

FASTER:

FROM (CONCEPT) —

TO (STORE)

STOLL

From (CONCEPT) to (STORE)
Inspired by 181024



FASTER: — FROM (CONCEPT) — TO (STORE)

Our latest collection, **FASTER: From(CONCEPT)-To(STORE)**, is driven by the motto of our Fashion & Technology department: “Design to Inspire”.

Contrary to best practice in the fashion industry, we encourage other companies to copy details from our Stoll Trend Collections and adapt them to their design work, focusing on style groups and price points. In the fashion industry, this is something of a rarity, as companies usually protect themselves from being copied. At Stoll Fashion & Technology, we see being copied as a reward.

Our collections are naturally very small compared to commercial collections, as we do not sell them. Instead of increasing the amount of styles, we rather enrich the content of every single piece with many technical and design features. That is why Stoll samples are typically content-rich. Every single item is like a Wikipedia for design and technical solutions and allows for a wide array of re-interpretation. In practice, one can read as many ideas out of a single piece as needed to create an entire knitwear collection.

As proof of concept, we have illustrated how one can easily re-design Stoll samples from [patternshop.stoll.com](https://www.patternshop.stoll.com) to create completely new pieces. From a technical point of view they represent blueprints, as the programs and knitting technology already exist. This makes the design and development process much easier, and thus faster.

You will see how design decisions relate not only to aesthetics, but also knitting times. As the product development process starts from pre-existing technical and design solutions, this collection is also about sustainability. The number of material-intense iterations can be reduced, lowering costs and waste. Beyond that, the STOLL knitelligence® tools allow for faster on-demand production and thus can replace slower bulk production.

With **FASTER: From(CONCEPT)-To(STORE)** we have demonstrated how quick and easy it is to turn our concept designs into simplified products and extract details across gauges, graphics and shapes at lower price points.

Be inspired for faster prototyping.

Jörg Hartmann
Head of Fashion & Technology

ADF

Stoll-weave-in® for loom-like knits
loom-like properties on ADF 32 W

end of product the innovative

FROM (CONCEPT) -----> TO (STORE) 2 3

FROM -----> TO
(OVERSIZED COAT) (OVERSIZED COAT)

WOVEN STITCHES Autumn 2016

Pattern No.	----->	Pattern No.
1510033		1910052
Machine	----->	Machine
CMS ADF 32 W		CMS ADF 32 W
multi gauge		multi gauge
Gauge	----->	Gauge
E 7.2		E 7.2

Production time	----->	Production time
141 min 20 sec		62 min 33 sec

-----> APPROACH & PERFORMANCE:
To redesign a coat like 1510033 while keeping the overall design concept and a similar yarn quality, simply tweak the technical details to bring down knitting time.
How? Remove selective plating in the back piece, replace multiple weave-in yarns with one coarser weft insertion, and change inner pocket graphic from selective plating to the faster STOLL-ikat plating®.



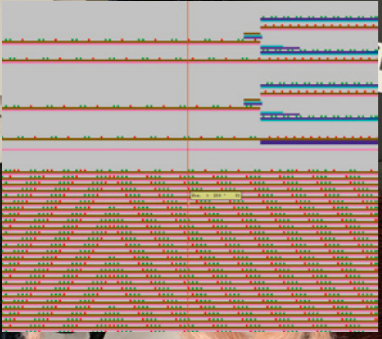
Coarse-looking Fully Fashion oversized coat. The stitch construction resembles a woven fabric, not only visually: a STOLL-weave-in® yarn locks elasticity. The colour-plating in the base layer together with needle transfer creates an additional geometric relief effect. The pockets are directly knitted-in. A subtle ikat graphic on the inner layer of the pockets adds an extra colour detail.

STOLL-weave-in®, STOLL-ikat plating®, STOLL-applications®, Fully Fashion, bind off, 1x1 technique, presser foot with U-groove, PTS/NPJ, plating

keep pocket details

reduction of weft insertion → single weft insertion

knitting time





FROM -----> TO

(LONG COAT)
WOVEN STITCHES Autumn 2016

Pattern No. ----->
1510006
Machine ----->
CMS ADF 32 W
multi gauge
Gauge ----->
E 7.2

Production time ----->
162 min 45 sec

(CARDIGAN)

Pattern No. ----->
1910060
Machine ----->
CMS ADF 32 W
multi gauge
Gauge ----->
E 7.2

Production time ----->
84 Min 1 sec

----->

APPROACH & PERFORMANCE:
As you browse our patternshop for inspiration, keep in mind that these styles can be interpreted in endless ways. Adapting the design concept, from a long Women's coat to a Men's cardigan, we reduced the running time while keeping the same yarns and only slightly changing the structure and details. Most significantly, the unusual 2-piece cut of the coat has been simplified into a standard pattern with set-in sleeves.



Fully Fashion Men's cardigan in merino quality with knitted-in chest pocket, button placket and button holes. The bodice area is slightly fitted to create a slim fit. The needle transfer structure is additionally reinforced with a STOLL-weave-in® yarn. Multiple welt insertions in the shoulder area and collar give supplementary tensile strength. An ikat graphic at the back features subtle stripes that shine through.

