AdvanTech
ACCURACY. VISIBILITY. ACCOUNTABILITY.

Capabilities Statement

Automated Measuring Technologies

ABOUT ADVANTECH, INC.

- AdvanTech, Inc. (ATI) was founded in 1996 with the mission to provide "advanced technology for competitive performance."
- Since then, we have successfully improved the operations and bottom line of our Clients by providing total solutions that substantially improve:
  - ✓ the **Accuracy** of the data collected;
  - ✓ the **Visibility** of all their assets; and,
  - ✓ the **Accountability** of specific functional areas to track and report their individual performance against their targeted goals.
- With it's headquarters in Annapolis MD, we have a presence in 18 states across the US. ATI services a wide variety of commercial industry-leading firms and Government agencies across the United States.

MISSION STATEMENT

At ATI, our entire team is committed to something greater than ourselves. We listen to clients' needs, clearly articulate their challenges and work with them to achieve their desired outcomes.

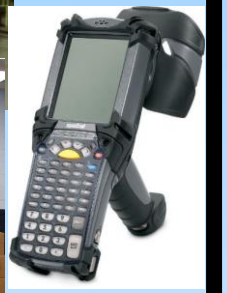
We hold ourselves to the following standards:

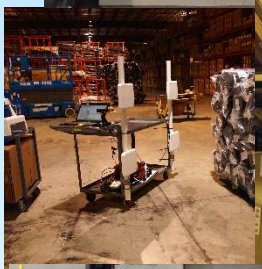
- ***Accuracy***: Everything we do as an organization must be measured as objectively and accurately as possible and tracked over time to document our performance.
- ***Visibility***: Everything we do is totally transparent to our team members and our clients.
- ***Accountability***: Each team member is held accountable for their actions, decisions and communicating to every one who is or may be effected by those decisions.

Improvements in Accuracy, Visibility and Accountability translate to actual dollars to the bottom line.

