Source Technologies (which provides integrated software and printer solutions for IRD print management and control) has produced this IRD Checklist to provide a deeper understanding of Check 21 Image Replacement Documents (IRDs), the printing and print management requirements for IRDs. It assumes at least rudimentary understanding of Check 21.

The IRD Checklist discusses aspects that are critical for any IRD strategy: managing IRD-related business processes, controlling your IRD printing environment, and IRD risk management.
Business Process Management

At first glance, IRD printing is viewed simply as interposing new steps in the check-processing workflow in order to back-stop check-image exchange. Many assume that the IRD portion of the workflow will be fairly straightforward and standardized for both image-enabled and paper-process banks.

But the IRD is an entirely new type of negotiable document that creates new challenges—and opportunities—for banks, check processors, and check-image aggregators. Source Technologies is working with many banks that are looking at very unique ways of leveraging IRDs to create new levels of service for their customers or, in some cases, invent entirely new services based on check imaging and IRDs.

Regardless of the application, a critical aspect of your IRD strategy is maintaining control over your business process. You must have a technology framework that can provide this control today. You should also expect that these processes will change as your check-processing agreements with partners evolve. As you review your check-imaging and IRD-printing workflows, consider the following:

- How distributed is your IRD printing network? Do you need centralized control over your IRD print environment? Do you need to know the status of your printers and any printing exceptions? In real-time?
- What functionality must your system provide for submission, voiding, and reissuing of specific jobs, pages, or individual IRDs?
- What functionality must it provide for reviewing print activity, exceptions, audit trails and other reporting?
- Will your system need to manage directing jobs to certain printers? Will you need to be able to prioritize print jobs? What kind of load-balancing capabilities must your print management platform have?
- Do you need output options for print order? For example, cash letter before or after, statement insertion, sorting and redirecting, forward versus return IRD printing/ Keep in mind that print order also depends on the type of printer running the job.

Determine whether the solution you’re looking at offers the following “out of the box” functionality and features.

- Built-in logic and functionality for real-time exception handling including printer problems, voids, and reprints. This logic is completely configurable by the user, allowing them to implement exception-handling procedures based on their specific IRD workflow.
- Flexible user access control. Any number of user types can be defined to manage access to functionality and information.
Browser-based functions can be provisioned to privileged users throughout the enterprise and beyond, giving users access to just those functions they need to efficiently do their jobs.

- Complete audit trail and reporting facility. Given the need to efficiently handle exceptions and the liability issues around IRDs, and, it is imperative to be able to demonstrate what was printed, when, where, and who authorized the output.

- Management of IRD printing and related documents at multiple printers and multiple locations. IRD print runs can be directed and prioritized based on a number of grouping factors such customer, Federal Reserve Region, or document type (forward IRD, return IRD, etc).

- Thread management and load balancing.

- Disbursement Decision-Flow™. This feature is standard to our enterprise platform and allows companies to establish an approval process (with up to five approvers) based on a number of grouping factors such customer, Federal Reserve Region, or document type (forward IRD, return IRD, etc).

- X9.90-compliant layouts for forward and return IRDs. Our solutions also include an easy-to-use application for modifying or creating your own custom designed forms for IRDs or other documents (cash letters, statements, et cetera).

- Print-item “packaging”. Source Technologies’ print management solutions allow users to define unlimited numbers of document types and package multiple document types for print runs. For example, printing several forward-IRD bundles plus the specific cash letter for each.

- Automatic import and formatting of X9.37 standard or non-standard IRD data from other systems. Our solutions ship with standard data templates but include an easy-to-use application for creating new import data maps and setting the processing options for each data stream, such as starting and stopping import processing by source, the number of simultaneous import streams, and the scanning frequency for incoming data files.

**Print-Network Control**

As discussed above, IRD printing strategies are as varied as the banks employing them. We have seen this reflected in customers’ IRD print environments and needs: on-demand, production, centralized, departmental, distributed, inter-enterprise and even intra-enterprise.

IRD print management is about more than just software and printers. It is about ensuring performance, efficiency, quality, and security. In managing IRD printing, it is imperative to view print management software and the attached printers as an integrated network designed specifically for the task.
As with your IRD business processes, maintaining control over your IRD print network is critical, and your technology framework must support both current and future requirements. As you review your IRD print network, consider the following:

- How will your IRD print network handle printer malfunctions, such as low toner/toner out conditions, power outages, print jams, or even paper out? How will you recover jobs in process, dropped pages, or even pages where only one or two IRDs print properly?

- How will your system handle printer control functions (page count, etc.)? What happens when someone inserts a monotoner cartridge into a MICR printer? What happens when someone reroutes the print stream to another printer on the network? Pilot error is a fact of life—these things will happen and more often than you think.

