



**SirsiDynix Symphony SIP2 Version 2**  
**Setting Up the SIP2 Server**

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# Table of Contents

Summary of Contents .....	3
Conventions Used in This Guide .....	3
Symbols .....	3
Keyboard Conventions .....	4
Other Conventions .....	4
Overview .....	7
Naming Conventions .....	7
What is SirsiDynix SIP2? .....	7
SIP2 Requirements .....	8
About SirsiDynix Symphony SIP2 Files .....	8
Editing the Upath File .....	10
Editing the Configuration File .....	10
SIP2 Single Port Configuration File (sip2.cfg) .....	10
SIP2 Multiple Ports Configuration File (sip2_2_ports.cfg) .....	19
Editing the Table File .....	21
SIP2 Table File (sip2.tbl) .....	21
Floating and Named Station Types .....	24
Synchronization in the Checkpoint ILS .....	24
Circulation Status of an Item in the Checkpoint ILS .....	25
Configuration File .....	25



# About This Guide

This *Setting Up the SIP2 Server* guide explains how to set up and configure SirsiDynix Symphony SIP2 server.

For more information about this guide, see these topics:

- [Summary of Contents on page 3](#)
- [Conventions Used in This Guide on page 3](#)

## Summary of Contents

This guide contains these major sections:

- [Overview on page 7](#)
- [Editing the Upath File on page 10](#)
- [Editing the Configuration File on page 10](#)
- [Editing the Table File on page 21](#)
- [Floating and Named Station Types on page 24](#)
- [Synchronization in the Checkpoint ILS on page 24](#)

## Conventions Used in This Guide



This guide uses terms, typefaces, and symbols to denote different kinds of information. Understanding these conventions can help you recognize the information you need more quickly.

For details, see these topics:

- [Symbols on page 3](#)
- [Keyboard Conventions on page 4](#)
- [Other Conventions on page 4](#)

## Symbols

This guide uses these symbols.

Symbol	Description
	<b>Note or Tip</b> This symbol indicates additional notes or helpful tips.
	<b>Important</b> This symbol indicates important information or warnings.

## Keyboard Conventions

This guide refers to keys following the standard convention of 101-key keyboards. For example, **Ctrl** is the control key, **Alt** is the alternate key, **Enter** is enter or return.

When you need to press two or more keys at the same time to do an action, the keys are connected with a plus sign (+). For example, **Alt+H** means to press and hold the **Alt** key while you also press **H**.

Keys you press appear in bold type in steps. Text or numbers that you need to enter using the keyboard also appear in bold (for example, "Type main in the **Location** field").

## Other Conventions

In step-by-step instructions, the names of menus, buttons, fields, and other options appear in bold type (for example, "the **OK** button" or "the **Title** field").

Text in italics shows general information that you must replace with information that is specific to your system. For example, you would replace *password* with a specific password, such as **123gr@ndma**.

File and directory names, code examples, and computer output appear in *Courier*.

# Setting Up the SIP2 Server

## Overview

This document explains how to set up the SirsiDynix Symphony SIP2 server.

## Naming Conventions

In this document, we use the following naming conventions:

- SIP2 server refers to SirsiDynix software.
- SIP2 client or SIP2 interface refers to the client or software your system communicates with.

## What is SirsiDynix SIP2?

The SirsiDynix Standard Interface Protocol, Version 2 (SIP2) program provides an interface between self-check and other automated equipment or software running the SIP2 protocol. This protocol provides a standard for sending circulation transactions or patron information between automated systems.

### How Does It Work?

The program allows you to link your circulation system to SIP2 client(s). The SIP2 server passes circulation information—circulation policy, borrower information, and item information—necessary to allow patrons to check out (charge) and renew library materials on their own.

The program monitors all traffic at a set of ports (generally port 6001) and translates valid SIP2 messages into SirsiDynix Symphony API requests. The API response is then translated to SIP2, and returned to the SIP2 client.

### Patron Authentication

SirsiDynix's SIP2 Server bases the return of patron status information on the SIP2 protocol. The Patron Status Response (24) or Patron Information Response (64) of the SIP2 protocol includes up to 14 types of patron status information. SirsiDynix's SIP2 Server supports eight types, including the following:

- Charge privileges denied
- Renewal privileges denied
- Recall privileges denied
- Hold privileges denied
- Card reported lost
- Excessive outstanding fines

- Too many items charged
- Too many items overdue

## Patron Information Request Response/Birth Date

The Patron Information Request contains the following:

- Birthyear (PB segment on SirsiDynix Symphony server)
- Birth date (PB segment on Classic)
- Birth date from Patron Extended Info tab (PD segment on SirsiDynix Symphony server)

The date will be used if it is in one of the following formats:

- MM/DD/YYYY
- DD/MM/YYYY
- YYYY/MM/DD

Dates are translated into standard SIP2 format when the response is sent.