Automated Data Capture Technologies

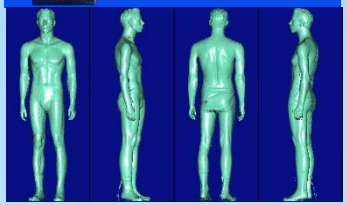
RFID





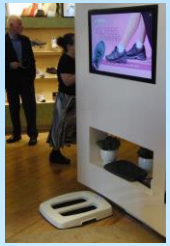
Bar Code

Measuring Devices



Whole Body Scanning

Kinect



Foot Scanning

Hand Measuring

Others

OCR

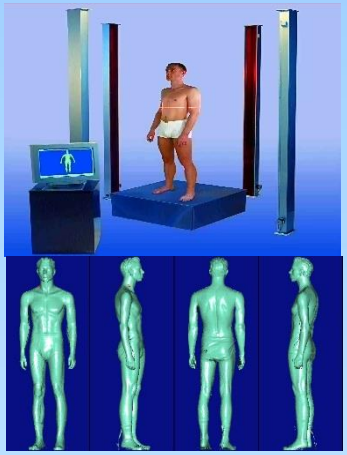
Voice Recognition

Automated Data Capture Technologies

RFID

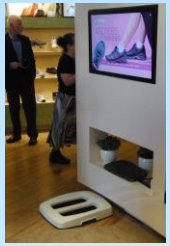
Bar Code

Measuring Devices



Whole Body Scanning

Kinect

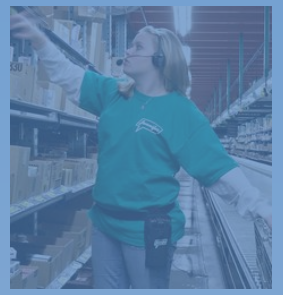


Foot Scanning

Hand Measuring

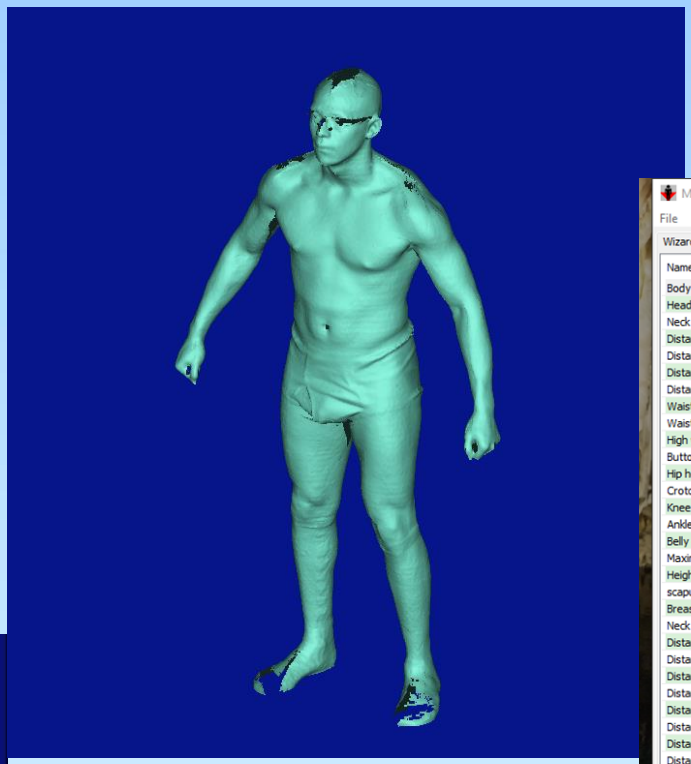
Others

OCR

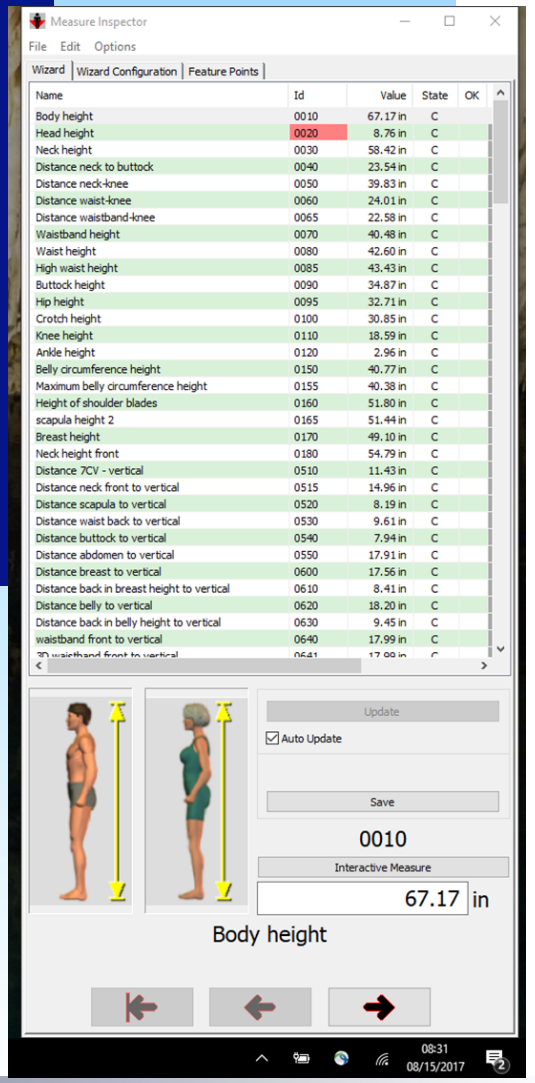


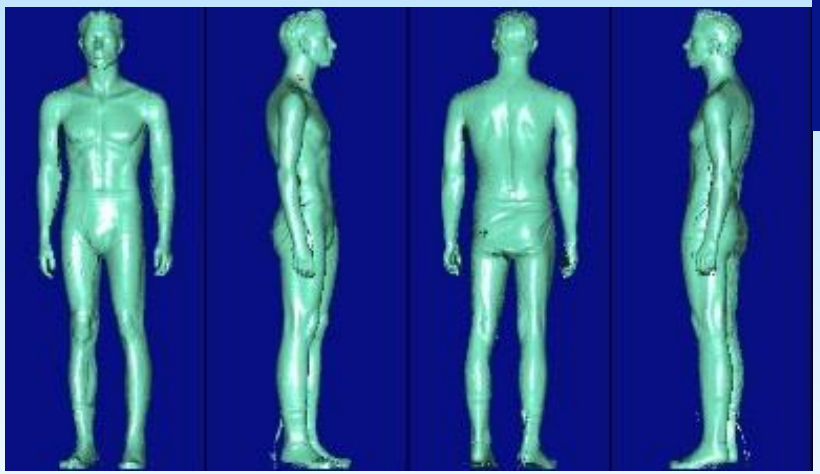
Voice Recognition

3D Whole Body Scanning



Up to 150 Measurements with 1mm variance





High Definition – Laser Quality

Detailed 3D View

3D Whole Body Scanning

Sizing
- US Army
- US Air Force
- British Army
- Arma Suisse
- German Bundeswehr

Made to measure
- Raymond
- Scabal
- Wilvorst

Size Surveys
- China
- Spain
- Germany
- Italy

RAMSIS Human Model
- BMW
- Chrysler
- SAE

Research
- Cornell University
- U of Michigan
- AFRL
- NASA
- NBA

3D Forms & Avatars
- S.Oliver
- Hugo Boss
- Adidas

3D Whole Body Scanning

Laser Technology

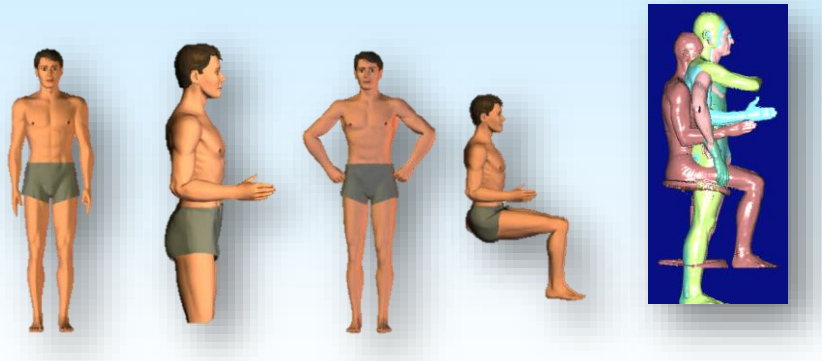
Depth Sensor Technology

3D Whole Body Scanning

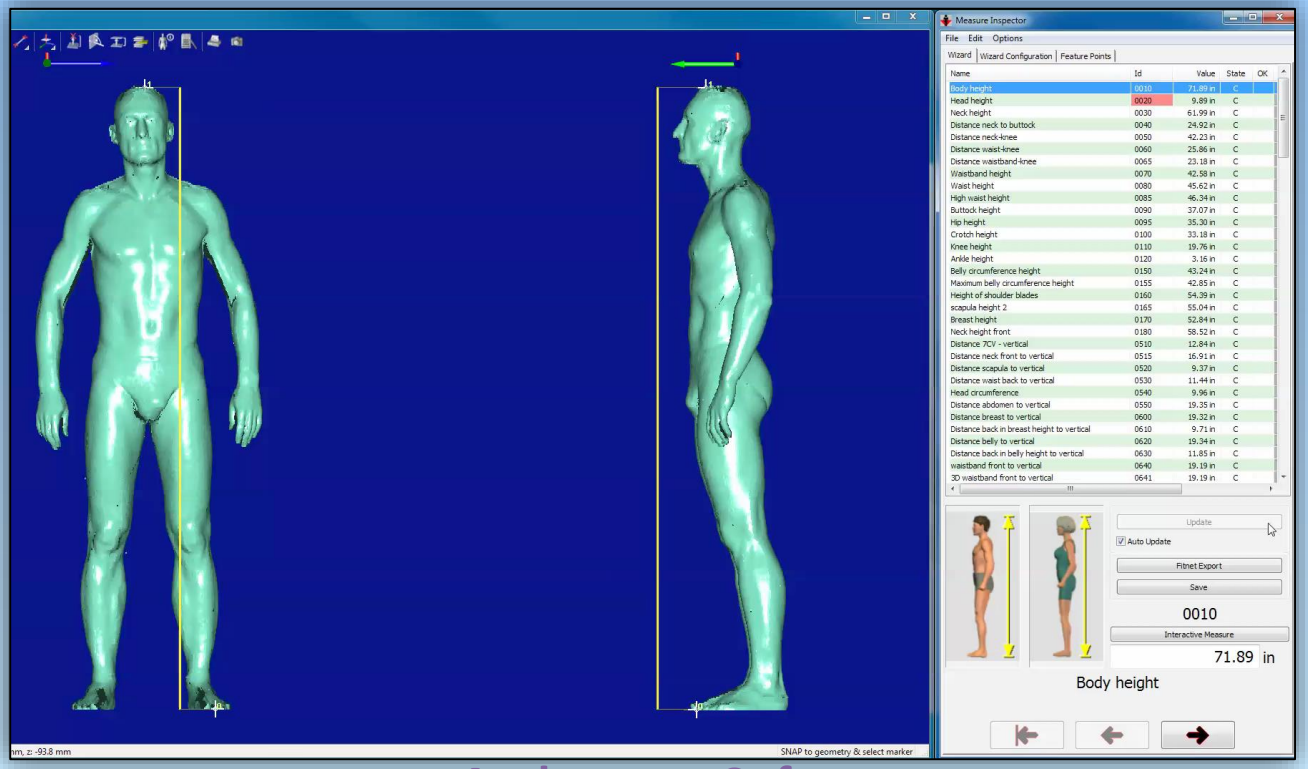
		DITUS MC	VITUS bodyscan
Applications	SizeSurveys	no	yes
	Made-to-Measure	yes	yes
	Corporate Fashion	yes	yes
	Virtual Mirror	yes	yes
	Individual facial features	no	yes
Features/Specifications	Mobility	high	acceptable
	Accuracy	+/- 6mm	< 1mm
	Measurement range	2.1m x 0.9m x 0.9m	2.1m x 1m x 1.2m
	Dimensions	2.4m x 2.4m (triangle) x 1.85m	2.2m x 2.2m x 2.95m
	Area	5 m^2 (triangle)	4.84 m^2
	Total weight	50 kg	200 kg

