



# Bridges and Virtual Ports

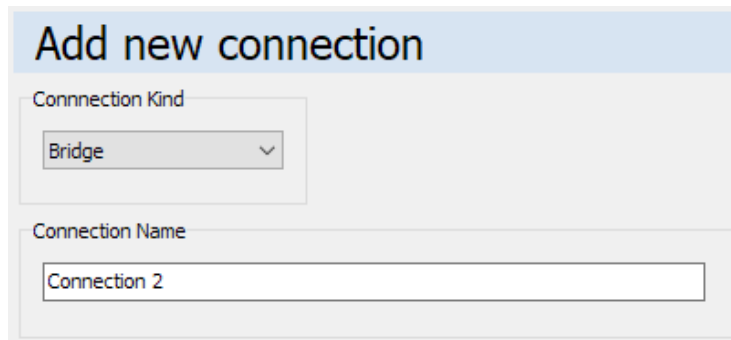
IN EXAMPLES

# To Create a New Bridge

1. Double-click on **Add new connection** icon.



2. In the **Connection Kind** field, select **Bridge**.



**Add new connection**

Connection Kind  
Bridge

Connection Name  
Connection 2

3. Select the **Connection Type**. Effectively, this will be the data **output** from the Bridge.
4. Confirm by **Add** button... done:

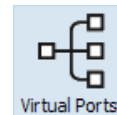


# To Create a New Virtual Port

1. Click on existing **Connection** or **Bridge** icon on the left.



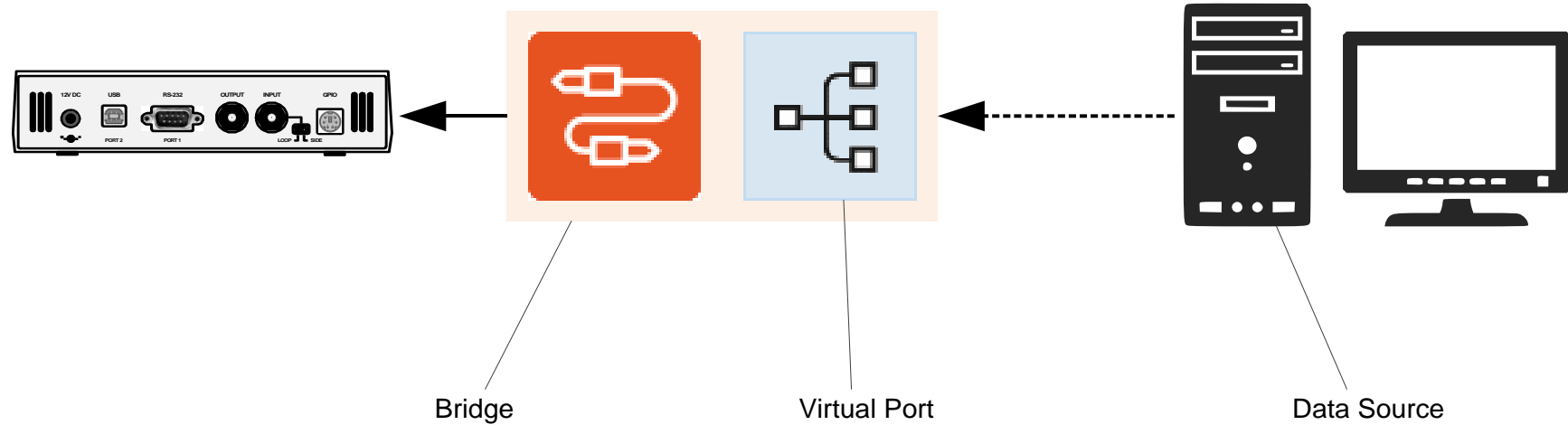
2. Click on the **Virtual Ports** button.



3. Click on **Add Virtual Port** button.
4. Select the **Connection Type**. Effectively, this will be the data **input**.
5. Confirm by **Add** button.