## SIP2 Requirements

- Unicorn Version GL3.1 or higher or SirsiDynix Symphony 3.2 or higher is required for implementing the SIP2 protocol with self-check systems.
- SIP2 uses a socket connection, which changes the login process. The login is provided in a script run from the SirsiDynix Symphony server.
- Customers moving from SIP1 to SIP2 technology will need to modify their existing self-check configuration files to include a login, password, and location (library) and to allow a socket connection to the self-check server.
- The SIP2 Server is delivered with the SirsiDynix Symphony upgrade. SirsiDynix Symphony administrators need to create a self-check user login and password on their SirsiDynix Symphony server. This information will be included in the self-check configuration file.

## About SirsiDynix Symphony SIP2 Files

- The SIP2 program executables (`sipstarter.exe`, `sipsession.exe`, `sipserver.exe`, and `sipadmin.exe`) are located in the `\Unicorn\Bin` directory.
  - `sipstarter` — runs as a service on Windows server or Windows 2000, or runs as a process on UNIX. Once `sipstarter` locates a port, it creates a `sipsession`.
  - `sipsession` — performs port communication—getting messages to and from the self-check unit—and passes the information to `sipserver`.
  - `sipserver` — processes the requests and responses.
  - `sipadmin` — starts and stops `sipstarter`, which starts `sipserver` in UNIX, `sipadmin` is only used in UNIX.



- All SIP2 programs use two configuration files: `sip2.cfg` and `sip2.tbl`. These files are located in `\Unicorn\Config` directory or the location you defined as the `sip2dir` in the `upath` file. You must modify these configuration files with the correct username, port information, and valid policy information.
- The `sip2.cfg.sample` file and `sip2.tbl.sample` files are sample files that contain all the possible options available in the `sip2.cfg` and `sip2.tbl` files.
- The self-check log files, `*.scserver`, are located in the `\Unicorn\Logs` directory or the location you defined as the `sip2logdir` in the `upath` file. Log files contain all messages from the self-check unit to the SIP2 server if requested in the `sip2.cfg` file. All messages (API calls) and responses are logged if requested in the `sip2.cfg` file.
- The `upath` file (Unicorn configuration path) is located in the `\Unicorn\Config` directory and must be modified before you can begin using the SIP server. For more information on how to modify the `upath` file, see “Editing the Upath File” later in this document.
- SIP2 display messages are part of the standard Unicorn messages file and are located in the `/Unicorn/Language/Deliv/[Language]` directory.
- The `sip2_status` log file is located in the directory the site defines in the `Sip2statuslog` entry of the `upath` file. By default, this file is typically in the `/Unicorn/Logs` directory.

## No Block Field Errors

In the 3M SIP2 Protocol, there is a No Block field. This field is used for check-in, checkout, and renewal (but not renew all) messages. If the No Block field is set, the transaction has successfully occurred off-line, and SirsiDynix Symphony must accept this transaction. If the sipserver processing fails for this transaction, the error is logged in two places. First, as with any message, a `*.scserver` log file is created. Second, a special file is created in the `sip2logdir`, using one of the following formats:

- `YYYYMMDD.chkkin`
- `YYYYMMDD.chkout`
- `YYYYMMDD.renew`

Each `.chkout` and `.renew` record uses the following format:

```
timestamp Item ID: <the item id> Patron ID: <Patron Id> Reason: <the reason for the transaction failure>
```

Each `.chkkin` record uses the following format:

```
timestamp Item ID: <the item id> Reason: < the reason for the transaction failure>
```

## Editing the Upath File

Before you begin using the SIP2 server, you must edit the `upath` file to specify the SIP2 directories for the configuration file and log files.



It is recommended that you halt all services when making these changes.

### To edit the `upath` file, do the following.

- 1 At the server, go to `d:/Sirsi/Unicorn/Config`.
- 2 Make a backup copy of the `upath` file.
- 3 Open the `upath` file using a text editor, such as Notepad.
- 4 Insert the following lines, if needed:  
**`sip2dir d:/Sirsi/Unicorn/Config`**  
**`sip2logdir d:/Sirsi/Unicorn/Logs`**
- 5 Save your changes.
- 6 Start the services.

## Editing the Configuration File

You can specify the options you want to use in the configuration file. Some of these options work together with the options for the SIP interfacing software.

### SIP2 Single Port Configuration File (`sip2.cfg`)

A default `sip2.cfg` file and `sip2.tbl` for a single port configuration can be found in `\Unicorn\Config` or the location you defined as the `sip2dir` in the `upath` file. Keep in mind that when you edit these files, you must use the correct username and password. This username must be a part of your SirsiDynix Symphony database.

The options that can be configured in the `sip2.cfg` file include the options listed in the following table. Note that the numbering refers to the explanations that follow.

A `sip2.cfg.sample` file and a `sip2.tbl.sample` file are provided beginning with SirsiDynix Symphony Version 3.3. These files contain all possible options that could be defined for the SIP2 server.