3D Whole Body Scanning

- Scanning process is fast (6-10 seconds per posture)
- Analysis of body dimensions without the need having the subject present
- Scans are stored forever – later implementation of new measurements possible
- Storage of results in database for easy access and analysis
- Scan export in standard 3D formats (OBJ, ASCII, STL)



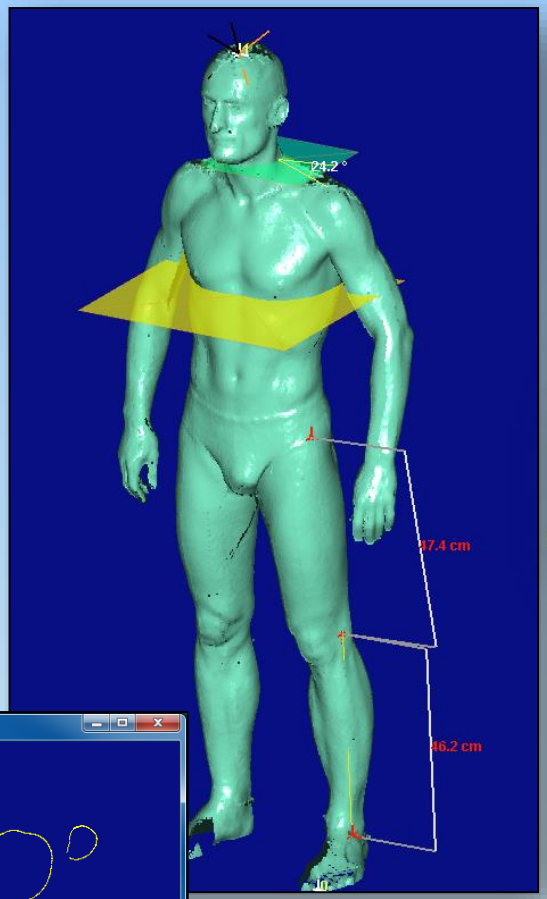
3D Whole Body Scanning

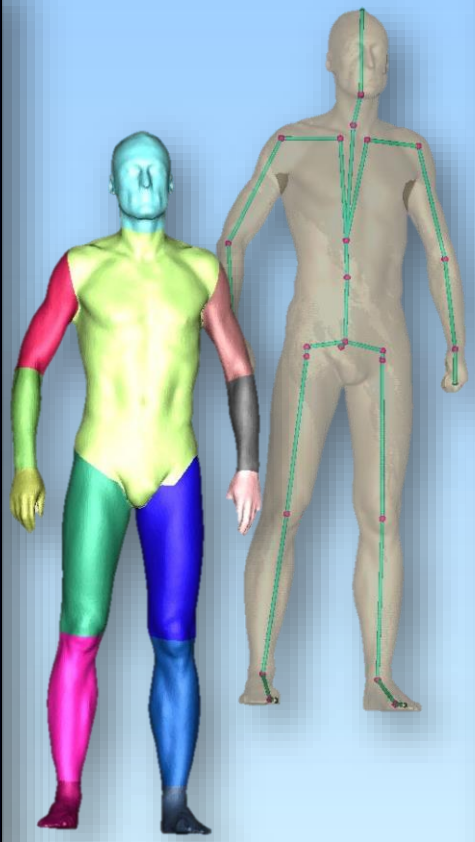


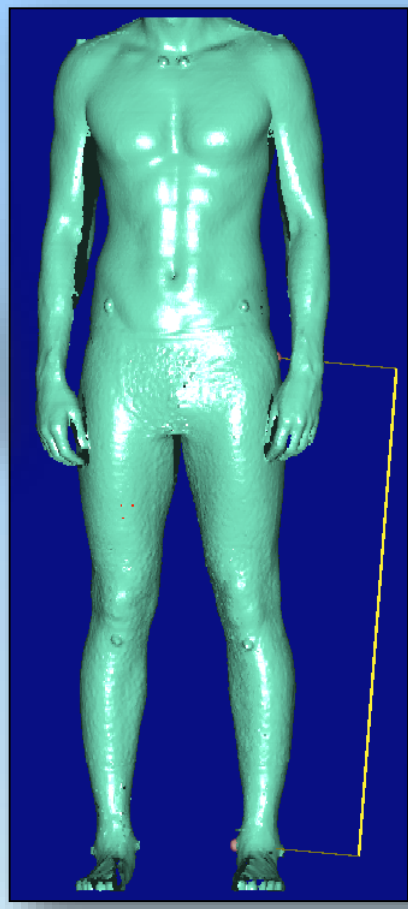
Anthroscan Software

- Automated determination of body landmarks and acquisition of up to 150 body dimensions
- Landmarks and measurements can be reviewed and revised
- Creation of measurement protocols
- Batch mode for multiple scan processing

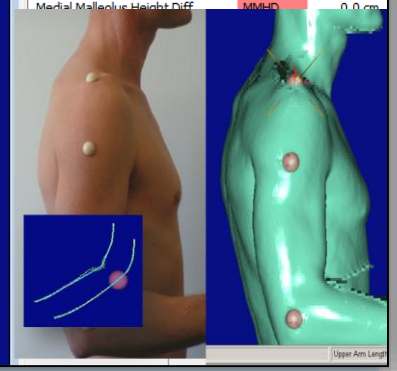
3D Whole Body Scanning

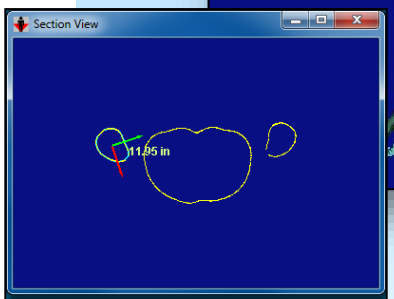


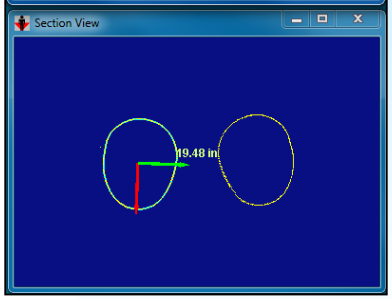




Name	Id	Value
AC Angle	ACAN	1.3 °
AC Joint Height Diff	ACHD	0.9 cm
AC Joint Height Left	ACHL	175.2 cm
AC Joint Height Right	ACHR	174.3 cm
AC Rotation	ACRO	-4.4 °
ASIS Angle	ASAN	-0.6 °
ASIS Height Diff	ASHD	-0.3 cm
ASIS Height Left	ASHL	119.9 cm
ASIS Height Right	ASHR	120.2 cm
ASIS Rotation	ASRO	-2.8 °
ASIS-TT Length Left	ATLL	69.8 cm
ASIS-TT Length Right	ATLR	69.2 cm
Seventh Cervical Vertebra Height	C7HT	180.5 cm
Greater Trochanter Height Diff	GTHD	1.0 cm
Greater Trochanter Height Left	GTHL	109.6 cm
Greater Trochanter Height Right	GTHR	108.5 cm
GT-TT Length Left	GTLL	59.3 cm
GT-TT Length Right	GTLR	57.3 cm
Inferior Angle of Scapula Heigh...	IAHD	0.0 cm
Inferior Angle of Scapula Heigh...	IAHL	157.4 cm
Inferior Angle of Scapula Heigh...	IAHR	157.4 cm
Lateral Malleolus Height Diff	LMHD	0.0 cm
Lateral Malleolus Height Left	LMHL	8.2 cm
Lateral Malleolus Height Right	LMHR	8.2 cm
Medial Malleolus Height Diff	MMHD	0.0 cm



