

proALPHA® CA-Link

Design- the start of order processing

In the make-to-order and engineer-to-order manufacturing processes, Design Engineering has always been an integral part of order processing. However, it has long been neglected in the development of data automation systems for the manufacturing sector.

The absence of an adequate link to other EDP business functions is a major disadvantage and creates an "island mentality". The designer is unable to access existing data entered by Sales, Purchasing, or Manufacturing Departments. Timely information concerning customer changes, whether agreed or proposed, is simply not available to the designer.

The result is multiple databases with different data and information structures, very often duplicated, maintained separately by each functional area. Efforts to develop a more coherent and integrated system results in maintenance intensive ASCII interfaces or the expansion the CAD environment using Electronic Data Management (EDM) systems.

None of these "solutions" successfully addressed the root problem of duplicated data and increased data storage. In fact, the introduction of an EDM system very often resulted in additional redundant databases, exacerbating any existing problem.

The obvious solution is the development of an integrated system, where one central database serves all company functions. Business data and transactions are entered once, and once only, and can be accessed online in a real time environment by all departments, including Design.

The openness of standard technologies

proALPHA has developed that solution in CA-Link. CA-Link combines the needs of the Designer to access data in the proALPHA database and to maintain a familiar CAD environment. CA-Link was specifically developed from the Designer's perspective. The result is a software solution that is user friendly and employs familiar CAD commands to perform tasks. CA-Link operates with leading CAD environments such as AutoCAD, ME/10, EPlan 21, Solid Works and pro/ENGINEER.

With CA-Link, every designer can quickly have the environment of choice without expensive training as CA-Link is written using the programming languages of the most widely used CAD systems.

CA-Link - Timely exchange between CAD and ERP

proALPHA CA-Link is more than an online interface between CAD and ERP. While maintaining the CAD environment, CA-Link keeps the Designer in continuous dialogue with the proALPHA database providing proALPHA functions within CA-Link.

Thanks to the integrated drawings manager, any relevant data that can be derived from the proALPHA database is automatically applied to a drawing. For example, when creating a new drawing, texts fields can be filled in automatically with master data from the proALPHA database. CA-Link's flexibility allows the assignment of several drawings to one assembly, or several assemblies to one drawing.

proALPHA users authorised to have access to a drawing can use the system's standard search functions in conjunction with a viewer such as Volo® View. This will allow the user to display and print the drawing from any proALPHA workstation.

In managing a relational database, searching for the correct record is always a key feature. proALPHA offers comprehensive search functions to get the user to the right information as quickly as possible. CA-Link offers these same features, such as standard search functions using search terms and selection criteria, and allows this data to be tied directly to the drawing as classifications, matchcode and index search criteria.

Frequently, it is the Designer who specifies a raw material or purchased part used in an assembly, and therefore starts the validation of a new part. However, supplier, cost and inventory information is in most cases determined by the Purchasing and Material Management Departments. proALPHA WorkflowAutomation in conjunction with CA-Link provide the Designer with the ability to initiate an automated process chain to notify appropriate Departments and to send and receive messages and memos.

Master data or customer specific Bills of Material (BOM) can be created or modified directly within CA-Link. The BOM may then be attached to a drawing as additional information.

All changes to the master data in proALPHA cause the modification of associated information in the related drawings. This feature emphasises the power of CA-Link's integration.

A change manager function in CA-Link ensures that the current planning status of an order or drawing is known at all times.

Having direct access to all ERP data, Designers can now track an order through production to delivery. In parallel, proALPHA CA-Link manages all geometric data and technical standards - without duplication - ensuring drawing and production data integrity is accurate and concise.

A Designer has in theory to consider several factors in the selection of a part, such as standard or actual cost, availability and order lead-time. Practically however, the Designer usually has at best some or perhaps, in the worst case, none of the information required. Therefore, any decision has to be based on engineering factors alone. CA-Link provides accurate up-to-date information within the CAD environment; the Designer can now make an informed decision and then realise the substantial cost savings by using proALPHA CA-Link.

CA-Link - not another EDM island

CA-Link will address all of your electronic data management needs such as central drawing management, classifications, files, Engineering Change Orders and fax and plotter management. There is no need to purchase additional software.

CA-Link provides an accurate, real-time tool for Version and Revision Control with a Check In/Check Out function where reasons and indices for the change are stored. Change Management is an integral component of proALPHA and can be applied to bills of material and routings. proALPHA along with CA-Link can manage and track the impact of revisions for drawings, BOMs and routings for each order.

CA-Link has its own report generator where analyses can be tailored to individual requirements and where vital information is only a click away.

Particularly complex product designs often take on project-like characteristics. Here, the integrated Project Management capabilities of proALPHA help users to plan times, costs, and other aspects of work planning. Overviews of projects and their status and data entry for an activity are available to the Designer with a simple mouse click from CA-Link, and the Project Manager has an up-to-date view of any aspect of the project immediately available.

Product Data-Management (PDM) - The professional way

The functionality of CA-Link far exceeds that of standard PDM applications. All technical design data, without exception, is captured and contained within the proALPHA database. Because of this uniform, standardised data structure, every department in the company has access to part master data, bill of materials, orders, variants, tools, or change data.

Beside technical data (drawings), a manufactured product also has textual descriptions (bills of materials), assembly instructions (routings), and of course, cost criteria (cost estimation) associated with it. CA-Link brings the Designer into this comprehensive proALPHA system allowing the input of new information, or, the update or query of existing data. An ingenious permissions system determines exactly what may be created, read or edited by each user.

Views of a product's structure and navigation through complex designs are easy with the graphic visualisation facilities in proALPHA and CA-Link. With the use of a fully integrated CAD viewer such as Volo View Express, users can view drawings within proALPHA at the press of a mouse button. CA-Link along with proALPHA's drawing control ensure that only drawings, that have been released, are available for viewing and printing, preventing unauthorised data reproduction.

Integration with the proALPHA Document Management System (DMS) provides access to both structured and unstructured data. Files from MS Office and other similar systems, scanned hard copies and drawings can be stored and accessed and retrieved through intuitive links to customers, suppliers, parts, orders BOMs etc.

Technical Order Processing -Take control with proALPHA® CA-Link

The Design Engineer has the entire Information & Controlling System (MIS) available to him. Information and data flow are completed and stored in closed loops both in the operational and technical sense. All messages, reminders (ticklers), and project activities are managed company-wide by proALPHA and WorkflowAutomation.

All data from MIS, WorkflowAutomation, BOM generation, project management, Master Data and costing can be used by the Designer while processing an order.

The proALPHA DMS is a "must have" working in combination with CA-Link. The Designer can save any documents created, such as internal and external correspondence, scanned-in sketches, design notes and have them automatically linked to the appropriate "file" using the proALPHA DMS, offering instant access to them all.