Quicker turn-around, better drawings, fewer mistakes.

aSa® CAD/Detailing e^x

America's leading detailing program, aSa CAD/Detailing e^x gives you the competitive advantage. Detailing is simple, fast, and error-free; drawings are clear and placer-friendly; reports show up-to-the-minute job progress; and material is tracked through the shop and field via aSa's integrated software products.

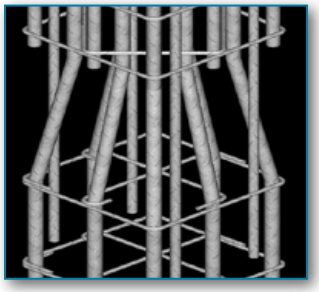
- **Quicker project turn-around**
  aSa software automates every step of the detailing process, from initial project setup to easy material takeoff directly from the drawing.

- **Reduce shortages & errors**
  Built-in calculations and error-checking help prevent mistakes. The system tracks each item, so you always know what is taken-off and what remains.

- **Never repeat data entry**
  Create multiple material lists, placing reports, and bend details from a single placing drawing.

- **Accommodate fabricating and placing needs**
  Tag messages, special material groupings, and placer-specific reports allow the detailer to help shop and field crews work more efficiently.

Built to exceed the needs of detailers, fabricators, placers, and engineers, aSa CAD/Detailing combines the engineering design tools of Bentley Systems' top-rated CAD product, MicroStation®, with aSa-developed applications for detailing and managing rebar information.



Using aSa and MicroStation tools, you'll detail as you draw in CAD, ensuring accurate bar placement and eliminating tedious calculations. The program automates every aspect of the detailing process, from initial project setup, to creating the drawing, producing accurate bar details, and advanced reporting. Material takeoff is also completely automated, so you'll never forget or duplicate material to be fabricated.

Integration and Intelligence

Only with aSa CAD/Detailing can you integrate your detailing tasks with estimating, scheduling, production, and accounting. CAD/Detailing shares database tables with other aSa applications, providing you with company-wide information management:

- Takeoff data from CAD is automatically accessible to downstream applications used to generate bar list reports, print shipping documents, and create production bundle tags.
- Real-time queries allow you to check the fabrication and shipping status of any callout on your drawing.
- Powerful reporting tools in downstream applications let you instantly compare estimated, detailed, shipped, and billed weights for any project.
- Correspondence notes and report messages help detailers to easily share project information with sales, production, field, and accounting personnel.

- **Eliminate complicated CAD file imports**
  MicroStation V8 allows you to open and modify native AutoCAD® files.

- **Set up projects in seconds**
  No need to enter background and engineering defaults for every drawing. Simply select the job and customer, and setup screens are automatically completed for you.

- **Detail rebar and everything else**
  Include rebar, plain round, mesh, and all accessories on your drawing.

- **No need to draw rectangular areas, beams, and columns**
  Built-in tools automate these and other common structure types, including linear and circular areas, openings, and footings. You enter the basics such as clearances and laps, and the program handles all the drawing and detailing.

The MicroStation Advantage

Bentley Systems, Inc., is a worldwide leader in engineering software and services. More than half of the top ENR 500 design firms and 47 out of 50 US State government agencies rely on Bentley solutions. Innovative design tools make its flagship product, MicroStation, the most productive CAD package on the market today:

- AccuDraw streamlines the drawing process by allowing you to precisely establish, monitor, and modify the position and orientation of any object.
- Project management tools allow detailers and project managers to roll back to previous revisions of a drawing.
- Level symbology gives aSa the flexibility to build intelligence into each "layer" of a drawing — the system understands and distinguishes concrete, rebar, callouts, miscellaneous products, and taken-off material.
- Cross-platform functionality is unparalleled — open, modify, and output native AutoCAD files from within MicroStation.

