



Brochure

# Distribution and Manufacturing in Sage 100

Sage



acutedata

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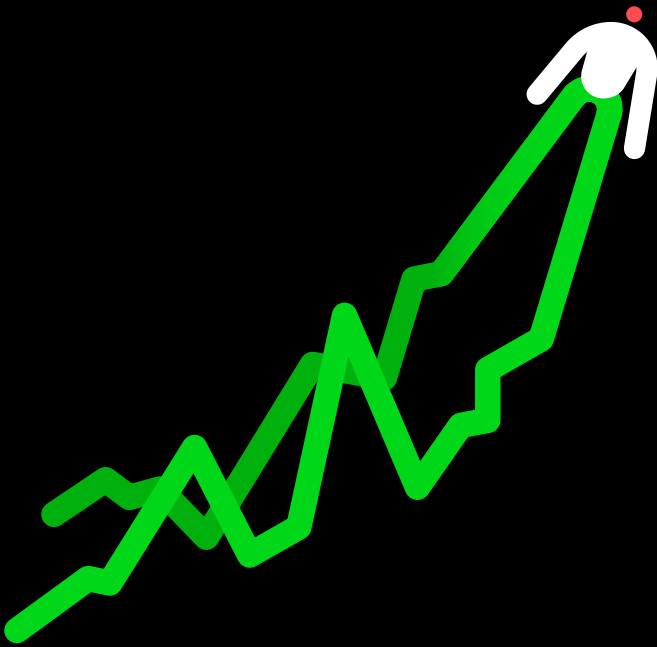
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# Overview

With global supply chain concerns a part of everyday commerce, the opportunity to rise above your competitors could be dependent on the efficiency of your distribution and manufacturing operations. Investment in these strategic processes can improve customer satisfaction, lower administrative and carrying costs, and help you respond to changing market opportunities and challenges. Sage 100 distribution and manufacturing solutions are designed to help you maximize operational efficiencies by increasing productivity and profitability. The deep functionality of these modules address many of the challenges you face in day-to-day operations while providing the management insights you need for continued success.

Sage 100 distribution and manufacturing modules and features allow you to source, manufacture, and ship more products on time and more profitably than your competitors, positioning you at the head of the pack.

# The synergy of Distribution

The Sage 100 distribution solution includes a robust assortment of modules and features that work synergistically to provide easy-to-implement and efficient capabilities to track, manage, and replenish inventory. Manage warehouse operations through the entire distribution cycle, from purchasing to stocking, all the way through sales and even merchandise returns—worry free.

The Inventory Management, Inventory Requirements Planning, Mobility for Barcode, Purchase Order, Sales Order, and Return Merchandise Authorization modules integrate seamlessly, so valuable data is always available when you need it. Each module showcases individual depth of functionality that only adds to the overall efficiency and control of the entire distribution solution. Specifically designed adjacent services include comprehensive inventory demand forecasting, flexible sales and returns processing, and automated payments processing.

The Sage 100 distribution solution empowers you to manage every aspect of the distribution cycle from increasing your cash flow by reducing carrying cost to improving customer retention by stocking the products they need and delivering on time.

## **Inventory Management**

With its warehouse-centric design, the Inventory Management module can save you time and money. You can organize, analyze, and graph sales history and transactions by warehouse. For operational efficiency purposes, further organize items into specific bins with available multi-bin solutions.

Assign costs to individual items by warehouse choosing from standard, average, first-in first-out (FIFO), last-in first-out (LIFO), lot, or serial costing methods. Inventory pricing can be defined by customer type or warehouse location and supports contract pricing; price breaks based on quantity, monetary amount, weight, or volume; effective and expiration dates; and sales promotions.

Turn downtime into uptime because you will be able to continue to take orders when inventory counts are in progress. Attach images to items and organize your products into a comprehensive catalog, which translates to easy item lookup in Sales Order, Purchase Order or Customer Relationship Management as well as online through available e-commerce solutions. Further simplify lookup with the use of alias item numbers to match vendor item numbers or commonly used customer references.



