

The ABB logo is displayed in red, bold, sans-serif capital letters on the upper left portion of the white robot controller cabinet.The left side of the robot controller features a dark grey vertical panel with several controls: a black rotary switch with a red handle at the top, a large red emergency stop button with a yellow ring, a small white indicator light, a circular keyhole with a key inserted, a service window, and a network port. The main body of the controller is white and has the ABB logo and product name.

The new **IRC5** robot controller

IRC5 has enough goodies
for everyone.

Which one is your favorite?



Modular Controller



Powerful Software Tools



MultiMove




Graphical
FlexPendant



Network capabilities



Easy-to-use



IRC5 sets the benchmark

for robot controllers. The heart of your robot cell, it optimizes all motion for robots and external axes. This brand new product is built on 30 years of world leading robot technology. It comes packed with fresh possibilities for faster processes, shorter cycle times and more effective production concepts.

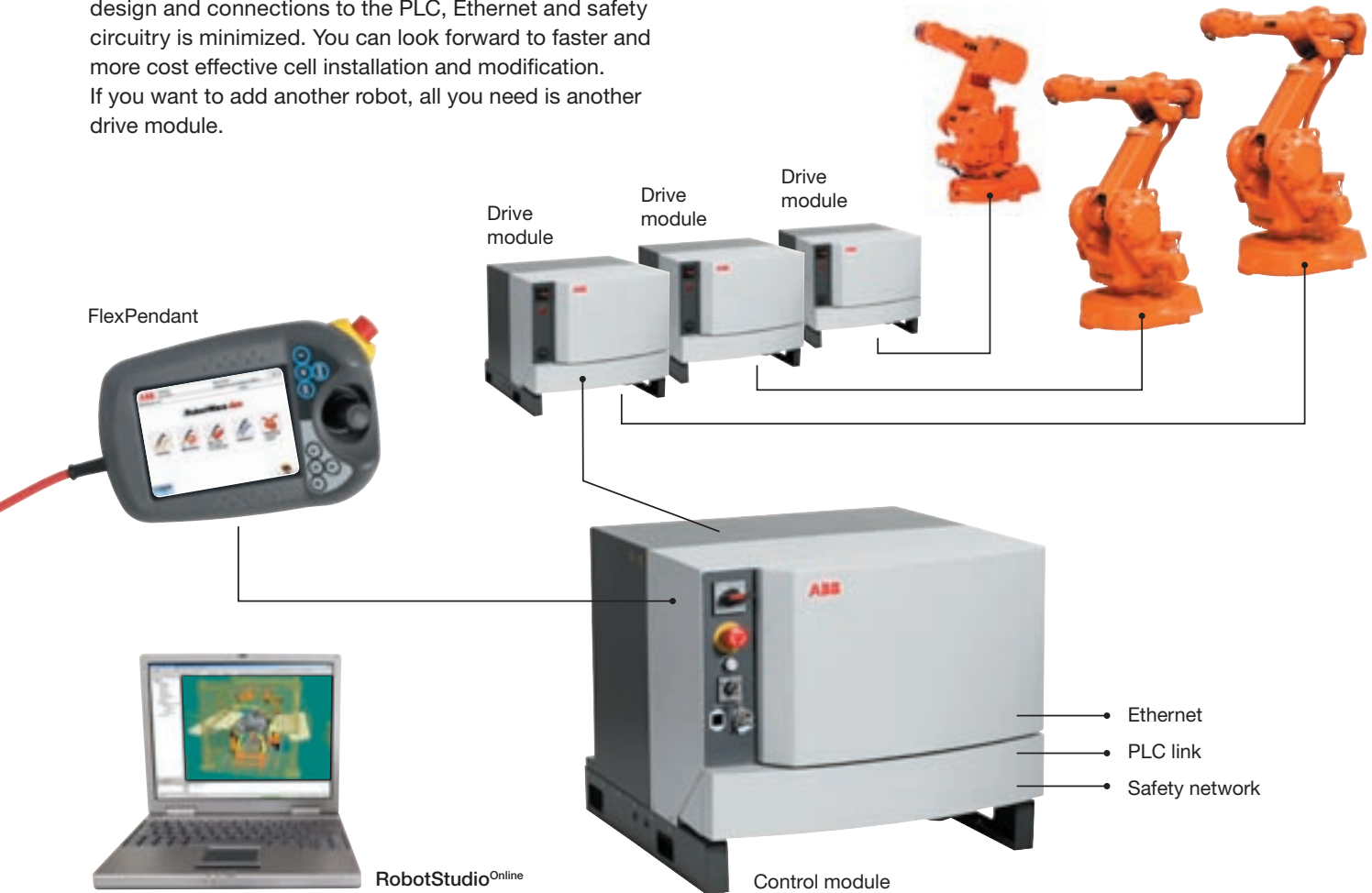
Smooth software tools for programming and design, as well as a new graphical FlexPendant, help to make IRC5 a revolution in user-friendliness.

