imorgon

WHITE PAPER · ULTRASOUND REPORTING

4 Ways to Cut Radiology Reporting Time in Half*

Without hiring staff or adding to IT's workload

*Auto-filling the scanner's measurements cut dictation time by up to 40% (University of Pennsylvania, SIIM 2014). That was numbers only, and only one of the four ways.

Imaging volumes keep climbing. Radiologists still read measurements off a second screen, re-key notes, work out volume change by hand and leave the report to look up guidelines.

INSIDE

01
Automate structured data flow
Modality to report

02
Capture all observations
What the technologist saw

03
Remove the detours
Calculations and lookups

04
Start from a draft
Not a blank screen

WHAT THE TECHNOLOGIST RECORDS



WHAT THE RADIOLOGIST OPENS

FINDINGS:

Gallbladder: Measures 4.2 cm in length, within normal range for age. Wall 2.0 mm. Single non-mobile gallstone wedged into GB neck. Uniform sludge present. No suspicious findings identified.

Bile ducts: CBD 0.2 cm. CHD 0.2 cm, within normal range for age. Intrahepatic ducts are not dilated.

Liver: Measures 10.0 cm in length. Normal echotexture with a smooth surface. Main portal vein diameter measures 0.7 cm, within normal range for age, is patent, with hepatopetal flow. No suspicious findings identified.

Spleen: Measures 7.4 x 3.1 x 4.0 cm (L x H x W). Length within normal range for age. Normal echotexture. No suspicious findings identified.

Pancreas: Fully visualized. Head 1.6 cm. Body 1.0 cm. Tail 1.7 cm. Duct 0.1 cm. Measured pancreatic dimensions within normal limits for age. No suspicious findings identified.

Aorta and IVC: Visualized portions of the aorta are normal in caliber and patent.
IVC measures 0.8 cm, is normal in caliber and patent.
No free fluid.
No pleural effusion.
Bladder: Mobile calculus is present. Post-void residual is elevated.
Pre-void: 6.0 x 4.5 x 5.0 cm (71 cc)
Post-void: 3.5 x 2.5 x 3.0 cm (14 cc)

Kidneys:
Right kidney: 9.8 x 4.2 x 4.3 cm (93 cc) (L x AP x TRV) Above normal range for age (at 4 y 11 mo: normal 6.3-9.0 cm). Cortex: 0.8 cm Nonobstructing calculi in the interpolar region. No suspicious findings identified.

Left kidney: 5.9 x 2.8 x 3.0 cm (26 cc) (L x AP x TRV) Below normal range for age (at 4 y 11 mo: normal 6.3-9.0 cm). Cortex: 0.7 cm Nonobstructing calculi in the interpolar region. No suspicious findings identified.

IMPRESSION:

IN BRIEF

Most reporting time is not spent interpreting images.

WHO THIS IS FOR

Radiology Directors, Imaging IT Directors, and the PACS and EHR teams who will be asked to support structured reporting.

READING TIME

About eight minutes. Each of the four changes stands on its own; they can be adopted in any order.

Watch the 1-minute demo
imorgon.net/demo

It is spent moving data by hand — measurements from the modality, observations from the sonographer, prior values, scores and calculations — into a report that a radiologist then has to assemble from an empty screen.

This paper sets out four changes that remove that work, and how to deploy them without adding to an IT backlog.

01 **Automate structured data flow** from the modality into the report.

02 **Capture all observations** at the point the technologist makes them.

03 **Remove the detours** — calculations, lookups and system switching.

04 **Start from a preliminary draft**, not a blank screen.

Together they produce a draft that is assembled before the radiologist opens it, free of transcription error and ready to be read rather than typed.

> The constraint is rarely the reporting software itself. It is that nobody owns the mapping work between the modality, the worksheet and the report — and that work is where the time goes.

THREE TERMS, AS USED HERE

Structured reporting

A report assembled from discrete, labeled data fields rather than dictated as free text. The radiologist still writes the interpretation.

DICOM SR

The DICOM Structured Report object — the standard in which ultrasound and other modalities emit their measurements for a downstream system to consume.

Preliminary draft

A report populated before the study is opened, impression included, which the radiologist then edits and signs. Everything in it comes from measured and recorded data.