#	Option
(1)	PORT   6001
(2)	LOGIN   N   N
(3)	USER   <username>
(4)	PASSWORD   <password>

(5)	STATION   <station>
(6)	SELFCHECK_LOGGING   2
(7)	SELFCHECK_PIN_REQUIRED   N
(8)	SELFCHECK_SUPPORTED_MESSAGES   YYYYYYYYYY NNYYY
(9)	SELFCHECK_CLIENT   N
(10)	ALLOW_CHARGES_FOR_EXPIRING_PATRONS   Y
(11)	RESERVE_ROOM   Y
(12)	DATE_FORMAT   US
(13)	FULL_HOLD_RESP   Y
(14)	POLICY   ITYP
(15)	MAGMEDIALIST   VIDEO
(16)	SELFCHECK_DENY_POLICY   ITYP
(17)	SELFCHECK_DENY   BOOK
(18)	SORT_FILTER   LIBR   ITYP
(19)	SORT_BIN   11   MORGAN   VIDEO,CD-DVD
(20)	DEFAULT_SORT_BIN   3
(21)	CHECK_ALT_ID   Y
(22)	SUPPRESS_ITEM_PROPERTY   Y
(23)	CHECKOUT_OVERRIDES   INTRANSIT,LOST_MISSING, OUTSIDE_HOLD, AVAILABLE_HOLD
(24)	SUPPORT_MULTIPLE_IDS   Y
(25)	DEFAULT_CHARSET   PC1252
(26)	CHARGE_MATERIALS_WITH_FEES   Y
(27)	OPERATOR_POLICY   SUPER
(28)	CHECKIN_LOST_MATERIALS   Y
(29)	CREDIT_LOST_MATERIALS   Y
(30)	SEND_PIN   Y
(31)	LIST_FAMILY_CARD_GROUP   Y
(32)	RETURN_ALTERNATE_PATRON_IDS   Y
(33)	CUSTOM_PATRON_ADDRESS   Y
(34)	DEFAULT_CHARSET   PC850



In the `sip2.cfg` and `sip2.tbl` files, the character limit per line for entries in `MAGMEDIALIST`, `SORT_BIN`, `CIRC_STATUS`, `MEDIA_TYPE`, and `FEE_TYPE` is 1023 characters. Because of this limitation, multiple lines can be used. Duplicate SirsiDynix Symphony policy values for a given entry will be ignored.

#### (1) PORT

This is the port that will be used to transmit SIP transactions to and from the SIP device. This port number should be provided to your SIP vendor so they can set up the SIP device to correctly connect to your SirsiDynix Symphony system.

#### (2) LOGIN (Y/N)

The first field should be set to N for telnet login (not currently functional). The second field is for the SIP login and can be set to Y or N. If both values are set to N (default values), a user is pre-authorized, and can automatically log on. The SIP communications should begin with standard SIP messages. If the LOGIN is set to N/Y, the SIP server requires a login using the SIP 93/94 login sequence.

#### (3) USER

This is the username required by the server. The username must be part of your SirsiDynix Symphony user database.

#### (4) PASSWORD

This is the password required by the server. If you set the value of the LOGIN field (prompt 2) to Y, this field is used.

#### (5) STATION

This is the name of the station that you will use for the SIP2 client. This field is case sensitive. You must use a valid station from your SirsiDynix Symphony policies. SIP2 server does not support the use of named stations.

**Note:** The (SIP) station user should have an access level of STAFF or higher.

#### (6) SELFHECK\_LOGGING

You can set this field to 0, 1, or 2.

- 0 – Indicates no logging
- 1 – Logs SIP client messages only
- 2 – Logs SIP messages and API messages

#### (7) SELFHECK\_PIN\_REQUIRED (Y/N)

- If you set this field to Y, the SIP2 client sends the PIN number as part of the patron verification system.
- If you set this field to N, the SIP2 protocol ignores the PIN number as part of the patron verification system.

## (8) SELFCHECK\_SUPPORTED\_MESSAGES

SELFCHECK SUPPORTED MESSAGES are directly from the SIP2 standard. Please note that the position and values are taken directly from the SIP2 standard document and that the values start with zero. The YYYYs and NNNNs tell the SIP2 client which functionality it can support without a SIP server. Information is sent from the configuration file to the SIP2 client via the 98 field in a segment labeled BX. If you look at the 98 message in the SelfCheck trace file, you will see a matching BX to the SELFCHECK\_SUPPORTED\_MESSAGES in the SIP2 configuration file.

supported messages      3X      variable-length field

This field is used to notify the SC about which messages the ACS supports. Y indicates the associated message/response is supported; N indicates the message/response pair is not supported.

Position	Message Command/Response pair
0	Patron Status Request
1	Checkout
2	Checkin
3	Block Patron
4	SC/ACS Status
5	Request SC/ACS Resend
6	Login
7	Patron Information
8	End Patron Session
9	Fee Paid
10	Item Information
11	Item Status Update
12	Patron Enable
13	Hold
14	Renew
15	Renew All

**Note:** In the SELFCHECK\_SUPPORTED\_MESSAGES line, positions 5 and 6 are always Y and positions 12 and 13 are always N. If you set them to the contrary, the program will change them and issue a warning message

## (9) SELFCHECK\_CLIENT

If the entry is set to N, users whose cards are about to expire are able to perform a check out with an appropriately shortened loan period. If set to Y, the program will ignore the expiration and allow the material to be checked out for the standard loan period. The default value is Y.