STOLL-artwork®, STOLL-weave-in®, STOLL-ikat plating®, STOLL-applications®, Fully Fashion, bind off, gore technique, presser foot with U-groove, PTS/NPJ, plating



FROM ----->

(WAISTCOAT)

FAUX REAL Autumn/Winter
2012/2013

Pattern No. ----->
1110097
Machine ----->
CMS 822 HP
multi gauge
Gauge ----->
E 8.2

Production time ----->
81 min 32 sec

TO

(PADDED JACKET)

Pattern No. ----->
2010001
Machine ----->
CMS ADF 32 BW
multi gauge
Gauge ----->
E 7.2

Production time ----->
60 min 28 sec

----->

APPROACH & PERFORMANCE:

Drawing inspiration from the vest, we kept the general design idea of the fabric, while adding an extra dimension of colour and graphic. The ADF technology features provided us with further design options, like STOLL-ikat plating® and STOLL-weave-in®, without increasing costs. In addition, we also transferred the style to a more common gauge.



→ inside different from outside due to Ikat Plating

heavy weft insertion → nice effect!



bring in some quirkiness w/ adding more colors



STOLL-artwork®, STOLL-weave-in®, STOLL-ikat plating®, cushioning, cross-tubular, presser foot with U-groove

Padded Fully Fashion jacket with transparent areas. A two-layer multicolour effect is created with multiple weft insertions and plated fine cotton yarns. A subtle check pattern appears, visually blending the fine ikat graphic on the outer layer and the inlay.



FROM -----> TO
(DECONSTRUCTED SKIRT) **(ASYMMETRICAL SKIRT)**

MATERIALIZATION Spring/
 Summer 2020

Pattern No.	----->	Pattern No.
1810124		1910063
Machine	----->	Machine
ADF 530-32 W		ADF 530-32 W
multi gauge		multi gauge
Gauge	----->	Gauge
E 7.2		E 7.2

Production time	----->	Production time
80 min 53 sec		62 min 34 sec

-----> **APPROACH & PERFORMANCE:**
 How did we turn a deconstructed concept skirt into a commercial one? First, we changed the destroyed patchwork elements to a sleeker and more graphic look. Then, we reduced the float lengths to make it easier-care.



Wrap skirt knitted in traversal direction, featuring a graphic colour blocking intarsia design with all over STOLL-weave-in®. A decorative knit stitch connects the different intarsia areas. Each area features a different synthetic material for a techy look, while the inner shell consists of a base layer with plated wool and silk for a good skin-feel. The skirt is gored to the body shape and reinforced with thermo-plastic yarn.

STOLL-artwork®, STOLL-weave-in®, intarsia plating, gore technique, presser foot with U-groove



FROM (CONCEPT) -----> TO (STORE) 10

FROM -----> TO

(DECONSTRUCTED SKIRT) (CROP TOP)

MATERIALIZATION Spring/
Summer 2020

Pattern No.	----->	Pattern No.
1810124		1910078
Machine	----->	Machine
ADF 530-32 W		ADF 530-32 W
multi gauge		multi gauge
Gauge	----->	Gauge
E 7.2		E 7.2

Production time	----->	Production time
80 min 53 sec		26 min 21 sec

-----> APPROACH & PERFORMANCE:
A skirt can easily become a top, speaking a new design language yet having the same technical roots: the weave-in tuck structure. The result is a commercialized and adapted style for a different target group. Shaping the top directly in the knitting process adds another twist.



11 STOLL-artwork®, STOLL-weave-in®, Fully Fashion, intarsia plating, bind off, gore technique, presser foot with U-groove

Gored Fully Fashion crop top knitted in traversal direction. It features a graphic colour blocking intarsia design and a woven look. The one-piece top is shaped directly in the knitting process. The cups are additionally moulded with thermoplastic yarn. Each intarsia area features a different synthetic material for a techy look, whereas the inner shell consists of a base layer with plated wool and silk for a good skin-feel.



more graphic/reduced than in original

shape top to body → gorings + thermoplastic melting yarn

shorter floats

sleek / elegant



FROM -----> TO

(DECONSTRUCTED SKIRT) (RAGLAN PULLOVER)

MATERIALIZATION Spring/
Summer 2020

Pattern No. ----->
1810124
Machine ----->
ADF 530-32 W
multi gauge
Gauge ----->
E 7.2

Pattern No. ----->
1910061
Machine ----->
ADF 530-32 W
multi gauge
Gauge ----->
E 7.2

Production time ----->
80 min 53 sec

Production time ----->
69 min 57 sec

----->

APPROACH &
PERFORMANCE:

In this example, we took the highly conceptual deconstructed skirt as our inspiration. It offers a wide range of design ideas that can be easily adapted. To commercialize it, yet bringing the innovative weave-in appearance to the market, we choose a classic raglan style and natural fibres for easy care.



reduce amount of intarsia fields



Could be interesting for a Raglan Style (Men)



detailing: weave-in yarn connecting intarsia fields



STOLL-artwork®, STOLL-weave-in®, STOLL-ikat plating®, Fully Fashion, intarsia plating, inverse plating, presser foot with U-groove, PTS/NPJ

Fully Fashion raglan pullover with destroyed look. Different intarsia areas feature various weave-in yarns combined with a tuck structure. In certain places the weft yarn transitions from one field to the other, joining the intarsia fields together. The graphic, created with the Adobe® Photoshop® extension STOLL-artwork®, emphasises a used look.