THE PROBLEM

Why this never seems to get fixed.

BY THE NUMBERS

+30.6%

More examinations read per day by top-quartile radiologists than in 2018.[1]

38.8%

The share of a sonographer's day actually spent scanning.[2]

22%

Of reports in one academic series contained speech-recognition errors.[3]

20.2%

Of abdominal ultrasound reports are incompletely documented, costing 5.5% of professional payments.[4]

Reporting tools are rarely touched, because changing a live workflow feels like a risk few departments can absorb. Meanwhile the workload keeps getting heavier — and it falls hardest on the highest-volume readers.[1]

The cost shows up twice: in throughput, and in accuracy. Incomplete reports and transcription errors carry revenue and liability exposure alike.[4, 5] Four things keep the problem in place.

IT teams are already at capacity. Standard vendors hand over a complex DIY kit and leave setup to internal IT. You inherit the bugs, the broken links and the mapping fixes.

There is too much detail to map. Generic integration work underestimates how many measurements, scoring systems and guidelines are in daily use.

The expertise is rarely in one place. A fix that works needs clinical experience, project management and software engineering together. Few organizations have all three under one roof.

"We already have a tool for that." Many sites own one that sends measurements to the dictation system, and some have never switched it on. It moves the numbers. The findings, the calculations, the impression and the mapping upkeep are still yours.

IT leadership never sees this typing, so the cost of doing nothing is easy to undercount. It is paid every day, in slower reads and in radiologists who burn out.

"It is not necessary to change. Survival is not mandatory."

W. EDWARDS DEMING

THE OPPORTUNITY

Radiology teams do not have to settle for clumsy reporting tools.

THE SHIFT

Leading departments are moving from free-form dictation to automated structured reporting, delivering an "almost done" draft so that radiologists can spend their time on interpretation.

THE EVIDENCE

Auto-filling the scanner's measurements cut dictation time by **up to 40%** (University of Pennsylvania, SIIM 2014).[7] That was numbers only. Imorgon also moves the sonographer's findings.

Report times fall, results reach clinicians sooner, and reports stay consistent between attendings — without adding to headcount.

	FREE-FORM DICTATION	MEASUREMENT TRANSFER ONLY	AUTOMATED STRUCTURED REPORTING
Measurements	Re-dictated by hand from another screen	Arrive from the modality	Arrive from the modality and the worksheet
Technologist findings	Re-typed from a note or paper sheet	Still re-typed	Recorded at the bedside as structured choices
Calculations	Done off-screen, or in the radiologist's head	Mostly left to the radiologist	Computed before the draft opens
Prior studies	Opened separately and compared manually	Opened separately	Interval change presented alongside the value
Guidelines	Looked up on an external site mid-read	Looked up separately	Scoring criteria embedded in the report
Impression	Dictated from scratch	Dictated from scratch	Drafted from the recorded findings
Starting point	A blank screen	A template with numbers in it	An assembled draft
Mapping upkeep	None needed	Your IT team	The vendor
Consistency	Varies by attending	Varies by attending	Same structure on every study

> None of this changes what a radiologist decides. It changes what they do first. The interpretation, the final impression and the signature stay theirs.

