

THE BECKMAN COULTER VISION

Scriptwriter: Richard Bellikoff

Camera floats through Beckman Coulter demo lab, set up to look like futuristic automated lab with eerie lighting & fisheye lens. We see receptionist, technical staff, operations as described in narration.

SPOKESPERSON (V.O.):

IMAGINE THE FOLLOWING SCENARIO: A MESSENGER ARRIVES AT A CLINICAL LABORATORY WITH SEVERAL TUBES OF BLOOD FROM A PATIENT WARD. THE LAB'S RECEPTIONIST CHECKS THE TUBES FOR BAR-CODED LABELS AND ENTERS THE TEST REQUESTS INTO THE LABORATORY'S INFORMATION SYSTEM. FROM THAT POINT ON, THE PROCESS IS COMPLETELY AUTOMATED. THE SPECIMENS ARE TRANSPORTED -- APPROPRIATE ANALYSES ARE PERFORMED -- RESULTS ARE VERIFIED -- TECHNICAL STAFF ARE NOTIFIED OF ANY ABNORMAL RESULTS THAT REQUIRE THEIR INTERVENTION -- AND THE SAMPLES ARE PLACED IN STORAGE WHEN THE TESTS ARE COMPLETE.

SPOKESPERSON (Sync.):

WHAT YOU'VE JUST SEEN ISN'T SOME SCIENCE-FICTION FANTASY. THE TECHNOLOGY TO ACCOMPLISH THIS KIND OF LABORATORY AUTOMATION ALREADY EXISTS -- AND BECKMAN COULTER IS PREPARED FOR IT, WITH AUTOMATION-READY ANALYTICAL SYSTEMS.

SFX: Laser

Graphic: Vortex, flashback effect to present, taking us to:

INT. Beckman Coulter Demo Lab.
Spokesperson is surrounded by instruments.

Another angle on spokesperson in lab

CURRENT BECKMAN COULTER TECHNOLOGY IS COMPATIBLE WITH THE TOTAL AUTOMATION APPROACH SOME HIGH-VOLUME LABS ARE CHOOSING. BUT IT ISN'T NECESSARY TO RE-ENGINEER YOUR ENTIRE LAB TO ENJOY THE BENEFITS OF AUTOMATION.

Spokesperson moves to Synchron

BECKMAN COULTER'S APPROACH TO AUTOMATION BEGINS RIGHT HERE -- AT THE CHEMISTRY WORKSTATION, WHERE YOU DO THE LION'S SHARE OF YOUR WORK. ONCE YOU'VE AUTOMATED THIS WORKSTATION, YOU CAN GRADUALLY AUTOMATE OTHER AREAS OF YOUR LAB -- AND DO IT AT YOUR OWN PACE AND ACCORDING TO YOUR OWN BUDGET.

Graphics:

Beckman Coulter "Islands of Automation" Approach:

- ☞ **Modular**
- ☞ **Affordable**
- ☞ **Flexible**

SPOKESPERSON (V.O.):

BECKMAN COULTER CALLS THIS APPROACH "ISLANDS OF AUTOMATION." IT'S MODULAR, AFFORDABLE, AND FLEXIBLE. YOU'RE NOT LOCKED IN TO ANY SINGLE AUTOMATION SOLUTION.

Back to spokesperson in lab

SPOKESPERSON (Sync.):

WHATEVER YOUR LAB'S NEEDS, YOU CAN BE SURE THERE'S SOME DEGREE OF AUTOMATION IN YOUR FUTURE. TODAY'S HIGHLY COMPETITIVE HEALTH CARE ENVIRONMENT GUARANTEES IT. HOSPITAL CONSOLIDATIONS, BUYOUTS, PARTNERSHIPS, SALES, AND COLLABORATIVE ARRANGEMENTS ARE ALL EVERYDAY EVENTS --

Graphic:

**Clinical Laboratories of the Future
Will Be Challenged
to
Run More Tests
on
Fewer Instruments
at
Lower Cost**

SPOKESPERSON (V.O.):

-- WHICH CREATES A REAL CHALLENGE FOR TODAY'S LABS: NAMELY, TO INCREASE OUTPUT WHILE LOWERING COSTS.

