Creaform Scanning for Damage Assessment and Repair Design

NCMS Technology Showcase

PROBLEM STATEMENT

- What problem or need does this technology solve?

1) Quick, Accurate, and Repeatable physical damage assessment and reporting
    - Damage assessment of skins, body, structures, pressure vessels and fuel tanks.
    - Support for all opaque materials, traditional metals and composites.

2) Lead time and availability of replacement parts can cost the Navy weeks or months unless locally sourced. Worn or damaged parts need to be accurately and repeatably measured to ensure they will fit right the first time
    - Fully portable and easy to operate for field technicians at high accuracy.

BENEFITS

Scanning Simplicity
- Software and Hardware are mature in 4th & 5th Generations
- Hardware interfaces have been developed for any skill level to operate with minimal training.
- eLearning online training modules available for all software and hardware on demand.
- Software modules each have similar familiar interfaces making learning easier.

Highly Portable
- Each scanner is in a relatively small case and does not require a heavy tripod. Setup in 2-3 min.

Certified Accuracy supporting mission readiness.

TECHNOLOGY SOLUTION

Creaform HandyScan Series:
- Black+ Elite and MAX Elite – Small to Large part Scanning
- ISO 17025 certified - VDI/VDE 2634 part 3 & ISO 10360
- High Resolution & Accuracy
- Portable Scanner – Only laptop and power
- Simplified interface for rapid & repeatable damage assessment replacing traditional pit gauge
- Monitor Damage over time, comparing one scan to future scans
- Extract measurements, features and cross-sections for reverse engineering with any professional CAD program.
- Accurate & Repeatable – design it right the first time
- Supports Scan to Print
- Compare manufactured parts to nominal CAD or “golden” scan. Full GD&T inspection process.

GRAPHIC