## **Kitting**

Sage 100 provides several options for kitting to meet your needs. The Inventory Management module provides the ability to create preassembled kits that are ordered from stock. When these kits are selected during Sales Order entry, the component items are exploded on the lines tab of the order and can then be modified to accommodate variations.

The Bill of Materials module provides the ability to create kits with options. Kits with options may contain components that vary based on a pre-set list of options with each order.

## **Lot and Serial Tracking**

Enable Lot and Serial Expiration Dates to enable distributors and manufacturers to trace lot and serial numbers backward and forward for traceability from receipt of goods through customer shipment. Even more, Sage 100 provides date tracking and expiration date calculation for sales, issues and returns allowing you to ensure that items in your inventory stay within their effective lifespan and are used or distributed in a timely manner.

- Gain insight into expired inventory with the Lot and Serial Expiration Status Report.
- Track recalled inventory with Lot Serial Transaction History and Lot Serial Customer Recall.

## **Forecasting and Replenishment**

Sage 100 provides tools to set the reorder method and reorder points by warehouse by item. Predefined reports and dashboards are included to assist in replenishment planning within the Inventory Management module. The Inventory Requirements Planning module provides a view into the demand and recommended replenishment activities, by item and warehouse based on activities across the company. Purchase Orders or Work Tickets may be automatically generated from this view.

Also available for an additional fee is Sage Inventory Advisor, which provides a web-based interactive forecasting dashboard view into current inventory status as well as recommendations for stock optimization and replenishment.

Learn more about [Sage Inventory Advisor](#).

## Mobility for Barcode

The Mobility for Barcode module provides tools that allow you to use scanning technology from a dedicated scanning device, a mobile tablet, or a smart phone to read barcode information on your inventory items and then import that information as transactions into Sage 100. That automation capability lends itself to increased accuracy and efficiency in:

- Receiving
- Put-away
- Inventory transfers
- Inventory counts
- Picking
- Packing
- Shipping
- and even manufacturing material issues and finished goods processing

Available add-ons enable advanced zone and wave picking which minimize employee movement while dramatically increasing the number of orders picked during each shift.



## Purchasing

The Purchase Order module manages the requisition, purchase, and physical receipt of materials. It gives you the ability to track received goods by matching the delivery receipt with the invoice and the original purchase order, as well as tracking any variances. You are assured of tighter tracking and more accurate inventory control in your warehouse.

Invoices can also be created at the same time. Depending on the integrations, receipts can automatically update entries to associated modules as follows:

- When Sage Fixed Assets is integrated, you can select an asset template to create assets.
- When the Job Cost module is integrated, job cost distribution information for line items can be entered or modified.
- When Sage Production Management is integrated, you can update work ticket lines linked to purchase orders, change the status of the linked work ticket and update the quantity completed.
- Tag items for the Sales Order associated with the purchase, to fulfill the backorder.

Learn more about [Sage Fixed Assets](#).

## Returns

Multiple returns and replacement policies are easily managed in Sage 100. The Return Merchandise Authorization (RMA) module creates, receives, manages, and tracks returns with the ease of automation. This module provides tools to manage returns from your customers based on various reasons and routes the receipt to the correct warehouse or workflow relevant to the reason and/or action required.

Possible workflows enabled:

- Return for repair.
- Return to vendor.
- Cross-ship replacement to customer.
- Issue credit memo to customer.
- Mark returned item as scrap.

Workflows are automated, even if you ship from different warehouses. Simplify the return process to save employees time and increase customer satisfaction.

## Sales Orders

The powerful flexibility and extensibility of the Sales Order module leverages pricing models from inventory, which can be based on customer, location, discounts, and more. Each order can have its own ship-to address, salesperson, tax rate, ship date, ship-from location, and drop-ship designations. The familiar Sales Order Entry task can be used to create standard orders as well as master orders, repeating orders, or itemized price quotes.