FROM -----> TO

(CROSS-FUNCTIONAL BODY) (SHAPING BODY)

DIGITAL KNITS Autumn/Winter
2019/20

Pattern No. -----> Pattern No.
1710043 -----> **1910077**

Machine -----> Machine
CMS ADF 32 BW -----> **ADF 530-32 BW**
multi gauge

Gauge -----> Gauge
E 18M.16 -----> **E 7.2**

Production time -----> Production time
107 min 53 sec -----> **59 min 25 sec**

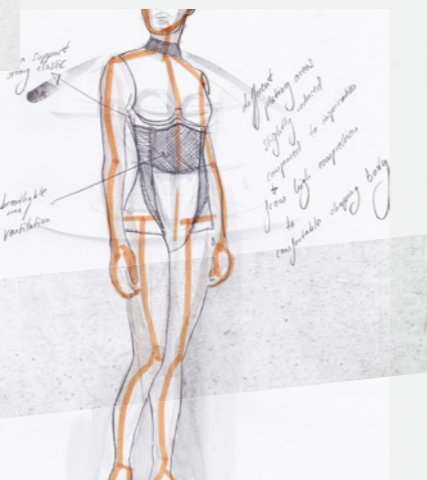
-----> **APPROACH & PERFORMANCE:**

Performance for everybody. We applied a gauge change, less plating areas and a reduced amount of yarns to lower the complexity and speed up the sourcing process. Nevertheless, we kept the performance and shaping function of the original style. Other than the reference piece, the collar is not knitted-in.



slip strong elastic yarn

instead of knitted-in collar knitting for higher productivity



from high compression body to shaping body ↓ **concept**



remove selective plating in the back



Body in Fully Fashion technique. Core-spun Lycra® with different stretch properties are placed in those body zones where either support or compression is needed. These elastic threads are invisibly plated on the inside of the fabric. A float jacquard structure in the lower front and back part spreads compression equally. A mesh structure provides ventilation, a better fit and comfort.

Fully Fashion, pointelle, selective plating, intarsia knot technique, gore technique, PTS/NPJ

FROM -----> TO

(COLLEGE STYLE SHORTS) (IKAT POLO SHIRT)

VARSLITY DENIM Spring/Summer 2015

Pattern No.	----->	Pattern No.
1410034		1910075
Machine	----->	Machine
CMS 530 HP multi gauge		CMS ADF 32 BW
Gauge	----->	Gauge
E 7.2		E 18m.16
Production time	----->	Production time
53 min 22 sec		76 min 17 sec
Production type	----->	Production type
Mass production		Production on-demand

APPROACH & PERFORMANCE:

Drawing inspiration from the structure of the college style shorts, we developed a fine gauge polo shirt. Polo shirts are always in style. We gave it a technical update, by linking it with the digital tool kit from Stoll and ADF features like STOLL-ikat plating®. Learn more about the STOLL knitelligence® chain on our website stoll.com



Five gauge w/ mercerized cotton

*ikat plating creates moire effect
transfer nice grain structure for Polo style*

Autocreate for productivity & customizable artworks



Fully Fashion long-sleeved polo shirt featuring an ikat aesthetic. Fabric construction in plated multi-colour piqué gives a dry handfeel. Mercerized cotton creates a shiny moiré effect. The workflow is digitized: different production steps are automatically linked for easy manufacturing. STOLL-autocreate® in combination with STOLL-artwork® allows for automated production and customizable artworks.

STOLL knitelligence®, STOLL-ikat plating®, STOLL-autocreate®, STOLL-artwork®, Fully Fashion, jersey-tuck structure

FROM -----> TO

(COLLEGE STYLE SHORTS) (BASIC POLO SHIRT)

VARSLITY DENIM Spring/Summer
2015

Pattern No. 1410034	----->	Pattern No. 1910062
Machine CMS 530 HP multi gauge	----->	Machine CMS 502 HP+ multi gauge
Gauge E 7.2	----->	Gauge E 7.2

