technical furniture and control room solutions
Thinking Space Systems Ltd was founded in 2003 by Managing Director Wayne Palmer. The company, which is based in Romsey, Hampshire, specialises in the manufacturing of bespoke control room furniture but has grown to provide other services and represents globally branded products.

The Thinking Space focus has always been on improving working environments. Through carefully adding quality products to the range and developing new solutions, the company is ever widening its range of solutions to the customer.

In 2006 the Kanya aluminium build system was added to the Thinking Space portfolio and in 2009, Thinking Space became the exclusive UK distributor of the Novus desk accessories system.

In 2010, Thinking Space designed and manufactured its own monitor mounting system, the Evolution media wall. This product, although perfect for control room applications, opens up doors into new markets for the company.

Thinking Space is a conscientious company which ensures it delivers high quality and good service as standard. As part of its core values, the Company’s aim is to always exceed its customers’ expectations, to provide a professional service and to strive to achieve.

As part of the these goals, Thinking Space is currently working towards the Investors in People Award and ISO9001 certification.

In 2008 Thinking Space won the Small Business of the Year Award.
Thinking Space builds all control room furniture to sustain the busy 24/7 environment that it is made for. All furniture comes with a 10 year guarantee that meets the British Standard for control room requirements. As Thinking Space uses only man made materials to construct its furniture, it can ensure the supply of exact finish and colour matches for the period of guarantee.

As part of the sales service, Thinking Space will visit the site, discuss the client’s requirements and make recommendations as to how to best proceed with the project. It is the Thinking Space ethos to offer the most innovative solutions that its products can provide and budgets allow. All proposals are supported with technical drawings and quotations that are updated as the project evolves and all designs follow the specifications of the necessary British Standards and the requirements of modern ergonomics.

The complete solution
Thinking Space can project manage control room projects from start to finish. With experience in new builds, refurbishments and fit-out works Thinking Space provides more than just the furniture.

Inspecting the build
Every product is completely built and finished for inspection at the Thinking Space premises. It is an opportunity for the clients and contractors to inspect the builds and meet the manufacturing engineer who will install on site.

The TSS build system
The TSS aluminium build solution is the most innovative connecting system within the control room furniture market. The lightweight flexible extrusion system is the backbone of all technical builds, providing the framework for the cladding panels and worktops to fit to. The aluminium extrusion finish gives an aesthetic modern look and an engineering flexibility that allows infinite design possibilities.

Modernisation
The focus for all Thinking Space control room projects is to modernise the client’s work space. Control room furniture is replaced approximately every 8-12 years so when re-fitting it is important to create an environment that is in keeping with the design trends of the time. Thinking Space aims to provide a finish that complements the technology that is being installed as well as a comfortable spacious workplace for the staff.

Future-proofing
Just as important as offering the client a fantastic installation is the ability to be able to support the site in the future. Many control rooms expand their operations and/or accommodate additional services – and this is where Thinking Space has a competitive advantage. The TSS aluminium build system can be easily modified to suit the new requirements and as Thinking Space uses only man made materials, all new parts will exactly match the old.

Why choose Thinking Space?

10 Year Guarantee

Free Design Service

The complete solution

Inspecting the build

The TSS build system

Modernisation

Future-proofing

Why choose Thinking Space?
**Design process**

Thinking Space System’s free initial design consultation is an opportunity for clients to voice their requirements which form the basis of the planning and design process.

**CAD software**

The technical drawings provided by the sales team as part of the proposal stage is the initial part of the Thinking Space design process which is continued throughout the manufacture and building of the furniture.

The drawings of all builds are kept on record and can be used to assist with easy repair, adjustment or expansion of any builds as and when required.

Once a project has been ordered and approved by the client, the software is used to create a cutting and drilling list for the Thinking Space engineers to work to.

The build list itemises all the parts used to create the technical framework of all structures. Once every part is prepared the drawing is then issued to assist with the assembly stage.

Detailed 3D renders are provided.