- **Master Orders** allow you to create a large quantity order allowing customers to perhaps take advantage of quantity pricing, then ship items over a period of time. New standard orders are issued against the master order to facilitate shipment and invoicing of selected items. The original quantity, quantity ordered against the original ordered quantity, and total balance are maintained for the master order. All inventory updates, order date, and expiration date tracking is performed automatically.
- **Repeating Orders** can reduce repetitive data entry on orders for customers who routinely order the same items. After a repeating order is entered, all customer, line item, tax, commission, and freight information are stored for future orders. Repeating orders can be copied to standard orders and modified.

For price quotes, master orders, and repeating orders, quantity on-hand checking is performed, but inventory quantity on sales order information is not adjusted. Quantity information related to sales orders is updated based on standard orders as they are created and / or processed through shipping and invoicing.

When integrated with Sage CRM, opportunities and quotes can be created directly in Sage CRM and then updated to Sage 100. Quantity on-hand checking and pricing are shared into the Sage CRM solution as are customer details.

Learn more about [Sage CRM](#).



## Shipping

Getting your products to the correct customer on time is a critical part of the supply chain, especially in an economic environment where on-line suppliers are constantly raising the expectations of customers. Sage 100 includes features to simplify and manage your shipping operations by assigning specific shipping IDs to individuals and associating specific access permissions to those individuals.

Bar codes can be included on sales order picking and packing sheets to improve efficiency in assembling packages. When weight or volumes are included in item details, or when a scale is integrated, weight and volume can be calculated or recorded for each package. With available third-party integrations using the included business object interface, rates from primary package carriers can be accessed and calculated to be included on the packing list and/or invoice either at the rate returned from the shipper or a marked-up rate. Additionally, tracking numbers can be recorded and included on the invoice for improved customer satisfaction.

# Manufacturing Productivity

Sage 100 provides manufacturers with the flexibility and expanded capabilities to meet the diverse business requirements of varied industries, including industrial, automotive, high tech, electronics, consumer packaged goods, and other industries. One of the advantages of the manufacturing features is its streamlined integration of Bills of Materials and Production Management, which allows for improved lead-time calculations, more accurate material plans, and better resource allocation. The manufacturing solution optimizes your operations for maximum productivity while it provides a real-time business view into day-to-day activities that afford you the vision to manage profitability with insight.

## Capable to Promise

Sales Order Entry includes a Capable-To-Promise (CTP) feature, which displays on-hand and on-order data to help you quickly determine a specific date a desired quantity of product will be available. CTP is available for both distributors and manufacturers who want to improve customer satisfaction by ensuring that customer service has the information they need to provide quick and accurate customer support.



## Bill of Materials

A bill of materials is sometimes referred to as the bill structure because it defines the relationships between the component items that make up the bill (or product). Information for each bill is divided into two parts: header information such as the bill description and bill type; and a listing of the components whether those be line items, miscellaneous charge codes, or comment lines.

The bill type depends on how the bill is used. Sage 100 supports five fundamental bill types:

- **Standard bills** are used in production and work ticket entries and can consist of multiple layers (or sub-assemblies), any number of component items, miscellaneous charge codes, phantom bills, and comment lines in any configuration desired. **Note: Miscellaneous charge codes are not automatically copied into work tickets.**
- **Engineering bills** are used to formulate new product structures and estimate costs or profitability. When Engineering Change Control is enabled, these bills are used to record changes to the original bill structure by creating a new revision of the bill.
- **Inactive bills** are those bills no longer used in active production or work ticket entries.
- **Kit bills** define in a single level, the structure of a specific assembled item and can consist of any number of component items and comment lines. It cannot contain a phantom bill as a component, nor can it contain any miscellaneous charge codes as components.
- **Phantom bills** are created to account for an interim step in a manufacturing process, such as the accumulation of parts into a subassembly. They are also used to identify component groups that are often used together but do not represent an actual assembly. Phantom bills do not represent stocked inventory items.

### **Bills with Options**

Instead of defining a separate bill for each possible configuration, the Bill of Materials module in Sage 100 allows you to define a single base bill that represents the base model and a separate option bill for each nonstandard option. The base bill may be a Standard, Kit, or Engineering type. By indicating the bill has options, you then can define option categories for the individual component lines and then assign items to each defined category.