Production time 53 min 22 sec	----->	Production time 46 min 18 sec
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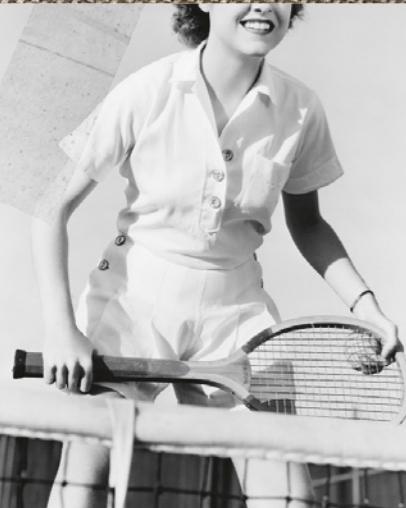
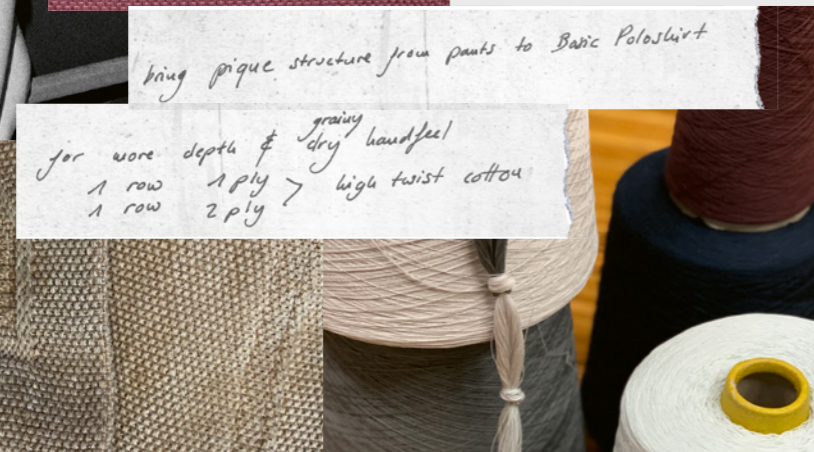
Software M1plus®	----->	Software STOLL-CPS®+
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APPROACH &
PERFORMANCE:

As well as the fine gauge polo shirt seen on page 17, we also developed an easy and universal style on a coarser gauge that runs on our economic machine.



*for more details go to
page 24



Fully Fashioned basic polo shirt in a cotton quality. The piqué structure creates a dry and grainy handfeel. The collar has a knitted-in button hole and float details. The style is programmed on the brand new STOLL-CPS® Connective Pattern Software.

Fully Fashion, jersey-tuck structure, PTS/NPJ

FROM -----> TO

(UNISEX T-SHIRT)

VARSIITY DENIM Spring/Summer
2015

Pattern No. ----->
1310183
Machine ----->
CMS 530 HP
multi gauge
Gauge ----->
E 7.2

Production time ----->
108 min 08 sec

Software ----->
M1plus®

(BOXY SHIRT)

Pattern No. ----->
1910079
Machine ----->
CMS 502 HP+
multi gauge
Gauge ----->
E 3,5.2

Production time ----->
32 min 19 sec

Software ----->
STOLL-CPS®+

-----> APPROACH & PERFORMANCE:
Pointelle and honeycomb structures are commercial and seasonless. The original piece combines different structures next to each other. Transforming the style to a coarser gauge, an economic machine, placing the pointelle structures differently and eliminating the elastic yarn optimizes price points.



*for more details go to page 24



Boxy Fully Fashion shirt with honeycomb and different pointelle structures. The saddle shoulder and hem in half Milano provide stability to the otherwise drapy fabric. Programmed on STOLL-CPS® Connective Pattern Software.

Fully Fashion, pointelle-tuck structure, gore technique, PTS/NPJ

FROM -----> TO

(STOLL-KNIT AND WEAR® PULLOVER)
BETWEEN WORLDS Spring/Summer 2012

(FULLY FASHION SLIPOVER)