**Ergonomics**

The relevant guidelines and legislation covering control room design such as ISO 11064 – the ergonomic design of control consoles – is always taken into account at the design stage. Every Thinking Space control room complies with BS EN 58904 – the ergonomic standards for VOUs, in addition to the legislation regarding lighting, noise levels, the prevention of repetitive strain injuries and good posture.

Less-abled control room users are always given consideration as designs are fully DDA compliant. Thinking Space follows British Standard guidelines including BS 5619, BS 5810 and BS 5540.

To ensure a fully ergonomic solution, Thinking Space provides an array of products to support its control room designs including the Novus range, which features fully adjustable monitor mounts. 24 hour control room chairs and automated desks are also regularly supplied.

**Standards**

Thinking Space’s draughtsmen are experts in ergonomics and control room design. Whether it is a complete turnkey solution or a single piece of furniture, all drawings are compliant with the standards specified in ISO 11064 as well as meeting the requirements of modern ergonomics.

References, supported with drawings, are made to highlight viewing lines and eye levels in every design proposal. Recommendations are made with regards to layout, furniture design and other features that can overcome obstacles or problems that arise within the current set-up.
Key differences between Thinking Space’s products and others on the market today are the materials used and the engineering methodology behind them. With bespoke builds it is essential that the materials ensure the manufacturer has as much flexibility as possible so as not to limit the solutions available.

**TSS aluminium build system**

The TSS aluminium build system was designed by Thinking Space specifically to build technical furniture for control room environments. Its clean finish ensures a modern aesthetic look that complements new technology – and the difference between a dated traditional control room and a Thinking Space aluminium control room is remarkable. However, the strength of the TSS aluminium system is not just in its appearance – the aluminium build provides technical and future-proofing advantages as well. For example, aluminium has heat dissipating properties that are not found in wood which help keep internal equipment cool.

**Cladding material**

Thinking Space uses its own in-house panel material to clad the furniture it manufactures. The panels are an aluminium composite material covered with a choice of laminated sheets offering a range of finishes. The 6mm panels provide a strong yet lightweight solution for the removable panels used in the console and monitor walls builds. The cladding panels can be powder coated to a RAL colour of choice. The flexibility of the cladding material allows ventilation holes or slots to be detailed without affecting the stability of the panel. The panels can also be engraved with corporate logos or designs.

**Worktops**

The hard wood/MDF composite worktops used as part of the Thinking Space consoles are hard wearing and durable to ensure the life of desks within 24/7 environments. The worktops are an essential part of the aesthetics of the desks and as such, design time is given to make these as innovative and stylish as possible. The tops are shaped within the design office as per the client-approved drawing and cut out on a CNC machine. Any shape can be manufactured and curves are encouraged to customise the design.

**Environmental qualities**

Thinking Space uses only man made recyclable materials to manufacture its furniture wherever possible. The frameworks of all structures are manufactured using the TSS aluminium system and the cladding material used is also a recyclable aluminium composite. The Novus monitor arms are also 100% recyclable being a combination of aluminium and plastics. In many cases, up to 90% of Thinking Space builds are completely recyclable.
All Thinking Space builds are completely bespoke and manufactured to suit the requirements of the site and the client’s specifications. This makes each piece of furniture unique. However, certain aspects of the designs are always required such as cable management, removable panels, service voids. These are essential elements that make Thinking Space furniture fit for purpose within 24/7 control rooms.

**Equipment bays**

Lockable storage bays can be built into the desk framework to provide a housing for PC towers or rack mountable equipment. The bays are fronted with lockable smoked glass doors to allow easy access to equipment when needed. All panelling fitted around the bays is ventilated to allow maximum airflow around the equipment.

**Removable panels**

As the panels are not a structural part of the build, the number of removable panels is completely optional. Measuring access is another competitive advantage that Thinking Space can offer.