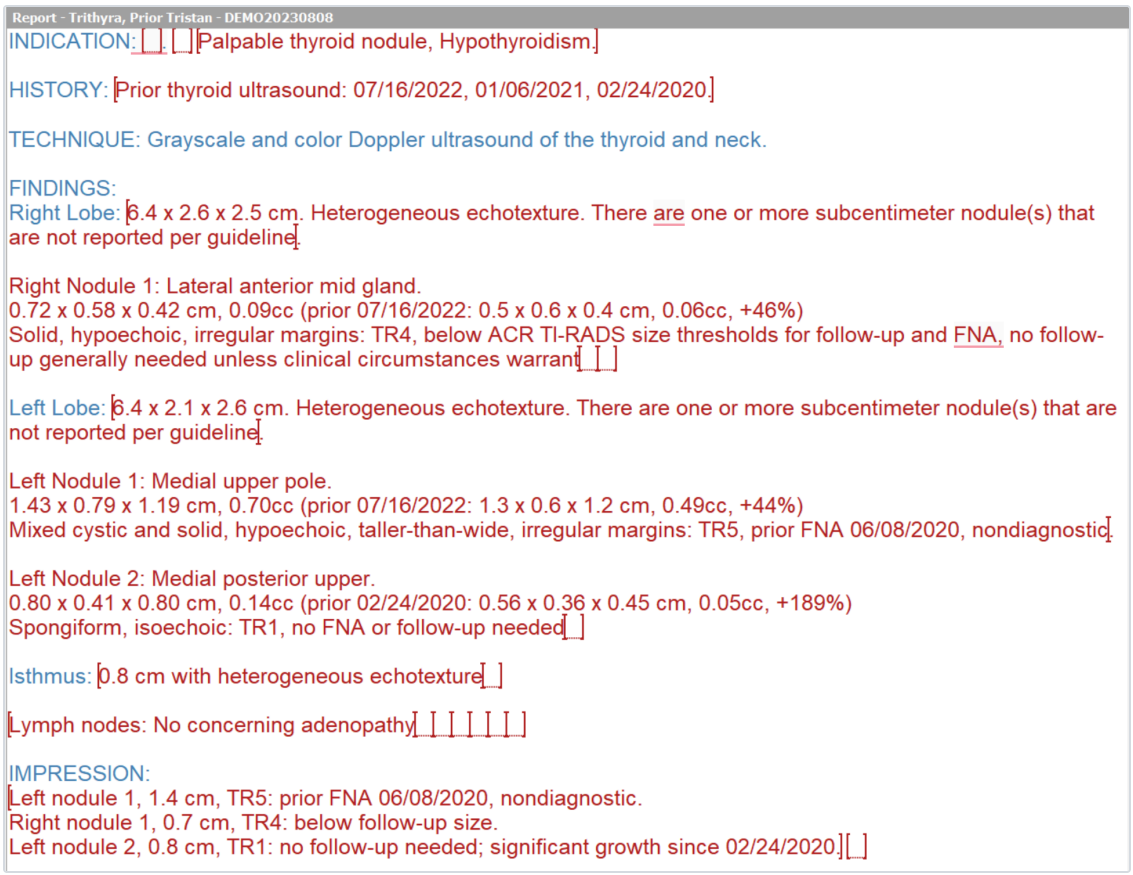
Automate structured data flow from modality to report.

01

STRUCTURED
DATA FLOW

Send measurements straight from the equipment and the worksheet into the draft report.

Getting numbers across is the easy part. What matters is that they land inside an organized draft. Transcription error disappears at the source, and the radiologist checks images instead of re-dictating numbers.



A thyroid ultrasound draft in PowerScribe, before the radiologist has touched it. The indication came from the sonographer's worksheet. Each nodule arrived with its measurements, volume, change since the prior, TI-RADS level and biopsy history. The impression is already written, most significant nodule first. None of it was dictated.

WHAT IT REMOVES

- Reading values off a second screen
- Re-keying measurements by voice
- Checking typed values against measured ones

WHAT FLOWS IN

- Ultrasound measurements (DICOM SR, CSV)
- Bone density and radiation dose
- CT and AI results