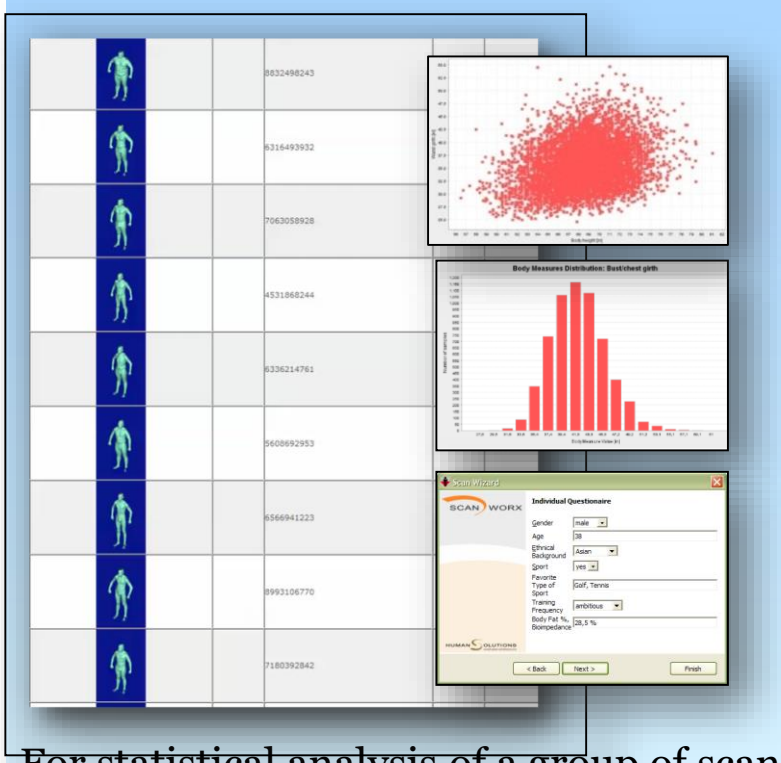




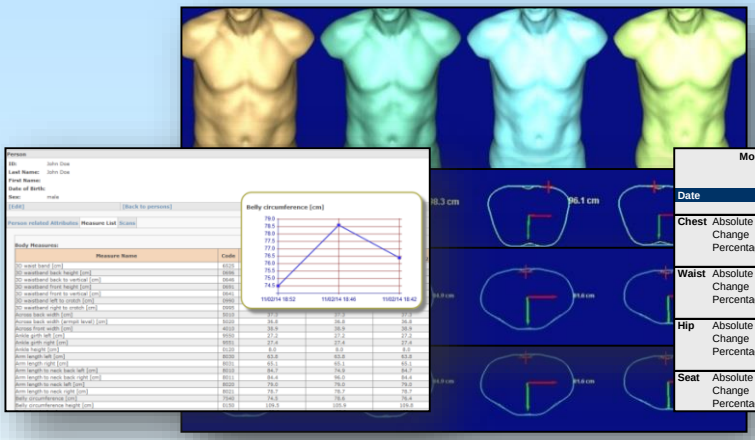
3D Whole Body Scanning

Anthroscan Scan Database

For scan data storage and management



For statistical analysis of a group of scans



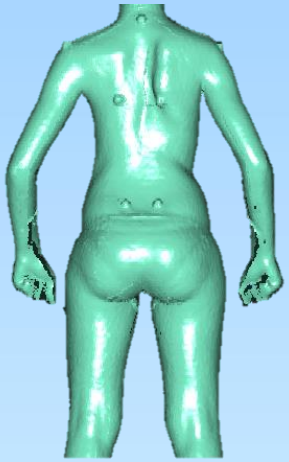
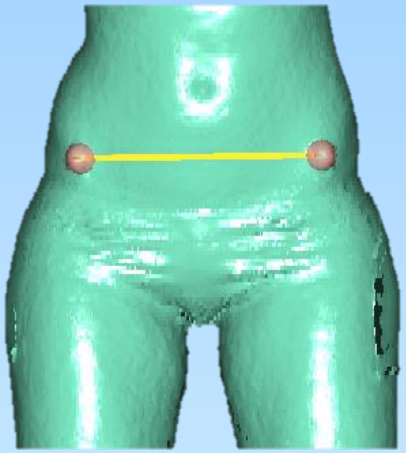
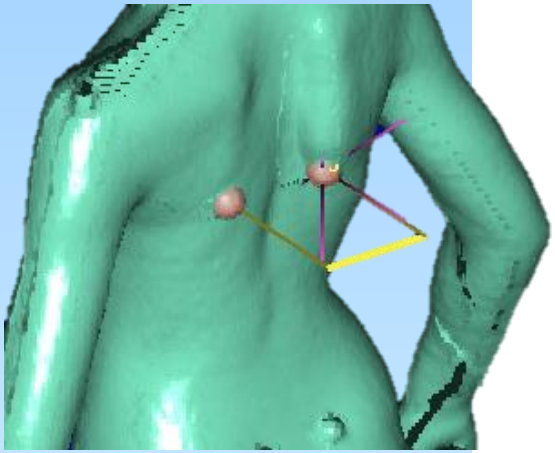
Monitoring Your Training Success for Mr. John Doe

Date		Start	Month #1	Month #2	Month #3
Chest	Absolute	101,0 cm	98,3 cm	96,1 cm	94,1 cm
	Change		-2,7 cm	-4,9 cm	-6,9 cm
	Percentage		5%	10%	14%
Waist	Absolute	93,0 cm	84,9 cm	81,6 cm	75,9 cm
	Change		-8,1 cm	-11,4 cm	-17,1 cm
	Percentage		17%	25%	37%
Hip	Absolute	91,1 cm	84,4 cm	81,7 cm	77,6 cm
	Change		-6,7 cm	-9,4 cm	-13,5 cm
	Percentage		15%	21%	30%
Seat	Absolute	94,5 cm	93,5 cm	91,5 cm	90,9 cm
	Change		-1,0 cm	-3,0 cm	-3,6 cm
	Percentage		2%	6%	8%

