

Indusoft Web Studio versus Generic IDE tools

I. Introduction

The aim of this document is to describe the advantages of InduSoft Web Studio when comparing it with Generic IDE tools (for example: VB, VC, Delphi, etc.) when developing applications for Industrial Automation.

II. Focus (Product Development team x Application Development team)

The **Product Development** team and the **Application Development** team are composed of professionals with different skills and different approaches to technical information. Therefore, it is important to keep the product development independent of application development.

The Product Development team must keep in touch with the new technologies (for example: Microsoft.NET, VC#, SOAP, XML, etc) and their goal is get the advantage of new technologies and make them available to the application development team in an intuitive and user-friendly way.

The application team must know how to apply the features from the product to solve the project requirements. Frequently, the technology used in the product is transparent for the application team. The changes in the product must adapt to different platforms (for example: WinNT, WinCE, etc) or APIs (for example: MFC) and must be transparent to the application development team.

III. Standard tools for the Application Team

A SCADA/HMI system must be standard and flexible enough to be applicable to different applications for Industrial Automation. This requires much experience and deep effort to attain this goal, keeping the integrity, reliability and consistency of the product. It is not feasible to manage different versions of the same product that are customized to different applications.

Also, an SCADA/HMI system keeps compatibility with older versions of the application. This compromise is not warranted for high-level tools (for example: Microsoft.NET technology that has modified deeply the structures and programmability for high-level language compilers, especially VisualBasic).

IV. Connectivity and Flexibility

InduSoft Web Studio provides several levels of connectivity, from the plant-floor to the ERP (Enterprise Resource Plan). Although we are continuously aware of new technologies and implement them to the product as soon as they become available, the interfaces previously available in the product warrant connectivity with existent systems.

InduSoft Web Studio does provide a multi-layer system that allows developing the application in several steps, for different teams. It is not feasible to provide this functionality for a VB project.

V. User-friendly

InduSoft Web Studio provides several tools and objects applicable for Industrial Automation applications such as Alarm objects, buttons, Trends, Recipes, Reports, etc. When building an application, the application team basically CONFIGURES the application, instead of DEVELOPING complex algorithms. This saves time and improves the training and debugging time for each project.

VI. Technical Support and Project Technical Responsibility

InduSoft has a technical support team with experience in Automation and in the technologies applied in the InduSoft Web Studio product. The compiler supplier (for example: Microsoft) will not be able to provide the technical support involved in the industrial process.

Moreover, InduSoft Web Studio has a worldwide, large installed base in different applications. The product is continuously debugged and enhanced based on customer requests. The more the product is applied, the more reliable it becomes.

VII. Internal Architecture and Performance

InduSoft Web Studio has a sophisticated architecture, which warrants a deep level of modularity between its tasks and a high performance to exchange data between them, keeping the synchronism between them. A large investment in technology and research has been required to achieve this structure. This is an indispensable requisite for applications where InduSoft Web Studio is used.

To make this investment in technology and research feasible for the company, it is necessary to develop a generic and standard product that provides the necessary tools for different applications, offering a user-friendly and flexible environment for configuration.

VIII. Revision

| Revision | Date | Author | Comments |
|----------|------------------|-----------------|--|
| 0 | October 10, 2001 | Fabio Terezinho | Initial revision |
| A | October 11, 2001 | Fabio Terezinho | Time to market, costs, maintenance, personal replacement, project documentation, OS upgrades |
| B | October 3, 2003 | Fabio Terezinho | Layout revision |