Pattern No.
1010305
Machine
CMS 830 C knit&wear
Gauge
E 2,5.2

Pattern No.
1910080
Machine
CMS 502 HP+ multi gauge
Gauge
E 3,5.2

Production time
27 min 49 sec

Production time
37 min 34 sec

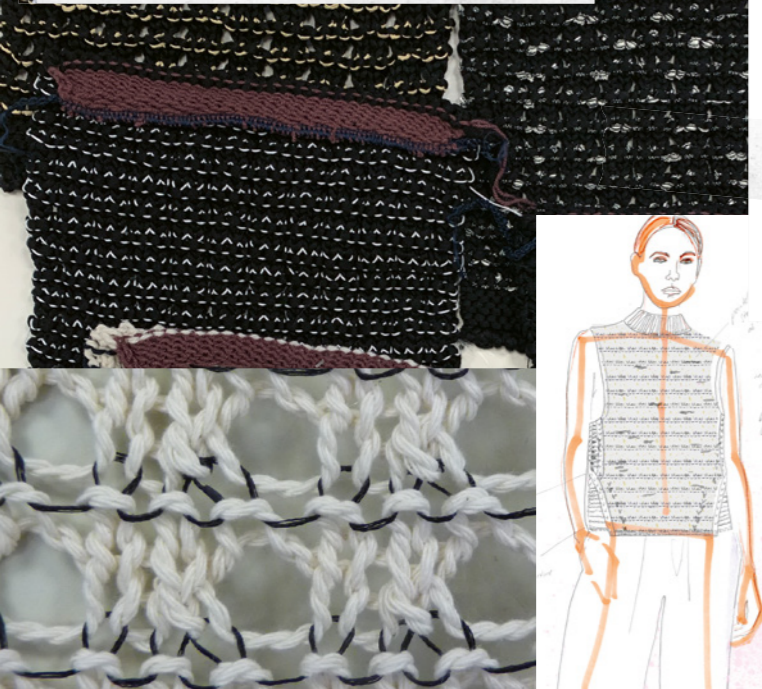
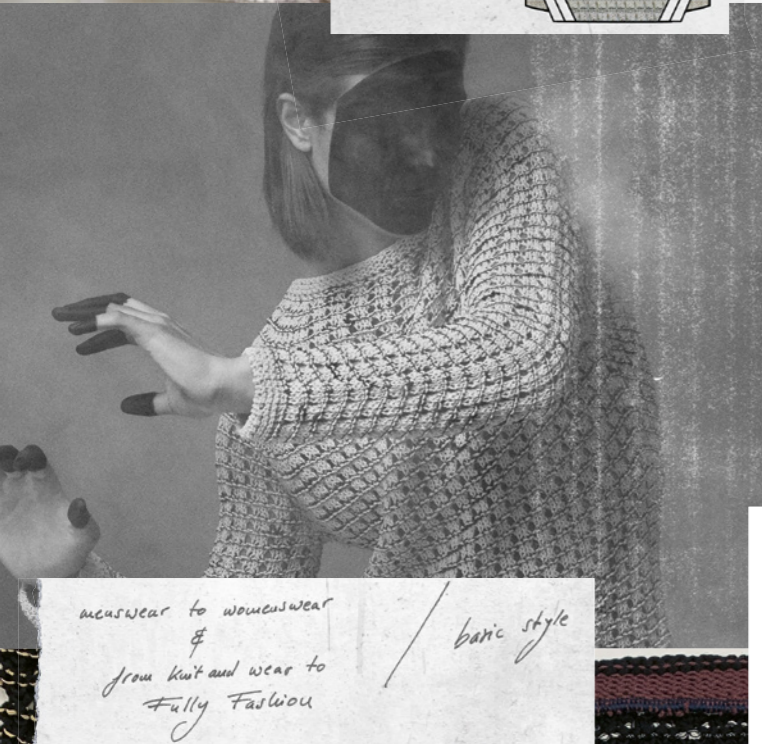
Software
M1plus®

Software
STOLL-CPS®+

APPROACH & PERFORMANCE:
Our STOLL-knit and wear® pieces can easily be transformed into Fully Fashion styles. We did so by morphing the structure into a sleeveless pullover. The STOLL-knit and wear® Men's piece is transformed to a more compact, less see-through Women's style, that runs on an economic machine.



*for more details go to page 24



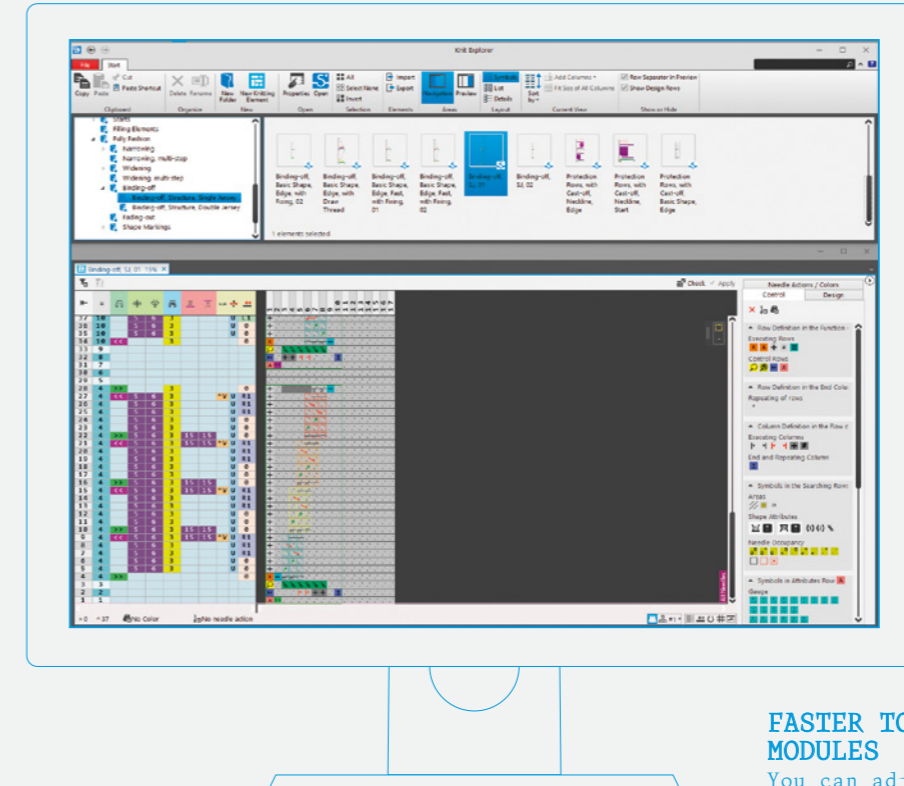
Style for economic machine!