Spokesperson on camera

SPOKESPERSON (Sync.):

BECKMAN COULTER IS POISED TO HELP YOU MEET THAT CHALLENGE. FOR OVER HALF A CENTURY, OUR CLOSE CUSTOMER RELATIONSHIPS HAVE ALLOWED US NOT ONLY TO RESPOND TO CUSTOMERS' NEEDS, BUT ALSO TO ANTICIPATE THEM. WE UNDERSTAND THAT TODAY'S LABS CAN'T REMAIN COMPETITIVE WITH YESTERDAY'S TECHNOLOGY.

SFX: Laser

Graphic: Vortex, flashback effect to past, taking us to:

Graphic: Begin building timeline of Beckman Coulter technology, showing key product names. This graphic will reappear throughout the video, with the timeline gradually building (probably from left to right) toward the present and then continuing into the near future. At the moment, it shows the introduction of the **Glucose Analyzer**

CU - Glucose analyzer (Old footage and/or stills)

Graphic: Continue building Beckman Coulter technology timeline, showing introduction of **ASTRA**

CU - ASTRA (Old footage and/or stills)

Multiple split screen - Low-contrast stock footage and/or stills (designed to look dated and leave viewers with the impression of inefficiency) of some of the steps in pre-automation sample handling:

- Physician Writes Test Request
- Forms Clocked and Sorted
- Tube ID Hand Written
- Manual Accessioning & Routining
- Manual Workstation Programming
- Results from Instruments Reported on Paper
- Filing of Paper Generated by Entire Procedure

SPOKESPERSON (V.O.):

IT WASN'T SO LONG AGO THAT BLOOD ANALYSIS INVOLVED THE MANUAL PIPETTING OF SPECIMENS INTO A BENCHTOP ANALYZER --

-- OR THE ALIQUOTTING OF SPECIMENS INTO INDIVIDUAL SAMPLE CUPS FOR PROCESSING.

IN MANY LABS, THE SAMPLE HANDLING PROCESS IS STILL CHARACTERIZED BY A FLURRY OF TEST REQUESTS AND MANUAL ENTRY. IT'S A PAPER CHASE -- UNWIELDY, TIME-CONSUMING, AND ERROR-PRONE.

Footage of Beckman Coulter R&D and manufacturing facilities

Graphic: Continue building Beckman Coulter technology timeline, showing **SYNCHRON CX4/CX5** introduction. Timeline graphic is now given a subtitle, which remains with it every time we see the graphic from now on: **Beckman Coulter CX Long Term Design Continuum**

Footage of CX4 & CX5

Graphic:

Key CX4/CX5 Features:

- ☞ **Re-engineered Sample Turntable**
- ☞ **Individual Sectors**
- ☞ **Autoloader**

Graphic: Continue building Beckman Coulter technology timeline, showing **SYNCHRON CX7** introduction.

Footage of CX7

Graphic:

Key SYNCHRON CX7 Features:

- ☞ **Sectors with Primary Tube Sampling**
- ☞ **Onboard Barcode Sample ID**
- ☞ **Bidirectional Host Query with LIS**

BECKMAN COULTER HAS ADDRESSED THESE PROBLEMS BY DEVELOPING SYNCHRON CLINICAL SYSTEMS -- DESIGNED TO GIVE LABS TOTAL PROCESS CONTROL.

THE FIRST MILESTONE IN THE SYNCHRON STORY WAS THE DEVELOPMENT OF THE SYNCHRON CX4 AND CX5. FOR THESE PRECISION SYSTEMS, BECKMAN COULTER COMPLETELY RE-ENGINEERED THE SAMPLE TURNTABLE TO ACCOMMODATE SAMPLE CUPS DIRECTLY IN INDIVIDUAL SECTORS. THE AUTOLOADER ALLOWED AUTOMATIC LOADING AND UNLOADING OF SAMPLE SECTORS.

THE COMPUTER-ENHANCED SYNCHRON INTRODUCED SECTORS WITH PRIMARY TUBE SAMPLING CAPABILITY -- ON-BOARD BAR CODE SAMPLE IDENTIFICATION -- AND HOST QUERY BI-DIRECTIONAL COMMUNICATION WITH A LABORATORY'S INFORMATION SYSTEM.

