Windows® XP Upgrade

PrecisionPlace Pro
for Windows® XP Pro

PrecisionPlace Pro System was designed to replace the obsolete DOS software & control hardware that runs the Quad 4C with a state-of-the-art Pentium PC, Windows® XP and the PrecisionPlace Pro control software.

The existing control hardware & software are removed from the Quad 4C and replaced with a rack mounted industrial Pentium PC running Windows® XP Pro and the PrecisionPlace Pro control software.

PrecisionPlace Pro Windows® based software was designed by PPM to update the user interface & machine operating system, simplifying everyday machine operation. Easier programming, faster and more accurate setup / changeover times, greater through put, simplified maintenance & repair procedures to name a few of the enhancements.

All of the original Quad 4C features & options are still available with the new control system plus the enhanced features that come with PrecisionPlace Pro.

Installation
The standard hardware can be installed in less than 3-4 hours and does not require a factory trained technician. In most cases the upgrade can be completed by service technicians with minimal technical experiences.

Remote Training, Programming & Diagnosis
Connect your new hardware to the internet and the service technicians at PPM can log in remotely to train you to use the new software program. They can write or debug placement programs or trouble shoot machine problems all from our factory in New Hampshire. Remote access is provided by: **www.webex.com**

After talking with hundreds of Quad users, we decided to implement their "wish list" into a software program.

PrecisionPlace Pro Windows® Control System was designed exclusively for the Quad 4C

Features and Benefits
- Windows® XP Pro Operating System
- Rack Mount industrial Pentium Computer
- Optimization utility for your placement program
- Virtual component placement checking
- Offline programming software
- Built in CAD conversion utility
- Automatic Z height calibration
- Online help menus and user manuals
- Optimizer generates feeder locations on tabletop
- DOS central controller program conversion
- Rapid feeder setup
- Real time, on screen graphical table top representation
- PCB population and component representation with point and click identification
- Tabletop changeover report with feeder locations

PrecisionPlace Pro - General Specifications

IVC Model	/120	/90	/68
Maximum Placement Rate	3600 CPH	3600 CPH	3600 CPH
Component Processing Range	0201 to 76.2mm (3.0") square		
QuadAlign Alignment			
Component range	0201 – QFP 208		
Minimum pitch	.635mm (0.025")		

Control System

User interface	Windows® XP
Camera teach capability	standard
Multi-image panels	standard
Rotated board images	standard
Component pattern repeats	standard
CAD/ASCII data input	standard - CAD for Windows® XP
Feeder optimization	standard - OLS & CAD for Windows® XP
Placement optimization	standard - Offline Loading Station
Line balancing	standard - Offline Loading Station
Integrated PC controller	standard - Industrial rack PC w/Pentium & SVGA

Vision System

Processing type	ICOS MVS 256-gray level pattern recognition system
QuadVu 3 Downward Vision	
Fiducial alignment types	board, panel, local
Fiducial target types	any repeatable image (scene)
Synthetic fiducial capable	square, circle, rectangle
Bad image rejection	standard Vu3
Bad image target types	light to dark or dark to light contrast
Lighting type	LED array
Light level adjust	automatic software control
Field of view	15.24mm (0.6")
QuadVu 6 Upward Vision	Fine Pitch Placement
Lighting type	bright and/or dark field illumination
Light level adjust	automatic software control
Optics type	telecentric
Field of view	38.1mm (1.5")
Multiple field of view	standard (components larger than 1.3" [33.02mm])
Processing time per view	1-3 seconds typical

Positioning System

X-Y drive system	micro-stepper motor-driven**
X-Y encoder type	linear glass scale
X-Y axis resolution	±0.0127mm (±0.0005")
Z-drive system	high performance stepper motor-driven ball spline
Z-axis resolution	±0.025mm (±0.001")
Theta drive system	stepper motor-driven anti-backlash twin gear assembly
Theta axis resolution	0.015°

Standard Hardware Included with Upgrade

New industrial rack mount computer w/ preloaded software
New Interface PCB (replaces EPCU board)
Cabling and mounting hardware
Operator joystick (Replaces Hand Held Programmer)
Monitor and mounting bracket
Keyboard & Mouse
Operator Control Panels

Optional IQ Feeder System on the C-Series

Intelligent Feeders
Reduces set up errors and costly rework
Real time component inventory tracking
Offline Loading Station, to setup feeders offline
Inventory Management
Bar Code System
MT-30 Matrix Tray Handler

Optional Equipment

Detachable base docking feeder cart
Underside board support
MT-20 matrix tray handler
Stationary matrix tray holder
Vibratory Stick Feeders
Offline Programming Station