



William B. White

Bill White co-founded Offenberger & White, Inc., a Marietta-based marketing consulting firm, in February, 1985. Prior to 1985 Bill was a co-founder and director of marketing of Queue Systems, Inc. from 1980 to 1985. Before establishing Queue, White was director of marketing for Forma Scientific, Inc., Marietta, Ohio, (now Thermo Fisher) from 1976 to 1980, following several years as chief technical researcher and writer in the Forma R&D and engineering group.

Now in its 31st year, Offenberger & White (OffWhite) has completed more than 10,800 marketing-oriented projects for local, national and international clients in industrial and consumer segments including selected vertical industries based on applications of emerging technologies.

Known primarily for marketing system integration, OffWhite developed and continues to evolve Ed.it™2, a digital marketing platform that connects a suite of services and processes to create, communicate and exploit conventional and new media and to channel unique selling propositions, many of which are created by OffWhite on behalf of our clients.



Areas of Professional Expertise

Throughout his career, White has provided extensive technical assistance in the design, development, application and marketing of numerous applied technologies employed by the biomedical, life science and industrial laboratory community. These include heating, refrigeration, humidification, vacuum and microprocessor systems to industrial design of control panels, user interfaces, web-based monitoring, structural cabinets and accessory systems. His product development experience includes market research, engineering direction, branding and technical marketing programs for an array of equipment, instrumentation, sub-systems and processes, including but not limited to:

- Cell culture systems and multiplex three-gas incubators (above and below ambient O₂ environments)
- Automatic CO₂ incubators
- Fermentation and mammalian cell culture bioreactors (airlift and stirred vessel)
- Sensors and microprocessor-based controllers
- Class II, Type A2 biological safety enclosures for robotic and automated process systems
- Biological safety cabinets (Class I, II and III), total containment systems, glove boxes and barrier isolators
- Custom manufactured, hybrid biological containment and cell culture systems
- Vertical lift, automated storage and retrieval integration into environmentally controlled enclosures
- Cascade and mixed-refrigerant autocascade cooling systems, ultra-low temperature freezers, cryogenic storage systems, reciprocal and orbital compressor systems
- Furnaces, ovens, water baths, centrifuges, autoclaves and microwave moisture analyzers
- Freeze dryers and lyophilizers
- Laboratory animal research products, enclosures, watering systems, cage washers and mobile cage changing stations
- Blood separation, collection, fractionation, cataloging and storage products
- Fiber optics, research grade fused silica, and byproducts such as polyamide catheterization tubing
- Refractometers
- Gel electrophoresis systems
- HPLC capillary columns
- Humidity cabinets, stability testing and plant growth chambers and walk-in rooms
- Clinical genetics cytology screening and reporting
- Transgenic cell cultures and diagnostic systems for clinical virology



- Anaerobic microbiology systems
- Positive and negative pressure cytotoxic isolators and barrier isolators
- Polymerase chain reaction (PCR) thermal cyclers for DNA amplification
- Web-based alarm, monitoring and data management systems for compliance with U.S.FDA (21) CFR pharmaceutical development
- Regenerative heat exchangers and temperature controlled transportation containers for cold chain storage and validation.
- Primary and secondary monoclonal and polyclonal antibodies, immunochemicals.

White has published numerous white papers on technology development in clinical, life science and biotechnology industries. He has created, designed, written, and produced user and maintenance manuals, sales literature and catalogs, technical articles, training programs, venture capital and corporate presentations, advertising campaigns and interactive websites.

Explaining Things

As a former territory sales and marketing manager with P&L responsibilities, he has a working knowledge of markets, equipment, instrumentation and information systems offering unique perspectives in development of marketing programs. He has written extensively on laboratory and industrial instrumentation systems, and has authored numerous strategic business assessments and tactical marketing plans. His technical range embraces products, services and processes over a variety of disciplines, to include:

- Stem cell acquisition, processing, long-term storage, archival technologies and marketing of collection services
- Use of narrow bandwidth ultraviolet light and copper-enriched stainless steel to achieve active background contamination control in a cell culture incubator.
- Adaptation of mechanically refrigerated vacuum cold trap refrigeration (process) to biological archives (storage)
- Development of single compressor, mixed-refrigerant autocascade technology to replace liquid nitrogen vapor and conventional cascade (multiple compressor) systems for ultra-low and cryogenic cooling
- Biological and cellular significance of glass transition temperatures (ice recrystallization) at -130°C
- Integration of scroll compressors to replace conventional reciprocating compressors in mixed-refrigerant, autocascade cooling systems
- Development and application of architectural louvers, sun blades and ventilation components
- Integration of microprocessor-based controllers to monitor, accumulate and report internal performance and status of interstage heat exchangers in cryogenic and cascade cooling systems
- Anaerobic microbiology incubation and transfer systems to include interchange sequence techniques and use of palladium catalysts to maintain atmospheres
- Development of innovative multiplex gas control systems using adjustable flowmeters to create accurate *in vitro* models of the *in vivo* environment (Queue Multiplex Three-Gas Incubator)
- Application of microprocessors, mechanical switches and optical sensors to locate, energize and control electromagnetic drive systems for orbital shaker applications
- Inventory management, security, access control and documentation of high value biologicals in the cryopreserved environment
- Security considerations related to access to pathogenic organisms in repository freezers
- Microprocessor-based control and monitoring of airlift and stirred vessel bioreactors with PID (proportional, integral and derivative) controls
- Water saving systems associated with steam sterilizers and autoclaves
- Comparative function of biological safety cabinets, Class I, Class II and Class III containment systems
- Design and marketing of programmable glassware washing and sterilizing systems and accessories