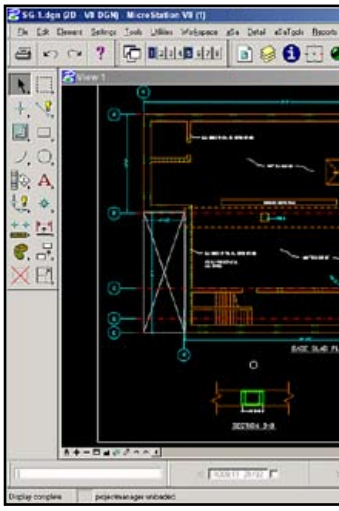
Project Management and Reporting

aSa's Project Manager makes it easy to set up and organize your jobs and drawings. Customer information and default values set up prior to drawing creation automatically load into CAD/Detailing when you select an existing job, eliminating data re-entry. Powerful reporting lets you track up-to-the-minute detailed and taken-off weight totals. The system generates a variety of customer-oriented reports as well, including placing lists, bending details, and bill of material lists. These reports can be printed independently or placed directly on the drawing.

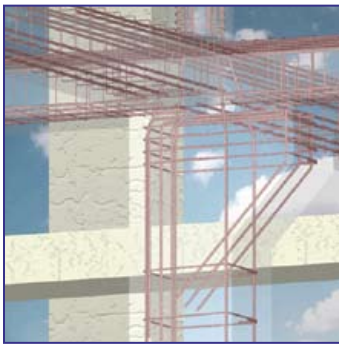
Versatility

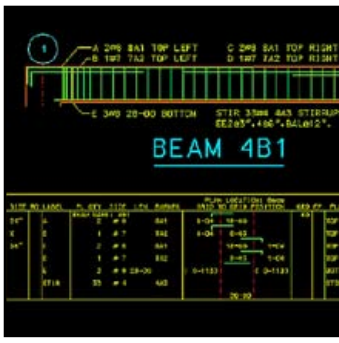
aSa designed CAD/Detailing to handle the requirements of *any* project:

- Use any combination of measurement units for bar size (diameter), length, and weight.
- Set up company-specific values such as stock lengths, mill lengths, standard hooks, and other fabricating parameters.
- Detail any product that you supply, including plain round steel, mesh, high chairs, end preparations, and other accessories
- Customize callout format, lap display, hook display, and schedule and bend detail formats to satisfy detailer preferences and customer requests.



The MicroStation interface is friendly and engineering management features comple by aSa. Bar details may be placed as call placing lists, and shape illustrations may





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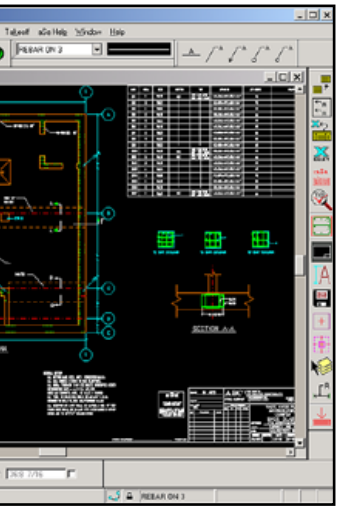
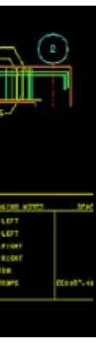


d familiar. Bentley's drawing tools and ment rebar-specific applications developed outs or in schedule format. Bend details, also be placed on the drawing.

3D capabilities provide a realistic look at the finished structure. Renderings of installed rebar help detailers to pinpoint potential congestion problems.



Powerful detailing tools like aSa Beam automate the calculation of bar details, eliminating the need to draw bars and type in each item's callout.

Smart Detailing Tools

aSa CAD/Detailing includes structure-specific tools to save hours of time detailing Columns, Beams, Footings, Linear Areas, Circular Areas, and Radial Steel. These applications automatically draw the structure and develop bar details based on the parameters that you define. You provide minimal information such as clearances, bar spacings, and lapping conditions, and at the click of the mouse, the program instantly develops and places bars required for the structure. Next, simply click to set the position of the associated callouts or schedule.