- Will your system provide closed-loop print confirmation of the IRDs? How will it ensure that an IRD does not get printed twice?

- What vendor guarantees do you have that your IRDs will conform to X9.90 and read properly?

- What level of scalability will you require? Will your IRD printing environment require a broad range of software and printer solutions?

The level of software-hardware integration needed to ensure a properly functioning IRD print environment is high. Make sure the vendor you're considering has engineered its software and printers to work together to meet the requirements of the most complex and demanding IRD print network with features such as:

- Bi-directional communication and alerting. MICR printers communicating real-time information on printer function and job status to the software, covering all of the potential exceptions described above and more.

  Additionally, can the software be configured to alert specific users based on the condition, either through user screens, email, or page?. Just as important, can the software track the printing of each IRD by allowing authorized users to update individual records as voided and submit reprint requests?

- Print control and encryption. Combining Ensure that the data gets to the right printer and the job gets done as submitted. The data stream should be encrypted all the way to the printer, giving the application total control over printer configuration and function at all times.

  The job will not print if a non-MICR toner is placed in the machine, if a different printer is attached to the port, if the data stream is redirected to another port or printer, or any other condition exists that could impact proper output.
Guaranteed IRD output. See if the vendor guarantees that your IRDs will meet or exceed print tolerances specified in the ASC standard when printed using its software, printers, and consumables.

Unlimited software and hardware scalability. Can the MICR print management software and printers scale from desktop, to department, to enterprise-wide deployments?

IRD Risk Management

With all the discussion of new opportunities brought forth by Check 21, a most basic issue often gets short shrift: Check 21 is a new Federal law that grants a MICR-encoded substitute check the same legal status as the original check. The IRD is a new type of negotiable instrument.

This means that Banks that produce IRDs will take on new liabilities. The Check 21 law places the burden of indemnification and warranty on the reconverting institution, that is, the institution that prints the substitute check. Not only does the indemnity cover losses, it also covers costs and expenses, including possible subsequent losses related to the substitute check.

For large institutions and their processing partners, the stakes could not be higher. A large bank could easily issue millions of IRDs worth billions of dollars daily. In this environment, the smallest error in processing or printing could be disastrous. Fraud risk is also magnified exponentially. Given that Check21 is the implementation of entirely new business methods and systems, every precaution must be taken to secure and control IRD processing.

IRD Glossary

**Bank:** any depository financial institution, including a national bank, a state bank, a federal or state savings bank, a credit union or a savings association.

**Bank of First Deposit (BOFD):** A Bank that accepts a check for deposit from a customer. It is also the institution to which a check would be returned if the check is not paid. Also called: **Depository Bank**

**Cash Letter:** A group of checks packaged and sent by a Bank to another Bank, clearinghouse, or a Federal Reserve office. A cash letter is accompanied by a list containing the dollar amount of each check, the total amount of the checks and the number of checks in the cash letter.

**Check Image:** An electronic or digital image of an original check that is created by a depositor, a Bank or other participant in the check collection process. Check images can be exchanged electronically by banks, printed for customer statement purposes, displayed on Internet banking websites, and used to create substitute checks.
**Check-to-Image Conversion:** A process by which a check image is created from an original check or substitute check. Check images are processed through the check clearing system and posted to a customer account used to create substitute checks.

**Check Safekeeping:** Truncation by the paying bank of the original check or substitute check.

**Check Truncation:** Refers to a number of processes for removing the paper check from the forward collection return process while sending the check data forward in the check collection system.

**Collecting Bank:** Any Bank handling a check for collection except the Paying Bank.

**Conversion:** Transforming a payment initiated by paper check that has not been negotiated to an electronic payment.

**Converting Bank:** The Bank that has truncated the original check or substitute check to a digital image. Preferred term: *Truncating Bank*

**Electronic Check Payment (ECP):** An electronic record governed by check law, created from entire MICR line on a check and suitable for posting to a customer’s account. ECP transmissions may stand alone or may be followed by or accompanied by check images or paper checks. ECP transmissions are governed by check law.

**External Processing Code (EPC):** A number placed in Position 44, just before the ABA routing number, of the MICR line. Check 21 and the proposed Federal Reserve regulations require changes to the EPC field for processing substitute checks.

Whenever a substitute check is created, a “4” is always printed in the EPC field. ANS X9.90 requires that a “4” be placed in the EPC position identifying a substitute check. On an original check, Position 44 generally is left blank for forward collection. When a substitute check is created to return the check to a depositor, the substitute check will have a “4” in the EPC field. This holds true when an image of an unpaid check is returned to the bank of first deposit or a substitute check is created and sent back to the depositor of the original item.