**Cable management**

Thinking Space provides cable management as standard within all its technical furniture. It is important that power and data cables are stored separately, tidy and within an accessible storage solution for easy maintenance. Cabling drops from the worktop through grommets at the base of the monitor arm columns and through cable entries within the desktop.

**Service and maintenance void**

The cable management is mounted in the void at the rear of all desks. The void is built to be completely open without any bulkheads, allowing the cable management to run unobstructed throughout. This area can be used to locate power distribution units, PC towers, KVM switches and other equipment. Access to this area is via the removable panels at the front or rear of the consoles.

**Drawer pedestals**

To provide paper and filing storage, drawer pedestals can be built into the framework of the consoles. All drawers feature the ‘soft close’ effect for a professional finish. The drawer fronts can be manufactured from the TSS cladding material or with a wood affect.

**Equipment up-stands**

As a solution for collating numerous services and desktop equipment, Thinking Space can manufacture equipment up-stands. The up-stands sit on the worktop and can be built to accommodate intercoms, release buttons, alarms and radio equipment. Smaller equipment pods can also be provided for gathering smaller local services together to be positioned between operators.

**Bespoke solutions**

Thinking Space’s materials give it the flexibility to manufacture the bespoke solutions required by various sectors which include:

- Reversible flight strip holders
- Automated consoles
- Electronic flight strip mounts
- Built in PIP panels
- LED lighting
- Mapping boxes
- Adjustable equipment boxes
There are many advantages in allowing a control room specialist to oversee a complete ‘turnkey solution’. With over five years of experience in fit-out projects, Thinking Space can provide a seamless solution that guarantees the best scheduling and budgeting of all aspects of the program of works. This expertise covers refurbishment, new build and modification works.

**Fit-out projects**

**Fit-out works**
The demands of control room applications differ from standard office fit-out projects. The environment created must be sustainable for 24/7 use. All elements installed must therefore be specified for this task. Control rooms must also comply to BS 11064 and be aware of the ergonomic demands of the operators.

The complete control room service offered by Thinking Space ensures an easy procurement process for clients and contractors alike, as the project is handed to a control room specialist who can cover all scopes of work.

Thinking Space has established a network of national contractors that are now experienced in providing a Thinking Space control room solution. These contractors follow the guidance of the Thinking Space project manager who implements the agreed ergonomic control room solution.

**Project management**
Each fit-out project is assigned a Thinking Space Systems Project Manager who is responsible for the successful planning, execution and completion of the installation.

For every project a site survey is undertaken providing an opportunity for the TSS Project Manager to meet the client and gain an understanding of the site and all its characteristics. Room dimensions, access routes and health and safety considerations are all recorded and added to the criteria of the installation.

For larger projects the role of the TSS Project Manager is even greater. It is within their remit to provide a comprehensive scope of works, undertake site surveys, complete risk assessments and method statements for all aspects of the work involved. They will be the main point of contact throughout the project duration and will be responsible for all Thinking Space staff and any sub-contractors appointed. The TSS Project Manager is also responsible for making sure that all parties are working together to the same timescales and liaising with the project manager of integrators, architects, consultants and of course the client.

**Case study: Sheffield City Council**
In the summer of 2008, Thinking Space was successful in winning the contract to design and build the new Urban Traffic Management Suite for Sheffield City Council. The scope of the work included the complete refurbishment of an office floor to provide a new road traffic control room, server room, meeting room, kitchen and two open office areas.

Thinking Space supplied the technical furniture which included two large three operator consoles and a fixed acoustic wall for the eight 50” rear projection screens. Bespoke task lights were also supplied that match the design of the consoles. The careful planning, management and execution of the project by the Thinking Space Project Manager ensured that the contract was completed on time and to budget. By working closely with the client and architects, Thinking Space has provided a facility that has become a showpiece for the road traffic department and Sheffield City Council.