During the Sales Order Entry process, when the bill with options is entered as an ordered item, the salesperson is prompted to select the available options to define the customer's specifications for the item, thereby defining the structure for the resulting production entry or work ticket.

### **Engineering Change Control**

Sage 100 provides engineering change control to record engineering change notices and implement controlled changes to the bill structure between revisions of the bill. Engineering changes may be necessary due to a variety of reasons including error correction, cost reduction, design improvements, quality improvements, or changes in material specifications. Each engineering change may affect one or more components within a bill. The bill itself is not changed. Additions are marked with a starting date and the deletions are marked with a deletion date. All bill configurations remain on file.

### **Production Entry**

Production entry allows you to enter the receipt of manufactured goods into inventory and the consumption of the corresponding component parts after-the-fact, using a one-step process that does not directly support a work-in-process accounting system.



### **Disassembly Entry**

Disassembly entry allows you to relieve a parent item from inventory and return all its component items to inventory, whether to disassemble a manufactured item and return its component items to stock, disassemble a purchased item to salvage its component parts, or reverse a previously posted production entry. Parent items are always relieved from inventory at actual cost.

# Production Management

Production Management is the replacement for the legacy Work Order module and offers a complete solution for Make to Stock or Make to Promise manufacturers who need visibility into their work in progress operations. In conjunction with the Mobility for Manufacturing solution, available as a third-party add-on, Production Management provides flexible licensing options with full access user seats or mobile transaction access with Shop Floor users, allowing for real-time entry of labor usage, inventory issues, and completion steps using mobile devices such as hand-held scanners, smart phones, or tablets.

Learn more about [Mobility for Manufacturing](#).

## Work Ticket Templates

Work Ticket templates act as paperless routing documents to direct the shop floor process and as blueprints for future work tickets using similar processes. These templates include details on the Activity Code (task to complete), Work Center (location on shop floor), and Tool Code (special tooling if required). Budget values as well as scaling and scheduling parameters may be established. Materials may also be included as well as attachments such as drawings (including CAD drawings), images or other specifications.

## Work Tickets

Work Tickets contain the information needed to build a finished good or sub-assembly item, which may include:

- The quantity and/or yield percentage to be made.
- Steps that identify the process that may include work instructions.
- Material and components needed to make the finished good.
- Budgets for labor hours, labor costs, and material quantities.



Work tickets may be created using a number of methods, such as:

- Copy from an open work ticket.
- Copy from work ticket history.
- Create from an inventory item.
- Create from a bill of materials.
- Create from a work ticket template.

## Work in Process

Production Management provides the ability to track costs and progress associated with production of finished goods using work in process tracking. You can determine how those costs are tracked and assigned by determining the method applied to cost completion, labor issue and material issue.

Available cost completion methods include:

- Actual
- Lower of planned or actual
- Planned

Labor Issue methods include:

- Manual
- Auto issue
- Backflush

Material issue methods include:

- Manual
- Auto issue
- Backflush

Additionally, dynamic material and/or dynamic labor options may be enabled allowing real-time updates to labor and materials tracking.

### **Integrations**

Integrations with Production Management allow seamless entries across modules and enable additional synergies.

- When integrated with Sage 100 Payroll, employees, departments, and earnings codes used in Production Management and Labor Entries can be imported into Payroll Data Entry, if desired.
- When integrated with Accounts Payable, cost distributions can be assigned to open and closed work tickets in AP Invoice Data Entry as well and Manual Check and Payment entry.
- When integrated with Purchase Order, purchase orders can be created directly from Work Ticket Entry, and items assigned to open purchase orders can be linked to open work tickets in Purchase Order Entry.
- When integrated with Bill of Materials, you can assign templates and steps to bill numbers and bill option in Bill of Materials Maintenance; create work tickets from bills; and import materials from bills.