IRC5 – control your
profitability



The point at which you cut your costs

There's only one point of entry for communication with an entire cell of robots. Which means the cost of network design and connections to the PLC, Ethernet and safety circuitry is minimized. You can look forward to faster and more cost effective cell installation and modification. If you want to add another robot, all you need is another drive module.



Modularity comes as standard

The building-block design of the control and drive modules allows IRC5 to grow with your demands. It is expandable and matches increased production requirements by the simple addition of a drive unit for each extra robot. Even the software is modularized. All the basics are there from the start; you simply add more functionality over time as demands change.

- Stackable modules save valuable floor-space
- Control modules can be distributed 75 m apart for total flexibility
- Each module can be optimally placed, for example drive and process modules together with the robot, and the controller module at the operator station
- Compact controller option - control and drive modules in one cabinet
- Quick and easy front connections for external signals
- All key parts are accessible without disconnecting cables, cutting service and maintenance time



Process module

Complete with connections and an ample power supply, all you have to do is install your process-specific equipment. The height of the module is variable according to the demands of your application.

Control module – the heart of the controller

IRC5's control module houses the CPU, power supply, service port, operator panel, safety interface, customer and FlexPendant connections. The control module includes space for customer equipment.

IRC5 features two Ethernet channels, one for LAN and one for local connection. IRC5 also has two serial channels for communication point-to-point with sensors, I/O units, computers, other production equipment, terminals and printers.

Drive module

The drive module houses power supply and the drive units of the robot as well as additional motors. It also includes the axis computer, which regulates power feed to the robot motors. Front access facilitates smooth maintenance.



IRC5 – built on the robot industry's most advanced operating system

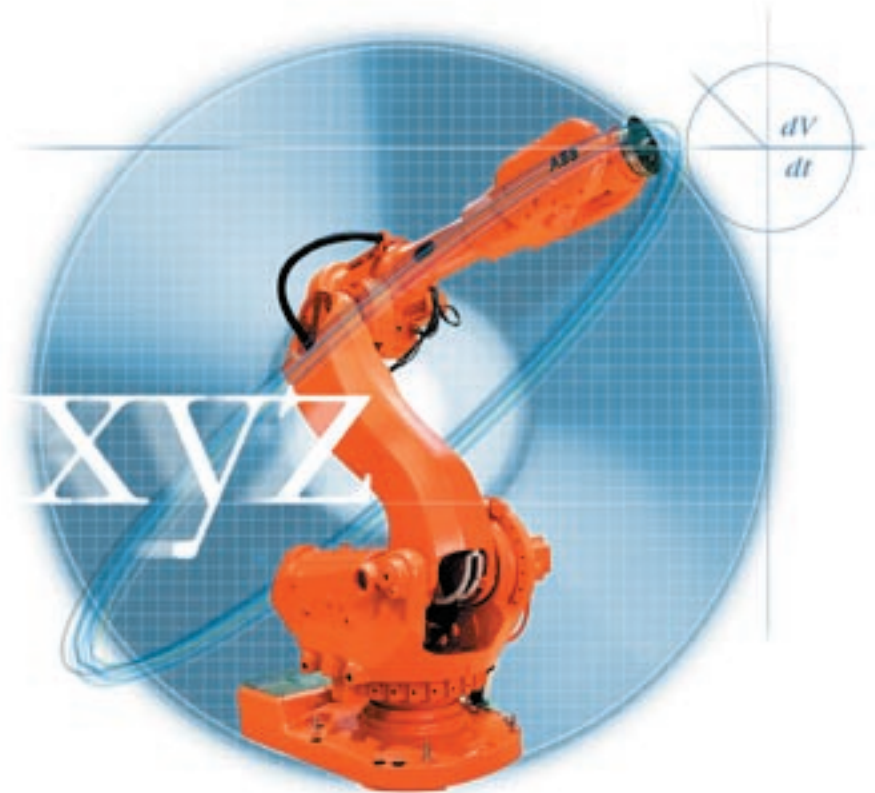
IRC5 is built on the industry's most advanced operating system for controlling robots and peripheral equipment. Featuring RAPID Language, ABB's Motion Technology and Communication, RobotWare OS is the most powerful controller operating system available today.

RAPID programming

This upgraded version of the world's premier robot programming language offers the perfect combination of user-friendliness, flexibility and power.

Good moves

Tried and tested on shop floors the world over, ABB's QuickMove and TrueMove provide the best possible simultaneous path and speed holding. With QuickMove and TrueMove, you get what you program. And thanks to optimized path generation you get dramatically cut cycle times.



