



Orixia is a software data-framework in active development since 1999, used to develop software applications (Orixia Apps) for the food production and agriculture sectors.

Orixia Apps are robust and reliable, able to work on basic computer hardware and designed to be used by users with relatively little training. It has the capacity to be upgraded and extended by local staff without expensive and complex interventions from software engineers.

The system can manage the data requirements of many businesses with complex supply-chains, including food production, harvest, post-harvest, certification and processing. Multiple Apps can access the same back-end database, allowing different users access to different views of data.

Orixia Apps can manage traceability from multiple sources of supply and processing to shipping and storage of finished goods, warehousing and logistics. The systems centralize data to assist with management of many use-cases such as supplier-certification, data-processes in factories and warehouses, collection and analysis of data in product quality systems, food safety and allergen information and many other contexts.

Orixia is naturally a multi-user, multi-node system. All workers in multiple offices, warehouses, processing facilities, and remote-workers such as field-officers and sales-force members can share data and do so without permanent internet connection, through a powerful off-line data-synchronization model.



Manufacturer of Organic, Fair Trade and Healthy Foods



Existing Users

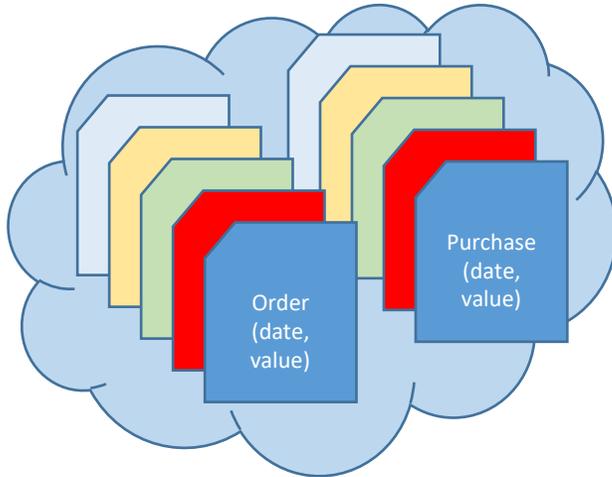
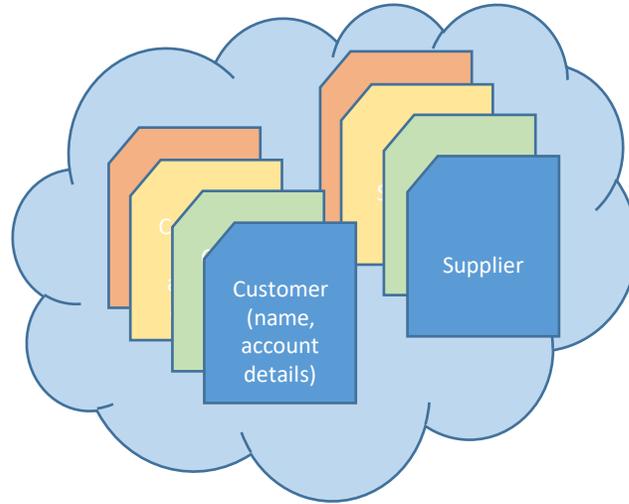
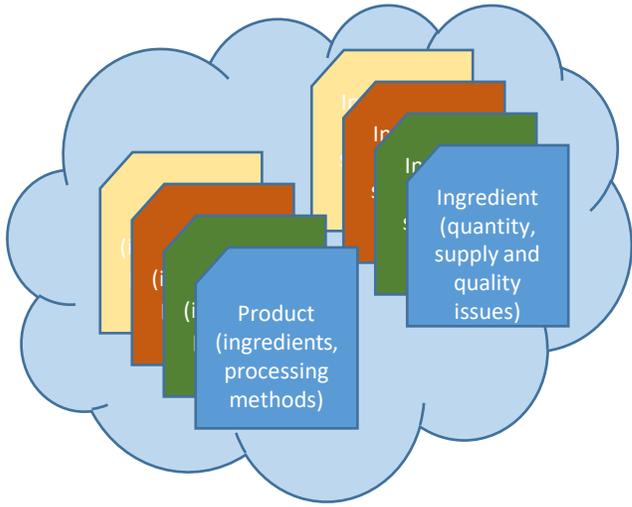
Orixa Apps are already used by businesses in Africa, Asia and the UK.