### **Scheduling**

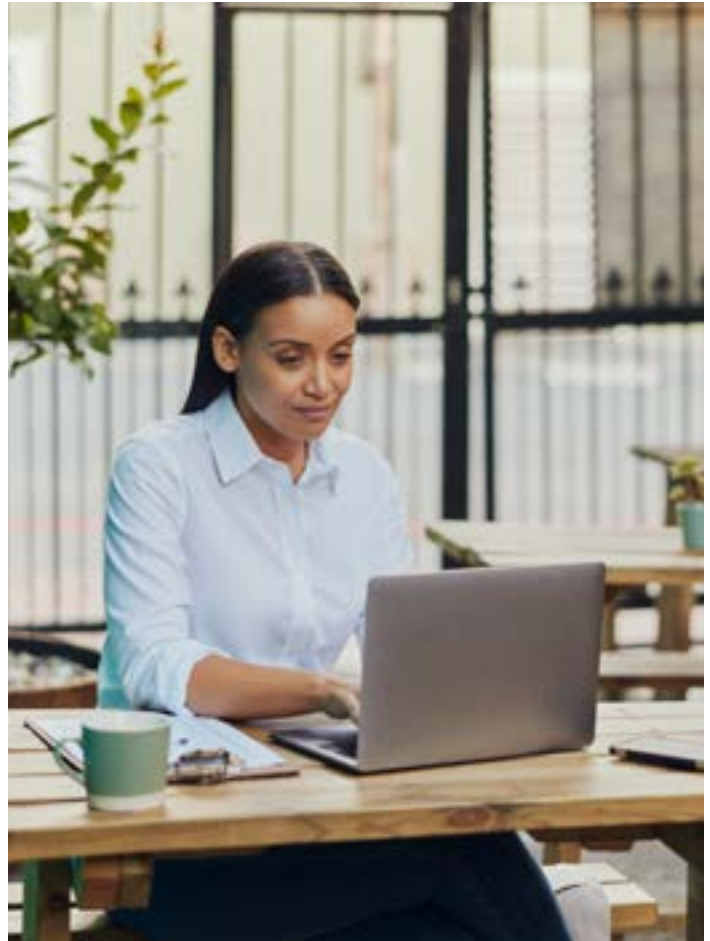
Production Management includes scheduling functions to establish a working calendar for each work center as well as capacity. Further, each work ticket can then be scheduled using either forward or backward scheduling based on what is known about the requirements of that individual work ticket. Production Management uses an “infinite” loading technique to schedule each work ticket as if it were the only work ticket on the shop floor. The advantage of this method is visibility into the true load based on demand; however, care is required to prevent overload on individual work centers.

# Operations Management

For manufacturers who specialize in custom manufacturing, Sage offers Operations Management. Experience the ease in managing each element of the custom manufacturing process with tracking tools that cover the entire job lifecycle: estimating, sales orders, work ticket, job planning, costing and tracking, purchasing.

Make smarter, more timely decisions with real-time job management tools for estimates, labor and material usage and a single source of the truth for workflow with real-time tracking. Add Enhanced Scheduling to easily prioritize jobs, forecast scheduling and manage exceptions.

Operations Management helps reduce the time you spend managing projects and automate manual processes, including generating purchase orders, generating work tickets, checking material availability before release and verifying quote accuracy and production schedules before production starts.



Experience the peace of mind in proactively monitoring the status of your jobs so that you can provide accurate delivery dates; deliver the tools to review, refine, and improve estimating and job planning. Analyze your supply and demand for jobs, so you can purchase the right products and materials at the right time to meet demand. Identify cost overruns easily, allowing you to take action. Product Configurator can also be added to customize products according to need whilst producing fast, accurate custom estimates or sales orders and a comprehensive bill of materials to drive profitability.

Learn more about the power of [Operations Management for Sage 100](#)

# Sage Partner Cloud

If you've been thinking about a cloud option, we have a solution.

