



Logiseek Customer Handbook

Prepared for
Logiseek Customer

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Prepared by
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INTRODUCTION

The engineering Industries in USA have large in-house requirements for professional engineering and CAD services. It has a team of skilled professionals employed by the company, who work on internal projects. However, with the current high level of economic activity, reliable CAD / engineering skills are difficult as well as expensive to source.

Logiseek Inc. is a specialist provider of CAD resources, with highly skilled Architects, Engineers and CAD professionals employed by it on a full-time basis. Logiseek Inc. can provide CAD and engineering resources EACH MONTH. Platforms include AutoCAD, MicroStation with its offshore base at Salt Lake, Kolkata, India. Our prices are extremely competitive.

WHY OUTSOURCE?

Smart USA based large corporations and companies have been outsourcing carefully selected activities for many years now. However, till recently, this awareness of the tremendous benefits of offshore working was limited to a few, internationally large multinationals and very significant offshore outsourcing activities in India.

With these successful models in place, an increasing number of medium and small Overseas and Indian companies are now looking to take advantage of the competitive gains, which the offshore model delivers.

OUTSOURCING VALUE

The essence of outsourcing's value proposition lies in three areas. The executive's task is demonstrating that value to senior decision-makers, and that means building a business case. The business case can be built on any or all of the following three sources of value.

First, outsourcing can build shareholder value. The direct impact of outsourcing on the share price of a company using outsourcing is difficult to see. It lays specific ways in which outsourcing builds shareholder value, including an examination of more immediate sources of value. The second article discusses research into contributions to shareholder value and the direct impact of outsourcing on share price's long-term drivers like return on investment, return on assets, and profitability.

A second general area of outsourcing's value proposition lies in its ability to help redefine the corporation. Old ideas about vertically-integrated firms are giving way to networked, virtual, and modular organizations focused on leverage, speed and impact.

Outsourcing can play an instrumental role in defining the new organizational model—truly enabling the one which will succeed going forward.

Third, outsourcing can build long-term, sustainable competitive advantage. It does this by changing the rules and extending the organization's reach. An article is dedicated to considering the impact and contribution of outsourcing in changing the competitive landscape of an entire industry. Outsourcing, new technology and new processes are an amazingly powerful combination. The emerging area of Application Service Providers is a recent example of how competitive advantage is created and destroyed thanks in large part to outsourcing.

BENEFITS OF OUTSOURCING

The **high impact benefits** of the offshore model include:

- Access to highly skilled engineering and software resources
- High flexibility to ramp up or wind down, depending on project load
- Low overheads, head count and investment
- Extended work day and highly competitive costs

WHAT IS “OUTSOURCEABLE”

To make the model work well, the vendor and client need to co-ordinate closely. One of the key tasks is to analyze the projects and activities, which are feasible to transfer, and have the maximum pay-offs.

In general, at the inception of the relationship between the client and vendor, a simpler, non-critical project should be chosen as the starting point.

Most projects will be a mix of onsite and offshore components. Initially, activities where very close coordination between design and CAD functions is required should not be sent offshore.

The first “Outsourceable” tasks ideally should be those where the offshore team can work independently based on data and marked-up drawings, and where the time involvement is significant. The following are few such illustrations:

- I. **Digital CAD** conversion of existing paper drawings and drawing management solutions.

Most companies, including yours, have old legacy drawings in their archives, which are still in use, but are stored in paper or microfilm form. This has inherent problems in terms of safety of storage, retrieval efficiencies and drawing revision times.

In the normal course, it is difficult to obtain budget allocations for conversion of paper drawings archives to CAD, as it is an extremely expensive exercise. With the offshore

option, the costs are slashed and allocating budget funds for conversion is much more feasible.

The method chosen to digitize the old drawings can be adapted to your requirements. In some cases, simple scanning with clean up may be sufficient. In other cases, CAD vector files can be created.

The digitized drawings could then be managed through a drawing management system, eliminating the delays and inefficiencies in drawing storage, retrieval and distribution. For companies with multi-location operations, web based solutions are available for instant drawing access from and around the globe.

2. Revisions of existing CAD drawings

Existing CAD drawings often need to be revised during the project cycle or at the time of renovation, rebuilding or alteration of design.