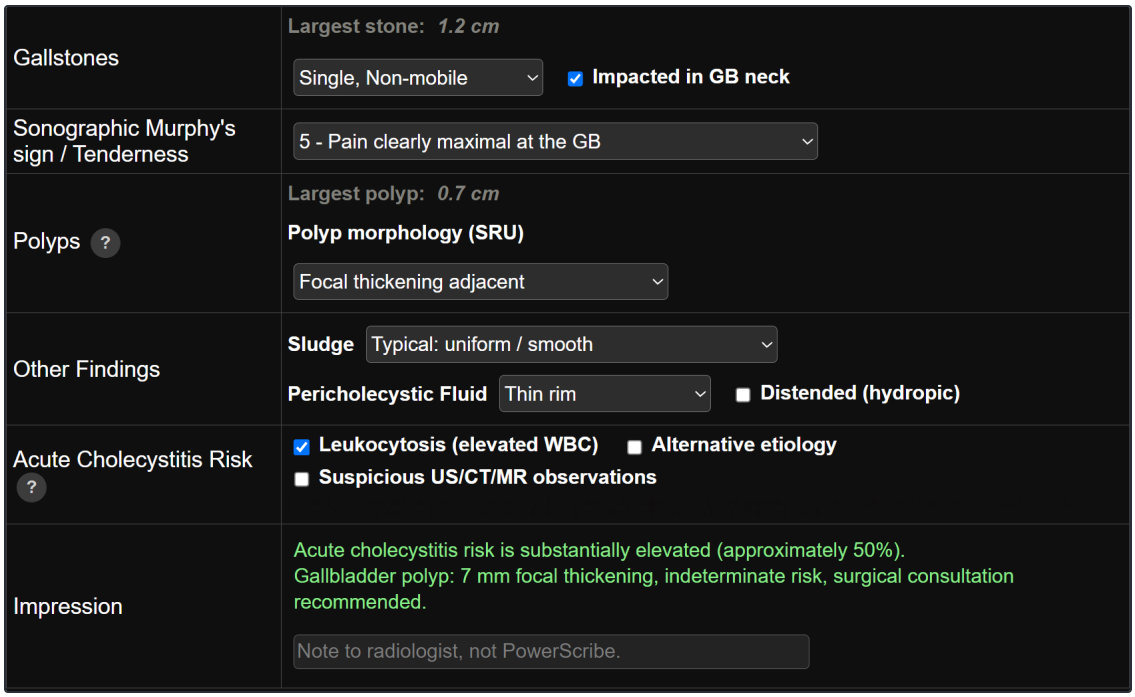
Capture all observations, not just the numbers.

02

TECHNOLOGIST OBSERVATIONS

About half of the input fields in a finished report come from the technologist's worksheet rather than from the modality's measurements.[6]

Findings such as a positive Murphy's sign or a mobile kidney stone can only be seen at the bedside. Recording them there, in a structured worksheet rather than a free-text note, pulls them straight into the draft and leaves a legible record.



What only the bedside shows, recorded as structured choices. From an impacted stone, a maximal Murphy's sign, pericholecystic fluid and a raised white count, the worksheet drafts the impression: acute cholecystitis risk substantially elevated. The 7 mm polyp with adjacent wall thickening is classified by SRU criteria, and surgical consultation is recommended.

WHAT IT REMOVES

- Handwritten technologist sheets
- Findings that never reach the radiologist
- Dictating an observation somebody else made

WHAT GETS CAPTURED

- Tenderness, mobility and probe findings
- Technique and limitations of the study
- Qualitative findings, as structured choices

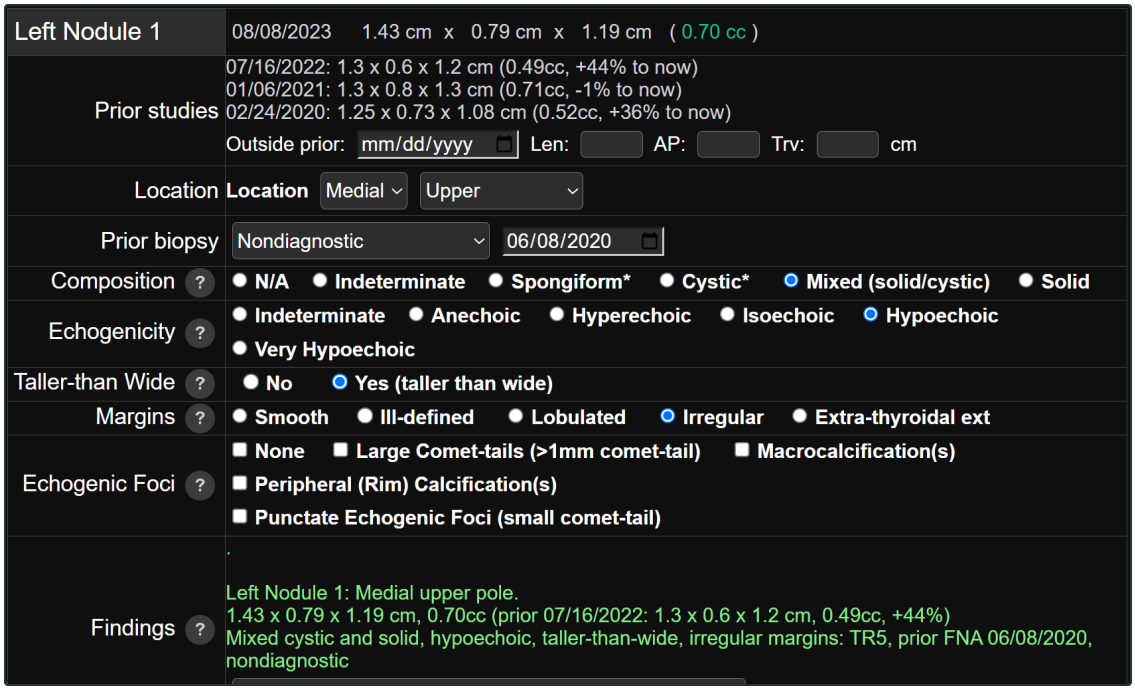
Remove the detours: calculations, lookups and system switching.