Sage developed the Sage Partner Cloud—so you can still benefit from the vast suite of in-depth features, cost effectiveness, and adaptability of Sage 100. You can deploy Sage 100 in the cloud with Microsoft Azure, AWS, or Sage-accredited cloud platforms including ADSS Global, Cloud at Work, CompuData, RKL Solutions, and SWK Technologies.

Still not certain if a move to the cloud is right for you, consider a few benefits:

- Data migration in a single day<sup>1</sup> with no retraining necessary.
- Multi-layered security.
- On-demand scalability.
- Improved operational efficiency.
- Overall reduction of IT costs.
- Flexibility of remote access.
- Sustainability of a carbon-neutral cloud platform.<sup>2</sup>

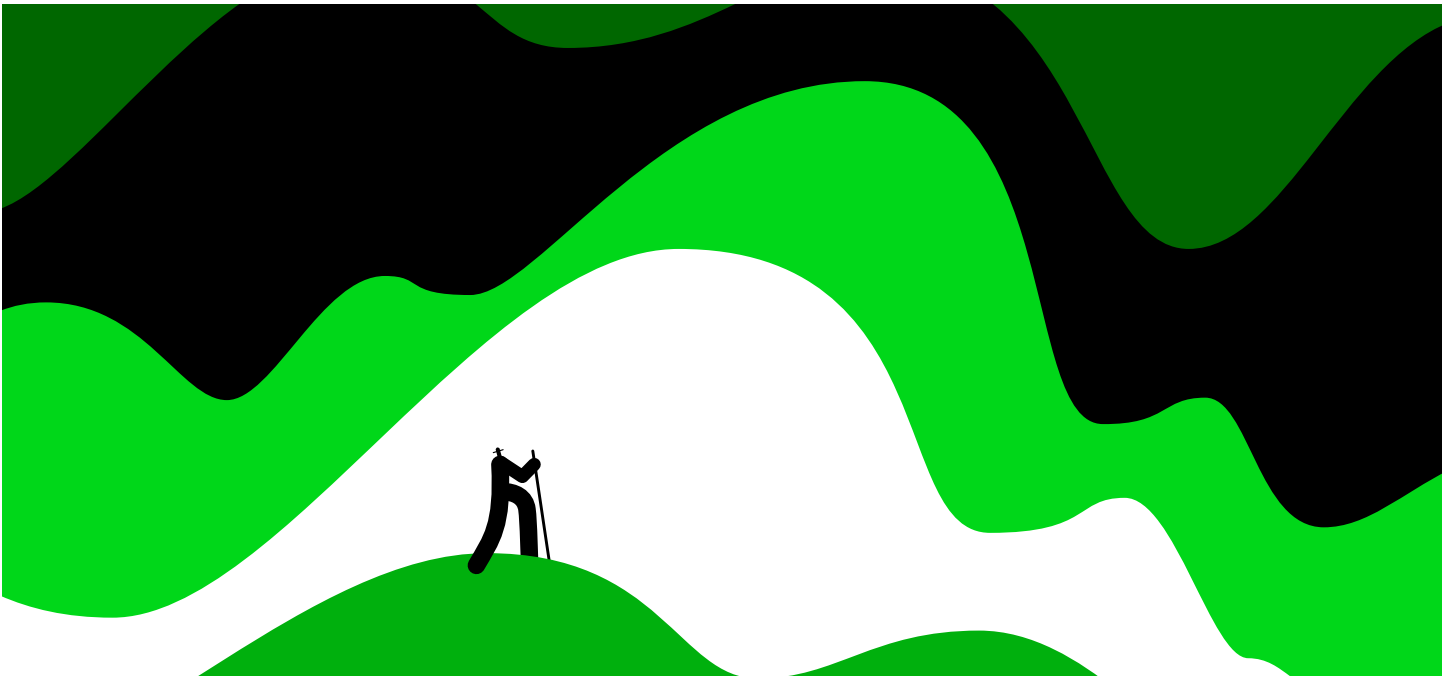
1. Estimate is provided by our Sage Partner Cloud Beta Program Partners. In some more complicated cases, data migration may take more than one day.
2. Learn more about Microsoft's sustainability practices [here](#).