For evaluation and tracking of an individual

3D Whole Body Scanning

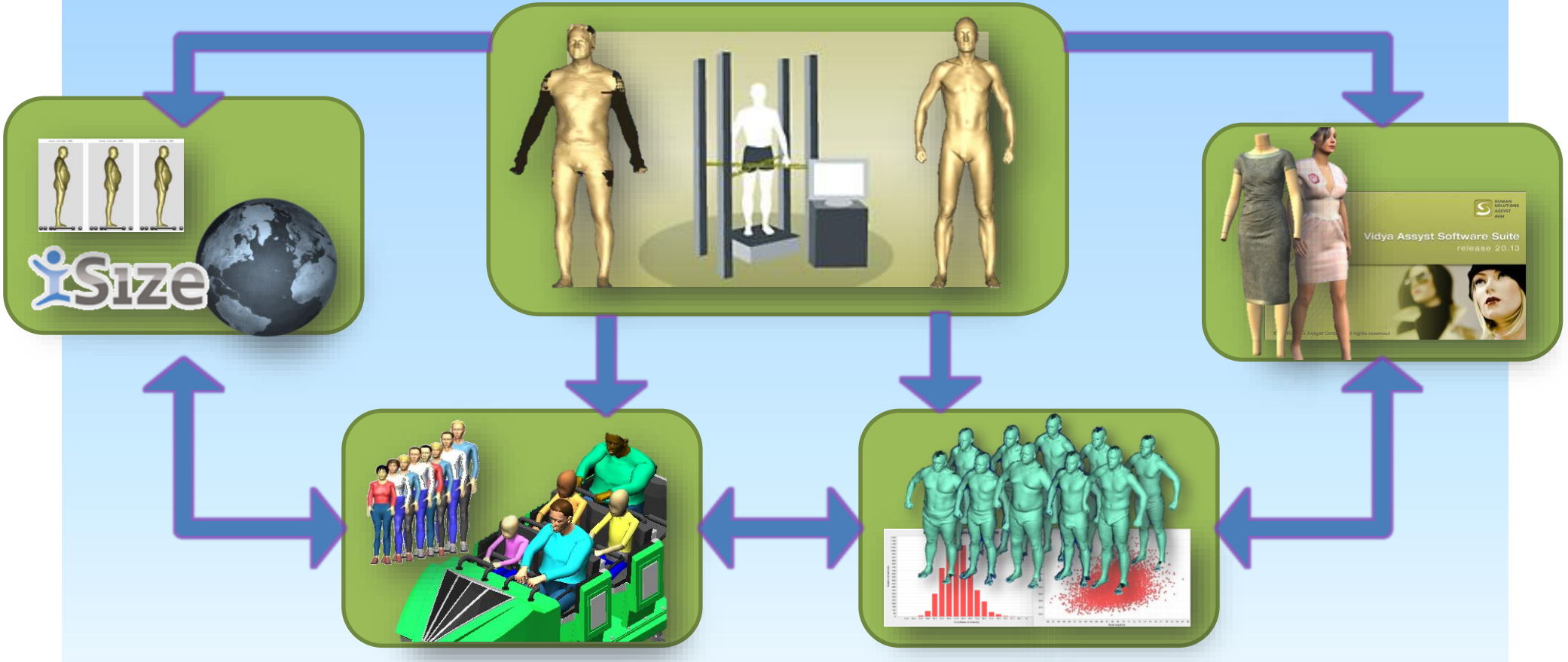
Success Stories in Medicine
Sanomed Orthopaedic Engineering

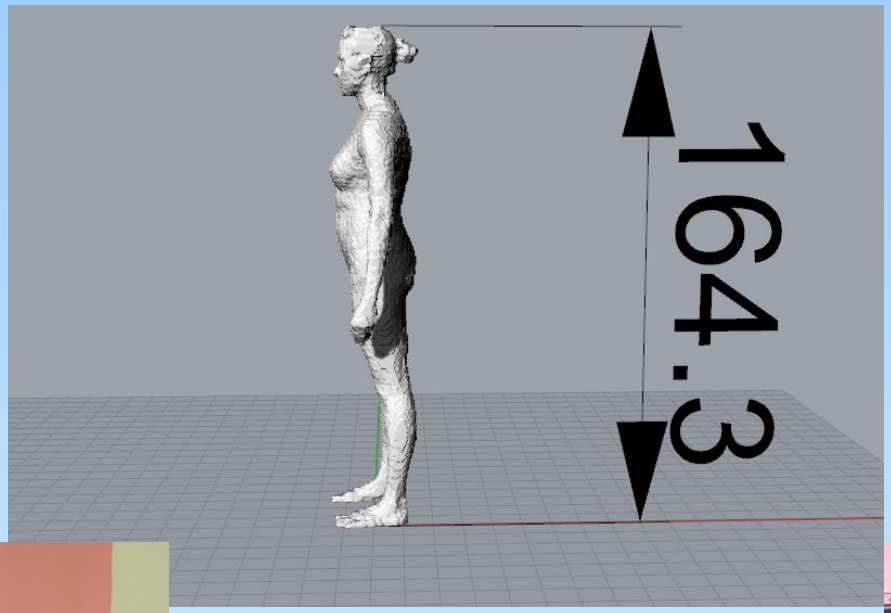
Source: www.sanomed.de Information for Patients – Procedural method scoliosis brace 01/24/2013

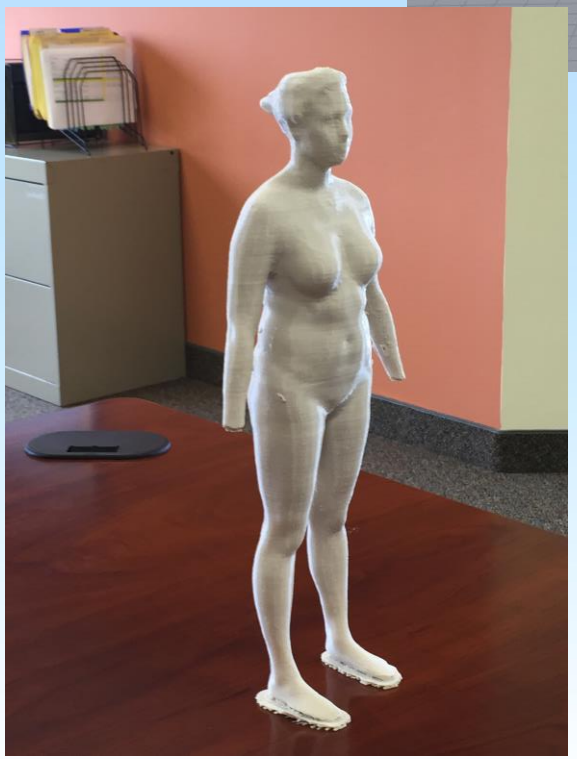
3D Whole Body Scanning

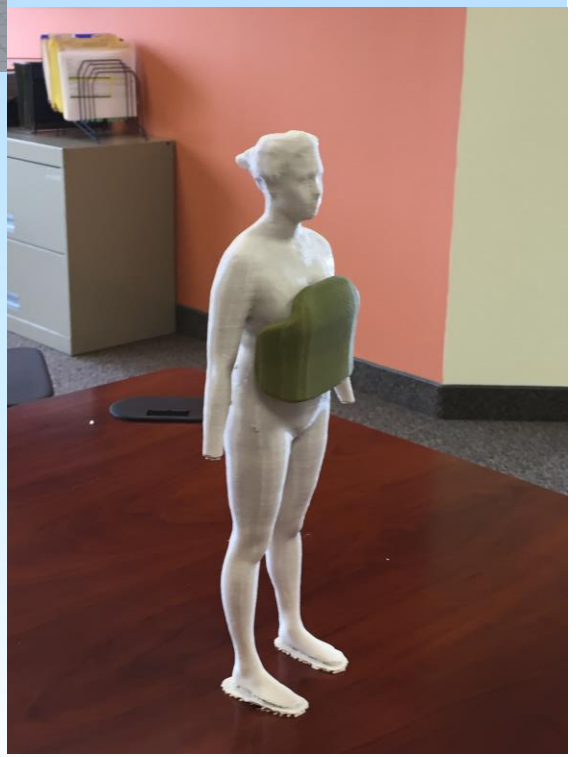
Seamless Integration of Size, Design and Fit Technologies