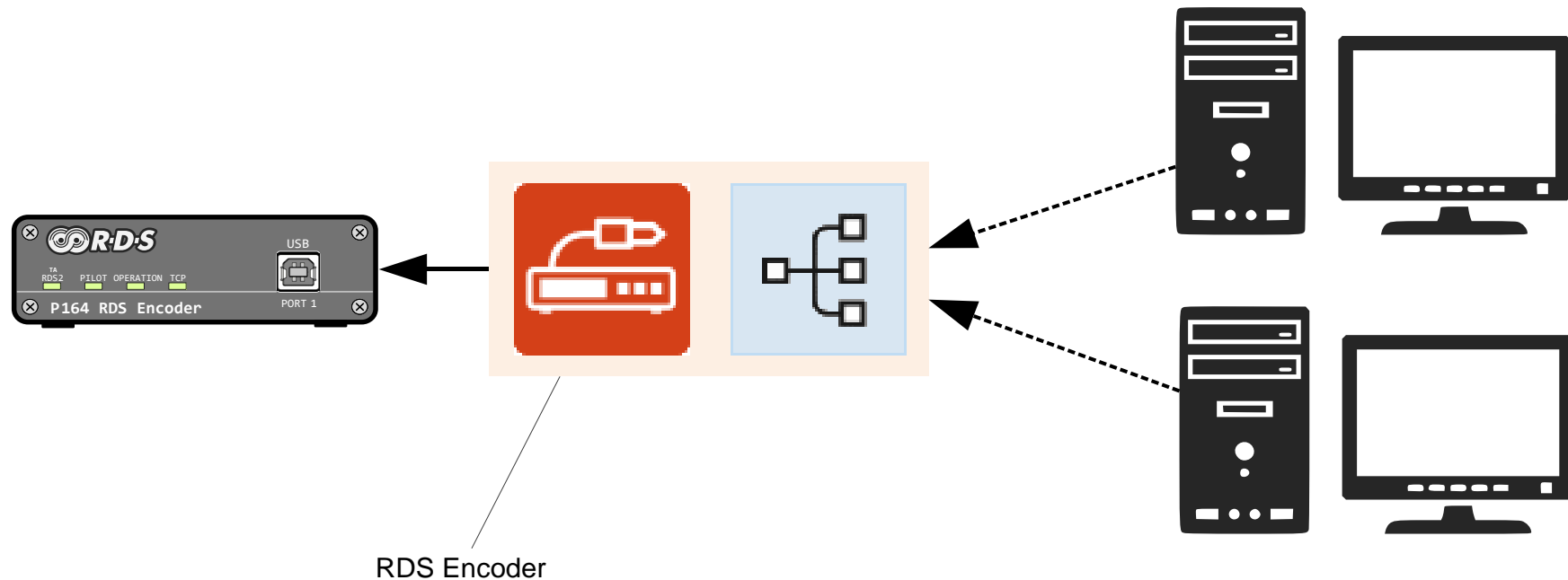
# Simple General Purpose Redirector

- Converts one communication line to another, for example TCP/IP to serial RS-232.
- Can be either bidirectional or unidirectional.
- Fully transparent (no protocol decoding).