Developed for a leading UK Fairtrade food manufacturer, and its partner businesses in the 1990s, it has been extended as a data-framework for food manufacturing and sales businesses covering all aspects of quality and production management.

It has proven itself in businesses trading tea, coffee, cocoa, dried fruits, nuts, palm oil and vanilla. It has been used to manage supply-chains for Organic, Fairtrade, UTZ and Fair For Life certified businesses with large groups of out-grower farmers. Orixa Apps are used to record and process data relating to farmer fields, crops, inspections, purchases, house-hold details and assets.

It is also designed to manage later stages of the supply-chain including processing, manufacture, shipment, sales and marketing. Users include UK food businesses with BRC and HACCP certification.





The problem

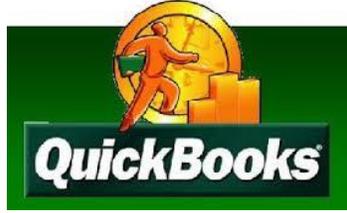
Modern businesses have to manage vast swaths of complex data relating to product traceability and quality, audit data, financial and staff attendance data.

Accounts teams, field-officers, factory managers, warehouse managers, distribution staff and sales teams, all have their own sets of data, none of which are easily synchronized or managed.

In some cases key data is even kept as paper copies, where it is completely impossible to incorporate into a modern business practice.

Unwieldy systems to coalesce or share data have to be built, staff start this process with little experience, learning as they go and building systems that can be fragile and complex. They use tools like DropBox or Google Drive to share documents like spreadsheets.

These spreadsheets themselves rapidly become very large and difficult to manage, share or maintain.



The Usual Solution

Businesses usually adopt a range of software tools, with a variety of capabilities and costs.

Often the total cost of ownership of these diverse platforms is surprisingly high, especially if it is done in a piece-meal way and integration between the different silos of the business is low.

This results in high costs in terms of individual software licences, staff time and business effectiveness.

Orixa Systems integrate with any external data source, feeding data into programmes like Excel, Quickbooks and Sage. Orixa gives all staff the ability to enter and verify data as they work, allowing strong integration of data-management with business work-flow.

If you have an Orixa App you will be very likely to be able to minimize software license costs for other products.

Key goals of Orix Systems

You will own and manage your own data (with support from Orix staff). Your systems are yours and not on-line on the servers of some large business which may change its terms of business at any time.

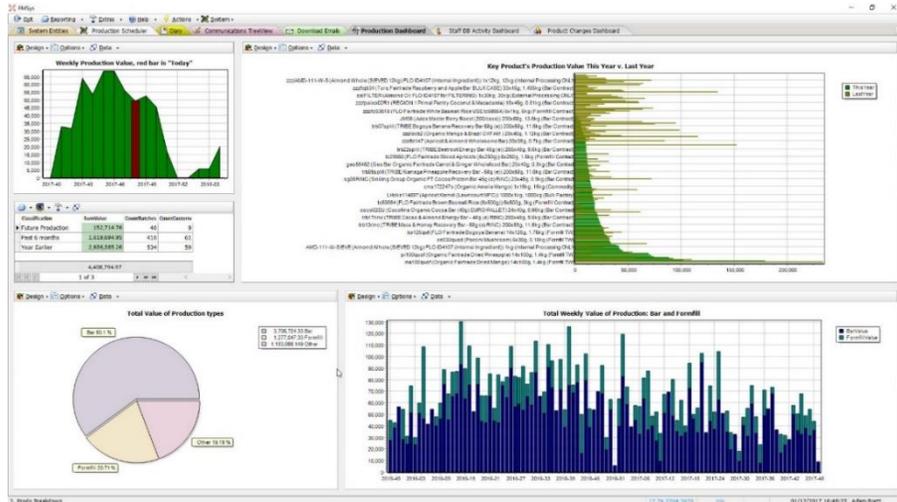
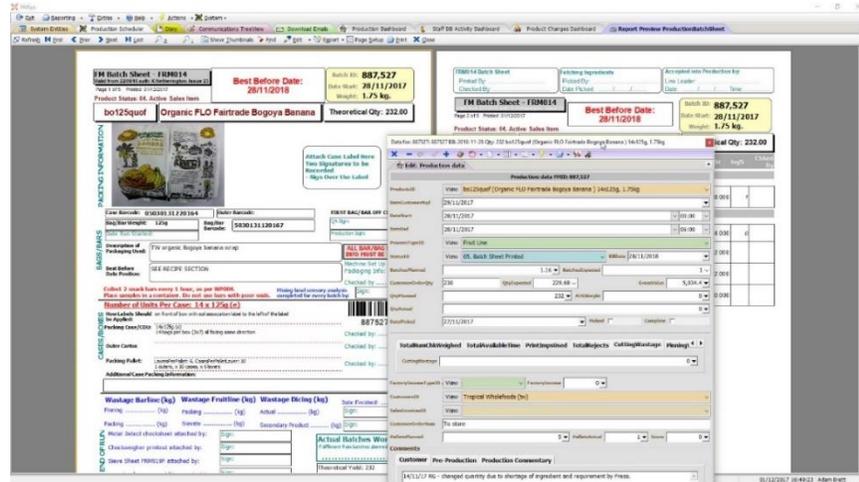
Staff and management will be able to update and share live business data within an App or Apps, and access data anywhere, including in remote locations.