3D Technology for Prototype Development







Concept behind Measure-IT

Measure Person

Measure Garment

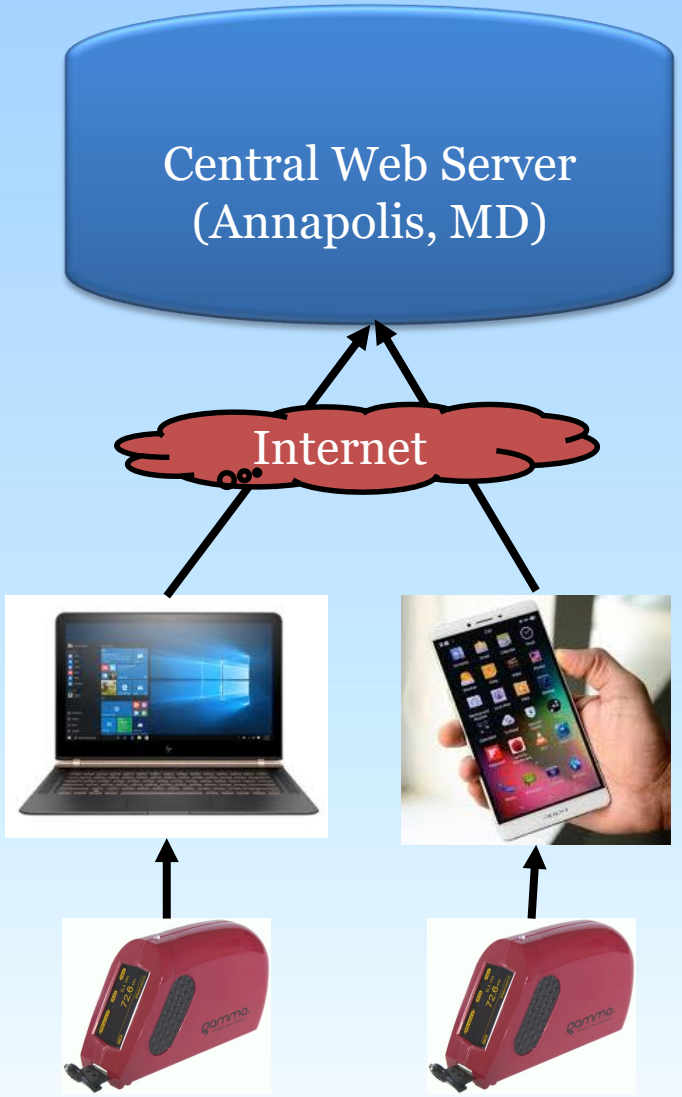
GAMMA / Measure-IT

1. Take Measurement
2. Write it down
3. Re-enter measurement
4. Repeat Steps

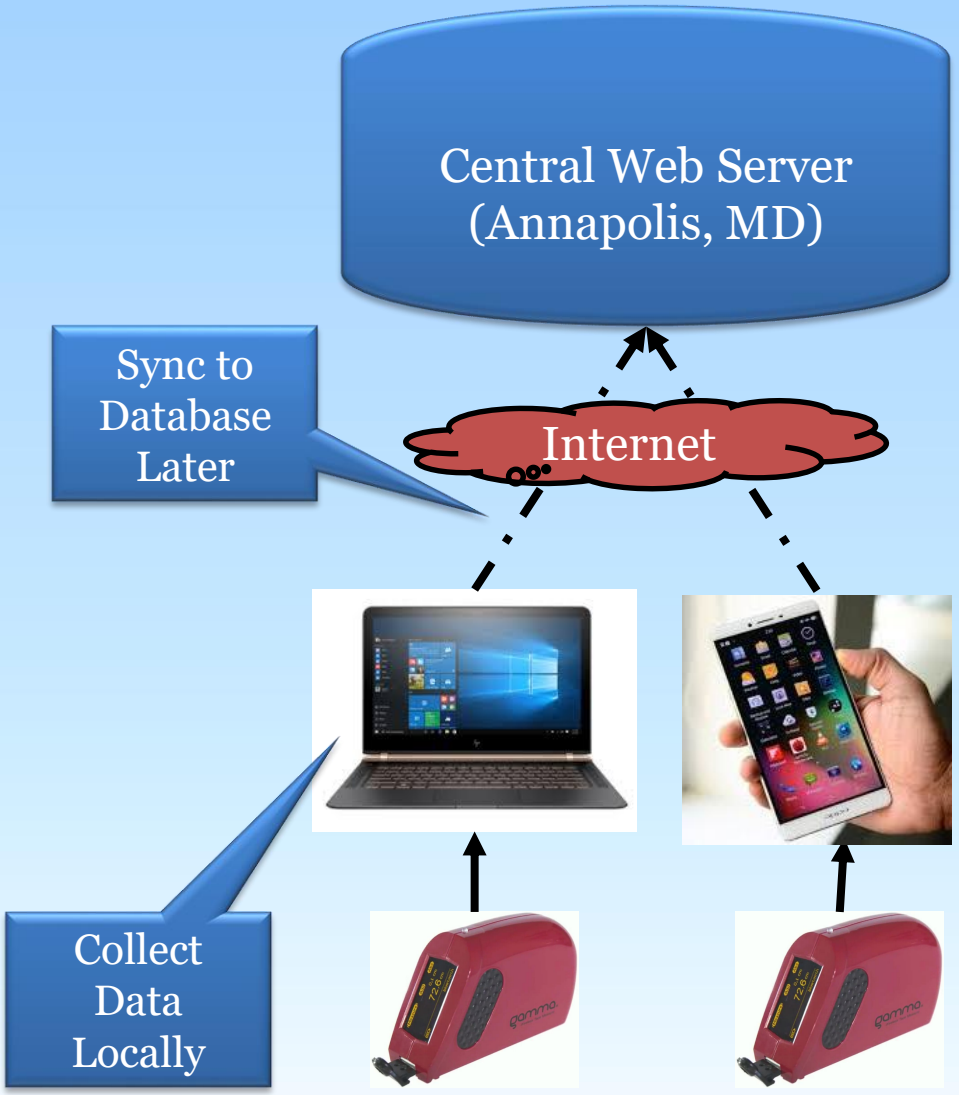
1. Take Measurement
2. Repeat Step

Concept behind Measure-IT

Web-based Application



Local Application with Auto Sync



Concept behind Measure-IT

Multiple Uses

Menu

NSN	Reference	Order Number
suit		

Enter Comments:

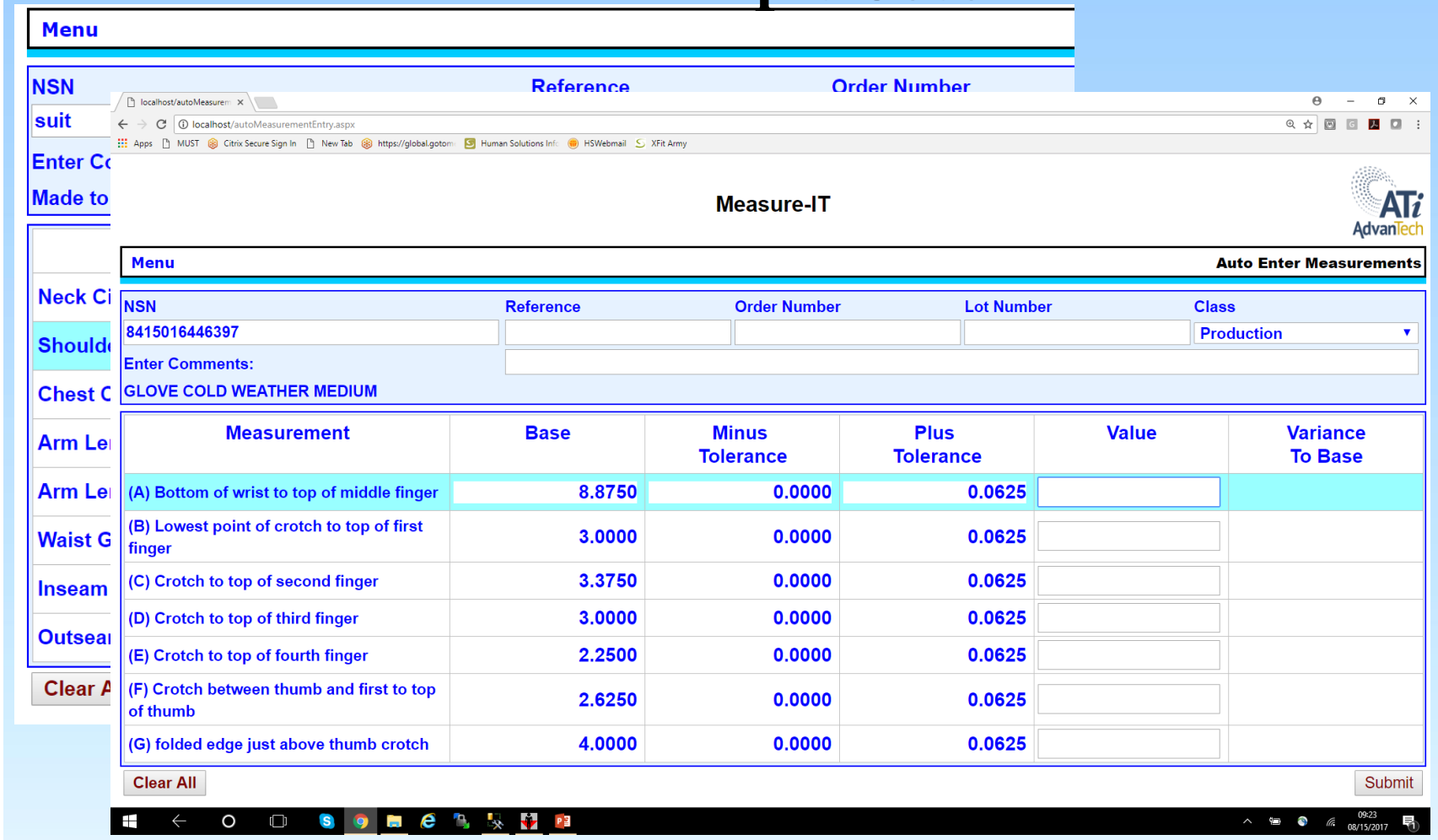
Made to Measure Suit Made to Measure Suit

Measurement	Value
Neck Circumference	
Shoulder Width	
Chest Circumference	
Arm Length Right	
Arm Length Left	
Waist Girth	
Inseam	
Outseam	

