# Market Requirements Document

**Feature Name:** Goodies

**Version:** 3 **Date Submitted:** 08/05/09 **Completed By:** Leon Guzenda

**Description of the Problem**

Although we have managed to increase both the number of visitors to our website and the percentage that go on to download trial software we have not managed to substantially increase the rate at which we gain new, high-value customers.

One possible reason for this is that we sell a DBMS, not a framework or application, so developers have to learn a substantial amount of information about Objectivity/DB before being able to assess the benefits. Another problem is that Objectivity/DB offers multiple ways to solve a particular problem, so performance and perceptions may suffer if the developer chooses an inappropriate one.

**Description of the Requested Feature**

The delivery of a suite of application-enabling schemas, methods and sample applications, to be known collectively as “Goodies” and individually as “Capsules”. Appendix A lists potential capsules. Appendix B summarizes interdependencies.

**Part of an existing feature or does it require another feature, if so, which one?**

The Goodies may be samples, open source or for sale, depending on the effort involved in producing them and their commercial potential.

**How is this problem being solved now, and why isn't that acceptable?**

We deliver some elementary samples, but none of them allow a developer to jump start an evaluation or prototype, or to enhance an existing application.

**What languages must support this capability?**

C++, Java and C#.

**Which platforms must be supported?**

Windows, Linux and Unix (at least Solaris and HP/UX).

**Do any competitors already have this feature?**

Most DBMS vendors have sample applications. Illustra made a business out of selling complete frameworks, called “data blades”. However, being mainly “student ware”, they were neither robust nor scalable enough to capture a large market.

**Customers who require this feature**

The goal is to encourage rapid adoption by prospects. Some of the capsules may help current customers add features to existing products, or to enhance current functionality.

**Revenue at risk, or which could be won**

The goal is to significantly increase the revenue stream. Although the price per capsule may be low, we should benefit from the increased number of applications that use our licensed products.

**When is this required?**

Release 10+.

**Additional Notes**

1. We will also need:

- Updated marketing collateral on our main and developer center web sites.
- Updated Release Notes.
- New QA material to prove that each capsule works correctly.
- Limited online documentation and training material.
- New product codes.

2. Licensing costs are to be determined.

## Appendix A – Potential Objectivity Capsules

### Guidelines

Capsules are interoperable software bundles (schema, methods and samples) that developers can use to construct a specialized framework or application. Typically:

- They will be rapid start packages or plugins (sample or full).
- They will address horizontal technology and vertical market niches.
- Most vertical market niche capsules will leverage horizontal technology ones.
- They will be delivered online via the developer center.
- They may be free or for sale and may be open source or commercially licensed.

### Horizontal Technology Niches **(High priority)**

- **Structure Management** – for handling many-to-many networks of objects of the same (or sub) classes. It could be used for configuration management, network management etc.
- **Link Hunting** – for finding connections between objects. It will be particularly useful in applications used by the Intelligence Community, defense, financial organizations (fraud detection) and in the health sciences, e.g. for finding drug/food/symptom relationships.
- **Pattern Hunting** – for finding common patterns in large groups of interconnected objects, e.g. crime or terrorism cells. It will leverage the Link Hunting capsule.
- **Multi-dimensional Indexing** – for maintaining scalable multi-dimensional indices and using them with the enhanced object qualification capability of Objectivity/DB Release 10. It will be useful for supporting data-mining and the GIS and Time-Series capsules.
- **GIS** - for geospatial indexing, plus feature and distance based query support.
- **Time-series** – for generic point and range based date/timestamping and querying.
- **Security** – for plugging external security mechanisms into Objectivity/DB at the file (database/container) and object level. It will leverage the Team Modeler.
- **Team Modeler** – for supporting workgroups consisting of people, teams, roles and organizations. It leverages the Structure Management capsule.
- **File Management** – for importing/exporting or tracking files and the relationships between them. It will leverage the Structure Manager.
- **Video** – for managing and streaming digital video and audio in MPEG-4 and JPEG2000 formats. It will leverage the Structure Manager, Team Modeler, GIS and File Management capsules.
- **Image/Audio/Video Search** – for searching Video capsule data.
- **Text Handling** – for importing, exporting and searching individual and related textlets (words, phrases, sentences, paragraphs, etc.).
- **Provenance** – for tracking actions applied to a structured entity and versions of it.
- **Scheduler** – for defining, traversing and searching time related networks of actions and applying basic algorithms, such as critical path analysis, to them.

- **Arrays of Arrays** – for handling a subset of the functionality described in the Advanced Array Handling MRD.

**Vertical Market Niches - (Low priority)**

- **Document Management** – for handling multimedia documents. It will leverage the Text Handling, File Management, Structure Management, Team Modeler. Time-series, Provenance and Security capsules.
- **Cloud Resource Scheduler** – for building cloud resource management/budgeting tools. It will leverage the Structure, Team Manager, Security and Scheduler capsules.
- **XAM Toolbox** – for building eXtensible Access Mechanism software/hardware combinations. XAM is a POSIX-like filesystem standard that allows applications to store data in XSet objects that also contain searchable metadata.
- **BLAST handler** – for importing, exporting, manipulating and searching files of BLAST data, a format commonly used in bioinformatics. It will leverage the Arrays of Arrays, Multi-dimensional Indexing, File Management, Team Modeler and Provenance capsules.
- **Granular Data Manager** – for grouping, manipulating and searching networked multi-level groups of objects. It will leverage standard scalable collections plus the Structure Management, Arrays of Arrays, Multi-dimensional Indexing, Link Hunting, and Pattern Hunting capsules. It allows applications to operate on abstract groups of related data items, rather than individual items.
- **Industry Standard Packs** – for supporting targeted market standards, e.g. for the petrochemical, process control, complex financial, health sciences, security, local law enforcement or massive online community markets.

## Appendix B – Interdependencies Between Capsules