Fully Fashion, pointelle, 6x6 cable, purl, 1x1 technique, layer technology, PTS/NPJ

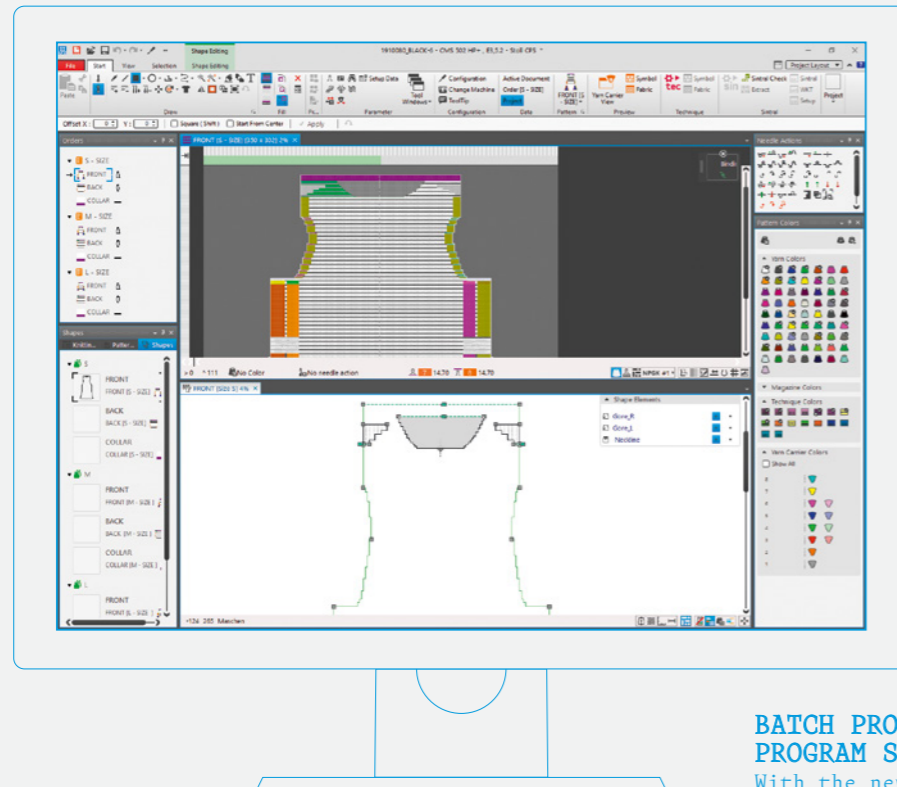
Coarse sleeveless pullover with pointelle structure. Side panel with cable and links-links structure. Programmed on STOLL-CPS® Connective Pattern Software.

HOW THE NEW STOLL-CPS® CONNECTIVE PATTERN SOFTWARE SIMPLIFIES AND SPEEDS UP YOUR DEVELOPMENT PROCESS



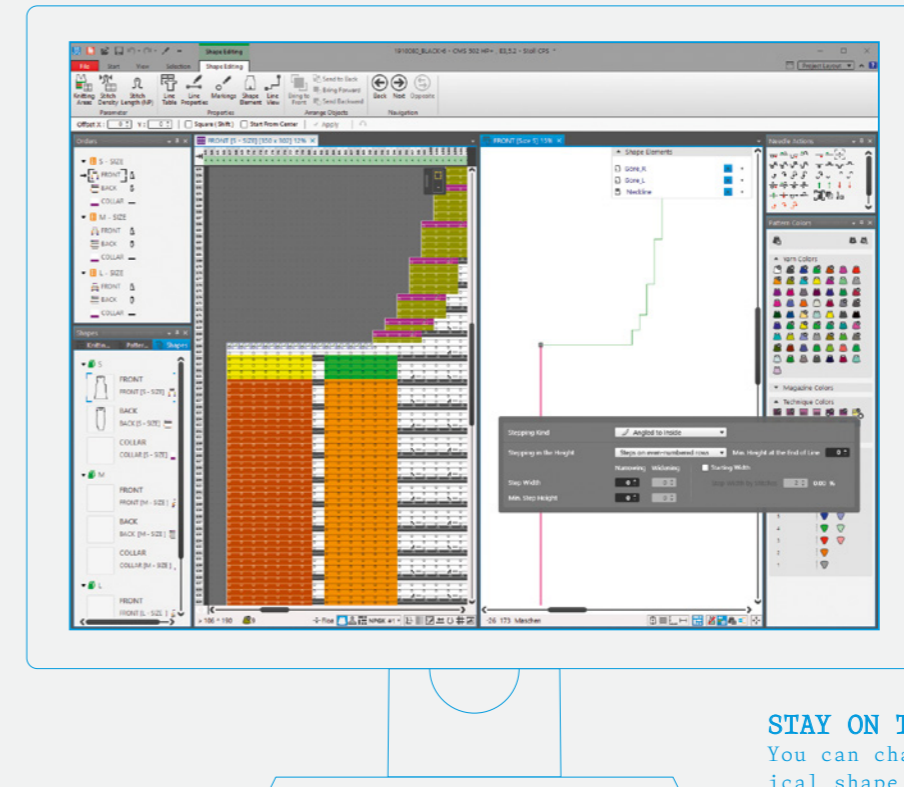
FASTER TO CREATE AND CHANGE MODULES

You can adjust embedded colour arrangements and modules directly in the pattern program. Even after technical editing, you can simply make changes without having to go back to the basic pattern.