03

CALCULATIONS & CRITERIA

Radiologists work faster when they do not have to leave the reporting screen.

Every trip to a calculator, a prior study or an external guideline site costs more than the seconds it takes — it costs the thread of the read. Putting the arithmetic and the scoring criteria inside the report keeps attention in one place: both are ready before the draft opens, not looked up during it.



One thyroid nodule on the worksheet: three priors, each volume and each interval change computed. The 44% growth since July 2022, the TR5 score and the earlier biopsy result are already in the finding below. Each **?** opens reference images for that ACR TI-RADS feature, so every reader scores it the same way.

WHAT IT REMOVES

- Calculator work mid-read
- Opening priors to compare by eye
- Leaving the report to find scoring criteria

WHAT IS COMPUTED FOR YOU

- Volume, percentage difference, minimum and maximum
- Interval change against every prior on file
- TI-RADS, O-RADS and comparable scoring

THE FOUR WAYS · FOUR

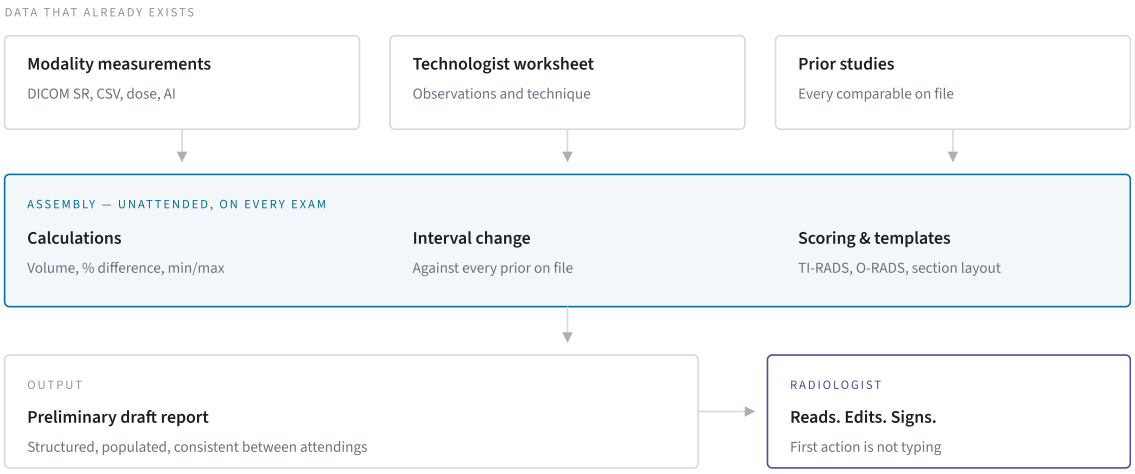
Start from a preliminary draft, not a blank screen.

04

PRELIMINARY
REPORT WORKFLOW

Reporting is faster when the starting point is an assembled draft rather than an empty template.

Measurements, technologist findings, the arithmetic behind them and a drafted impression are assembled before the study opens, in the same structure whoever reads it. That consistency is what makes reports usable downstream.



Everything above the draft happens before the study is opened.

> The draft is assembled from sources that already exist. The radiologist's first action is to read, not to type.