Process integration options

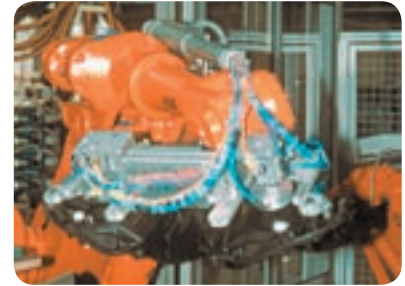
IRC5 offers built-in functions for numerous process applications, precision control of process equipment and advanced error handling. Much like toolboxes, these options include instructions for efficient integration of robots and equipment. RobotWare includes options for arc welding, spot welding, palletizing, picking and dispensing.

Communication

IRC5 is truly “network enabled” by adhering to all relevant standards and by providing all services requested to become an ideal network citizen.

User Authorization System

Defines the correct access level for each user, protecting the system from unauthorized usage.





ABB

Easy-to-use on the shop floor

Easy to use and understand

Thanks to its Windows-based display, custom designed menus and graphical touch screen, operators will easily understand the essentials of the new FlexPendant. It is built on state-of-the-art technology developed in close co-operation with Microsoft. A complete computer in itself, the FlexPendant is unaffected by controller load.

Our new FlexPendant offers a handful of benefits

- Ergonomic design. Can be used by both right and left handed operators. ABB standard 3-way joystick for intuitive jogging of robot. Eight buttons for fast access - four fixed, and four assignable.
- Quick, powerful custom design possibilities using the most sophisticated Microsoft programming tools.
- Truly international. Featuring enhanced language support, including support for Asian characters. Partners and system builders can now integrate in different countries without having to reload the software.
- Compatible with existing RAPID solutions.
- One access point for several robots and other mechanical equipment from the same FlexPendant.
- Hot plug. Possible to connect and disconnect during operation.

