



Production

AUTOMATION FOR SMARTER FABRICATION.

Get the most from your shop! With aSa Production, your crew will fabricate more steel in less time with fewer mistakes, improving customer satisfaction and increasing profitability.

- **Total shop management**

Easy-to-read schedules, tags, and reports guide your crew through the entire fabrication process, from shake-out, to cutting, tagging, crane calls, bending, end preparation, material movement, and trailer loading.

- **Better production rates, less scrap**

Material yield, shop environment, and time are all considered in aSa's computer-generated shearing instructions.

- **Get more from your machinery**

By automating your equipment with aSa-generated instructions, you eliminate the need for an operator to manually enter details, saving time and reducing the chance of errors.

aSa Production e^x creates tags, fabrication reports, and load check-off lists for each order that you produce. Its optional Computer Shearing module saves time and material by giving your shop crew specific instructions for cutting, packaging, and handling each bundle of steel with maximum efficiency. aSa-generated equipment interfaces automate your machinery with electronic instructions, nearly eliminating setup time and greatly reducing the chance of human error.

The aSa Difference

Unlike other applications that simply optimize cutting combinations, aSa Computer Shearing considers the entire fabrication process, including crane calls, bundling, and material movement. This means not only will you improve material yield, you'll increase overall production rates.

Integration and Intelligence

Production e^x is the fabrication component of aSa's completely integrated suite of rebar software products. The system shares data with other aSa applications, providing you with these key benefits:

- Material lists created from CAD/Detailing takeoffs and from the Bar List Entry Screen are available immediately for tagging. Simply select the orders that you want to fabricate.
- Based on environment settings that you define, aSa Production automatically assigns items to the appropriate shearline or off-coil machine for fabrication.
- The status of each item is automatically tracked in the system, allowing real-time inquiries and reports to show you exactly what material has been fabricated.



- **Prevent shortages**
aSa creates handy check-off sheets used to verify that each required bundle of steel is loaded for shipment and nothing gets left behind.

- **Accommodate placers' needs**
Options assigned at the detailing or production level let you package material to satisfy placers' needs. Special messages that appear on bundle tags can also be used to communicate important information to the installation crew.

- **Get ahead of schedule**
Inquiries and reports show you exactly what material has been listed but not yet fabricated, allowing you to create effective production plans. Save and revise production sessions as many times as you like until tags have been created.

Easy Setup

Creating tags in aSa is extremely easy: simply select one or more orders from an on-screen list, then click the Print button. If you wish, you can inspect the entire list of items to be processed, view cutting results, apply production options, and fine-tune the production session before generating tags and reports. aSa's intelligent interface makes it easy for you to perform multiple "what if" scenarios to achieve yield and productivity goals. Optimization results for each session are displayed on-screen in text and graphical format, making aSa a valuable production planning tool.

In any production session, you can add entire orders, specific selected items, or partial quantities of a single item. The system automatically tracks and reports what has been tagged and what remains from each order. This open production environment makes it easy to accommodate cut-ahead items and unexpected walk-in work.