Graphic: Continue building Beckman Coulter technology timeline, showing **SPINCHRON Centrifuge** introduction.

Footage of SPINCHRON

Graphic:

Key SPINCHRON Feature:

☞ **Unique PTS-2000 Rotor for Direct Centrifugation of CX7 Sectors**

Fewer Sample Preparation Steps Result in:

- ☞ **Faster Turnaround**
- ☞ **Greater Safety**
- ☞ **Less Chance of Error**

Graphic: Continue building Beckman Coulter technology timeline, showing **CXpress System** introduction.

Graphic:

CXpress System - 4 Major Building Blocks:

- 1) **SYNCHRON CX7**
- 2) **SPINCHRON Centrifuge**
- 3) **Barcode Printer**
- 4) **LIS with Bar Code Printer**

THE SPINCHRON CENTRIFUGE FEATURED A UNIQUE PTS-2000 ROTOR -- ENABLING THE DIRECT SPINNING OF TUBES IN SAMPLE SECTORS USED ON THE CX7. THE RESULT: FEWER SAMPLE PREPARATION STEPS, FOR FASTER TURNAROUND, GREATER SAFETY, AND LESS CHANCE OF ERROR.

THE SYNCHRON CX7 AND THE SPINCHRON CENTRIFUGE ARE TWO KEY BUILDING BLOCKS IN THE CXPRESS SYSTEM -- BECKMAN COULTER'S CLINICAL CHEMISTRY WORKSTATION. THE CXPRESS TAKES TODAY'S LABS ONE STEP CLOSER TO PAPERLESS SAMPLE PROCESSING.

Montage (use dissolves or gradually build multiple split screen if this allows enough readability space for subtitles) - Footage of key steps in modern lab analysis, with subtitles describing each step:

- ☞ **Test Requests Entered into LIS**
- ☞ **Barcode Printer Generates Tube Labels**
- ☞ **Tubes Placed into Sectors & Transferred to SPINCHRON**
- ☞ **Sectors Transferred to SYNCHRON CX7**
- ☞ **No Additional Keyboard Entry**
- ☞ **Single Key Initiates Analysis**
- ☞ **Host Query Test Programming**
- ☞ **Real Time Results Reporting**
- ☞ **Sectors Unloaded from SYNCHRON CX7 & Stored**

Freeze frame on previous multiple split screen montage (with or without subtitles, depending on readability) of key steps in CXpress operation

TEST REQUESTS ARE ENTERED DIRECTLY INTO THE LAB'S INFORMATION SYSTEM THROUGH A KEYBOARD -- NO MORE CUMBERSOME REQUEST FORMS. A BARCODE PRINTER GENERATES TUBE LABELS THAT INCLUDE THE PATIENT ID AND ACCESSION NUMBER. THE TUBES ARE THEN PLACED INTO SECTORS AND TRANSFERRED IN GROUPS TO THE SPINCHRON CENTRIFUGE. AFTER CENTRIFUGATION, THE TUBE SECTORS ARE TRANSFERRED TO THE SYNCHRON CX7 ANALYZER WITHOUT ANY ADDITIONAL KEYBOARD ENTRY -- SINCE THE CX7 READS THE INFORMATION DIRECTLY FROM THE PRE-PROGRAMMED LAB INFORMATION SYSTEM. A SINGLE KEY ON THE SYNCHRON CX7 STARTS THE ANALYSIS. HOST QUERY CAPABILITY PROVIDES COMPLETE AND ACCURATE SAMPLE PROGRAMMING -- ELIMINATING MANUAL PROGRAMMING BY KEYBOARD. THE TEST RESULTS ARE VERIFIED IN REAL TIME ON THE CX7'S CONSOLE SCREEN. FINALLY, THE SAMPLE TUBE SECTORS ARE UNLOADED FROM THE SYNCHRON CX7 AND THE SAMPLES ARE STORED.