Management should have access to all business data from all staff, managed and centralized within a database that gives live, accurate information about stocks, sales, purchasing, production, processing, quality issues.

Most key business processes (ordering goods, tracing farmer-groups, producing food-products) can be managed within an App, by problem-facing staff, the App manages basic processes (such as production of paper or electronic data records) automatically, and makes it available to the rest of the business team without the need for extra steps copying or re-keying data.

Critical processes such as security, on-line backup, management reporting, etc., are automated within the back-end of the App.

Data can be accessed by external software tools such as Excel, or exported to products like Quickbooks or Sage on a managed, automated basis which safe-guards the integrity of the data.



Screen-shots of parts of typical Orix Apps, showing data entry, paper reporting, PDF generation and management information presented in chart-form.

The Technical Stuff

Orixa Apps are usually written for networks of Windows PCs, laptops or tablets, but can be built for other platforms such as Mac and Android. Technically, Orixa uses the “Open Lazarus” compiler in the Embarcadero Delphi IDE, which allows compilation to many Operating Systems including Android, Mac OS, iPhone and Windows.

Orixa Apps are build using software libraries from highly respected software houses. The back-end database is ElevateDB, a fully ISO-SQL2003 compliant relational database. Orixa is written using object-oriented fully compiled code, making it extremely fast and scalable.

Orixa Apps are fully client/server multi-user 64bit executable programmes, not packages wrapped around other people’s frameworks or systems. Our Apps are first class citizens, where many other vendors sell “skinned” products build on the frameworks of others.