#### (10) ALLOW\_CHARGES\_FOR\_EXPIRING\_PATRONS

A Y/N setting. This option is used in conjunction with the SELFCHECK\_CLIENT option. If the answer to this value is set to Y, the patron whose card is about to expire will be allowed to check out materials for the normal loan period. If the value is not present in the configuration file, or it is set to N, the patron will not be allowed to check out materials. N is assumed if not present.

#### (11) RESERVE\_ROOM

RESERVE\_ROOM indicates whether or not SIP2 will allow the check out, check in, and renewal of reserve room items. If this entry is set to Y, self check units connecting to this port are able to process reserve room items. If this entry is not inserted for a given port, or if it set to N, then self check units connecting to this port will not process reserve room items.

#### (12) DATE\_FORMAT

DATE\_FORMAT indicates the due date value sent to the SIP2 client. If the value is empty, the value defaults to the format defined by the configuration file. Acceptable values are EU, US, and IT. EU returns date values in the European date format, and IT returns all date values in the SIP2 date format. The IT value should only be used for customers that are using the Talking Tech telephone notification system. This is not a required field.

#### (13) FULL\_HOLD\_RESP

A Y/N setting. This setting indicates whether the library wants the full hold response to be given where the hold information (patron's name, and so forth) is otherwise given (checkin response, etc.). This allows the library to keep the hold information private from other patrons. If not present, a Y value is assumed.

#### (14) POLICY

A four-letter code representing the policy type used to determine whether the material is magnetic media. This should come from the SirsiDynix Symphony policies.

Policy Code	Description
LOCN	SirsiDynix Symphony Permanent Location
ICT1	Item Category 1
ICT2	Item Category 2
ITYP	Item Type

#### (15) MAGMEDIALIST

MAGMEDIALIST entry contains the item types (location or item categories) that are considered magnetic media.

#### (16) SELFCHECK\_DENY\_POLICY

A four-letter code representing the policy type used to identify the type of materials designated to be excluded from being scanned. This should come from the SirsiDynix Symphony policies.

Policy Code	Description
ICT1	Item Category 1
ICT2	Item Category 2
ITYP	Item Type

**Note:** This setting is optional and must be added to set up the deny list functionality.

#### (17) SELFCHECK\_DENY

SELFCHECK\_DENY is a list of entries that contain the item types to be excluded from being checked out on the selfcheck units. If the No block field is selected in the SIP2 protocol, the deny list will be ignored.

You can specify which ports you want to have deny entries.

**Note:** This setting is optional and must be added to set up the deny list functionality.

#### (18) SORT\_FILTER

SORT\_FILTER defines not only how many levels of sorting you want (up to five), but what value(s) to use for sorting. Specify how you want to sort materials (for example, by location, material type, status, or call number). Here are the options for sort filter.

SORT_FILTER Option	Description
ITYP	Item type
ICT1	Item category 1
ICT2	Item category 2
LIBR	SirsiDynix Symphony Library (for multilibrary systems only)
LOCN	SirsiDynix Symphony Permanent Location
CLOC	Current Location

**Note:** SORT\_FILTER is only required if you sort materials at check-in. If you do not want to use the sort bin options, you can remove this option.

#### (19) SORT\_BIN

SORT\_BIN contains sorting information. The first field specifies the sort bin in which materials will be charged. The remaining entries contain the appropriate list of SirsiDynix Symphony values associated with the filter for that field. The bin number can be up to five digits. A maximum of 20 entries can exist in any

field. An asterisk can be used instead of a list. An asterisk indicates that all values of this filter are to be put into the defined bin. You can have 128 SORT\_BIN entries per port. Each bin number must be unique, and each SORT\_BIN entry must have a list defined for each sort level.

**Note:** SORT\_BIN is only required if you sort materials at check-in. If you do not want to use the sort bin options, you can remove this option .

#### (20) DEFAULT\_SORT\_BIN

This is the bin for all materials that are not defined to be sorted or any materials that the program was unable to discharge.

**Note:** DEFAULT\_SORT\_BIN is only required if you sort materials at check-in. If you do not want to use the sort bin options, you can remove this option.

#### (21) CHECK\_ALT\_ID

Set this option to Y to search using the alt ID field instead of the user ID field. If set to N, the user ID field is used to search.

#### (22) SUPPRESS\_ITEM\_PROPERTY

A Y/N setting. If the value for this is set to Y the software will ignore the multi-part value and check out the material as one piece. If the value is set to N, the software sends the multi-part information, and the SIP message is set accordingly. If not present, a N value is assumed.

#### (23) CHECKOUT\_OVERRIDES

A list of conditions for which the library would normally not allow a checkout, but for which the library is overriding the block on checkouts. Values are INTRANSIT, LOST\_MISSING (item is lost or missing), CHECKEDOUT (already checked out), OUTSIDE\_HOLD (outstanding holds) and AVAILABLE\_HOLD (has available holds on it).

- The OUTSIDE\_HOLD will override the case when an item is in the stacks but has an outstanding hold in queue at checkout.
- The AVAILABLE\_HOLD will override the case when an item is trapped for a hold (on the holds shelf) but is being charged to a patron who is not the patron for which the item is being held.