Bar details are graphically connected to elements on the drawing. This means that when you stretch or modify a concrete area, the quantities, lengths, and bending dimensions contained in that area update automatically. When drawn bars aren't required, aSa Bar Input saves time by allowing you to rapidly type in text-based callouts. Other tools ensure that you never need to enter the same information twice. For example, Catalog Librarian lets you save and organize common structures along with their bar details. Once cataloged, these details can be used again and again on any drawing. Another time-saver is "cross reference," which allows you to place a single label (such as B-1) that references any schedule or group of callouts, then repeat the details by simply copying the label to different locations on the drawing. Additional tools include:

- Shape Manager, used to draw and define custom bend shapes.
- Tie Manager, used to easily create and store complex tie configurations for re-use by several aSa applications.

Material Takeoff

Creating a release of material from the drawing is as easy as drawing a box around the area you want to take off. Optionally, you can click to select specific callouts, schedule items, or even make your selection based on area name. The program will automatically build an order of all rebar, plain round, mesh, and miscellaneous items contained in the selected area. Immediately, the items are accessible to other aSa modules, allowing you to generate sorted, weighed Bar List reports and to create Production bundle tags. Bundling parameters, grouping options, and special messages are used to tailor your takeoff to meet specific fabricating and placing needs. Taken-off items automatically change color for easy identification on the drawing and are restricted from future accidental takeoff.

- **Quick callouts are no problem**

  If drawn bars aren't required, you don't have to draw them. aSa makes it easy to enter and place text-based callouts.

- **Any shape you need is at your fingertips**

  Industry standard shapes are built into the system, and user-defined shapes can be easily drawn and defined with aSa's Shape Manager tool. For all shapes, standard hooks and slope dimensions are automatically calculated and displayed by the program.

- **Always know what's left to take off**

  aSa color-codes each detailed and taken-off callout, so you can see – at a glance – the status of each item on the drawing. Built-in checks prevent you from taking off the same item twice.

- **Never lose track of your material**

  aSa records and reports detailed and taken-off weights per area, drawing, project, and detailer.

What our clients are saying about aSa CAD/Detailing

"We have always prided ourselves in the quality of our placement drawings, and our aSa CAD System has greatly enhanced our image."

Ronald Heinzeroth, President
ROCKFORD Fabricators, Inc., Rockford, IL

"The powerful and flexible tools provided by aSa and MicroStation make detailing more productive and . . . ALMOST fun."

Paul Nims, Detailing Manager
SMI - Texas, Seguin, TX

"I switched from AutoCAD to MicroStation, and the transition was an easy one for me. I found MicroStation to be a smarter system and easier to use."

Scott Snaith, Project Manager
Pacific Coast Steel, Portland, ME

"The aSa CAD/Detailing System has created a totally new working environment for us, and pumped new life into our detailing staff. This has helped us to fulfill our commitment to being a leader in our industry and to providing the highest quality products and service to our customers."

Bob Patrick, Vice President, Reinforcing Steel Division
Farwest Steel Corporation, Eugene, OR

Applied Systems Associates, Inc.

For more than 30 years, Applied Systems Associates, Inc., has been an innovator in rebar software technology. aSa's "Complete Rebar Solution" automates nearly every step of the reinforcing steel process. Methods, procedures, and presentation practices developed by aSa have become standards in the rebar industry. More than just a software developer, aSa prides itself on providing complete solutions, including hardware, networking, and information technology services, as well as top-notch product support from aSa's large in-house team of computer and industry experts. aSa is a Microsoft Certified Partner and supplies business solutions from Sage Software, Inc., and engineering solutions from Bentley Systems, Inc. — including the CAD design package MicroStation®. aSa also develops custom multimedia computer-based training applications and provides a comprehensive line of paper forms and office supplies.

- Estimating
- CAD/Detailing
- Bar List
- Scheduling
- Computer Shearing
- Tags
- Equipment Interfaces
- Opto-Shear Console
- Bar Coding
- Material Tracking
- Inventory
- Contract Management
- General Ledger
- Accounts Receivable
- Accounts Payable
- Payroll
- Human Resources
- Fixed Assets

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