WHAT IT REMOVES

- The blank page at the start of every study
- Structural differences between attendings
- Re-stating data that is already on file

WHAT THE RADIOLOGIST STILL DOES

- Interprets the images
- Edits and corrects the draft
- Finalizes the impression and signs

IMPLEMENTATION

Running in 90 days, without drawing on your IT team.

THE DISTINCTION

A DIY toolkit transfers the integration problem to you. A managed deployment keeps it — including the mapping, the maintenance and the vendor coordination.

Six things make 90 days realistic.

Templates ready on day one. Schedules, tested worksheets and mapped data rules already exist for the common scanners — GE, Siemens, Philips and Canon — so configuration does not start from nothing.

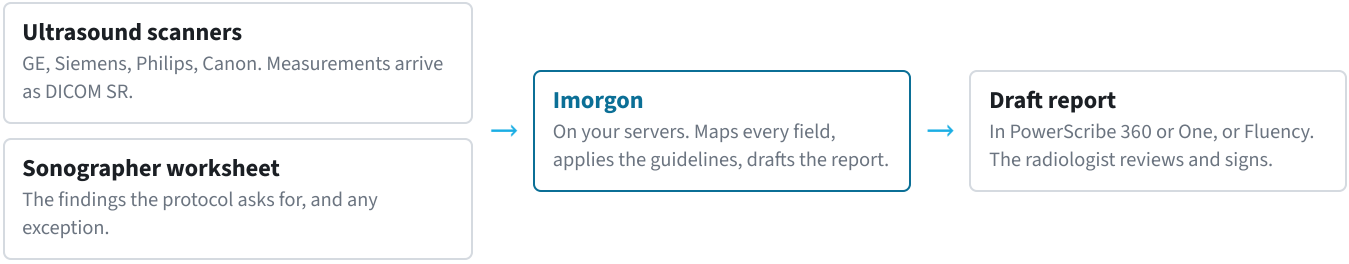
Parallel setup. Servers and routing are configured while templates are built and measurements mapped. Running the tracks together means the infrastructure is ready at the moment the clinical design is.

Vendor alignment from week one. Equipment vendors are brought in at the start, which removes the scheduling bottleneck that usually delays deployment.

Highest-volume department first. Early, visible time savings build radiologist support and make the rest of the roll-out easier.

Engineers who have done this before. You work directly with people who know these vendor configurations rather than with a support queue.

Native Epic integration. Working inside the screen radiologists already use drives adoption, and leaves nothing extra for IT to maintain.



Opens from the PACS worklist or from Epic. Patient data stays on premises.

WHAT CHANGES

Reporting stops being the bottleneck.

IN ONE LINE

Radiologists stop correcting dictation and start reviewing images. Everything else follows from that.

More time for patients. Radiologists spend their time understanding difficult exams instead of rushing to dictate numbers that were already recorded.

Faster results. Pre-filling the measurements, calculations and worksheet findings speeds up final sign-off and gets results to referrers and patients sooner.

Scaling without new burden. A managed solution built into Epic extends across a health network without adding to the internal IT load.

Fewer mistakes. Automated data transfer removes typing errors and keeps report structure clean and consistent between readers.

> Upgrading gives the team its time back and sets up an operation that stays sustainable as volumes keep rising.

SEVEN QUESTIONS WORTH PUTTING TO ANY REPORTING VENDOR — INCLUDING YOUR CURRENT ONE

1. Which of our scanners can you take measurements from today, without a custom interface?
2. We already own a measurement-transfer tool. What would it still leave the radiologist to do?
3. What happens to a technologist's observation that is not a measurement?
4. Who maintains the system when we upgrade a scanner or change a template — you, or us?
5. Does it work inside Epic, so IT has no other desktop application to support?
6. Can the radiologist see interval change against priors without opening another study?
7. What proportion of a finished report is populated before the study is opened, and how was that measured?

NEXT STEPS

Two ways to find out what this is worth to you.

Both start with your own data, not a demonstration. Pick the one that matches your question.

FOR IMAGING IT

Reporting Software Checklist

Technical gap analysis.

A structured comparison of what your current reporting stack does and does not automate — measurement transfer, DICOM SR coverage, calculations, decision support and integration surface. Run it against any vendor, including your incumbent.