**Note:** These two overrides are not interchangeable. To handle the available hold scenario, there must be AVAILABLE\_HOLD in the CHECKOUT\_OVERRIDES line in sip2.cfg. Likewise, to handle the outstanding hold scenario (hold block), there must be OUTSIDE\_HOLD in the CHECKOUT\_OVERRIDES line.

#### (24) SUPPORT\_MULTIPLE\_IDS

A Y/N setting. Supports the use of multiple IDs for a patron in the SIP2. Allows for search of a patron by previous IDs and/or active IDs. If not present, N is assumed.

This option should be set to Y if the SirsiDynix Symphony system is set up to support previous user IDs. When this option is set to Y, the user lookup message will search for the patron first in the User ID field, and then in the Previous ID field, to find a match. If the value is set to N, the user lookup message will search only in the User ID field for a match.



## (25) DEFAULT\_CHARSET

The DEFAULT\_CHARSET option allows specifying the character set to use when displaying characters. The value of the DEFAULT\_CHARSET option references the code page for the character set to be used. For example, specifying DEFAULT\_CHARSET | PC1252 | configures SIP to display characters using code page 1252 (pc1252.chr file).

**Note:** If the DEFAULT\_CHARSET option is not specified, SIP uses code page 850 (pc850.chr).

## (26) CHARGE\_MATERIALS\_WITH\_FEES

The CHARGE\_MATERIALS\_WITH\_FEES option specifies whether or not patrons are allowed to check out materials associated with fees. A value of Y indicates allowing charges associated with fees. A value of N or not specifying the option indicates not allowing such charges. This option applies to item renewals as well. If this option is set to N, the checkout request will fail, and the “Charge of this item has an associated fee” message will display.

## (27) OPERATOR\_POLICY

OPERATOR\_POLICY allows you to add an operator policy for each port. This option will allow you to track the overrides used by individual SIP2 units. The second entry in the OPERATOR\_POLICY line is a valid SirsiDynix Symphony Operator policy name. By default, SUPER is delivered. If you select an invalid Operator policy (the policy cannot be found), SIP2 will display the “Operator policy, XXXXX, not found” message. If a needed override operator is missing from the Operator policy, likewise, SIP2 will display the “Operator policy, XXXXX, does not contain YYYYYY YYYY override” message.

**Important:** If you change the default Operator policy value, you must be certain that the policy you choose includes, at a minimum, the following overrides. If these overrides are not included, the “Operator policy does not contain override” message will display.

Override	Override Code
Available Hold Block Override	(Oq)
Clear Charge Override	(Oc)
Floating Item Override	(Ok)
Holds Block Override	(Oe)
Item Lost Override	(Oh)
Item Pieces Override	(OP)
Master Override	(OM)
Not Recirculated Override	(Od)
Transitted Item Override	(Ob)
User Edit Override	(OA)

## (28) CHECKIN\_LOST\_MATERIALS

CHECKIN\_LOST\_MATERIALS is an optional flag in the `sip2.cfg` file. If this flag is set to Y, the SIP2 server will allow check in of lost materials. If set to N, the SIP2 server will not allow materials with a status of LOST-PAID or LOST-ASSUM to be checked in (which is the way that the SIP2 server handles lost materials by default.)

**Note:** Setting this flag to Y does not affect the way SirsiDynix Symphony handles lost materials. It only allows these items to be checked in by the SIP2 server.

## (29) CREDIT\_LOST\_MATERIALS

CREDIT\_LOST\_MATERIALS is an optional flag in the `sip2.cfg` file. When the SIP2 server is configured to allow checking in lost items (CHECKIN\_LOST\_MATERIALS is set to Y in `sip2.cfg`), and this flag is set to Y, the patron's credit account will be refunded the amount the patron previously paid for the lost item, if the item is returned within an allowable period. If this flag is set to N, or if the CREDIT\_LOST\_MATERIALS entry is not included in the `sip2.cfg` file, the SIP2 server will behave as before, and the patron's credit account will not be refunded.

When the SIP2 server refunds a patron's credit account, it follows the same rules as in the WorkFlows client.

- If the patron has a credit account, it will be refunded the amount the patron paid as long as the lost item is returned within an allowable period.
- If the patron does not have a credit account, but is due a refund, a credit account will be created.
- If the patron has a closed credit account, the account will be reopened.
- If the refund will put the credit account balance over its limit, the account will not be credited

**Note:** The SIP server must be configured to accept checking in lost materials (CHECKIN\_LOST\_MATERIALS set to Y in `sip2.cfg`) for the refund functionality to work.

## (30) SEND\_PIN

A Y/N setting. The send PIN value allows the patron password to be returned in the 64 response (AD segment) if the value is set to Y. This allows vendors to find out what a patron's PIN is so that they can remind patrons who have lost their PIN. If the value is not present in the configuration file, or set to N, the PIN will not be returned.

## (31) LIST\_FAMILY\_CARD\_GROUP

A Y/N setting. The LIST\_FAMILY\_CARD\_GROUP value allows the SIP 64 response message to return all reasons for delinquency if it is set to Y. If the value is not present or set to N, the "Group member Blocked" message is returned. This value should only be set if the library has decided to use the family card functionality.