A “2” is placed on a qualified return slip or carrier document if the item is an original check being sent as a qualified return. ANS X9.90 requires that a “5” be placed in the EPC position for qualified returns of a substitute check. In the return process, a “5” is placed on the qualified return strip, carrier document or perforated strip attached to a substitute check.

**Forward Collection:** The transfer of a check by a Bank to a Paying Bank for payment. That is, the Bank forwards the check to another Bank directly or through an intermediary.
**Indorsement:** Information used to record the transfer of a negotiable instrument from one holder to another. Indorsements are placed on the check by payee(s), by the Bank of First Deposit, and by Banks subsequently handling the check. Electronically associated indorsements may also accompany electronic check records without being physically placed on the check. Indorsements are used to track the routing of the check in electronic or paper form. Also called: **Endorsement**

**Legend:** A substitute check must bear the following legend to be the legal equivalent to the original check: “This is a legal copy of your check. You can use it the same way you would use the original check.”

**MICR (Magnetic Ink Character Recognition) Line:** Numbers printed in magnetic ink near the bottom of the front of the check to facilitate automated processing. These numbers identify the Bank the check is drawn on, the account at the Bank, the amount of the check and other information. The position and content of the MICR line are governed by industry standards.

**Original Check:** Original check means the first paper check issued with respect to a particular payment transaction.

**Paying Bank:** The Bank that pays the check. The Bank of the customer who wrote the check.

**Position 44:** See **External Processing Code**

**Qualified Return Check (QRC):** An unpaid return check prepared for automated processing. This means that either an additional strip of paper is added to the check, or the item is placed in a carrier envelope and the strip or carrier is encoded with the routing number of the Bank of First Deposit, the dollar amount of the check, and the value “2” or “5” in the EPC field of the MICR line.

**Reconverting Bank:**
1.) The Bank that creates a substitute check; or  
2.) If a substitute check is created by a person other than a Bank, the first Bank that transfers or presents that substitute check.

**Returning Bank:** A Bank (other than the Paying Bank or BOFD) that forwards a returned unpaid check or a notice in lieu or return.

**Substitute Check:** a paper reproduction of the original check that:

1.) Contains an image of the front and back of the original check;  
2.) Bears a MICR line containing all the information appearing on the MICR line of the original check, except as provided under generally applicable industry standards for substitute checks to facilitate the
processing of substitute checks (regulations may contain exceptions);
3.) Conforms, in paper stock, dimension, and otherwise, with generally applicable industry standards for substitute checks; and
4.) Is suitable for automated processing in the same manner as the original check.

Also called **Image Replacement Document (IRD)**: This term is used by the Accredited Standards Committee in the technical specification for substitute checks (X9.90).

**Truncate**: To remove an original check from the forward collection or return process and send to a recipient, in lieu of such original check, a substitute check or, by agreement, information relating to the original check.

**Truncating Bank**: The Bank that truncated the original check. Also called: **Converting Bank**, but this is not the preferred term. See **Truncate**.
About Source Technologies

Founded in 1986, Charlotte, N.C.-based Source Technologies provides integrated solutions for controlling financial transactions and other secure business processes within the financial services industry and FORTUNE 1000 companies. Clients include nine of the Top 10 U.S. banks.

Source Technologies’ Check 21 value proposition goes well-beyond “IRD-ready” products. As thought leaders in the field of paper and electronic disbursements, we ensure delivery of successful IRD solutions by providing:

- Deep domain expertise in the flexible design and delivery of back-office and customer-facing applications in a variety of banking and retail environments.
- Over 15 years of software implementation, API/Host integration, logistics fulfillment, installation, and customer service to hundreds of large and mid-size banks, Fortune 1000 companies, federal and state governments, and other clients.
- Extensive Check 21 committee work in setting IRD data structure, formatting, workflow, and processing standards.
- A fully-encrypted software/hardware solution that secures the edge of the client’s check-image network, virtually eliminating replacement check fraud.
- Packaged solutions for assembling, formatting, and processing clients’ host system IRD data with industry-standard data templates, custom template creation tools, and processing engines that manage importing and processing from any data source.
- Platforms with virtually unlimited scalability and advanced control features for high-volume production environments, including thread management and load balancing.
Source Technologies provides integrated software and printer solutions for IRD print management and control. We are the market leader in MICR-based payment solutions, with thousands of customer installs and tens-of-thousands of MICR printers deployed since 1990. We offer a suite of secure MICR print management software products and the broadest family of encryption-enabled MICR printers, ranging from departmental printers starting at 16 ppm to production printers offering 105 ppm.

To learn more about Source Technologies’ Check 21 IRD solutions, go to http://www.sourcetech.com/Check21.aspx