Orixa Apps include an open “system modeller” tool, which allows the final user very substantial control over their App, trained staff can extend, redesign and rebuild of many core features of the App. Behind this is a framework which Orixa extend and develop, and a layers of “App code”, co-written with the customer which defines user-specific features of an App.





```
procedure BaseCISQ_StatusIDChange(Sender: TField);
begin
  inherited;
  if (Sender.AsInteger < CComplete)
  and NOT MarkingComplete then
    Mark_Complete;
end;

//uses USB;
..... TFieldDBEngine)
.....
constructor TFieldDBEngine.Create(AOwner: TComponent);
begin
  inherited Create(AOwner);
  FQuery := TTDQuery.Create(Self);
end;

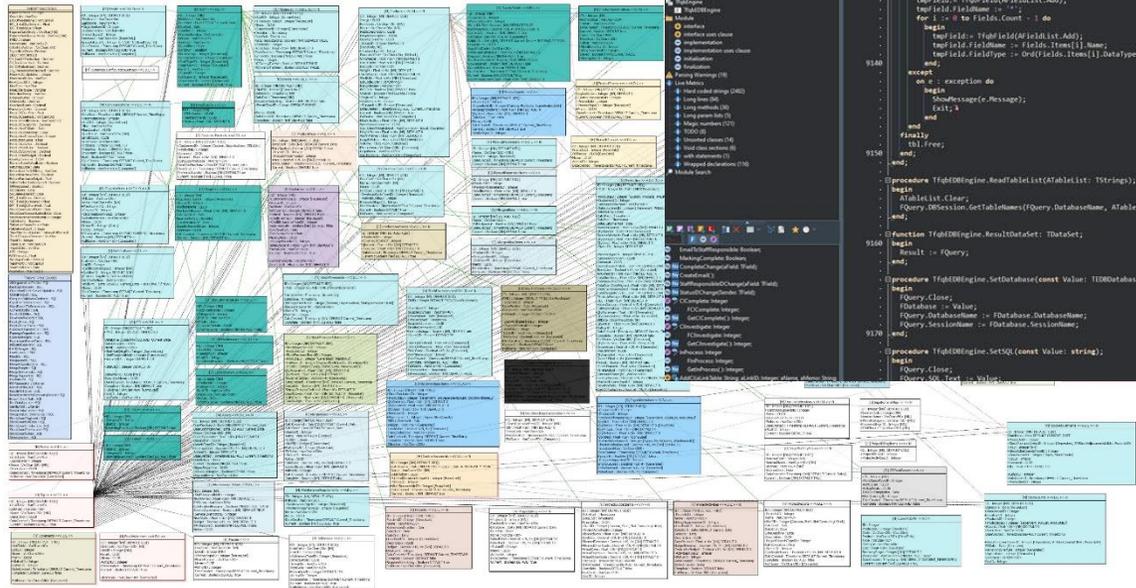
destructor TFieldDBEngine.Destroy;
begin
  FQuery.Free;
  inherited Destroy;
end;

procedure TFieldDBEngine_ReadFieldList(const ATableName: string; var AFieldList:
  TFieldList);
var
  I: Integer;
  tbl: TTable;
  Fields: TFieldDef;
  tmpField: TFieldDef;
begin
  tbl := TTable.Create(Self);
  tbl.DatabaseName := FDatabase.DatabaseName;
  tbl.SessionName := FDatabase.SessionName;
  tbl.TableName := ATableName;
  Fields := tbl.FieldsDef;
  for I := 0 to Fields.Count - 1 do
  begin
    tmpField := Fields[I].FieldDef;
    AFieldList.Add;
    tmpField.FieldName := Fields.Items[I].Name;
    tmpField.FieldType := Ord(Fields.Items[I].DataType);
  end;
end;

function TFieldDBEngine_ResultDataSet: TDataSet;
begin
  Result := FQuery;
end;

procedure TFieldDBEngine_SetDatabase(const Value: TTDDatabase);
begin
  FQuery.Close;
  FDatabase := Value;
  FQuery.DatabaseName := FDatabase.DatabaseName;
  FQuery.SessionName := FDatabase.SessionName;
end;

procedure TFieldDBEngine_SetSQ(const Value: string);
begin
  FQuery.Close;
  FQuery.SQL.Text := Value;
end;
```



How is an Orixia App Developed and Installed?

Initial Development typically has 3 phases:

1. Discussion of requirements, and development of the “version zero” system. These systems are typically based on templates from other Orixia Apps, allowing development to be rapid and relatively low-cost.
2. Testing and trialling of version zero in the client’s factory/business, leading to a working “version one”, which the business can start to use. This phase can include extensive training, and may also need to include cost to extend the IT infrastructure of a business to include a working LAN, system of working computers etc., if such systems are not yet in place.
3. Agile development and extension of “version one” into a fully functional software product that meets the client’s needs. This phase often includes some extension to the requirements and functionality of the App.

After this point, the client will have a powerful, working system. However development rarely stops at this point, as clients usually recognise additional work they can use their Orixia Apps to do. This results in the extension and development of the system as it becomes more mature.

Additionally, the client may choose to have staff trained in the higher-level functions of the Orixia Framework, so that they can undertake development and extension of the system themselves.

The Orixia team include staff working at clients who already have Orixia systems. This means that a significant amount of training and support can be supplied using local staff in your region.