### (32) RETURN\_ALTERNATE\_PATRON\_IDS

A Y/N setting. The RETURN\_ALTERNATE\_PATRON\_IDS value will return all the previous IDs for a patron if the value is set to Y. If the value is not present or set to N, only the user ID will be returned.

### (33) CUSTOM\_PATRON\_ADDRESS

A Y/N setting. If this value is set to Y, the values in the sip2.tbl file for address\_type must be completed. These values allow you to choose which address entries are returned in the SIP 64 response for patron address. If this value is not present or is set to N, the software uses default values to determine which entries are returned for the patron information.

### (34) DEFAULT\_CHARSET

Indicates the name of the characters set to be used. Allows the library to choose the default character set they will use. Default is PC850.

## SIP2 Multiple Ports Configuration File (sip2\_2\_ports.cfg)

A sample sip2\_2\_ports.cfg file for a multi-port configuration is located in \Unicorn\Config. You must change the name of this file to sip2.cfg or the SIP2 server will not be able to use it.

The following is a sample configuration file with multiple ports.

### 1<sup>st</sup> Port Configuration:

```
PORT|6001|
LOGIN|N|N|
USER|<username|
PASSWORD|<password>|
STATION|<station>|
SELFCHECK_LOGGING|2|
SELFCHECK_PIN_REQUIRED|N|
SELFCHECK_SUPPORTED_MESSAGES|YYYYYYYYYYNYYY|
DATE_FORMAT|US|
POLICY|ITYP|
MAGMEDIALIST|VIDEO|=
SORT_FILTER|LIBR|ITYP|
SORT_BIN|11|MORGAN|VIDEO, CD-DVD|
SORT_BIN|12|MORGAN|PAPERBACK|
SORT_BIN|21|ROCKEFELLR|PAPERBACK|
SORT_BIN|22|ROCKEFELLR|CD-DVD, VIDEO|
DEFAULT_SORT_BIN|3|
```

## 2<sup>nd</sup> Port Configuration:

```
PORT|6002|  
LOGIN|Y|N|  
USER|SIRSI|  
PASSWORD|CORP|  
STATION|SELFCHECK|  
SELFCHECK_LOGGING|2|  
SELFCHECK_PIN_REQUIRED|N|  
SELFCHECK_SUPPORTED_MESSAGES|YYYYYYYYYYNNYYY|
```

## Specifying Multiple Sort Filters

The correct format to specify multiple sort filters is as follows:

```
SORT_FILTER|FILTER_1|FILTER_2|FILTER_3|
```

SIP2 determines which short bin to specify by sequentially trying to match the pattern given in the SORT\_BIN lines. The values in the SORT\_BIN line can be a single value, a list of comma-separated values, or the wildcard character \*.

For example:

```
SORT_FILTER|LIBR|ITYP|LOCN|  
SORT_BIN|102|CARNEGIE|REFERENCE|*|  
SORT_BIN|103|CARNEGIE|ART|*|  
SORT_BIN|104|CARNEGIE|AV,VIDEO|*|  
SORT_BIN|101|CARNEGIE|*|*|  
SORT_BIN|201|DEWEY_LIB|*|*|  
SORT_BIN|301|MORGAN|REFERENCE,ART,AV|*|  
SORT_BIN|302|MORGAN|*|*|  
SORT_BIN|501|ROCKEFELLR|BOOK|FIC|  
SORT_BIN|502|ROCKEFELLR|BOOK|MYSTERY|  
SORT_BIN|550|ROCKEFELLR|*|JUV|  
DEFAULT_SORT_BIN|401|
```

Item values of LIBR=CARNEGIE, ITYP=VIDEO, and any LOCN will have bin 104 specified. An Item with LIBR=CARNEGIE, that is not of the type REFERENCE, ART, AV, or VIDEO will have bin 101 specified.



The SORT\_BIN numbers do not have to be in sequence.

An item with LIBR=ROCKEFELLR and LOCN=JUV will go to bin 550.

## Editing the Table File

### SIP2 Table File (sip2.tbl)

The sip2.tbl file translates SirsiDynix Symphony data to SIP2 data and vice versa. A sample sip2.tbl for sort options can be found in \Unicorn\Config. The sip2.tbl file can be used for all ports.

The options that might appear in the sip2.tbl file include the options listed in the following table. (Note that the numbering refers to the explanations that follow.)

The first field is the SIP2 protocol-defined value.

The second field is the SirsiDynix-defined policy value.