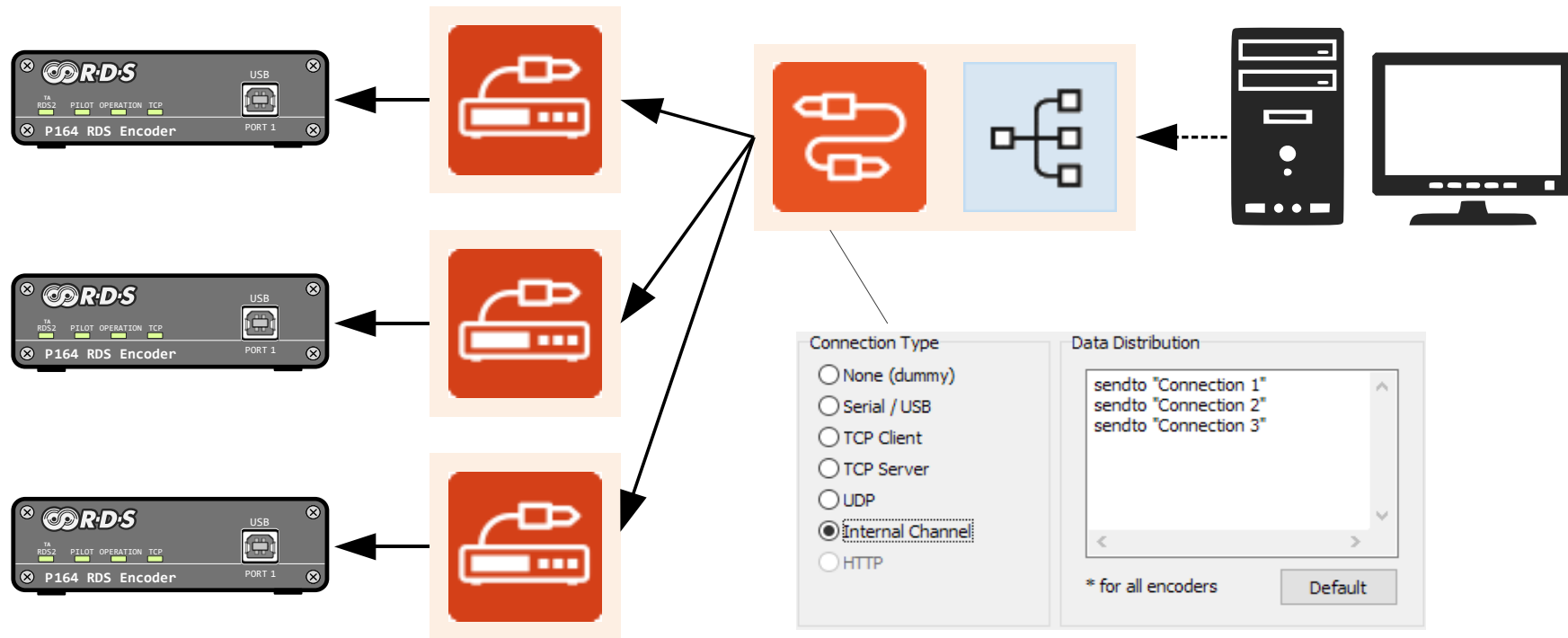
# RDS Encoder's Port Multiplier

- Software port multiplier – effectively adds further communication ports to the device.
- Allows external application(s) to communicate with the RDS encoder thru the Magic RDS 4.
- Up to 16 ports can be created for each RDS encoder.
- The ports operate in complete independence.
- The ports can be either bidirectional or unidirectional.
- Data can be filtered by command name or UECP MEC.
- Supported by PIRA32, P132, P164, P232, P232U, P332, READBEST.



# Data Splitter for RDS Encoders

- Connects selected RDS encoder(s) to a single data source.
- Can redirect data to specified RDS encoder(s) or to a group of encoders or to all encoders.
- Automatically converts the communication protocol for each RDS encoder (for example from UECP to MicroRDS).
- Supports a mixture of different RDS encoder models.
- Data can be filtered by command name or UECP MEC.
- The data channels from the Bridge are unidirectional.

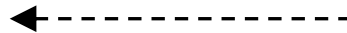


# Remote Bridge

- Virtual RDS encoder providing connection to remote Magic RDS 4.
- The Magic RDS 4 is a data source for another Magic RDS 4, typically on another PC.
- Allows further branching of the data distribution network. Data includes Radiotext and RT+.
- Unidirectional communication using internal Magic RDS 4 protocol (ASCII compatible).
- Target Magic RDS 4 automatically converts the communication protocol for each RDS encoder and still allows individual local control.



