

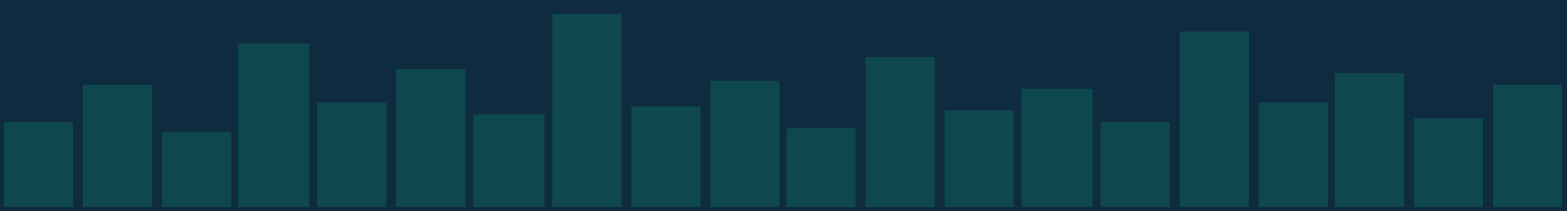
THREE-STAGE PRODUCTION MODERNIZATION

220,000

PAPER BUILDING SKETCHES DIGITIZED

Detroit, Michigan Property Assessment Modernization

A large-scale digitization, imagery verification, and software-assisted quality assurance program delivered under demanding production schedules and a constrained municipal budget.



CLIENT

City of Detroit, Michigan

CORE PLATFORM

SyGIS . Proprietary software

PREPARED BY

SYSH Innovations

Client Background

Following a period of significant financial challenges, the City of Detroit launched a comprehensive property assessment modernization initiative to improve the quality and reliability of its property records. A key objective was to digitize approximately 220,000 legacy paper building sketches, validate property information, and establish a more accurate property database to support long-term assessment operations within a constrained budget.

~220,000 legacy paper building sketches · Constrained municipal budget · Long-term assessment operations

01

BUSINESS CHALLENGE

Operational & Technical Pressure

The Detroit project presented both operational and technical challenges.

At the start of the project, SYSH had recently expanded into a larger production facility and rapidly onboarded new team members to support the increased workload. During production, the project requirements evolved, introducing an Expert Data Entry process that required changes to both the production workflow and software. Previously completed work had to be reprocessed while maintaining monthly delivery commitments.

Successfully adapting to changing requirements without impacting project schedules became one of the project's greatest challenges.

02

SYSH SOLUTION

An Integrated, Adaptive Workflow

SYSH responded by enhancing its in-house software platform while simultaneously executing production activities.

The solution combined:

- Custom software enhancements tailored to project requirements.
- Intelligent sketching plug-ins to guide technicians.
- Expert Data Entry to capture validated area codes and building measurements.
- Automated quality-control processes that compared production output against expert-entered reference data.
- Human review for exceptions identified during automated validation.

This integrated workflow significantly improved production quality while supporting aggressive delivery timelines.

A Software-Assisted Production Platform

SYSH developed a suite of integrated desktop applications using C++ and C#.



KEY CAPABILITIES

- Sketching plug-ins integrated directly into the production software.
- Real-time verification of area codes and square footage.
- SyGIS – SYSH's proprietary ArcGIS plug-in, used for imagery-based verification and sketch modification using measurable aerial imagery.
- Automated file validation to eliminate naming inconsistencies.
- Workflow controls preventing incomplete or invalid submissions.

This technology platform enabled software-assisted production while maintaining strict quality standards.

03

PROJECT EXECUTION

Parallel Engineering & Production

Detroit represented one of SYSH's first large-scale implementations of a fully integrated three-stage production process.

The project required software engineering and production teams to work in parallel, continuously refining the workflow while maintaining uninterrupted delivery.

Drawing on its deep experience in property sketching software, SYSH rapidly enhanced its automation platform to address evolving project needs, allowing production to continue without significant delays.

04

RESULTS

A Modernized Property Dataset

The project successfully delivered a modernized property dataset through a combination of digitization, imagery verification, and software-assisted quality assurance.

~220,000	30%+	~60,000
Paper sketches digitized	Properties with measurable discrepancies	Sketches updated via aerial imagery

- Automated quality-control processes introduced into production.
- Delivered under demanding production schedules with high quality standards.

Recognized by Apex Software

The successful delivery of the Detroit project was formally recognized by Apex Software, which acknowledged SYSH's contribution with a letter of appreciation.

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Synet's hard work, dedication and attention to detail helped lead the way to a successful completion.

Randall H. Garrett

CHIEF EXECUTIVE OFFICER · APEX SOFTWARE

The letter also expressed appreciation to the entire SYSH team and recognized the company's superior service throughout the project.

A Scalable, Quality-Driven Production Process

The Detroit modernization project demonstrated SYSH's ability to combine software engineering, workflow automation, GIS expertise, and large-scale production management to deliver complex property assessment modernization initiatives. By adapting quickly to changing project requirements and developing innovative automation tools, SYSH helped establish a scalable, quality-driven production process capable of supporting large government property assessment programs.

220,000

Sketches digitized

60,000

Sketches updated via imagery

3-stage

Integrated production process

COMPANY

SYSH Innovations

CONTACT

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DOCUMENT

Case Study.