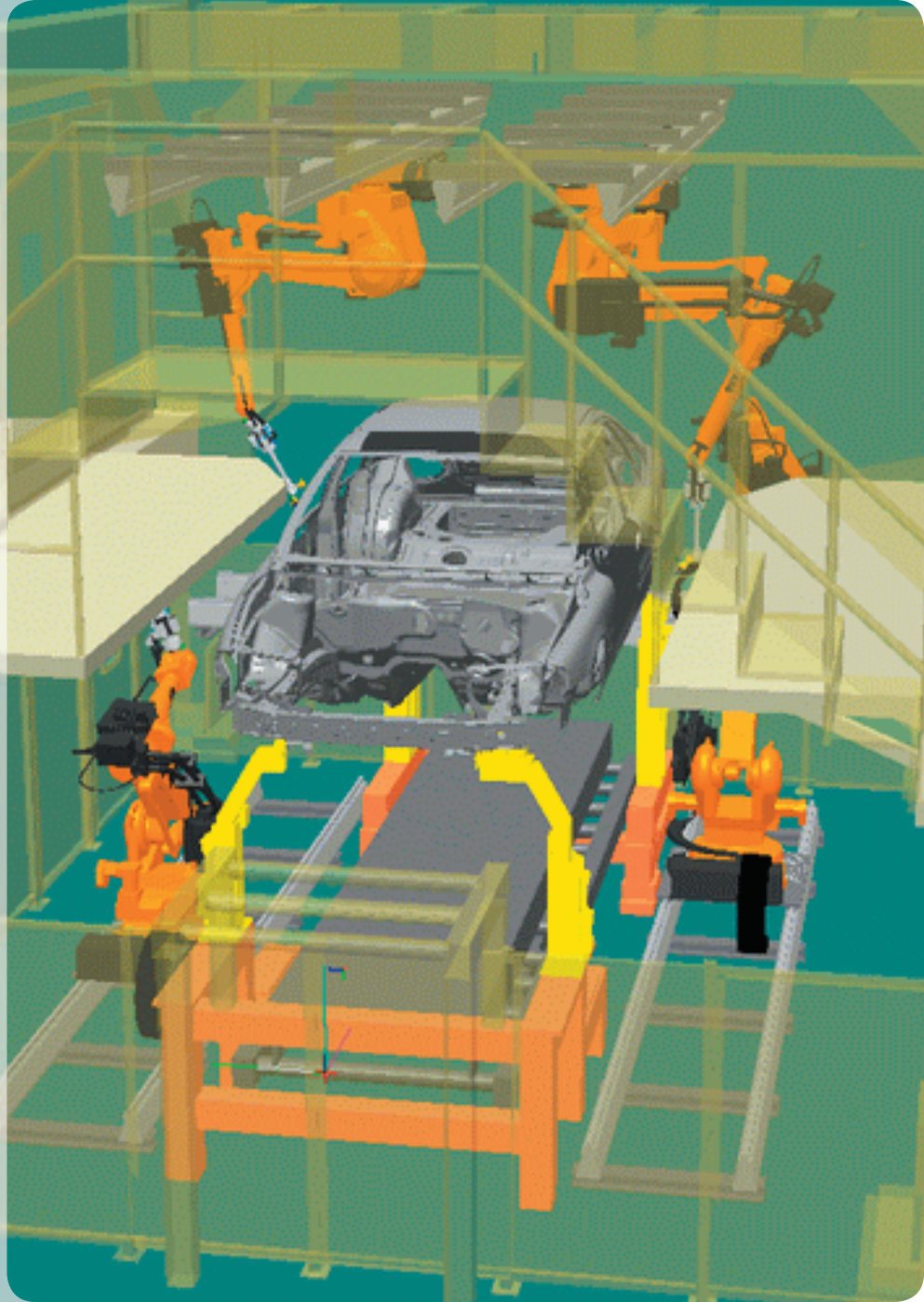


RobotStudio

– True Offline Programming

You don't have to work in production to enjoy the benefits of ABB's controller solutions. Anybody taking an interest in the bottom-line, will appreciate what the new IRC5 – supported by powerful software – has to offer.

A good example of our dedication to customer efficiency is RobotStudio, the most powerful off-line programming tool on the market. Thanks to this product you can be assured that your programs are accurate and ready to go. That is true offline programming at your desktop.



RobotStudio

– True Offline Programming

- Visualize and confirm your solutions
- Minimize risks and downtime
- Cut time-to-market
- Increase quality

VirtualRobot Technology

RobotStudio is based on the second generation of Virtual Robot Technology. Simply stated, Virtual Robot Technology is the IRC5 controller software running on Microsoft Windows. With VirtualRobot, we can put a robot controller on everyone's desktop. Many non-production functions like programming and training can now be done with a VirtualRobot on a PC - allowing the real robots to stay in production.

RobotStudio^{Online} is used to install, commission and service the robot. This is the tool service technicians and robot engineers use to change configurations. It's the one tool you need to learn to get the job done.

RobotStudio^{Online} provides instant connection to IRC5 from your PC. With a mouse click you get instant access to programs, variables, I/Os and events in the controller. All to get a quick and safe start of the IRC5 controller.

WebWare

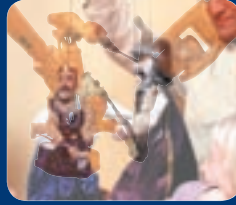
Our Internet based WebWare product, based on Microsoft's .NET platform, helps you maximize uptime and throughput by automatic program backup, real-time production feedback, continuous service information and remote access.

RobotSDK – Customize your IRC5

The RobotSDK Suite is a toolkit for application developers that wish to customize RobotStudio or the FlexPendant.

A standard feature on IRC5, RobotStudio^{Online} gives you the freedom to edit on-line from your PC with tailored tools and wizards.





MultiMove

ABB's Motion Technology is a world benchmark - and we are now offering the most comprehensive motion control package in the history of robotics. This includes a powerful new feature, MultiMove, allowing you to control as many as 4 robots (36 axes) at a time. Common work objects can now be shared between robots, enabling complex coordinated patterns.

MultiMove also facilitates a dynamic switch between independent and coordinated motion.



MultiMove benefits

- Increased process capacity by moving the workpiece against a moving tool using a standard robot solution, the FlexPositioner
- Improved process quality with parallel welding in MultiArc applications
- Reduced cycle time by accessing parts during transportation
- Multiple robots operating on object moved by single-axis or multi-axes positioner (reduces fixturing per robot, cuts cycle time and improves process results)
- Multiple robots work in unison to shift heavy objects, rendering costly conveying systems obsolete
- Allows additional axes control, for example when gantry robots work in unison with 6-axes robots
- Saves space for independent robot operation. One controller module can control up to 4 robots



MultiMove allows applications that were previously impossible – all thanks to the perfect coordination of complex motion patterns.



IRC5 Interactive

For more information on what IRC5 can do for you, check out the CD.

Microsoft Windows (95, 98, 98SE, ME, 2000, XP, or NT 4.0 (Service Pack 6)) 1GHz+ Pentium III (or equivalent) with 64MB+ of RAM Graphics card for DirectX 6+ and 800x600+ resolution CDROM-drive with speed 20x+ or DVD-drive. Software: Windows Media Player or QuickTime Player



www.abb.com/robotcontroller

World leading robot range based on 15,000 units of experience
Ever since 1974, when the first all-electric industrial robot was introduced, ABB has been at the forefront of robot based automation technology. Today, our wide range of robotic products help to optimize production in the automotive, foundry, plastics and food industries. Our products and services are available through ABB's global network of sales and service centers, as well as via carefully selected partners all over the world.