Setup according to the chapter  
**„Data Splitter for RDS Encoders“**

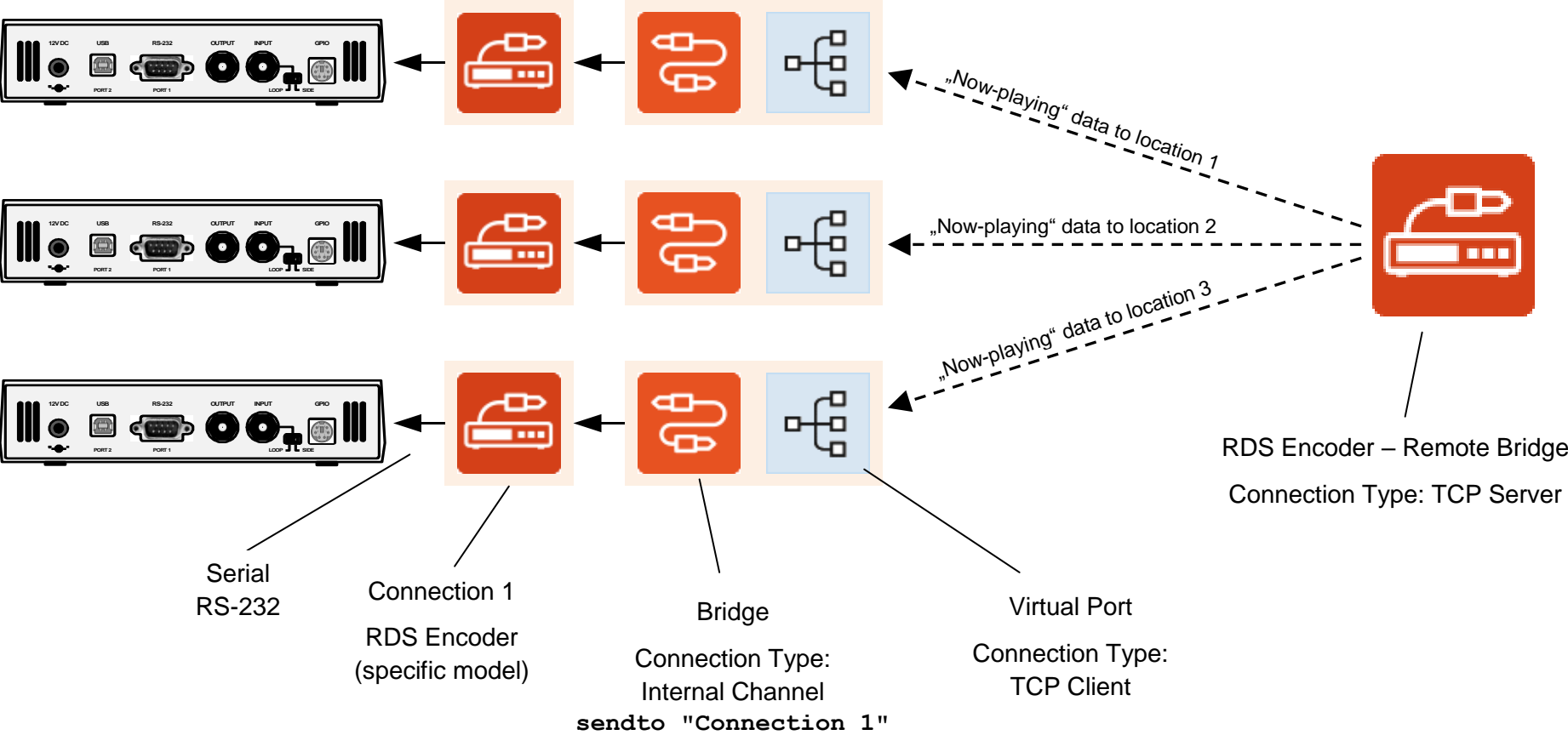


RDS Encoder – Remote Bridge

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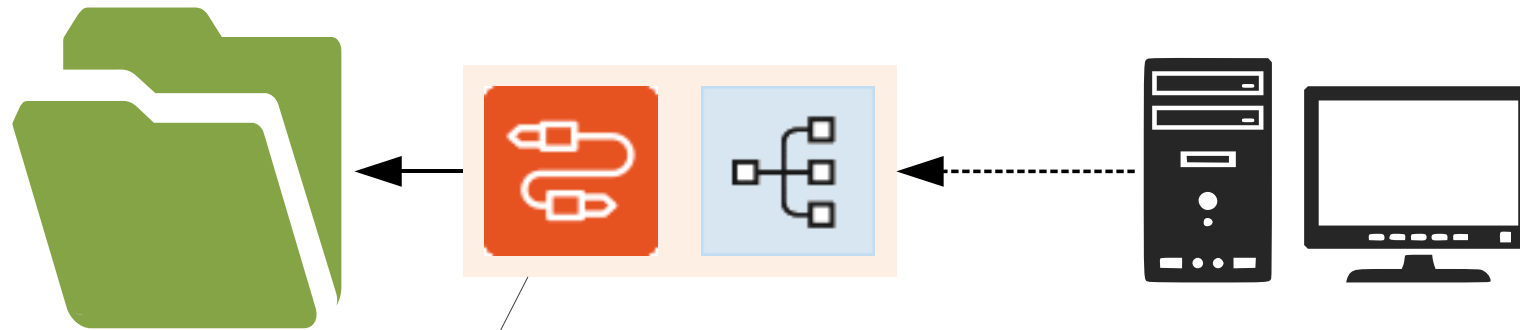
**A special case – Remote Bridge configured as a TCP server:**

- Common access point for remote Magic RDS 4 applications in different locations.
- Only single TCP port and single public IP address required.
- Configurable access rights based on client's IP address.