The existing drawings can be marked up with the revision details and sent offshore for revision. Depending on the complexity, the revised CAD drawings can be electronically transmitted back within a few hours to a few days.

3. CAD “As Built” drawings

At project completion, marked-up drawings can be sent offshore to us for incorporation of changes and preparation of the final “as-built” CAD drawings.

Our offshore engineering skills include

- Architectural and Civil
- Structural
- Mechanical
- Electrical
- Instrumentation
- Naval Architectural

SERVICES

“Logiseek Service focuses on the conversion of your existing hardcopy archival documents into electronic CAD files. The hardcopy documents are 100% manually drafted into CAD to match the original sheets exactly. You may also choose to mark-out any unnecessary information on the sheets to be omitted during the CAD drafting process. All CAD files are drafted at full-scale, dimensionally accurate, with CAD layering (AIA Standards - American Institute of Architects) and 100% line connections.”

Logiseek undertakes scanning/Digitization/vectorisation of engineering drawings, floor plan, topographic sheet, map, parcel map, Platt map and aperture cards for archival

purposes etc. We have facilities for scanning large format drawings up to A0 size and above. The process involves:

CAD Services (2D & 3D drafting) – areas include:

- Engineering, Architectural, Building M/E/P, Process / P&ID, Electrical, Instrumentation
- 3D modeling
- Engineering detailing
- Architectural detailing
- Digital clean-up and restoration of old drawings
- Drawing Management Solutions
- Data conversion
- Digital map preparation meeting specified standards
- Scanning and digitization
- Custom library development for Engineers/Architects for rapid development cycle.
- 2D / 3D designing

Facility Management (FM) for:

- Outside Plant cable / pipeline mapping
- Inside Plant facility mapping

Geographic Information System (GIS) for:

- Digital map services
- Multi-thematic integration
- Query shells for decision support systems
- Digital Terrain Model (DTM) generation

Image Processing for:

- Geo-rectification
- Digital Elevation Model (DEM) creation
- Data conversion

Digital Photogrammetry for :

- 3D feature capture
- Orthophoto

Conversion and GIS database development for:

- Topographical maps
- Land use / Land cover maps
- Cadastral maps
- Utility maps
- Hydrological maps
- Geological maps
- Environmental / Zoning maps

Whether data conversion involves raster-to-vector conversion, photogrammetric techniques for stereo-compilation, or ortho-photo processing, we can be relied upon to meet your needs.

PROCESS FLOW:

How it would work

- We would assign a coordinator specifically for your projects.
- Your project manager would hand over the assignment to our Project coordinator
- Our project coordinator would assign the task to our offshore drawing center. A unique project control database would be created for this project
- The assignment would go through the normal project cycle of pre-check and analysis, execution and quality assurance.
- Our project coordinator would be in close touch with your project manager, and implement all instructions and requests
- The project forum would also keep a log of each **revision** request and other communication, so that the drawing revision process is fully documented.
- There are facilities for conducting online project meetings, so that design and drawing issues can be discussed “across the table” and sorted out quickly.

Completed drawings are transferred over the Internet. Copies on Compact Disc are dispatched for archival purpose.

Document Handling

A unique process is defined to identify the batch i.e. a group of files submitted by a Customer by considering the Date Time Convention, and Time Zones.

Folder Structure:

Customer (For Example: XYZ Architect)

Project(s)