| Qty | Lgth | Matk | CC | ICC | Pg/Tm | Lbs | BC | L/E | Shr | Shr | Grp | Pt | Opt |
|-----|-------|-------|-----|-----|-------|------|----|-----|-----|-----|-----|----|-----|
| 28 | 20-08 | N3-F5 | LLJ | | 1/3 | 3074 | 0 | Y | 1 | 0 | | 1 | |
| 10 | 20-08 | N3-F3 | LLJ | | 1/4 | 1096 | 0 | Y | 1 | 0 | | 1 | |
| 13 | 20-08 | N3-F1 | LLJ | | 1/5 | 1427 | 0 | Y | 1 | 0 | | 1 | |
| 28 | 20-08 | N1-F5 | LLJ | | 1/6 | 3074 | 0 | Y | 1 | 0 | | 1 | |
| 10 | 20-08 | N1-F3 | LLJ | | 1/7 | 1096 | 0 | Y | 1 | 0 | | 1 | |
| 13 | 20-08 | N1-F1 | LLJ | | 1/8 | 1427 | 0 | Y | 1 | 0 | | 1 | |
| 58 | 17-04 | N3-FD | LLJ | | 1/1 | 5341 | H | Y | 1 | 0 | | 1 | |
| 58 | 16-04 | N1-FD | LLJ | | 1/2 | 5033 | H | Y | 1 | 0 | | 1 | |
| 28 | 15-08 | N3-F6 | LLJ | | 1/9 | 2331 | 0 | Y | 1 | 0 | | 1 | |
| 10 | 15-08 | N3-F4 | LLJ | | 1/10 | 832 | 0 | Y | 1 | 0 | | 1 | |
| 17 | 15-08 | N3-F2 | LLJ | | 1/11 | 1415 | 0 | Y | 1 | 0 | | 1 | |
| 28 | 15-08 | N1-F6 | LLJ | | 1/12 | 2331 | 0 | Y | 1 | 0 | | 1 | |
| 10 | 15-08 | N1-F4 | LLJ | | 1/13 | 832 | 0 | Y | 1 | 0 | | 1 | |
| 17 | 15-08 | N1-F2 | LLJ | | 1/14 | 1415 | 0 | Y | 1 | 0 | | 1 | |

The Production Screen's Cut List tab shows a list of all the items to be fabricated. A simple right click in the grid allows you to include, exclude or apply other production options to selected items. Each time an order is added to the session or a new option is applied, yield results are automatically re-calculated and displayed at the top of the screen.

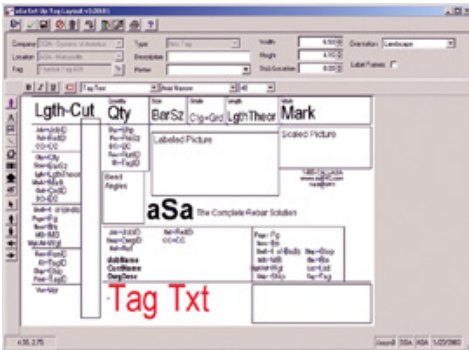
Shearing & Shop Management

aSa's Computer Shearing module produces step-by-step instructions for shop personnel. The instructions specify the number of bars required per load, which stops to set, and the bin locations in which cut bars should be deposited. Additionally, the report indicates when to tag completed items, when crane service is needed, which bins to empty, and the order that bins will be re-used.

aSa Shearing also:

- considers shop layout, shearline characteristics, stock material lengths, crane timing, lift weight capacities, bend classifications, and bundling rules
- groups special items and fabricates partial orders
- handles substitutions and multiple stock lengths
- assigns material to equipment automatically or manually
- creates advance remnant lists and crane schedules
- generates statistical reports to document efficiency and performance

More than simply a cutting routine, aSa Computer Shearing helps shop crews to efficiently package and process material in the shop. For example, items with similar characteristics are grouped together into larger packages, significantly reducing the number of crane calls required to move and load material.



aSa Tag Designer allows you to easily create your own tag formats. aSa tags display a wealth of information including scaled bending illustrations and linear and 2D bar codes.



aSa automates fabrication on a variety of shop equipment, including the touch-screen aSa Opto-Shear Console. Instructions may be downloaded to the console electronically or by scanning bar coded tags.

Equipment Interface

Based on parameters that you define, each item in a production run is automatically assigned to the appropriate shearline or off-coil machine. Production options let you re-assign machines when one piece of equipment is unavailable or over-capacity for the shift.

aSa-generated cutting and bending instructions may be downloaded to a wide variety of fabrication equipment, including off-coil and shear machine controllers manufactured by CRS Specialties, EVG, KRB Machinery Co., MEP SPA, Rebar Machine Service, Schnell, and Stema/Pedax. For the ultimate in shop automation, connect aSa Production to a networked aSa Opto-Shear Console, a state of the art controller that combines the power of aSa software with your shop crew and shearline. Equipment instructions may be downloaded electronically or included in a scanned bar code.