# File Writer

- Redirects data from a data line or External Text Source to specified local file.
- The file can either hold last line of text (separated by CR) or log a complete content.
- Can be combined with HTTP GET Query and other supported Data Distribution methods



The screenshot shows the configuration window for the File Writer component. It is divided into two main sections: "Connection Type" and "Data Distribution".

**Connection Type**

- None (dummy)
- Serial / USB
- TCP Client
- TCP Server
- UDP
- Internal Channel
- HTTP

**Data Distribution**

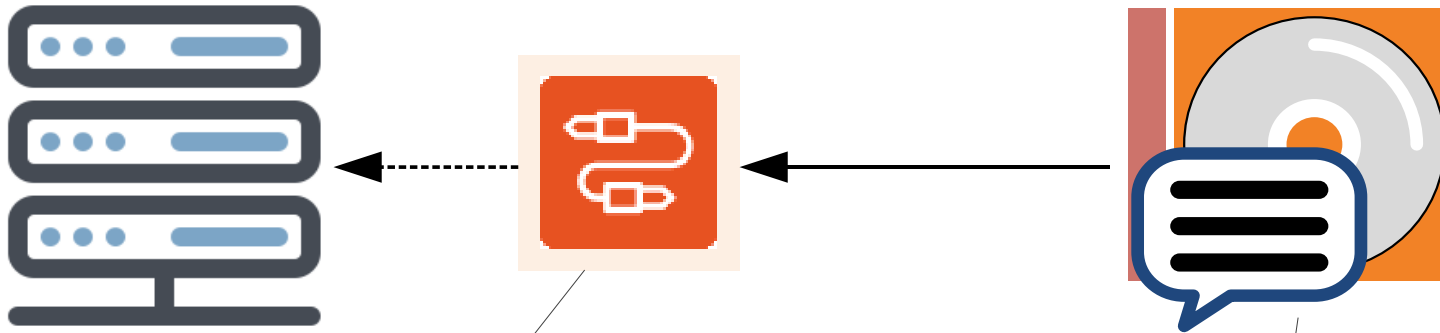
```
saveto file:"d:\text\file.txt"
```

A callout box points to the "Data Distribution" section with the text: "For saving the data to more files, place each **saveto** command to a separate line".



# Sending Data to a Device or Website via HTTP GET Query

- Redirects data from a data line or External Text Source to specified URL using the HTTP GET method
- User configurable URL format and variable name
- Unlimited number of different URLs
- Can be combined with File Writer and other supported Data Distribution methods



Bridge name: Connection 9

Connection Type

- None (dummy)
- Serial / USB
- TCP Client
- TCP Server
- UDP
- Internal Channel
- HTTP Server