- **Date Time**

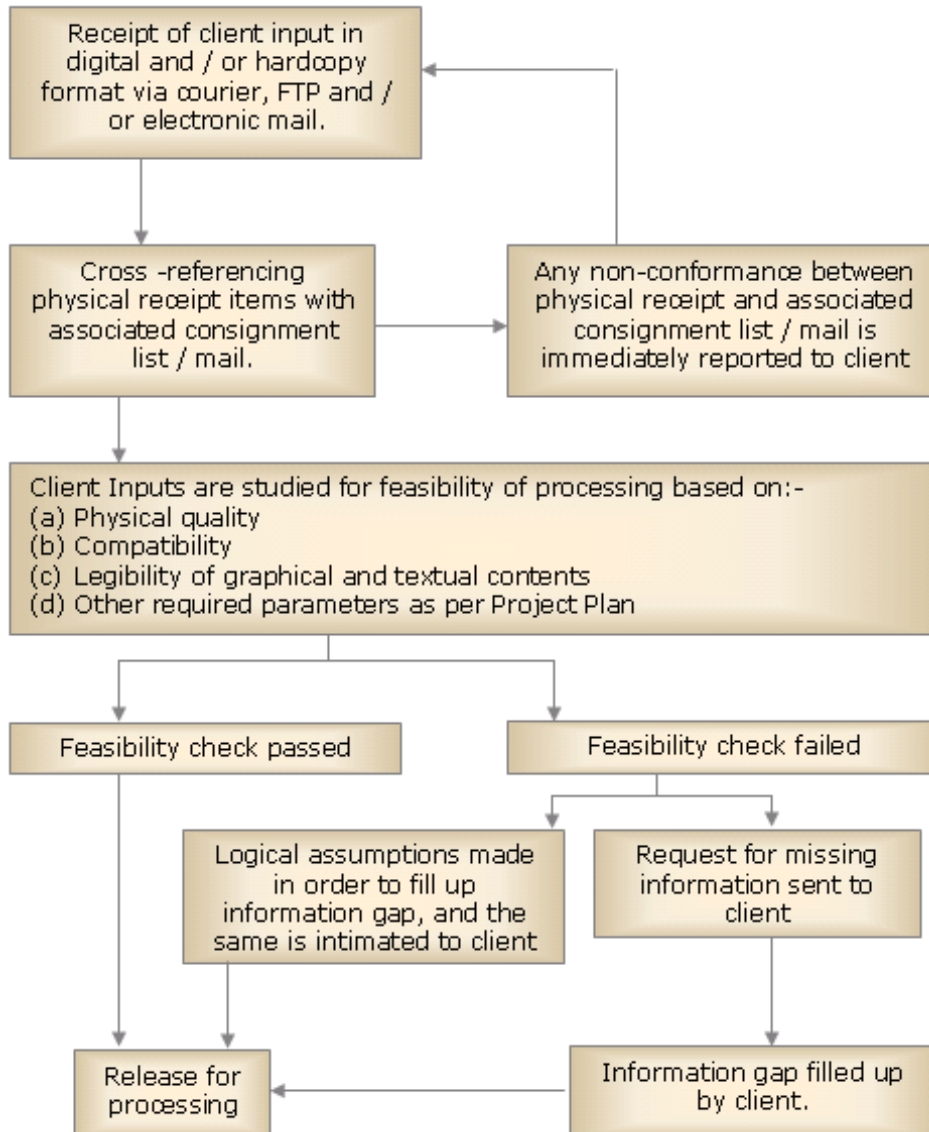
- Incoming
- Outgoing
- Re Work – Incoming
- Re Work - Outgoing

FTP Permissions:

You will be assigned a unique userid and password for uploading and downloading your documents.

Process Work Flow Diagram

DIAGRAM



QUALITY CONTROL

Logiseek is following the ISO-9002 model to ensure consistently high standard of internal quality systems and procedures.

Logiseek also maintains a high ratio between Quality control and production staff. Normally, a quality supervisor will be responsible for the quality of a maximum of 6 production staff.

For ensuring quality of final output during processing, a multi-stage QC procedure is followed, using both automated and visual means to ensure the quality of all digital maps and databases.

AIA layering: All CAD files are drafted at full-scale, dimensionally accurate, with CAD layering (AIA Standards - American Institute of Architects) and 100% line connections.

Turnaround Time

We at Logiseek guarantee quality and timeliness for your jobs. Before we start on any project, we spend time with our customers to create an execution plan. We also provide customer support for any rapid ramp-up need to execute the work before time. Our execution team is developed and trained to provide customer solutions on time or before time!

Escalation Points

We usually ask customers to identify a focal point, first level escalation point and second level escalation point and same is defined at our end. This ensures high quality and constant communication for any emergency or need. We can provide notification via email or any other mode of communication.

