



LINKTools Training Overview

LINKTools Level One

Number of days: 3 9:00AM to 4:00PM

Dates: At LINK: Monday, Tuesday, and Wednesday of every month (First Week)

At Site: Tuesday, Wednesday, and Thursday of every month (Third Week)

Number of attendees per class: 10

What is covered: Level One will cover the full functionality of LINKTools. Basic message structures like HL7, NVP, XML, user-delimited, text report functionality, etc. will be covered to familiarize the attendee with these message structures. The attendee will be provided an overview of what integration and interfacing is and how it is used in the healthcare industry.

Level One Goals: An attendee that participates in Level One training will have at least a basic understanding and knowledge of what integration is, it's importance, and how interfacing and LINKTools has helped the healthcare industry. They will walk away with a basic understanding of different file and message formats that are typically used to help implement an interface. HL7, NVP and XML are some of the structures that will be demonstrated. Finally, the user will have a solid understanding of what LINKTools is and all of the functionality that it provides a user for integration purposes.

Level One Training Outline

(Day 1)

- I. Introductions**
- II. Pass out handouts (IDK Manual, Schedule, Training Guide, etc.)**
- III. Attendee pre-screening (Comfort level of attendee with interfacing, HL7, etc.)**
- IV. Review schedule**
 - A. Schedule will be broken up into morning and afternoon sessions
 - B. What will be covered during each session
 - C. Morning and afternoon sessions are broken up into 50 minute periods (10 minute breaks)
 - D. 45 minute lunch
- V. Overview of Healthcare integration**
 - A. What has the healthcare industry demanded?
 - B. Fully integrated flowchart (Manual/board)
 - C. How is integration accomplished?
 - i. Software tools
 - ii. Protocols, Communications, etc.
 - iii. Message formats (HL7, XML, NVP, etc.)
 - iv. HIS, Interface engines, etc.
 - v. Pre-requisites for setup of interface
 - D. What does LINK Medical Computing, Inc. do?
 - i. Who we are
 - ii. Brief description of previous generation tools
 - iii. Why LINK developed new generation tools
 - a. What is LINKTools?
 - b. Differences to competitors
 - E. Setup of LINKTools
 - i. Handout of LINKTools IDK CDs for installation
 - ii. Installation walkthrough
 - iii. Discuss where things can be found (Utilities, Manuals, etc.)
 - F. Terms Glossary
 - i. Review of key terms from back of manual



- G. LINKTools overview and functionality
 - i. Uni-Directional or Bi-Directional?
 - a. Uni- and Bi-Directional – What is the difference?
 - i. IN BOUND and / or OUT BOUND
 - ii. Utilities to be used
 - ii. Communications
 - a. LINKTools TCP Receiver
 - i. Discuss features, speed, stats, benchmarks
 - ii. Configuration and setup
 - iii. Can be used stand-alone
 - b. LINKTools TCP Transmitter
 - i. Discuss features, speed, stats, benchmarks
 - ii. Configuration and setup
 - iii. Can be used stand-alone
 - c. Optional Communications
 - i. File dumping to shared directory
 - ii. FTP
 - d. Practical
 - i. Set up Rx and Tx to send data in a loop
 - iii. Reformatting/Parsing/Mapping Capabilities
 - a. LINKTools HL7 Mapper Application
 - i. Functionality – Uni-Directional or Bi-Directional
 - ii. Features
 - a. IN BOUND and OUT BOUND
 - b. Configuring an Interface (one or multiples)
 - c. Mappings and conditions
 - d. Fields, DBF, input/output, etc.
 - iii. Practical – Create a interface configuration file
 - iv. Batching Capabilities
 - a. LINKTools Batch Builder
 - i. Features and Functionality
 - ii. Practical – Create an HL7 Batch message
 - b. LINKTools Batch Splitter
 - i. Features and Functionality
 - ii. Practical – Split apart HL7 Batch message to individual messages
 - v. File Utilities
 - a. Copying Files – UDACOPY.exe
 - b. Rename Files – UDAREN.exe
 - c. Delete Files – UDADEL.exe
 - d. Practical – Run individual process
 - vi. Automated Processes
 - a. LINKTools Scheduler
 - i. Features and Functionality
 - ii. Taskbar, Options, etc.
 - iii. Setup, utilities and command lines
 - iv. Practical – Use copy, move, and delete features
 - vi. Intermediate Database Management
 - a. LINKTools Manager
 - i. Explanation of what LTM.exe does
 - ii. Configuration via LTMANAGE.ini
 - a. Commands
 - i. rule_file
 - ii. archive_directory
 - iii. del_file
 - iv. ren_file
 - v. mov_file
 - vi. field1
 - vii. field2
 - viii. mode
 - b. Display example Log File