#	Translation Option   SIP2 Value   SirsiDynix Symphony Value
(1)	ADDRESS_TYPE   LINE_ONE   LINE
(2-4)	ADDRESS_TYPE   LINE_FOUR   ZIP
(5)	ADDRESS_TYPE   EMAIL   EMAIL
(6)	ADDRESS_TYPE   PHONE   HOMEPHONE
(7)	CIRC_STATUS   OTHER   UNKNOWN
(8)	CIRC_STATUS   ONORDER   ON-ORDER
(9)	CIRC_STATUS   AVAILABLE   REFERENCE,RESERVES,STACKS
(10)	CIRC_STATUS   CHARGED   CHECKEDOUT, LONGOVERDUE
(11)	CIRC_STATUS   INPROCESS   BINDERY,CATALOGING,DISCARD,INPROCESS,REPAIR
(12)	CIRC_STATUS   RECALLED
(13)	CIRC_STATUS   ONHOLDSHELF   HOLDS
(14)	CIRC_STATUS   RESHELVING   RESHELVING
(15)	CIRC_STATUS   INTRANSIT   ILL,INTRANSIT
(16)	CIRC_STATUS   CLAIMEDRET
(17)	CIRC_STATUS   LOST   LOST,LOST-PAID
(18)	CIRC_STATUS   MISSING   MISSING
(19)	MEDIA_POLICY   ITYP
(20)	MEDIA_TYPE   OTHER   UNKNOWN
(21)	MEDIA_TYPE   BOOK   BOOK,ILL-BOOK,NEW-BOOK,PAPERBACK
(22)	MEDIA_TYPE   BOOK   REFERENCE

#	Translation Option   SIP2 Value   SirsiDynix Symphony Value
(23)	MEDIA_TYPE   MAGAZINE   MAGAZINE
(24)	MEDIA_TYPE   BOUND   JOURNAL
(25)	MEDIA_TYPE   AUDIO_TAPE   AV
(26)	MEDIA_TYPE   VIDEO_TAPE   VIDEO
(27)	MEDIA_TYPE   CD/CDROM   CD-DVD
(28)	MEDIA_TYPE   DISKETTE
(29)	MEDIA_TYPE   BOOK&DISKETTE
(30)	MEDIA_TYPE   BOOK&CD
(31)	MEDIA_TYPE   BOOK&AUDIO_TAPE
(32)	FEE_TYPE   OTHER
(33)	FEE_TYPE   ADMIN   PRIVILEGE,MISC,CHARGE,PHOTO COPY
(34)	FEE_TYPE   DAMAGE   DAMAGE
(35)	FEE_TYPE   OVERDUE   OVERDUE,LONGOVRDUE,RECALLLOVD,RESERVEOVD
(36)	FEE_TYPE   PROCESS   PROCESSFEE
(37)	FEE_TYPE   RENTAL   EQUIP
(38)	FEE_TYPE   REPLACE
(39)	FEE_TYPE   COMPUTER
(40)	FEE_TYPE   HOLD   HOLD
(41)	PAYMENT_TYPE   CASH   CASH
(42)	PAYMENT_TYPE   VISA   CREDITCARD
(43)	PAYMENT_TYPE   CREDITCARD   CREDITCARD
(44)	REFUND_CREDIT_REASON   AUTOREFUND
(45)	REFUND_PAYMENT_TYPE   CREDITACCT
(46)	REJECTED_USER   USER1,SIRSI,SELFCHK
(47)	REJECTED_USER   USER2
(48)	REJECTED_USER   USER3
(49)	REJECTED_USER   USER4

**Note:** In the sip2.cfg and sip2.tbl files, the character limit per line for entries in MAGMEDIALIST, SORT\_BIN, CIRC\_STATUS, MEDIA\_TYPE, and FEE\_TYPE is 1023 characters. Because of this limitation, multiple lines can be used. Duplicate SirsiDynix Symphony policy values for a given entry will be ignored.

### (1-6) ADDRESS\_TYPE

The address type table is used when you choose CUSTOM\_PATRON\_ADDRESS in the sip2.cfg file. If custom patron address is set to Y, the address\_type fields must be set up. This is meant to allow for flexibility in formatting the patron addresses, such as what should be included and in what order. You can choose four “standard” address lines, an email line, and a phone number line. The values in the third field should reflect SirsiDynix Symphony policy names. For example, in the line ADDRESS\_TYPE | LINE\_ONE | STREET | , the last value must match your SirsiDynix Symphony policies.

### (7-18) CIRC\_STATUS

CIRC\_STATUS maps SirsiDynix Symphony’s current location values (3<sup>rd</sup> field) with corresponding SIP2 statuses (2<sup>nd</sup> field). For example, SirsiDynix Symphony’s current location Stacks corresponds with the SIP2 status Available.

### (19) MEDIA\_POLICY

The valid entries for this line are ITYP, ICT1, or ICT2. The MEDIA\_TYPE table restrictions are the same as for CIRC\_STATUS and FEE\_TYPE.

### (20-31) MEDIA\_TYPE

MAGMEDIALIST is a list of magnetic media that should be excluded from being scanned. The magmedialist controls which materials types are desensitized on the 3M SelfCheck and discharge units. Many of the other SIP clients that are used by libraries do not use this functionality.

Value	Media Type
000	Other
001	Book
002	Magazine
003	Bound journal
004	Audio tape
005	Video tape
006	CD/CDROM
007	Diskette
008	Book with diskette
009	Book with CD
010	Book with audio tape

The first field is defined by the SIP2 protocol value for the CK segment.

The second field specifies SirsiDynix Symphony-defined values. This field is used to tell patrons to place the materials in a different checkout box on the self-check machine. For example, if your videos are called videos in SirsiDynix Symphony, the MEDIA\_TYPE | VIDEO line would look something like the following:

MEDIA\_TYPE | VIDEO\_TAPE | VIDEO |

**(32-40) FEE\_TYPE**

Use these lines only if the SIP2 client will process Fee Paid messages.