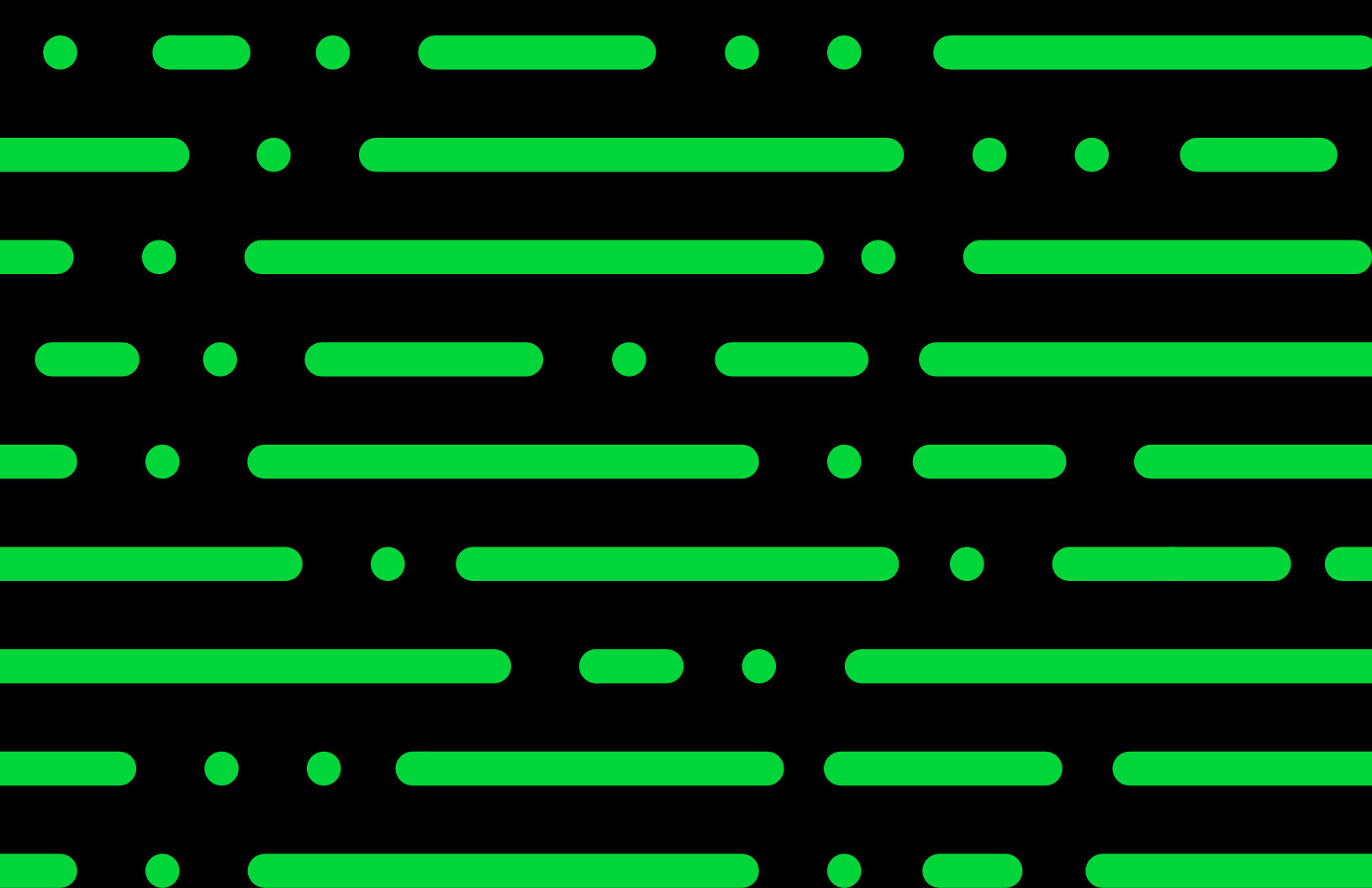
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