Data Distribution

```
sendhttp url:"http://localhost/?s=%data%"
```

Default

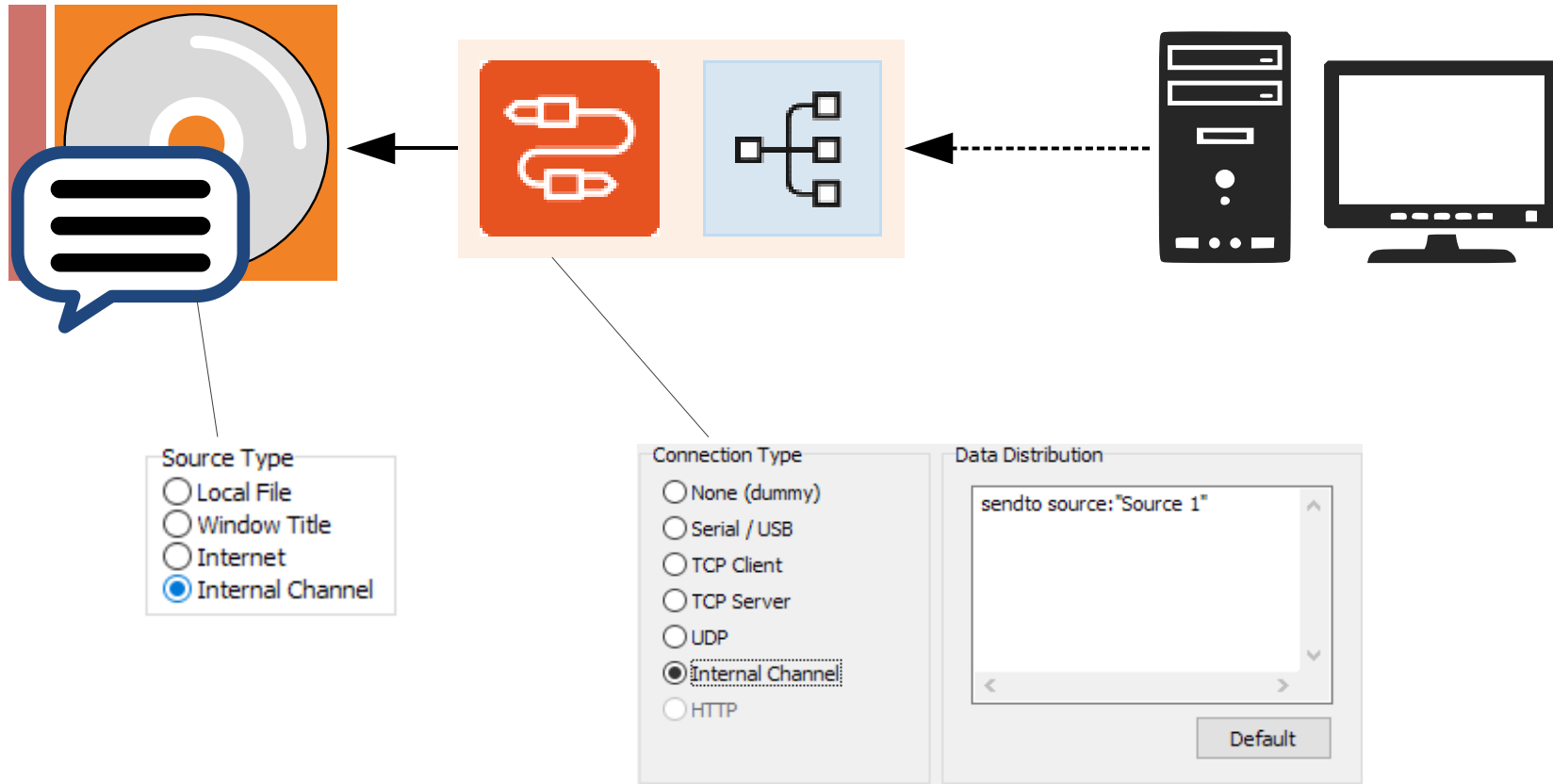
For sending the data to more URLs, place each **sendhttp** command to a separate line