Stages of the 12 week Traffic Management Suite project

**The scope of works available includes the following:**
- Air conditioning
- Raised access floors
- Data cabling
- Flooring
- Suspended ceilings
- Lighting
- Electrical services
- Wall partitions
- Decoration
- Demolition and removals
- Fittings and furnishings

Urban Traffic Management Suite for Sheffield City Council

Before: poorly lit wooden control room

After: modern refurbished installation

Improving working environments
- CCTV control rooms
- Concierge control suites
- Alarm receiving centres
- Security desks
- Command & control suites

Leeds CC/Metro
Compliance

All Thinking Space furniture and control room designs comply with ISO 11064 and BS 5979 (for ARCs). Technical drawings provide detail on viewing angles and recommendations are made to avoid operational problems such as repetitive strain injuries.

Modifications

Budget issues must also be considered and the wait for funds for a complete control room refurbishment can be long and stressful. Taking this into account, Thinking Space offers its expertise in modifying existing furniture of any material to accommodate new equipment. In many cases new worktops can be fitted to existing bases and monitor arms installed to provide a cost effective solution to provide more desk space for operators and ergonomic mounting brackets for new flat screens.

Technical design

The design demands for security control rooms are often greater than other control room environments.

A security console may have to accommodate up to four screens per operator, some of which may be touch screen monitors. These will act as spot monitors, GUI systems, ANPR screens as well as PC screens for incident logs. It may also house police and shop radios, gate and barrier releases, door entry systems, intercoms, lift monitors and alarm panels. Also telemetry keyboards, PC keyboards, card readers, printers and telephones may be required. Equipment pods can be built in to the desks to gather the equipment in one area, ideally between operators. This keeps everything within easy reach and avoids operators leaving their positions.

Case study: Leeds City Council/Metro

Thinking Space was successful in supplying the new control room space for Leeds City Council and Leeds Metro. The combined control room accommodated a mixture of public space and the Metro’s CCTV cameras. Thinking Space worked closely with the consultants, client and successful contractor to provide an innovative layout for the operators.

The Evolution media wall system was built into the design for mounting the flat screen video walls. The simple open aluminium framework system maximised the space available within the control room by allowing easy maintenance access to the screens from the front. The main console supplied accommodated 12 operators with a three position supervisor desk to match. A bespoke lighting rig was positioned above the desks to provide a choice of lighting configurations.
Evolution media walls

The Evolution range is the latest in media wall technology from Thinking Space offering complete flexibility in mounting flat screen monitors. Built completely from aluminium extrusions, the Evolution system is an aesthetic solution for domestic, commercial and professional environments. Supplied in natural aluminium, black or any RAL colour the Evolution monitor wall can be tailored to the client’s requirements.

Flexible design
The Evolution wall can be built to any height, width or shape. The flexible system allows any configuration of monitor layout to be designed. Uprights are recommended approximately every two metres apart and can be built proud of or behind the screens as required.

Applications
The Evolution media wall is suitable for temporary and permanent monitor wall applications. For the security industry it is an ideal replacement for an existing CRT monitor wall within limited control room spaces. Its’ expandability is perfect for broadcast studios where space is tight and design critical. Other environments such as process control and transport suites are also ideal for the spacious modern look of the Evolution system.

Cable management
A clip in cable management tray is provided as standard. This solution includes a cover hood to complete the elegant look and tidy finish. The cables simply push through the brush strip into the hollow upright, down to floor level.

Standard feet
All feet are hollow to allow cable access through to the (access) floor below. Levelling feet are built in as standard to provide adjustability for uneven flooring and base plates are available for a more permanent fixing.

Ergonomics & design
The Thinking Space team has many years of experience in control room design, ergonomics and human factors. As part of the Evolution sales service, Thinking Space can provide recommendations and advice for clients on the layout and ergonomic design of every Evolution monitor wall. Clients simply state how many mounted screens are required in the space available and the Thinking Space proposal will include technical drawings detailing viewing angles and dimension considerations.

Installation
All Evolution builds can be supplied as an easy to build kit of parts or professionally installed by our installation team.

Tiltable screen system
Integrated cable management
Hollow foot design for cabling

Rendered proposal drawings

improving working environments