Material Bundle Tags

Each aSa bundle tag is a self-contained cutting, bending, shipping, and placing document. Tags contain a wealth of information about the item, such as bar size (diameter), grade, length, weight, bending type, and bar mark, in addition to job and release information. Furthermore, ship date, placing and shipping reference messages, user-defined text, and shapes can be displayed on the tag to aid shop and field personnel.

aSa tags may also include linear and 2D bar codes, used to track items through fabrication or instantly download instructions to scanner-equipped machinery. Each tag contains a main portion, to be attached to the bundle of material, and a stub portion, which can be removed at trailer loading and saved as verification of shipment.

aSa's standard tag is designed to output on clear, strong, thermal-printed media. Thermal tags are fade-resistant and water-resistant. With aSa's Tag Designer tool, tag layouts are as flexible as your imagination — you specify the content, size, and position of each item on the tag.

- **Easily produce partial orders**
With aSa, you can easily produce one bar size at a time, part of an order, or less than the full quantity of a single item. The system always remembers the balance to be fabricated.
- **Take the guesswork out of material handling**
Based on parameters that you define, the system automatically assigns items to the appropriate shearline or off-coil machine. Easy-to-apply production options let you override the default assignment when a machine is down or over-capacity.
- **Smarter bundling**
Rather than shearing and removing one bundle at a time, aSa Computer Shearing packages like items together, saving crane calls and valuable production time.
- **No need to repeat data entry**
Job, customer, bar details, and takeoff-level information is instantly and automatically read from the database when you select an order to fabricate.

aSa Production creates a multitude of management reports including:

- A complete run summary of each order processed, showing weight and quantity totals for each bar size, grade, material type, and bend classification
- A summary of filters and options applied for each production run
- A list of stock steel required and remnants produced by the run
- A bundle check-off and loading list
- A detailed list of all items and bundles produced

| Applied Systems Associates, Inc. | | | | | | | New York, NY | |
|----------------------------------|-----|---------------|---------------|------------------------|----------------------------------|-------------------------------|-----------------------------|--------------------------|
| Production Summary | | | Setup: 000014 | Fab Shop: New York, NY | Fab Date: 04/30/2001 | | | |
| | | | Run: 043004 | Shift: Shift 1 | Capton: | | | |
| Ctrl Code Summary | | | | | | | | |
| CC | IOC | Color / Shape | Job | Release | Customer | Job | Material Description | Weight Summary - Lbs |
| | | | | | | | | Straight Light Heavy |
| AAGB | | | 00-0217D | 9 | Brenner's Civil Engineering Firm | Westinghouse Centers (simple) | PANELS P8 THRU P37 | 24,949 0 483 |
| AAG9 | | | 00-0240D | 2 | Architels Unlimited | Tumple Interchange (Bid Item) | BRIDGE #1 - END SPAN 1 | 21,065 0 0 |
| AAGA | | | 00-0250 | 5 | IBM Incorporated | PPG Research Center | REINFORCING FOR BUILDING #6 | 8,946 90 3,578 |
| AAGB | | | 00-0058 | 5 | Theran Contractors | Beacon Development Center | PANELS P38 THRU P62 | 34,716 0 403 |
| AAGC | | | 93-2000 | 12 | Giglioli Brothers, Inc. | TRAINING BUILDING | FOUNDATION STEEL | 17,077 1,239 8,874 |