Send To

```
sendto *  
sendto "Connection 9"
```

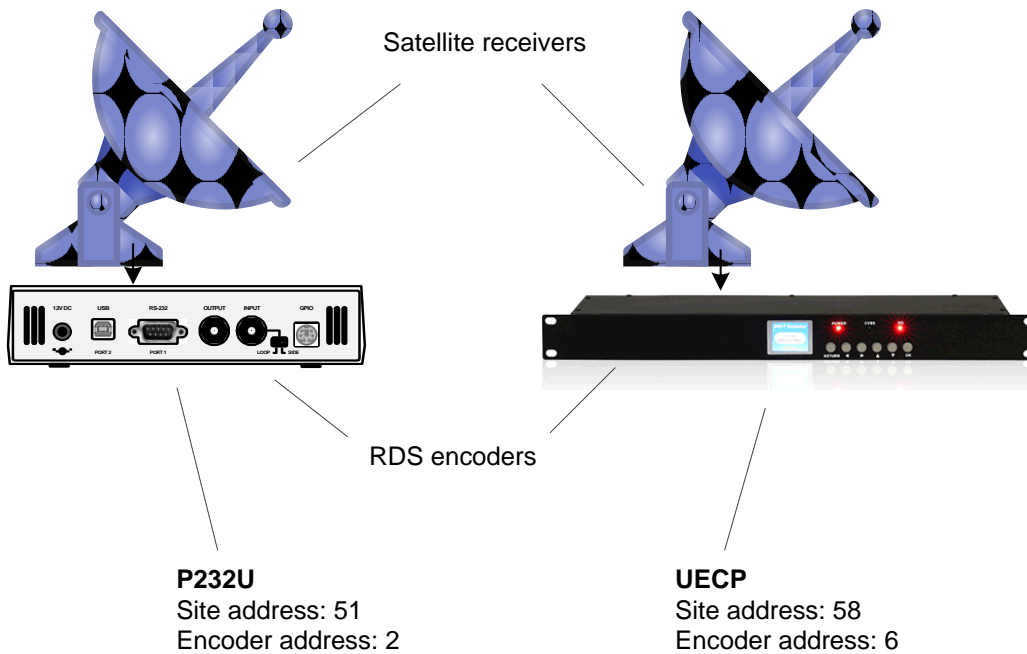
# Redirecting to External Text Sources

- Redirects text from a data line to selected External Text Source for further processing.
- The buffer holds last line of the text (separated by CR).

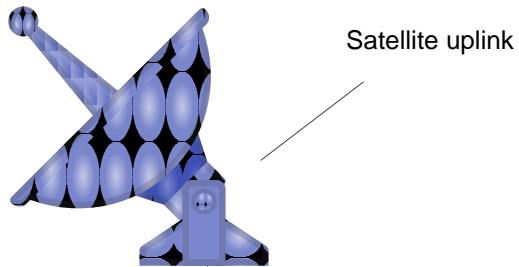


# Driving Different Encoders via Single Satellite Channel

- Single unidirectional serial communication channel
- Different RDS encoders at different sites receiving the same data
- Individual control of each encoder based on UECP addressing
- Common control of all encoders or a group of encoders
- Data is CRC-protected
- Supported by READBEST and UECP encoders
- Supported by P232(U) and P332 with firmware version 2.2c or later



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Satellite uplink



Name: Satellite  
Connection Type: Serial  
Port Speed: 9600



**P232U**  
Connection Type: Internal Channel  
Data Distribution: sendto "Satellite"  
Extensions – General – Encapsulate to UECF: Enabled

	SITE	ADR
	51	2



**UECF**  
Connection Type: Internal Channel  
Data Distribution: sendto "Satellite"

	SITE	ADR
	58	6

# Accepting Data from URL via the Internal HTTP Web Server

- External application sends data inside HTTP query to the Magic RDS 4 internal web server (Options – Preferences – Web Server: Enabled)
- The data can be either any text content or RDS control command
- Redirecting to selected External text source, local file, communication port, specific encoder or group of encoders
- Supports multiple data channels, each with specific query pattern

## URL Examples

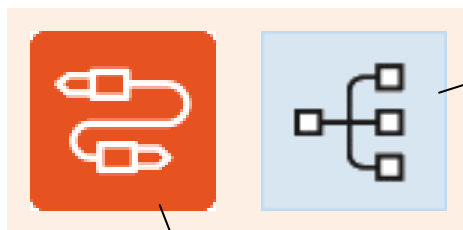
http://127.0.0.1/send/?data=PS%3DKISS%20FM

http://127.0.0.1/send/?data=Now%20Playing%20Every%20Other%20Memory%20by%20Ryan%20Hurd

http://127.0.0.1/send/?artist=Ryan%20Hurd&title=Every%20Other%20Memory

http://127.0.0.1/send/?artist=Ryan%20Hurd&title=Every%20Other%20Memory&password=1234

URL-encoded command  
PS=KISS FM



Virtual Port Connection Type: Http Server

HTTP Query Settings:

\$data	or	\$artist - \$title	or	\$artist - \$title
data=		title=		password=1234
		artist=		

Configure the **Bridge** according to the section *Data Splitter For RDS Encoders* or *File Writer* or *Redirecting to External Text Sources*.