STANDARD BUNDLES
System 1 - Stormwater and Drainage Design Suite
Source Control

Source Control - Design and analysis of storage and infiltration structures. Test the model for extreme rainfall events.

DrawNet - Graphical design and evaluation of new developments and Flood Flow (Flow Through Structures) technology. It leads users through a design process for SuDS structures from conceptual design, including water quality, to hydraulic flow analysis.

CORE MODULES
System 1 - Sanitary and storm water pipe design that includes production of manhole & pipeline schedules and inspections.

APT - Advanced Productivity Tools to help with a range of additional functions like editing manholes, drainages, rainfall data, modeling return periods and illustrating 3D indicative flood flow paths for exceedance.

FloodFlow - an advanced 2D analysis engine for calculating flood flow paths across a triangulated terrain model. FloodFlow is an extension for Simulation/APT with bonus features added to DrawNet/APT.

ADDITIONAL MODULES
CASM – Optimise pipe sizing and storage/infiltration structures.
QuoST – To complete taking-off, billing and pricing jobs.

FUTURE PROOFING YOUR ASSETS
MDSuDS - Provides a complete SuDS design and analysis solution with Flow Through Structures technology. It leads users through a design process for SuDS structures from conceptual design, including water quality, to hydraulic flow analysis.

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Channel - Rhinoceros Step Method to determine free water levels in open channels.

MicroDrainage philosophy is to inform, educate and empower clients to produce compliant design productively and efficiently.

Technical Basis
Drainage Network Design – MicroDrainage uses BS EN 752 or main drainage methodologies for sanitary (foul) systems, and Rational Method or Modified Rational method for surface water systems.

System 1, Simulation, Source Control

Source Control - for quick storage estimates, infiltration feasibility, quick sizing of infiltration structures and the design of storage/infiltration structures.

DrawNet - produce a drainage layout quickly and accurately in a graphical format working alongside a variety of software platforms, rather than entering data into spreadsheets.

Graphical design and evaluation of new developments and Flood Flow (Flow Through Structures) technology. It leads users through a design process for SuDS structures from conceptual design, including water quality, to hydraulic flow analysis.

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MicroDrainage is a range of fully integrated modules, developed for the design and modelling of surface water and wastewater systems. The Software can be used in isolation or combined with other modules for additional integrated functionality. The Software delivers high quality, compliant designs and reports that can be used by consultants, engineers, authorising bodies and environmental agencies. This powerful software can handle projects ranging in size from small developments to new town setups.

**Design for Your Environment**

Whether working with an existing sanitary (foul) network or designing a greenfield project, MicroDrainage gives you the tools to effectively deliver compliant detailed designs.

**WHY MicroDrainage?**

- **MicroDrainage** is a range of fully integrated modules, developed for the design and modelling of surface water and wastewater systems. The Software can be used in isolation or combined with other modules for additional integrated functionality. The Software delivers high quality, compliant designs and reports that can be used by consultants, engineers, authorising bodies and environmental agencies. This powerful software can handle projects ranging in size from small developments to new town setups.

**Design to the latest standards:** The latest National SS25 Sustainable Urban Drainage System (SUDS) Standards for Adoption and Code for Sustainable Homes guidelines are incorporated within the software to help designers manage quantity, quality and amenity as well as compliance.

**MicroDrainage incorporates BIM:** Building Information Modelling. All elements of the design are conceptual and integrated within the design to ensure accuracy as flows and volumes change.

**Design in 2D then view in the 3D WorkCentre:** Define your site, catchments and drainage networks such as trees, houses and other buildings. Insert maps and photographs as background images in both Plan and 3D WorkCentre. View real-time animation of water levels within the network in graphical form.

**Easily import Data:** Q1 data can be imported in a number of formats including csv, txt, net and ascii.

**Interpret Flood Flows:** A 3D ground model of the site can be imported, triangulated and indicative flood flow paths illustrated accordingly.

**Input or export rainfall data:** Specify rainfall profiles directly for international and UK rainfall datasets. The data can be imported, triangulated and indicative flood flow paths illustrated accordingly.

**Detailed pipe and catchment Design:** Deliver storm, pollutant and existing pipe designs that include manhole and pipeline schedules and lifecycles. Design and size pipes using either historical or extended rainfall. Specify slope, fall or soakup design to give self-cleansing velocity and optimise the network to maximise minimum cover depth. Ideal connections are either a swale manhole, junction or a standard open manhole.

**Model infiltration structures, runoff and flow controls:** Calculate the standard runoff rates and volumes, quick storage estimate and infiltration feasibility. Specify an input unit hydrograph for model definition in green roof or rainwater harvesting tanks. Design storage and/or infiltration structures, flow controls including soakaways, infiltration trenches, porous car parks, cellular storage, deep bore soakaways, ponds, etc. Estimate volumes for excavation, porous fill material and net storage. Obtain down times can be calculated to confirm the feasibility of each option. Realistic simulation of the lag and attenuation of excess flow in each infiltration structure on either link or node locations. Link several structures to determine that combined hydraulic and pollutant removal performance.

**Visualise rainfall & runoff data:** Graphical simulation of rainfall and runoff data for each catchment or sub catchment. Identify depth, velocity and direction of excess flow (including the ability to output Delta Island maps) identify the natural catchments, channels and areas of existing ponding on the site.

**Estimate volumes:** A hydrological or urban water management (UWM) approach can be applied to estimate the range of pollutant removal percentages achievable in accordance with UKR methodology. For more complex analysis, a pollutant removal, first order decay method can be deployed to determine the percentage of pollutants removed depending on time taken to pass through a stormwater system.

**Pollution estimates:** A hydrological summetry can be applied to estimate the range of pollutant removal percentages achievable in accordance with CWA methodology. For more complex analysis, a pollutant removal, first order decay method can be deployed to determine the percentage of pollutants removed depending on time taken to pass through a stormwater system.

**Easily determine billing/pricing for jobs:** A library of construction costs can be maintained to enable the user to conduct cost benefit analyses on alternative proposals and can be used across multiple projects. **MicroDrainage** modules link to a very wide range of civil engineering software and can integrate with these to drive your design projects.

**Back on site:** MicroDrainage supports multiple user licence models, software performance and maximum efficiency with multi-user licences.