Orixia Apps include complex data-modelling tools, which allow the user to access and update their systems dynamically.



Can you give me some examples of a real Orixia App?

UK Food Sales

UK food businesses use Orixia Apps to manage the whole of their sales supply chain. Products are ordered by buyers and shipped to warehouses where they are held in stock. Sales staff travel on the road, visiting customers, taking orders, using mobile-versions of an App. Orixia manages all of these processes with data-entry screens for buyers and sellers, and all the related automation systems to generate emails confirming purchase orders and sales, communications with warehouse managers and generation of summary data for export to Sage-based accounts systems.

UK Food Manufacturer

UK food manufacturers use Orixia to manage the whole of its business. This includes all raw material and ingredient buying, processing/manufacture and all sales processes. Additional modules help them to manage Quality Testing, Allergen management and traceability for Organic and Fairtrade certification. The system includes literally hundreds of reports and export systems to manage production of virtually all the data used in the data processes of this BRC Accredited, UK food factory.

African Food Businesses

The largest group of customers for Orixia systems are African food businesses.

Here Orixia has been used to:

- Manage audit data for the Organic, Fairtrade and UTZ certified supply chains of businesses with tens of thousands of farmer-suppliers.
- Assist large aid-programmes with the management of internal data on distribution of aid, including gathering base-line survey data for impacted households, managing data on the flows of aid, and undertaking auditing of training and project activities delivered to target groups.
- Manage the factory process data for food processing businesses including generation of payroll PAYE and taxation computations for hundreds of staff, management of accounts on purchasing from tens of thousands of Organic and Fairtrade certified farmers, and monitoring of factory processes such as milling, roasting and oil extraction.
- Manage teams. Orixia systems can be customized to install on tablet computers for use by field staff, and this has been done with dozens of field officers using Orixia tablet-based systems. The data then links seamlessly through the cloud to management, giving live, instant data on the state of field-officer activity allowing far more effective management of their work.

How Much Does it Cost, how is it licensed?

Once you own an Orixia System it is yours. There is only a simple annual fee to upgrade the product to ensure it continues to work on evolving computer platforms, there are no hidden fees or extras. There are no “per user” license costs. Once you have a system you can install it on as many computers as you wish, with as many users as you wish.

Of course we hope that you will pay us to continue to develop the system, and we can also provide help, support and maintenance for a fee but this is not a requirement.

A finished system will consist of a fully featured SQL client-server database with unlimited user licenses and one or more Orixia Apps which allow users to access and update data. The development may also include modules to link to Excel or other software, or link to factory equipment such as metal detectors, check-weighers or industrial scales.

If you use an Orixia system in multiple locations the data must be exchanged through the cloud. This can be done using an Orixia Server, for a monthly fee, or we can help you to set up your own cloud-server.

As part of an installation process it may be necessary to upgrade a client’s IT infrastructure. Orixia Apps require a Local Area Network within any one node of operation, and require internet connections to link nodes together in the case of multi-site operations.

The cost of an Orixia system breaks down into three parts:

Development Costs

We will arrive at an estimate of the number of days a system will require for each of the three stages of coding and training, after initial discussions with management and staff. The client will then be presented with a quotation for system development. This is typically between £10,000 and £100,000 depending on the scale of the business, number of sites, complexity of the data model, level of required automation, number of different Apps needed etc.

Follow up training and support

For 2 or 3 years after development it is normal for Clients to have additional needs: training requirements, need for system extensions and support. This typically costs around 20% per annum of the cost during the “Development Cost” phase.

Long-term support and maintenance

Following development, it is still useful for Clients to work with us, we can provide skilled support, small extensions to your system, upgrades to cope with new versions of Windows, new threats and viruses, upgrades to components like databases etc. This phase is usually charged on an hourly basis, plus the annual upgrade fee to rebuild your Orixia System with up-to-date component libraries to work with the latest version of operating system software. This typically costs around 5 – 10% per annum of the cost during the “Development Cost” phase.

As part of any contract we will be willing to quote for additional hardware and software if the client wishes, but we are always happy to work with third-party providers of hardware.