WITH ALL THESE CAPABILITIES, CXPRESS GIVES YOU THE POWER OF TOTAL PROCESS CONTROL -- WHICH TRANSLATES TO GREATER CONTROL OVER TIME AND MONEY. FOR MOST OF TODAY'S LABS, CXPRESS IS THE ULTIMATE IN AUTOMATED SAMPLE PROCESSING.

Graphic: Continue building Beckman Coulter technology timeline, showing **CX DELTA Systems** introduction.

Footage of CX Delta

Graphic:
SYNCHRON CX Delta
Connectability:
☞ **Capability for Enhanced Electronic Information Interchange**
☞ **Mechanical Compatibility with Other Instruments**

NOW, BECKMAN COULTER TECHNOLOGY EVOLVES EVEN FURTHER INTO LABORATORY AUTOMATION -- WITH CX DELTA SYSTEMS. CX DELTA IS MORE THAN JUST THE STATE-OF-THE-ART -- IT'S THE GATEWAY TO THE AUTOMATED LAB OF THE FUTURE.

BECKMAN COULTER HAS DESIGNED THE CX DELTA FOR TOMORROW'S TECHNOLOGY BY EQUIPPING IT WITH A ROBOTIC INSTRUMENT INTERFACE FOR CONNECTABILITY. CONNECTABILITY MEANS THAT THE CX DELTA IS CAPABLE OF ENHANCED ELECTRONIC INFORMATION INTERCHANGE, AND IS MECHANICALLY COMPATIBLE WITH OTHER SAMPLE HANDLING SYSTEMS.

Animation - Automated Workstation in operation, including SPINCHRON centrifuge and SYNCHRON analyzer, with robotic arm handling samples. Animation shows the various operating steps in sync with narration. (Footage of working model of Automated Workstation will be available at some point during production)

Graphic: Continue building Beckman Coulter technology timeline, showing **Automated Workstation** introduction.

Footage of Automated Workstation, working model

Continue previous footage of Automated Workstation with Graphics over:

BENEFITS OF LABORATORY AUTOMATION:

- ☞ **Improved Turnaround Time**
- ☞ **Reduced Biohazard Risk**
- ☞ **Enhanced Specimen Integrity**
- ☞ **More Efficient Workflow**
- ☞ **Better Allocation of Human Resources**

AND HERE'S A PERFECT EXAMPLE OF THE CX DELTA'S AUTOMATION-READINESS. BECKMAN COULTER HAS SEEN ONE POSSIBILITY FOR THE FUTURE, AND WE CALL IT THE SYNCHRON AUTOMATED WORKSTATION -- A COMPLETELY AUTOMATED SAMPLE PROCESSING SYSTEM THAT LOADS THE SPINCHRON CENTRIFUGE -- ELECTRONICALLY STARTS IT AND AUTOMATICALLY UNLOADS IT -- DECAPS THE TUBES -- READS THE BAR CODE TO DOWNLOAD THE TEST MENU -- LOADS THE SAMPLE SECTORS -- MOVES THE SECTORS ONTO THE SYNCHRON -- RUNS THE ANALYZER AND REPORTS THE TEST RESULTS -- UNLOADS THE ANALYZER -- AND FINALLY, SORTS THE SAMPLES TO APPROPRIATE STORAGE RACKS.

ALL THESE SAMPLE HANDLING PROCEDURES ARE COMPLETELY AUTOMATED ON THE SYNCHRON AUTOMATED WORKSTATION.

THE BENEFITS OF ALL THIS AUTOMATION INCLUDE IMPROVED TURNAROUND TIME -- MINIMIZED EXPOSURE TO BIOHAZARDOUS MATERIALS -- ENHANCED SPECIMEN QUALITY -- MORE EFFICIENT WORKFLOW -- AND BETTER USE OF THE LAB'S HUMAN RESOURCES.

Graphic: Retain & enlarge last bullet point from previous shot:

☞ **Better Use of Skilled Staff**

Split screen - showing contrast between:

- Old & dated footage of technologist pipetting and aliquotting routine samples, with Subtitle: **The Past**

- Futuristic footage of technologist handling only abnormal samples (perhaps from Japan footage of total lab automation, or use futuristic lab footage, opening shot, p.1 script).

