Ervin George (E.G.) Bailey founded the Bailey Meter Company in 1916 with his invention of the Bailey Boiler Meter. The start of E.G.'s boiler experience went back to his college

days when around 1900 he took a job as a test fireman at Ohio State's boiler plant. In 1909, he started a partnership called the Fuel Testing Company with the motto "Devoted to the Fuel Problem in All its Phases". His testing work provided him with an environment to develop two predecessor devices known as the Bailey Furnace Indicator and the Bailey Fluid Meter.

By the end of 1915 the Fuel Testing Company already had 100 Bailey Boiler Meters in service with more orders than they could handle for the custom made devices. To meet the demand, the



Bailey Meter Company was formed to standardize production. Its original offices were at 141 Milk Street in Boston.



In 1919 the company opened its headquarters in Cleveland. The decision to move was made to be closer to customers and to midwest engineering schools. E.G. valued education and applied it directly to his business by developing the Cadet Program that same year. The Cadets went through a rigorous class room and on the job training program to ensure the quality of the solutions delivered to customers. The program continued into the 1960s.

The company launched its first subsidiary in 1921, the Bailey Meter Co., Ltd of Canada. In 1925, Bailey was purchased by The Babcock & Wilcox Company, a boiler manufacturer. This gave Bailey additional resources in which to invest and expand. This enabled the company to acquire the flow meter business of General Electric in 1927. The acquisition was significant because Bailey only offered mechanical meters and GE's were electrical and therefore could be mounted further from the spot of measurement. The new growth led to the acquisition of a larger facility on 1050 Ivanhoe Road.

Bailey played a significant role in the WW II war effort as their meters and controls were used in plants that manufactured weapons and munitions. Also as their products improved the efficiency of boilers, they increased the range of warships and helped eliminate boiler smoke making the ships less visible to enemy planes and submarines.

Ground was broken in 1954 on a new building in Wickliffe, OH that would eventually become Bailey's new headquarters in 1963. The Ivanhoe Road facility remained open during this time, but its operational role slowly diminished until it was closed in 1976.

In the mid-1950's, Bailey began to diversify its business beyond electric utilities into other process industries. The Metrotype Corporation was acquired in 1956. Their technology allowed for the continuous scanning of process variables and then printing the results on a teletype to provide operators with the first electronically recorded logs. This technology was especially important to



Bailey as it was broadly applicable to all process industries.

In 1978, Bailey Meter changed its name to the Bailey Controls Company to reflect its focus on more sophisticated controls. That same year McDermott International acquired Babcock & Wilcox, but left Bailey relatively unaffected as a separate operating division.

The NETWORK 90 distributed control system (DCS) was introduced in 1980. It was a major success in its traditional utility markets and also let Bailey further penetrate other process industries. The year before NETWORK 90 was introduced, 80% of Bailey revenue came from utilities. By 1990 the company had diversified to the point were 56% came from other industries. The NETWORK 90 system was continuously enhanced with new features. In 1988, the enhanced system was renamed INFI 90, and then INFI 90 OPEN in 1994.

Bailey entered a period of major merger and acquisitions in 1989 when Finmeccanica S.p.A., purchased Bailey from McDermott International through its Elsag (Elettronica San Giorgio) Group. In 1993 the company incorporated in The Netherlands as Elsag Bailey Process Automation N.V. (EBPA).

EBPA then acquired The Fisher & Porter Company in 1994 of Warminster, PA. This major acquisition significantly strengthened Bailey's instrument business and added the DCI SYSTEM 6 distributed control system technology to their DCS portfolio.

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Hartmann & Braun of Frankfurt, Germany was acquired in 1996 for approximately \$700 million. It was largest acquisition in Bailey's history. It added several distributed control systems, such as Contronic, to the DCS portfolio along with major market share in Germany. It also made Bailey a leader in analytical products with Applied Automation for oil & gas and hydrocarbon processing industries; and Bomen, with FTIR spectrometry and laboratory analysis products.

The control system product lines were then renamed under the family name Symphony. The INFI 90 and DCI lines were under the umbrella of Symphony Harmony, while the H&B new Contronic S system was repositioned as Symphony Melody. Common Symphony products were then added to the various systems over time.

Elsag Bailey was acquired by ABB in 1999. This acquisition was quite different than others in the past as Bailey would no longer be managed as a separate organization, but merged with the existing ABB automation operations. The local operations of each country and global functions were consolidated into the ABB matrix structure.

Although a fully integrated part of ABB, the Bailey legacy continues in many ways. The INFI 90 control system technology continues to evolve and has been updated with ABB Industrial IT functionality. Also the former Bailey headquarters in Wickliffe has become the US headquarters for all ABB automation related businesses.

## **About the Author**

Fritz Ruebeck is the founder of ClassicAutomation. He worked for ABB from 1989-2002. His responsibilities involved managing global service operations for an instrumentation and control unit that included some Bailey product lines.

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