FOR RADIOLOGY LEADERSHIP

Radiology Productivity Assessment

Time and cost modeling.

An estimate of the time and money your department can recover by removing manual dictation, based on your own modality mix and study volumes rather than on industry averages.

What happens after you ask

1

A 30-minute call

We ask what you scan, on which equipment, into which reporting system. No installation, no access to your environment.

2

A written findings summary

What is already automatable today, what would need mapping work, and what your current stack cannot do. Yours to keep either way.

3

You decide whether to continue

If the numbers do not justify the change, that is a legitimate outcome and we will say so.

Imorgon Medical

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Works with PowerScribe 360 and One, Fluency, Epic and your PACS. Installed on premises. We map every scanner and keep it working.

Ask for either one
imorgon.net/guide

REFERENCES & NOTES

Sources.

1 Zamani H, Fruscello T, Burleson J, Bhargavan-Chatfield M, Davenport MS. **United States radiology imaging and workforce volumes 2017 to 2024: an analysis of 46.4 million imaging examinations from 167 radiology facilities.** *J Am Coll Radiol.* 2026. doi:10.1016/j.jacr.2025.12.026. — Top-quartile radiologists read 30.6% more examinations per day and worked 19.7% more clinical days per quarter than at the 2018 baseline.

2 Hoffman K, Evans J, Kershner P, Haurani MJ, Satiani B. **Analysis of lost sonographer productivity in a university hospital vascular laboratory.** *J Vasc Ultrasound.* 2015;39(2):78–80. doi:10.1177/154431671503900202. — Excluding portable studies, scanning occupied 38.8% of the sonographer working day.

3 Quint LE, Quint DJ, Myles JD. **Frequency and spectrum of errors in final radiology reports generated with automatic speech recognition technology.** *J Am Coll Radiol.* 2008;5(12):1196–9. doi:10.1016/j.jacr.2008.07.005. — Of 265 reports prepared for multidisciplinary thoracic oncology conferences at one academic center, 59 (22%) contained errors.

4 Duszak R Jr, Nossal M, Schofield L, Picus D. **Physician documentation deficiencies in abdominal ultrasound reports: frequency, characteristics, and financial impact.** *J Am Coll Radiol.* 2012;9(6):403–8. doi:10.1016/j.jacr.2012.01.006. — Across 336,062 abdominal ultrasound reports, documentation was incomplete in 9.3%, 15.5% or 20.2% of cases depending on the completeness threshold applied, reducing legitimate professional payments by 2.5%, 4.2% and 5.5% respectively. The figures quoted here are the third model, in which a report counts as complete when at least five of the eight required elements are documented.

5 Rubin JD, Saint-Hilaire E, Gulinello C. **Physician Legal Review & Commentary: Failure to diagnose pregnant woman's fetal defects including missing limbs leads to $4.5 million verdict.** *Clinician.com* (Relias), 1 September 2012. Case: 15th Judicial Circuit, Palm Beach County, FL, No. 50 2010 CA 004745. — A $4.5M jury verdict after the ultrasound reports never confirmed whether the fetus had arms or legs.

6 Imorgon Medical. **Radiology reporting efficiency: why measurements only solve 50% of the workflow.** 27 December 2025. imorgon.net/articles/electronic-ultrasound-worksheets-vs-manual-notes/ — Imorgon's own unpublished investigation across several imaging and academic centers: approximately 50% of report input fields originated from the electronic worksheet and 50% from ultrasound system measurements, for complete abdominal, pelvic and thyroid studies. Doppler, obstetric and DVT examinations were excluded, and the authors note results may vary by institution.

7 Horii SC, Jones LP, Tokunaga M. **DICOM SR for ultrasound reporting: does use shorten reporting time?** SIIM annual meeting, 2014 (University of Pennsylvania). — With measurements auto-filled, median dictation time for first-trimester obstetric reports fell from 7.49 to 4.44 minutes (about 40%); across all ultrasound reports, 5%.

Note on figures. Screenshots are of the Imorgon worksheet and of Nuance PowerScribe One, captured from a live configuration. Patient data shown is test data. PowerScribe is a trademark of its respective owner; Epic is a trademark of Epic Systems Corporation.

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