

## What is the External Interfaces module?

- ▶ Make the most of your company assets
- ▶ Achieve cost savings
- ▶ Improve accuracy and speed of information
- ▶ Monitor equipment performance
- ▶ Export data into SCADA based systems
- ▶ Failure and reason production
- ▶ Import and export data for Customers, Vendors and/or Service Agents
- ▶ Vendor catalogue Loading

We have designed this module to help you to utilise all of your company's assets to maximum effect. From the manufacturing plant to supply chain visibility, this module can make the most of what you have.

The External Interfaces module enables you to easily export and import files from your Manufacturing applications, from your customers, your suppliers, your external service agents and more.

A considerable amount of cost can be lost on the manufacturing plant/shop floor (MPSF). Better integration of these resources into the main Answer supply chain can improve asset utilisation, achieve cost savings, provide better decision support information and make improvements in accuracy and speed of information.

Having ready access to information, as well as being able to monitor the equipment performance automatically will free up valuable resources to focus on value added activities rather than data entry and paper shuffling.

Integrating systems and using this module can steer you towards these automated links. From transducers on manufacturing resources, through to PLC's and SCADA software to capture and filter information direct from its source.

The Answer External Interfaces module can also export data into SCADA based systems to ensure accurate and seamless integration.

The Answer External Integration module can also be used to import data from Legacy or third party applications

## Benefits of External Interfaces

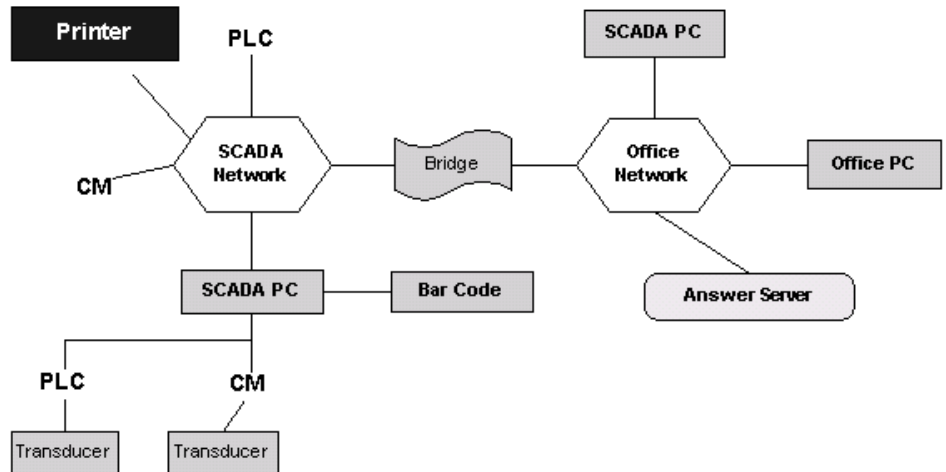
The main benefits of this module include:

- ▶ Reduction in manual data entry
- ▶ Increase in information accuracy
- ▶ Reduced Shop Floor downtime
- ▶ Failure and reason production
- ▶ Link product quality to Plant wear and tear and maintenance activities

Answer Solutions will work with our Customers to define, deliver and achieve the most appropriate level of integration to deliver real, measurable benefits.

## Integration

A typical manufacturing integration process could look like the following:



To help you integrate this module into your own system, we publish a series of standard ASCII table/file inputs and direct Oracle based structures for the processes required within the External Integration module.

Customers or equipment suppliers can then link to or populate these structures, which can then be automatically processed, validated and, providing they are error free, updated.

The first step of loading data into Answer Enterprise may be performed by either an External System or Answer.

Alternatively, Answer Solutions will work in collaboration with equipment suppliers to design and configure a solution specifically for our Customer.

We will of course endeavour to use all pre-existing application functionality before building anything new.

The levels of detail generated by manufacturing resources are generally too granular for processing within the Answer application.

In a typical set up the transducers will capture moisture, temperature, pressure values etc that are then used and processed by the SCADA system, primarily to send control settings to the PLC or Control Module. Secondly, these could feed the same information via Customer written or Answer Solutions Ltd written software to the main Answer application server. Regular recordings can be captured for analysis and update purposes, and when appropriate, summary results are passed to the main Answer application for the batch being processed.

The Answer External System Integration module will include resilience so that in any event of failure, server, PC or network, manufacturing can continue and the core Answer application can catch up when the failure is rectified.

# Vendor Catalogue Import

A Vendor Parts/catalogue import/upload facility has been provided, initially focussing on our Retail Customer requirements. This enables the VITAL product catalogue to be uploaded with associated images, extended descriptions, prices, availability etc.

## External interface example transactions

Examples of the types of transactions that can be integrated include:

- ▶ Raw Material/Component Issues for Work Order/Schedules
- ▶ Intermediate or Finished Product Receipts from Work Order/Schedules
- ▶ Test Results for Quality Management
- ▶ Waste Production Recording
- ▶ Location Transfer Quantities
- ▶ Quantity Adjustments
- ▶ MRP/MPSP Forecast Demand Quantities
- ▶ Time Recordings
- ▶ Labour and Resource Bookings
- ▶ Raw Material/Component Allocation Changes for Work Orders
- ▶ Non Operational Time Recording
- ▶ Export and import from/to an external scheduling pool such as the Answer Partner product, Preactor
- ▶ Inventory Centre/Branch Transfer details and processing

## Benefits of integration

Answer Solutions Ltd will work with our customers to define, deliver and achieve the most appropriate level of integration to deliver real measurable benefits.

- ▶ On the non-direct manufacturing side, uploads can also be made for:
- ▶ Sales Order Shipment Confirmation Quantities
- ▶ General Ledger Journals
- ▶ General Ledger Budgets
- ▶ General Ledger Forecasts
- ▶ POD's from Carriers

From your external servicing agent, imports/uploads can be made for:

- ▶ Parts and Quantities used
- ▶ Labour expended
- ▶ Parts and Quantities returned
- ▶ Sub Contract/Other resources utilised
- ▶ 3<sup>rd</sup> party costs incurred
- ▶ On the Vendor and Customer integration processes, uploads and downloads can also be made for:
- ▶ Purchase Order import
- ▶ Purchase Order Changes import
- ▶ Sales Order import via EDI
- ▶ Purchase Order Receipts export
- ▶ Proof of Delivery details and all associated invoicing/crediting processes

On loosely coupled Intercompany and Non Intercompany uploads and downloads can be created for:

- ▶ Purchase Order Download to Customer
- ▶ Sales Order Upload from Vendor
- ▶ Sales Shipment Download to Customer
- ▶ Purchase Order Receipt Upload from Vendor
- ▶ Sales Invoice Download to Customer
- ▶ Purchase Invoice Upload, with optional Matching from Vendor
- ▶ Payment Details Download to Vendor
- ▶ Cash Posting Upload from Customer
- ▶ Customer Return Upload
- ▶ Upload Point of Sale (POS) data from External POS applications/Transact Retail
- ▶ Download POS data to Transact

### **Ability to Upload Basic Data**

- ▶ Parts
- ▶ Customers
- ▶ Price Lists
- ▶ Vendors

For more information visit the Answer Solutions website or contact us.

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