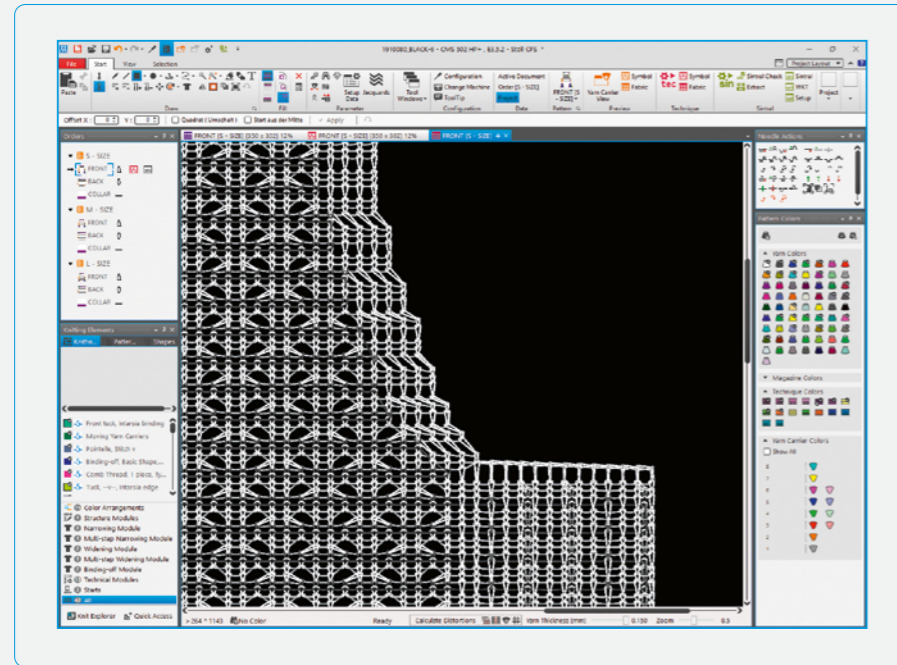
BATCH PROCESSING SPEEDS UP YOUR PROGRAM SETUP

With the new order management you can make changes on different parts and sizes at once, simultaneously - so there's no need to laboriously modify each individual garment piece or size anymore.

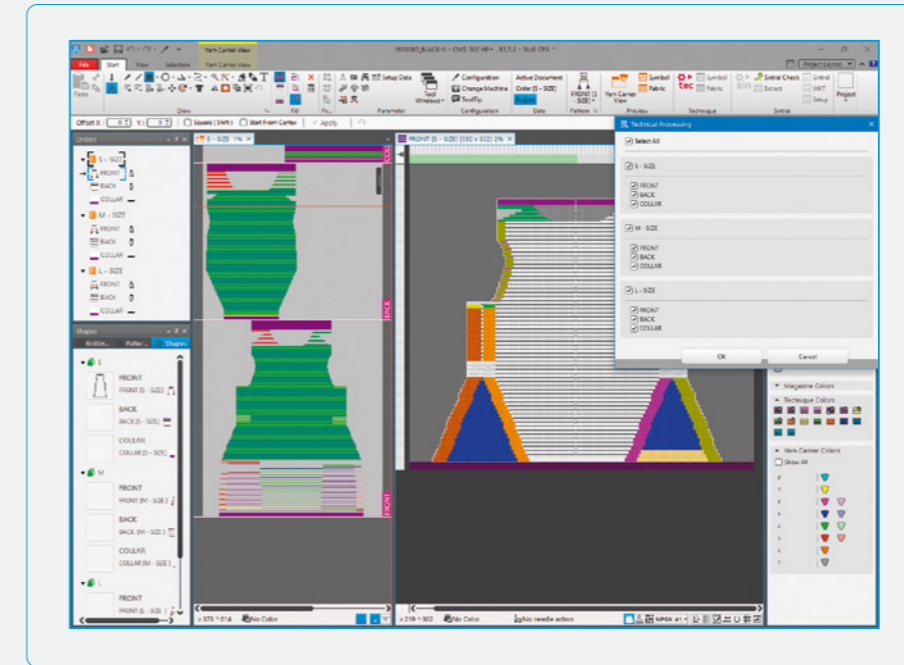


STAY ON TOP OF THINGS SIMPLY

You can change basic, expanded, graphical shape view and line shape view simultaneously. They update themselves, automatically - no "technical editing" or refreshing buttons needed. Saves time and hassle.