| Applied Systems Associates, Inc. | | | | | | | New York, NY | | | | | | |
|----------------------------------|--------|-----------|---------------|------------------------|----------------------|---------|--------------|------------|---|-----------|----|-------|----------|
| Cutting List | | | Setup: 000011 | Fab Shop: New York, NY | Fab Date: 04/27/2001 | | | | | | | | |
| | | | Run: Prelim | Shift: Shift 1 | Capton: | | | | | | | | |
| List: | 5 | Size: | 6 | Grade: | 60 | Items: | 37 | Shearline: | 1 | Capacity: | 15 | Page: | 19 of 61 |
| Stock Lengths: 1) 60-00 | | | | | | | | | | | | | |
| Quantity | Length | Ctrl Code | Bend Class | Priority | Mark | Tag Qty | Lbs | Time | | | | | |
| 2 | 21-01 | AAG4 | 4 | 0 | 6A19 | 2 | 63 | 1.0 | | | | | |
| 2 | 19-05 | AAG4 | 0 | 0 | | 2 | 58 | 1.0 | | | | | |
| 2 | 16-01 | AAG4 | 3 | 0 | 6A21 | 2 | 48 | 1.0 | | | | | |
| 20 | 14-07 | AAG4 | 0 | 0 | | 20 | 438 | 3.0 | | | | | |
| 2 | 14-05 | AAG4 | 0 | 0 | | 2 | 43 | 1.0 | | | | | |
| 3 | 14-00 | AAG4 | 0 | 0 | | 3 | 63 | 1.0 | | | | | |
| 151 | 13-04 | AAG4 | 0 | 0 | | 151 | 3,024 | 22.0 | | | | | |
| 9 | 13-00 | AAG4 | 0 | 0 | | 9 | 176 | 2.0 | | | | | |

| Systems of America | | | | | | | Murrysville | | | | | | |
|------------------------|------|-----------------------------|-----------------|-------------------------------|----------------------|-------|-------------|-------|----|-------------|----------|--|--|
| Item Bundle Check List | | | Setup: 000024 | Fab Shop: Murrysville | Fab Date: 06/11/2001 | | | | | | | | |
| | | | Run: 061101 | Shift: Shift 1 | Capton: | | | | | | | | |
| 22N7 | | Job Name: Training Bldg 'B' | Job: 99-206 | Description: FOUNDATION STEEL | | | | | | | | | |
| | | Customer: A & M Steel | Release: R1-001 | Ship Date: | | | | | | | | | |
| Tag | Load | Quantity | Size | Length | Mark | Shape | Lbs | Grade | BC | Page / Item | CL / Tag | | |
| Bent | | | | | | | | | | | | | |
| 1 | | | 10 | 16-09 | 10A11 | 31 | 1,155 | 60 | 4 | 1 / 1 | 1 / 1 | | |
| 2 | | 16 | 10 | 16-05 | 10A37 | 31 | 1,131 | 60 | 4 | 1 / 2 | 1 / 2 | | |
| 3 | | 8 | 10 | 13-09 | 10A35 | 31 | 474 | 60 | 4 | 1 / 3 | 1 / 3 | | |
| 4 | | 12 | 10 | 9-04 | 10A25 | 2 | 483 | 60 | 4 | 1 / 4 | 1 / 7 | | |
| 5 | | 28 | 10 | 6-10 | 10A1 | 2 | 822 | 60 | 4 | 1 / 5 | 1 / 8 | | |
| 6 | | 12 | 10 | 6-04 | 10A22 | 2 | 326 | 60 | 4 | 1 / 6 | 1 / 9 | | |
| 11 | | 2 | 8 | 34-03 | 8A16 | 2 | 183 | 60 | 4 | 1 / 11 | 3 / 1 | | |
| 12 | | 2 | 8 | 33-00 | 8A13 | 2 | 176 | 60 | 4 | 1 / 12 | 3 / 2 | | |
| 14 | | 12 | 8 | 15-05 | 8A33 | 31 | 496 | 60 | 4 | 1 / 14 | 3 / 6 | | |
| 13 | | 6 | 8 | 15-05 | 8A38 | 31 | 247 | 60 | 4 | 1 / 13 | 3 / 7 | | |
| 16 | | 4 | 8 | 12-05 | 8A31 | 31 | 132 | 60 | 4 | 1 / 16 | 3 / 9 | | |
| 15 | | 14 | 8 | 12-05 | 8A34 | 31 | 465 | 60 | 4 | 1 / 15 | 3 / 8 | | |
| 17 | | 14 | 8 | 8-07 | 8A27 | 2 | 322 | 60 | 4 | 1 / 17 | 3 / 12 | | |
| 18 | | 6 | 8 | 5-07 | 8A3 | 2 | 90 | 60 | 4 | 1 / 18 | 3 / 14 | | |

aSa Applied Systems Associates, Inc.

Since 1969, 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 training and 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 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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