- Development of computer-based liquid handling systems for high throughput compound screening
- Development of ergonomically-enhanced biological safety cabinets
- Development and branding of Legaci™ integrated cascade refrigeration systems using Copeland reciprocating compressors and DuPont Suva refrigerants
- Free piston Stirling engine batteries deployed for deep-space exploration.
- Free piston Stirling linear coolers for ultra-low temperature and cryogenic refrigeration
- Rural wireless broadband technologies and services
- Analytical reference laboratory marketing, processes and communications
- Development of a digital refractometer using Optimatrix™ dual-array light sensor
- Development of server-based refrigeration systems for use in non-distributed commercial cooling applications in supermarkets and convenience stores
- Application of EnergyBalance™ approach to theoretical design of ultra-low temperature servers for pharmaceutical, blood component and electronic testing.
- Life cycle cost and rebate analyses for biorepositories.
- Hydrogen peroxide vapor sterilization systems in the cell culture environment.

Bill has created numerous systems concepts and trade names, logos and icons useful for brand management, education, component branding and intellectual property enhancement. Examples include Optimatrix™, Legaci™, IntrLogic™, The Future, Inside™, Queue, Cryostar®, Cellstar®, UniPressure PreFlow™, SterilGARD III Advance°, e!release®, Sequelle®, Certifyi®, AIRe™, Active Background Contamination Control™, EnergyBalance™, Vertical Component Integration™, EnRoute™, Laminar Topography™, Stirling Shuttle™, Humm™ free-piston Stirling engine, Swift™ graphic user interface.

He has trained laboratory supply distributors throughout the United States and Canada and has conducted numerous field-level training programs for independent manufactures' representatives and service/maintenance and certifier companies in the USA, Japan and Singapore. As a lecturer on cell culture applications and marketing, White has presented technical programs for sales seminars and venture capital fund managers.

Transitioning through the Digital Age

To extend the company's service in user-managed website applications, Bill directed the development of the firm's online digital marketing platform, Ed.it™2, a cloud-based process for use by non-technical business and product managers. White pioneered company's internet-based marketing program to provide a platform upon which clients can build sharable, peer-to-peer integrated information repositories and digital publishing documents "to empower the last person hired." His appearance before a symposium of the American Association for Cancer Research was one of the first to stress the need for user-managed, web-based product and technical support libraries through enriched content management. This capability is now expressed in the firm's Ed.it™2 digital marketing platform.

Going Global

In June, 2005, White was named adjunct Director of Marketing, Esco Micro Pte. Ltd., Singapore where he served as the senior information architect and content developer managing a multi-national Singapore-based staff in support of 300 sales offices in more than 100 countries. In November, 2010 he was named adjunct Director of Marketing for Stirling Ultracold, a division of Global Cooling, Inc. where he led the firm's marketing communications program in support of ultralow temperature solutions based on Humm™ free-piston Stirling engine technology and Swift™ user interface.

The company currently serves clients in the United States, Sweden, Japan and Singapore.



Extracurriculars

White is a charter affiliate of Design Services Network (DSN), an intellectual property initiative of Emerson Climate Technologies, Emerson Electric (NYSE: EMR), and remains an active product development and technical marketing consultant among the DSN network of independent refrigeration, airflow, acoustic, thermodynamic, fluid dynamics, electronic and process engineers.

He was an original partner of GSE International, a US-based firm established to promote laboratory equipment and instrumentation sales development in ASEAN markets; an active partner in Design Innovation Group, LLC, an engineering and product design firm, Asheville, NC; Marietta Interactive, LLC, a web marketing laboratory, Marietta, OH. He is a member of the board of directors of Vanguard Paints and Finishes, Inc., and a former director of The Airolite Company (now Greenheck, Inc.).

A native of Marietta, Ohio, White served four years in the United States Marine Corps and is a Vietnam veteran of the 1st Marine Division. Following his discharge he earned a BA in Managerial Economics from Marietta College where he later served as an adjunct lecturer in Marketing and Case Management (MGT 432) from 2002-2006. He has completed graduate level courses in International Corporate Media at Marietta College.

White served as Chairman, Advisory Council, Marietta College, Brachman Department of Economics, Management and Accounting, and was a Member, Advisory Council, Marietta College Mass Media Department. He has served on the Washington State Community College Advisory Council; President, St. Mary School Board; Director, Marietta Memorial Health Foundation; member, Biomedical Marketing Association; member Second Wind Network; member BioOHIO. He served on the Executive Committee, Marietta Area Chamber of Commerce Board of Directors, and was Vice Chairman for Communications and Community Development

From 1992 through 2008 Bill was active in the Marietta Band Boosters, Inc. Together with his wife Diane he served as co-chair, Marietta Band-O-Rama for four years.

In February, 2007, Bill was appointed as a charter member of the Board of Trustees, Ohio Foundation for Music Education (OFME), a non-profit 501(c)(3) initiative established to increase and perpetuate the role of music education in Ohio public schools. He served as president of until February, 2016.

When not at work, Bill enjoys rowing his Vespoli 1X racing scull and spending time on his Harley Sportster 883 motorcycle. An avid songwriter, Bill continues to play keyboards and merge lyrics and music. In 2014 he collaborated with Grammy winner Tim O'Brien and Grammy nominee Larry Groce on the production of John A. Walsh's song cycle, The Fields of Gettysburg, a musical about the story of Jenny Wade, the only civilian casualty of the battle of Gettysburg. He performs with The Fossils, an area classic rock band, and the JW3 Trio, an acoustic group specializing in unique covers of singer/songwriters. He also enjoys playing the air calliope in local parades and festivals.

Bill and his wife Diane, a radiation therapy technologist, have been married for 44 years. They have two children and two grandchildren.