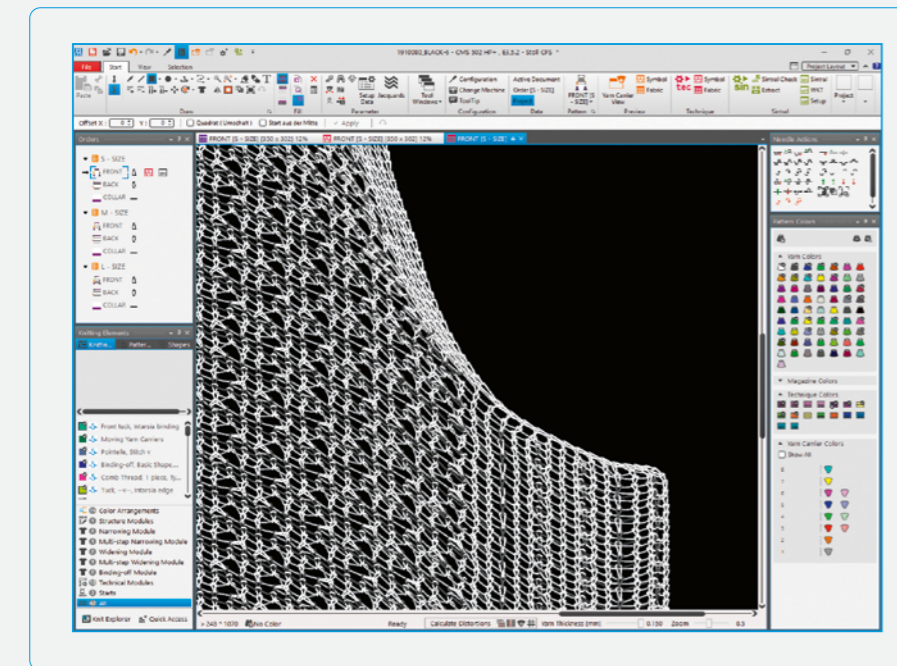


Knitting preview without
stitch distortion



**AVOID ERRORS - DIRECTLY START
KNITTING**

Knitting sequences are created with a click of a button in the STOLL-CPS®. All of the settings related to each program - for example, the yarn carrier positions - are automatically taken into account.



New:
Knitting preview with
stitch distortion

**VISUALIZE YOUR IDEA BEFORE YOU
START PRODUCING**

Get a realistic preview of your knitted fabric, reducing the number of prototypes - now with stitch distortion.

The STOLL-CPS® Connective Pattern Software offers you even more advantages - from a modern, clear surface to the full integration of the STOLL-GKS® Grading for Knitting System. A graphical shape-editor makes it easier to create shapes, and helps to keep the shape in focus, working only with outlines.

The STOLL-CPS® Connective Pattern Software is a tool that adds value to any knitting factory, making creating knitting programs faster, simpler and more efficient.

Get in touch to learn more.

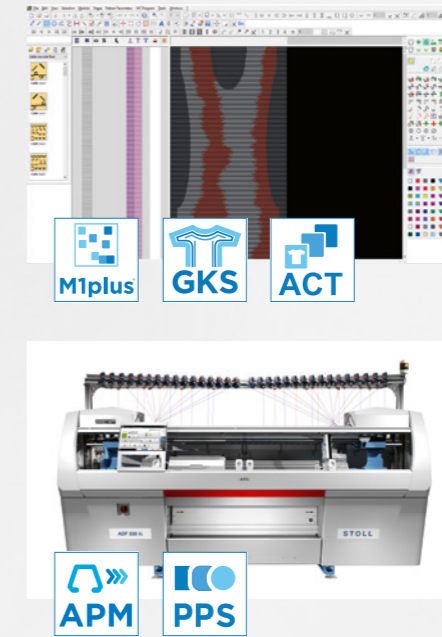
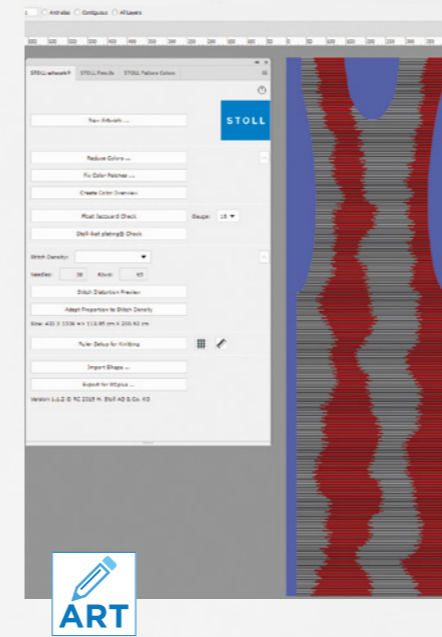
FASTER: PROCESS FROM (CONCEPT) — TO (STORE)

Patternshop.stoll.com is an excellent source for design ideas and technical inspiration alike. Stoll provides this valuable service copyright-free.

As a designer you can use the patternshop to download high resolution images for moodboards and tech-packs. You will also find all important yarn information and Adobe® Photoshop® files related to each style.

STOLL-artwork® is an Adobe® Photoshop® extension that simplifies the creation and redesign of graphics. Exported BMP files can be sent to the manufacturer to simplify the workflow. This way you stay in control of the final result. Changing existing PSD files from our patternshop further speeds up the process.

Just brief your manufacturer about your source of inspiration in the patternshop, as they can download related machine programs on our website. This helps with faster sampling and saves wasteful iterations.



From (CONCEPT)

(RESEARCH)

(DESIGN & ADAPTION)

(ARTWORK DEVELOPMENT)

(PRODUCTION)

To (STORE)

STOLL
KNITELLIGENCE®
TOOLS



PATTERNSHOP



ARTWORK
CREATION



PROGRAMMING



GRADING



CUSTOMIZATION



AUTOMATIC
PRODUCTION



PRODUCTION
PLANNING



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