Add Subtitle: **The Future**

Automated Workstation, working model

Reprise futuristic lab footage (opening shot, p.1)

IN BECKMAN COULTER'S VISION FOR THE LAB OF THE FUTURE, ROBOTIC SYSTEMS LIKE THE AUTOMATED WORKSTATION WILL COMPLETELY AUTOMATE THE HANDLING OF ROUTINE SAMPLES -- WHILE IDENTIFYING ABNORMAL SAMPLES THAT REQUIRE THE EXPERTISE OF SKILLED TECHNOLOGISTS. ROUTINE SAMPLE HANDLING BECOMES SIMPLE AND EFFICIENT, FREEING THE PROFESSIONAL STAFF FOR THE CHALLENGING TASK OF OPTIMIZING PATIENT CARE.

THE BECKMAN COULTER AUTOMATED WORKSTATION IS ONE OF MANY POTENTIAL "ISLANDS OF AUTOMATION" IN THE LAB OF THE FUTURE.

THE SYNCHRON CX DELTA'S CONNECTABILITY MAKES IT POSSIBLE FOR LABS TO CHOOSE EITHER THE MODULAR "ISLANDS OF AUTOMATION" SOLUTION, OR A TOTAL AUTOMATION APPROACH. WHATEVER YOUR CHOICE, THE CX DELTA GIVES YOU THE FLEXIBILITY TO SEAMLESSLY ADAPT TO FUTURE DEVELOPMENTS IN AUTOMATION.

Spokesperson on camera in lab

SPOKESPERSON (Sync.):

THE DEVELOPMENT OF LABORATORY AUTOMATION IN MANY WAYS PARALLELS THE ADVANCES IN COMPUTER TECHNOLOGY. THE EARLY MAINFRAME COMPUTERS WERE MASSIVE, COMPLICATED, AND COSTLY. ONLY THE LARGEST CORPORATIONS COULD JUSTIFY THEIR EXPENSE. BUT AS THE TECHNOLOGY EVOLVED, MORE COMPUTING POWER BECAME AVAILABLE IN A SMALLER AND MORE AFFORDABLE PACKAGE -- AND THIS IN TURN OPENED UP NEW WAYS TO CONNECT COMPUTERS IN NETWORKS. TODAY, IT'S NO LONGER NECESSARY TO RE-ENGINEER AN ENTIRE OFFICE TO ACCOMMODATE CABLE CONNECTIONS BETWEEN COMPUTERS. NEW AND LESS CUMBERSOME NETWORKING TECHNOLOGIES CONTINUE TO BE DEVELOPED.

Another angle on spokesperson

SIMILARLY, BECKMAN COULTER'S "ISLANDS OF AUTOMATION" APPROACH DOESN'T LOCK YOU IN TO A COSTLY, ALL-OR-NOTHING TOTAL AUTOMATION CONCEPT, WITH YOUR ENTIRE LAB RE-CONFIGURED AROUND A CONVEYOR. WHETHER YOU CHOOSE THE MODULAR OR THE TOTAL APPROACH, BECKMAN COULTER'S AUTOMATION-READY TECHNOLOGY CAN ACCOMMODATE YOUR NEEDS. EVERY DAY, BECKMAN COULTER IS HELPING LABS MEET THE CHALLENGE OF A CHANGING HEALTH CARE ENVIRONMENT --

Graphic: Continue building Beckman Coulter technology timeline, moving into 21st century

SPOKESPERSON (V.O.):

-- AND WE'RE POISED TO PROVIDE THE DIAGNOSTIC TECHNOLOGY THAT'S DEMANDED IN THE 21ST CENTURY.

Back to Spokesperson on camera

SPOKESPERSON (Sync.):

A LONG TERM PARTNERSHIP WITH BECKMAN COULTER IS THE MOST POWERFUL STEP YOU CAN TAKE TO GUARANTEE YOUR LAB'S FUTURE.

Graphic: **CX Delta** moves from timeline graphic and takes over full screen.

SPOKESPERSON (V.O.):

THE FIRST BIG STEP INTO THAT FUTURE IS HERE TODAY -- AND IT'S CALLED CX DELTA . . . ONLY FROM THE LEADER -- BECKMAN COULTER.

Close on Beckman Coulter logo