FACT SHEETS

Basic Drafting Standards

A. DRAFTING SHEET SIZES

1. All drafting is done on standard sizes.
2. In the U.S. according to ANSI (American National Standards Institute) letter size paper is an architectural (first series) A size sheet. It is 8.5x 11 inches. An engineer's (second series) A size sheet is 9x12 inches.
3. B size sheets are double the size of A size sheets (11x17 or 12x18) (11x17 is also called "tabloid" size);
4. C size sheets are double the size of B size sheets (17x22 or 18x24);
5. D size sheets are double the size of C size sheets (22x34 or 24x36); and so on.
6. In many countries, ISO (International Standards Organization) metric measurements are used. Using ISO standards (third series), the smallest size is an A4 sheet at 210x297mm; A3 size is 297x420; A2 is 420x594, A1 is 594x841, and A0 is 841x1189.

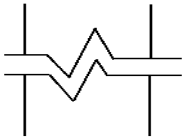
B. LINE WEIGHTS

1. On drawing boards, finished pencil drawn drafting has bold object lines (2H to B pencils) and light dimension lines, center lines, sections lines, and so on (3H to 5H pencils). Temporary construction lines, guidelines for lettering, and so on, are very very light (7H or 8H). Border lines for the drawing sheet and title block are bold bold (3B to 6B).
2. Inked or computer plotted drawings use different pen widths while inking or plotting to achieve similar effects. When plotting (printing) using a laser or inkjet printer from a computer drawing in AutoCAD these line boldness conventions are replicated by configuring each line color as certain line width.
3. Object lines are bold, but about half as bold as border lines. Dimension lines are about half as bold as object lines. AutoCAD drafting uses colors to emulate each thickness (black or white for objects, green for dimensions, blue for borders, etc.). In AutoCAD's print dialogue box you are allowed to designate different line widths for each different color.

C. COMMON DRAFTING LINE TYPES and TERMS

1. **Continuous** line _____ Visible object line (bold) or construction lines (very very thin).
2. **Hidden** line _____ Shows important but invisible lines (medium).
3. **Center line** _____ Used to dimension to the center of arcs, circles, etc. (thin).
4. **Phantom** _____ Used to indicate where cuts are made for section representations and used to show motion or travel of machine parts, etc. (thin).

5. **Dimension** lines. Used to indicate length (thin), size, angles, etc. and includes a number and terminators (arrows or ticks).
6. **Leader** lines. Used to label things (thin like dimension lines) and includes a terminator arrow. Always horizontal near text and always bent to diagonal near object.
7. **Extension** lines. Used to extend from object to dimension line (thin). Must never touch object - leaving a visible gap to avoid confusing object with specification note (dimension). Plan to avoid crossing other extension lines and/or dimension lines.
8. **Break** lines (thin) are straight with a zig-zag-zig and are used to omit portions of an object.



break symbol indicates omitted area

SPECIFICATION SHEET

Customer Name:

Enquiry Date:

Contact Person
Address:

Phone:
E-mail:

Project Name:

Project No.

- Project Type:
- Conversion of Existing Drawings
 - Modification Of Existing Drawings
 - Creation Of New Drawings From
Other Information (Sketches, Dwgs, Field Data)
 - Other _____

- This Project Has:
- Special Requirements or Standards
 - Map Drawings (topo, parcel, etc.)
 - Oversized Sheets (larger than E / A0)
 - Very Dense or Complex Sheets

Project Description (Attach extra sheets if required):

Estimated Time:

Note: Please refer time matrix provided

Drawing Number:

Drawing Status: New
 Revision

Drawing Priority: High
 Medium
 Low

Required Delivery Date:

Drawing Format Style: ANSI (3rd Angle Projection)
 Metric (1st Angle Projection)

Drawing Format Size: A Size / A4
 B Size / A3
 C Size / A2
 D Size / A1
 E Size / A0

Drawing Density: Low
 Medium
 High
 Extra High

Note: Refer sample drawings provided

Reference Drawings:

Required Output CAD format:

Input Scanned Image Attached:

Layering Instruction: (attach extra sheet if required)

Description	Layer Name	Color	Pen Width	Line Type

Text Standards Paper Space Model Space

Description	Style	Height	Width	Color

Dimension Style: Paper Space Model Space

Description	Name	Scale	Layer	Color

Additional Instruction Files Attached: