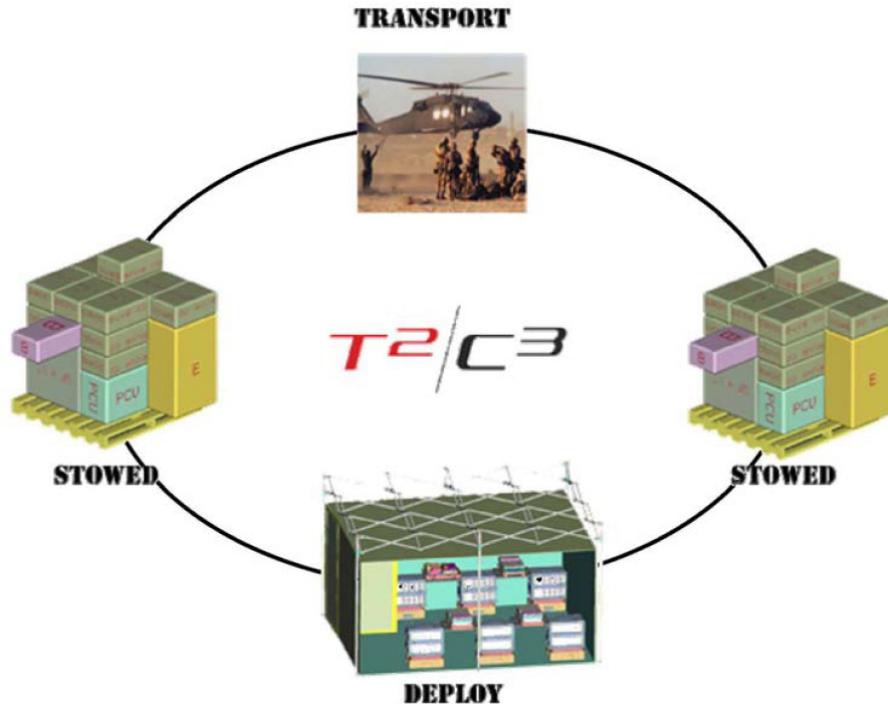


THE **T²/C³** GROUP



The T2C3 Group is a group of companies that have combined their hardware design, development and operational concept experience to provide solutions for the rapid deployment of tactical computer and communications systems.

The result is a modular, scaleable, open architecture system design that covers everything from a single airline carry-on sized case fly away system to a complete 4 person command center.

Customers utilizing the platform design approach, rapid prototyping and test range can go from a “custom COTS” based idea to operationally tested unit in as little as 30 days.

The 4 person command center includes all of the computer and communications equipment configured to fit in a SCIF with Air Conditioning that weighs less than 1500 pounds and will fit on a single 4' x 4' pallet at a cost substantially less than the typical configuration with the same performance requirements.

The 4 person command center is packaged in modular, airline carry-on sized (9”x14” x22”) environmentally sealed, shock isolated cases that can be stowed on a standard warehouse rack, loaded with a forklift into a volume the size of a pickup truck bed and deployed to a full operational state in less than 60 minutes by 2 persons including the erection of a tactical SCIF with air conditioning.

This group was brought together to enable the customer to get support from concept to fielded deployment utilizing field proven hardware, software, and operational concepts and training.

The hardware and software components that provide the system platforms are provided by:

1- Action Systems

- a. Developed tactical platforms for computer and communications systems in an airline carry-on sized case (9"x14"x22") that was environmentally sealed and shock isolated.

The following authorized resellers have configured systems for the respective customers that they have worked with:

1- Action Systems www.actionsystems-us.com

- a. Focused on the Intel and Counter Intel applications Action Systems has configured and delivered hundreds of systems into the field and is currently providing life cycle support 10 150+ systems to both the USMC and DIA.

2- ADHOC Systems www.adhocsystems.net

- a. Focus on the Special Operations secure communications challenges Ad Hoc has configured and demonstrated configurations based on the Action Systems platforms that are tailored to forward deployed SOCOM type missions.

The building blocks for T2C3 are all field proven, test configurations that can be combined into a configuration that is a turn-key tool for the user as follows:

1- Action Systems Cases

a. 2100 Series

- i. Airline Carry-on Sized (9" x14" x22")
- ii. TSC hard plastic shell
- iii. Integral wheels and tote handle
- iv. Stackable configuration is available



b. 2200Series

- i. Airline Carry-on Sized (9"x14"x22")
- ii. Rotationally molded shell
- iii. Integral wheels and tote handle
- iv. Stackable configuration



c. 2300 Series

- i. Airline Carry-on Sized (9"x14"x22")
- ii. Rotationally molded shell
- iii. Holds standard 19" rack mount components up to 3U and 12" deep
- iv. Integral wheels and tote handle
- v. Stackable configuration

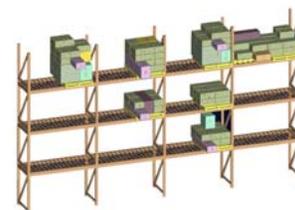


d. Example of integrated communications center

- i. This six case configuration will fit in a space as small as the trunk of a Ford Victoria or in a space smaller than the size of a four drawer file cabinet.



e. Stacked cases, systems stowed on 4' x 4' pallet, and on a pallet in standard racking



The programs that have “field proven” the building blocks are as follows:

1- Action Systems

a. CRISP II Developed for DIA; currently over 150 units fielded

CRISP II Crisis Support Package



Description: This Crisis Support Package (CRISP) can:

1- Create graphics and video work product anywhere with:

- a) Rugged 3 Spindle PIII Computer
- b) Color Printer/Scanner
- c) Video Input Devices (Firewire and USB)

2- send and receive Secure (NSA Type 1) data by INMARSAT M4 and POTS (Plain Old Telephone System) at 28.8Kbps; and

3- send and receive non secure data by INMARSAT M4 and POTS at 56Kbps.

4- Case can operate on:

- a) wide range AC (85 to 265 VAC)
- b) wide range Dc (10 to 30 VDC)
- c) 3 hours of stand-alone time

5- Case is environmentally sealed and has shock isolation system

Size/Weight: Airline Carry-on (9" x 14" x 22"), 45 pounds

Vendor/PM: Action Systems, a division of V&A Incorporated
DIA DHS, Mr. Les Minihan

Status: The CRISP II has completed first article testing and the initial production in in process

b. CIHEP USMC CI with currently over 150 units fielded

Counterintelligence Human Equipment Program (CIHEP)

Company HQ/TSCM Configuration



Operational Configuration



Telephone: (505) 526-6606 • Web: <http://www.goaction.com>

c. SPAWAR COMSEC Fly-Away Systems 2100T and 2100TS



*SPAWAR Systems Center
San Diego Det St. Juliens Creek*



Once the T2C3 system has been configured the configuration can be tested and trained on at the CITER (Compatibility and Interoperability Test Range) located at Action Systems facilities in El Paso, Texas, utilizing the offices in downtown El Paso (located on the town square) and the main facility located in north El Paso overlooking the mesa as pictured below.



This location allows systems to be evaluated, tested and trained on in the same environment as DOD uses for the annual Roving Sands exercise with the following conditions all being available within the test range:

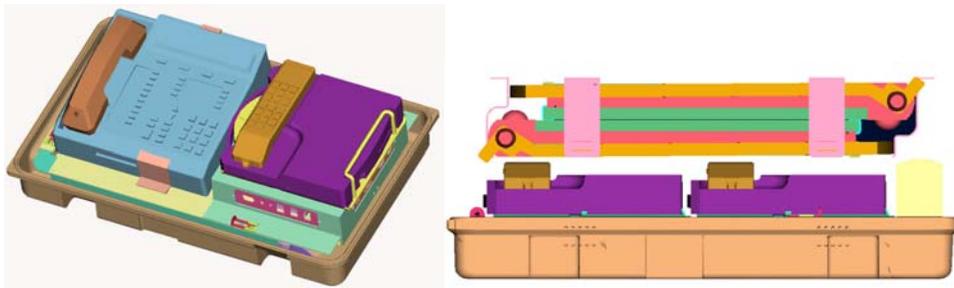
- 1- High desert
- 2- Urban
- 3- Mountain to desert
- 4- Over the mountain
- 5- International (Mexican) border (radio interference adjacent to the border is common).

The main facility (pictured below) has a large training and Video Teleconferencing Center that is used for training and communications with customers utilizing our VTC systems. In addition our COMSEC area could be cleared for use for classified VTC.



The rapid prototyping and first article production utilizes Solid Modeling (both Solid Works and Pro/E) and the CAD machinery including a CNC Brake, and CNC Prototype PCB machine.

The following are actually solid models of proposed systems:



These can then be fabricated utilizing our model shop including the CNC brake that will import the solid models to make the proper bends.

HFE LOW TONNAGE PRESS BRAKE

HIGH-PRECISION HYDRAULIC DOWN ACTING SYSTEM



The Amada HFE series of press brakes represents the next evolution in bending technology. This high-precision, hydraulic down acting press brake features a redesigned lower bed, high speed hydraulics and high speed gauging system.

Combined with Amada's advanced CNC controls, the HFE press brake series virtually eliminates time consuming shimming and offers quick set-up even for multi-stage bending.





Front View

◀ LOWER BED DESIGN

The unique technology incorporated in the design of the lower bed ensures parallel deflection between the upper and lower beams. This provides superior angular accuracy over the length of the bend.



Front View

◀ HYDRAULICS

Compact hydraulic system provides high-speed ram movement while maintaining a very high degree of ram repeatability, resulting in superior bend accuracy and increased productivity.



Rear View

◀ BACKGAUGE

High speed, heavy duty 5-axis backgauge reduces positioning time and easily handles staging of complex parts.

Utilizing the operational experience of the T2C3 group, the platform design approach, the rapid prototyping capabilities and the test range facility a customer concept can be taken from Idea to Deployment in 30 Days Utilizing COTS (Commercial off the Shelf) Based Platforms following development sequence:

- 1- Clarify Defined Requirements
- 2- Select “Best of Breed” Components for required functionality
- 3- Define “missing” pieces from system
- 4- Rapid prototype “missing “ pieces utilizing CAD (Computer Aided Design) and CAM (Computer Aided Manufacturing)
- 5- Performance test on CINTR (Compatibility and Interoperability Test Range) and at the ITS FAC

- 6- Review performance and correct any deficiencies in configuration utilizing CAD and CAM
- 7- Repeat steps 3 to 6 until performance criteria is satisfied
- 8- Fabricate first articles, verify design
- 9- Repeat steps 3 to 6 until performance criteria is satisfied
- 10- Build deliverable units
- 11- Deliver

Note that the following assumptions are keys to “Rapid Development to Deployment Plan”:

- 1- Action Systems has “standard” platforms which will support a very broad selection of tactical computer and communications equipment making a major portion of a “new” system proven with “qualification by similarity” logic
- 2- Action Systems has over 12 years of experience with a wide range of “State of the Market” and “State of the Art” computer and communications equipment
- 3- Action Systems affiliate (The IDEA Company) is experienced at using solid modeling (Pro/E and SolidWorks) to model designs for review by customers
- 4- Action Systems has a dedicated Test range (access to over 1000 acres) as part of our facilities which allows field evaluations in high desert, mountain, and urban environments adjacent to our facilities
- 5- Action Systems CTR test support effort ensure a complete product evaluation of secure computer and communications systems that must operate within the United States Government structure.

The bottom line is that the T2C3 group has extensive experience in design, manufacture and operational support of tactical computer and communications systems and can support a customer from the creation of a requirement document through product development to fielding, training and logistics support of that system.