

**Applications**

Document your feeding and top dress programme show/print to the proshop to view any course delays excellent customer service. For example, machine setting, comments, initial, product applied, date, ingredient, application rate for top dressing, fertiliser (liquid and granular) and over seeding.

**Nature**

Highlights all the natural features that compliment your course. Plan your next tree/shrub planting project with GIPs.

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TN\_WestPlanBeach\_GCv2.0\Events\Public gallery.shp

For example, perma frost, perma shade, site of Special Scientific Interest (SSSI) or (Triple S) areas, protected wildlife area, heather area, flowerbed, evergreen tree and group, broadleaf tree and group, palm tree, protected tree, mature tree, hedge and rushes, coppice area, shrubs location, comments and initial database.

#### Machine zones

Tag a machine type to a specific area. This is also useful for any risk assessment analysis.

### GOLF PLAY

#### Golf hazards

Highlight all your course specific play rules and boundaries includes ground under repair (GUR), out of bounds (OOB), lateral water hazard, drop zone locations, comments and initials database.

#### Summer golf play

Shows all your playing information inc: the play lines from specific tees or planned tee projects and much more.

Includes tee yard markers, green centre, practice green, yard marker post or plate, regular pin, weekend position, 50,100,150, 200yrd markers or plates, tee markers (all colours), all play lines and custom colours (eg: red tee = red play lines) location and comments.

#### Winter golf play

Often forgotten not now, you can switch on/off at a click winter course prepared, compared to your summer course and viewed by all. For example, play lines, stroke index, par, yardage, and sponsor.

#### Weekend preparation

Highlights the time critical course preparation undertaken by

the green staff for most weekends throughout the season very labour and time critical operation get it right, plan it, work smarter, print out for your staff then they know what, when and where they are working ideal for extra summer staff.

#### Events

Plan your event however big or small features, planning is everything.

For example, public gallery, advertisement, press HQ, marshals, extra green staff, overflow car parks.

#### Base maps

Choice of ortho-rectified images in colour, black and white.

Contour and topographic mapping can also be added.

ABOVE: Example (fig 4) Public gallery areas, walkways, tee colour, play lines, greenkeepers bunker position, overflow carpark, advert banner position.