Clear All Submit

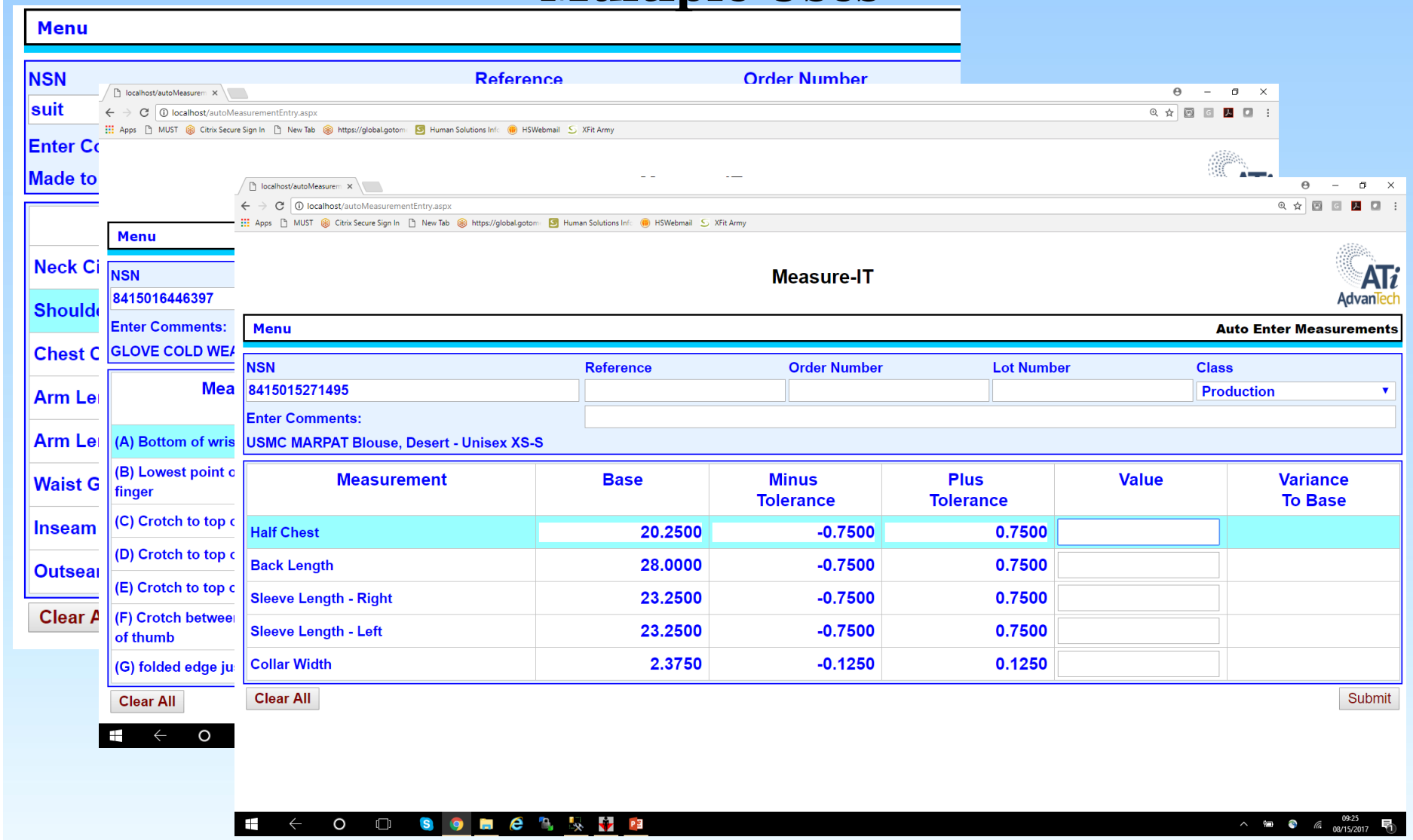
Concept behind Measure-IT

Multiple Uses



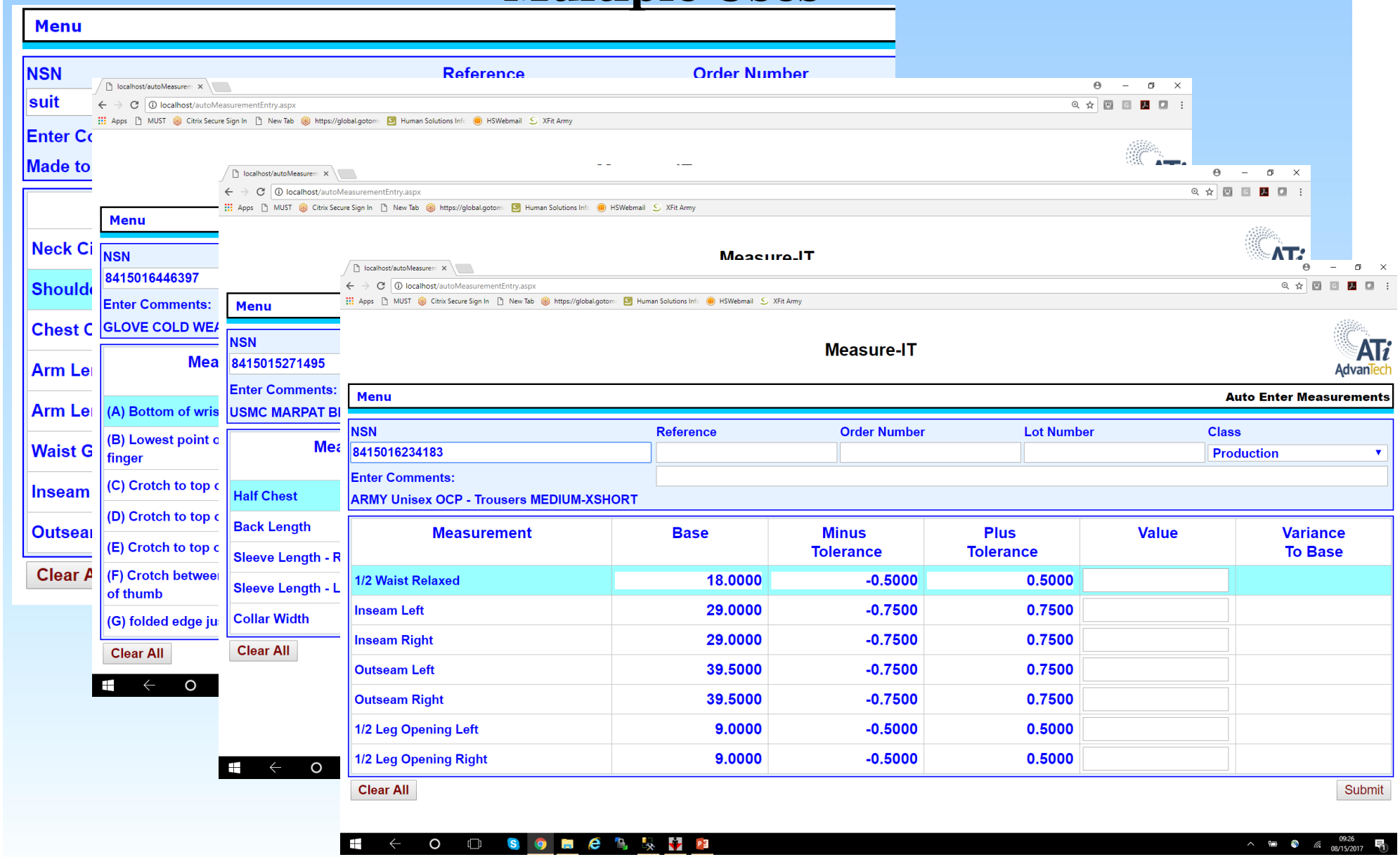
Concept behind Measure-IT

Multiple Uses



Concept behind Measure-IT

Multiple Uses



Concept behind Measure-IT

Customizable Reports

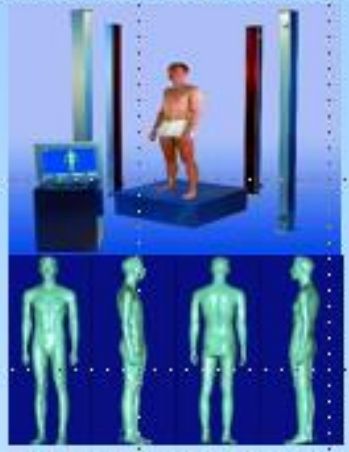
Final Inspection Report
USMC MARPAT Trousers, Woodland
Unisex

End Item:	USMC MARPAT Trousers, Woodland - Unisex				
Contract:	124012				
Spec. No./Date:		Disposition:	Accepted ☐	Rejected ☐	
Lot #: 2	Lot Size:	Sample Size: 4	Accepted ☐	Rejected ☐	
QC Auditor:		Date:	3/2/2017 4:49:09 PM		

Size	Tolerance	1/2 Waist Relaxed +1/2,-1/4	1/2 Waist Stretched NA	Inseam Left ±3/4	Inseam Right ±3/4	Outseam Left ±3/4	Outseam Right ±3/4	1/2 Leg Opening Left ±1/2	1/2 Leg Opening Right ±1/2
S-L (10004)	Spec.	14	16	34.75	34.75	45.75	45.75	17	17
	Actual	15.16	16.1	33.43	31.46	44.21	49.33	14.69	16.61
	Variation	**1.125**	**0.125**	**-1.375**	**-3.250**	**-1.500**	**3.625**	**-2.250**	-0.375
XS-XS (rfid)	Spec.	12	14	28.75	28.75	37.75	37.75	17	17
	Actual	12.95	14.45	23.82	27.32	22.44	30.55	16.89	16.81
	Variation	**1.000**	**0.500**	**-4.875**	**-1.375**	**-15.250**	**-7.250**	-0.125	-0.250

Thank you for your Time

Measuring Devices



Whole Body Scanning

Kinect

Foot Scanning

Hand Measuring

Measure-IT

AdvanTech ACCURACY. VISIBILITY. ACCOUNTABILITY.

User:
Password:
Logon

AdvanTech