**(41-43) PAYMENT\_TYPE**

Use these lines only if the SIP2 client will process Fee Paid messages.

**(44) REFUND\_CREDIT\_REASON**

This is the reason for giving a refund credit (deposit, etc.). This is meant to allow you maximum flexibility in reasons/policy names. If the line is missing, AUTOREFUND is the default value/policy.

**(45) REFUND\_PAYMENT\_TYPE**

This is the form in which refunds are given, such as, CHECK, CASH, and CREDITACCT. This is to allow you maximum flexibility in refund types/policy names. This setting is used when refunding paid lost items. If this line is missing, NONE is the default value/policy.

**(46-49) REJECTED\_USER**

User IDs of those users for which you wish to reject patron authentication. The user IDs to be rejected are not validated. Some user IDs are meant for system reasons and you may not want to inadvertently give out information such as the password or PIN for a "system" user; SIRSI is one such user. Duplicates are ignored.

## Floating and Named Station Types

A library can have as many SIP2 clients as needed. Each operates independently as a separate workstation. A login must be created so that the SIP2 clients can connect to the host computer and SirsiDynix Symphony.

In SirsiDynix Symphony, a workstation is defined in the Station wizard (in the User Access Configuration group). When a user logs in, the workstation associated with that user is specified in the Configuration command on the Preference menu. Most users log in using a floating station, such as SELFCHECK1 or SELFCHECK2.

Floating workstations are randomly assigned and can differ from day to day. When a floating station is selected as the login, the workstation library is the Library specified in the user record associated with the user's login.

SIP2 server does not support the use of named stations.

## Synchronization in the Checkpoint ILS

A daily scheduled report, Update ILS Cache (updilscache) in the Administrative report group, generates a Check-Out-Cache for the RF-EAS/ID Application Server. The Check-Out-Cache is a list of all item IDs with the status of checked out. By maintaining this list, library staff can respond in real-time to alarm events at the Long Range Security Interrogators. Synchronization is then scheduled periodically



to validate the integrity of the Check-Out-Cache. As items are checked in or out, the Checkpoint system notifies SirsiDynix Symphony of all check-in and checkout transactions. SirsiDynix Symphony either accepts or rejects the transactions, and the Checkpoint system generates an exception report of any transactions that were not accepted by SirsiDynix Symphony. A member of the circulation staff uses the exception report for reconciliation.

## Circulation Status of an Item in the Checkpoint ILS

In SirsiDynix Symphony, the Checkpoint Intelligent Library System's item circulation status is mapped in the following way.

Current Location	Circulation Status
UNKNOWN	01
ON-ORDER	02
CHECKEDOUT	04
LONGOVRDUE	04
INPROCESS	06
BINDERY	06
CATALOGING	06
REPAIR	06
HOLDS	08
RESHELVING	09
INTRANSIT	10
ILL	10
LOST	12
DISCARD	12
LOST-PAID	12
MISSING	13
Custom locations	03

## Configuration File

The `ils_ftp.cfg` resides in the `Config` folder or directory on the SirsiDynix Symphony server. This file contains instructions to the Update the ILS Cache report in order to FTP the file to the Checkpoint server every night. On the Selection tab, select the library for the copy selection criteria that is using the Checkpoint units locations, unless that library is checking out all other libraries materials. This report is currently only used by the Checkpoint system.

The `ils_ftp.cfg` file will need to be modified so that the file that is created by the Update the ILS Cache report is placed on the appropriate server in the appropriate directory. An example of the `ils_ftp.cfg` file follows.

```
HOST your.selfcheck.com  
USER sipchk  
PASS 0342  
LOCALDIR /tmp  
MODE ascii  
UPLOADDIR /tmp  
UPFILE1 uploadfile
```

### **HOST**

This is the system where you want the file to “live.” If the library has more than one self-check server, you should indicate this in the file by entering the host information as `HOST1`, `HOST2`, etc.

### **USER**

This is the username on that system.

### **PASS**

This is the password on that system.

### **LOCALDIR**

This is the directory where the file will “live” on the SirsiDynix Symphony system.

### **MODE**

This is the method to FTP the file.

### **UPLOADDIR**

This is the directory where the file will be written to when it is sent via FTP to the self-check vendor’s server.

### **UPFILE1**

This is the name of the file when it is written to the self-check vendor’s server.

# Index

## C

- Checkpoint ILS
  - circulation status 25
  - configuration file 25
- Circulation status 25
- Configuration files
  - location 9
  - multiple ports 19
  - single port 10

## E

- Executable files 8

## F

- Floating station type 24

## M

- Multiple ports configuration file 19

## N

- Named station type 24
- No block field errors 9

## P

- Patron authentication 7
- Patron information request response/birth date 8

## S

- Single port configuration file 10
- SIP2
  - program
    - overview 7
- SIP2 files 8
- SIP2 requirements 8
- Station types
  - floating 24
  - named 24
- Status log file
  - location 9

## T

- Table file 21

## U

- upath file
  - editing 10
  - location 9
- Update ILS Cache report 24