- vii. Database Viewer Application
 - a. LINKTools LINKSelect
 - i. Explanation of LTDB.exe
 - ii. Configure Columns via Mapper
 - iii. Taskbar – File menu, Admin, etc.
 - iv. Edit and Search Features
 - v. Usage possibilities
 - vi. Create Shortcut on desktop
 - vii. Practical – Configure LINKSelect and update database and view records
- viii. Customization of Segments and Fields
 - a. Explanation – Why are they needed?
 - b. Z Segments
 - c. Review of LTMMapper.dic
 - i. Adding new segments and corresponding fields
 - ii. LINKTools Dictionary Generator
 - iii. Demo – Create new segment and fields and display through the Dynamic Mapper
 - iv. Practical – Attendee creates own Z Segment. View through Dynamic Mapper
 - viii. Review and Questions

(Day 2)**I. Review schedule**

- A. Schedule will be broken up into morning and afternoon sessions
- B. What will be covered during each session
- C. Morning and afternoon sessions are broken up into 50 minute periods (10 minute breaks)
- D. 45 minute lunch

II. Review Previous days material and questions**III. Types of interface**

- A. What type of interfacing are you looking to implement?
 - i. Always map out plan on paper
 - a. Does your network meet interfacing requirements
 - b. What tools and directories will be needed
 - c. What are you looking to accomplish
 - i. Future needs
 - ii. Uni or bi-directional needs
 - iii. Type of data structure and flow (HL7, XML, NVP, etc.)
- B. Uni-Directional
 - i. Explanation
 - ii. Source System to Target System (Board/Manual)
 - iii. Always map out plan on paper
 - a. What directories and mapped drives are needed
 - b. What LINKTools are needed
 - i. Communications – Receiving or transmitting data
 - ii. Dynamic Mapper – Structure of interface, IN BOUND or OUT BOUND
 - iii. Management Utilities
 - iv. Scheduler
 - v. LINKSelect
 - c. Input data format and Output data format
 - iv. Build and demonstrate Uni-Directional interface (“Download”)
 - a. IN BOUND interface (HL7 to XML)
 - i. Draw Uni-directional interface scenario on board
 - ii. Setup directories on interface PC
 - iii. Discuss input message
 - iv. Discuss output message
 - v. Setup of LINKTools TCP Receiver
 - vi. Configure Dynamic Mapper template
 - vii. Configure LINKTools Scheduler
 - viii. Run Demonstration



- v. Build and demonstrate Uni-Directional interface ("Upload")
 - a. IN BOUND interface (Report to HL7)
 - ix. Draw Uni-directional interface scenario on board
 - x. Setup directories on interface PC
 - xi. Discuss input message
 - xii. Discuss output message
 - xiii. Setup of LINKTools TCP Receiver
 - xiv. Configure Dynamic Mapper template
 - xv. Configure LINKTools Scheduler
 - xvi. Run Demonstration
- C. Bi-Directional
 - i. Explanation
 - ii. Source System to Target System to Original Source System (Board/Manual)
 - iii. Always map out plan on paper
 - a. What directories and mapped drives are needed
 - b. What LINKTools are needed
 - i. Communications – LINKTools TCP/IP Transmitter and Receiver
 - i. HL7 Mapper Application – Structure of interface, IN BOUND and OUT BOUND, multi mappers, etc.
 - ii. Management Utilities
 - iii. Scheduler
 - iv. LINKSelect
 - v. Data formats and placement
 - a. IN BOUND Input data format and IN BOUND Output data format
 - b. OUT BOUND Input data format and OUT BOUND Output data format
 - iv. Build and demonstrate Bi-Directional interface
 - a. IN BOUND and OUT BOUND interface (HL7 to NVP - Report to HL7) -*Utilizing ONE MPR configuration file*)
 - i. Draw Bi-Directional interface scenario on board
 - ii. Setup directories on interface PC
 - iii. Discuss IN BOUND Input message – From HIS
 - iv. Discuss IN BOUND Output message – To ECG
 - v. Discuss OUT BOUND Input message – From ECG
 - vi. Discuss OUT BOUND Output message – To HIS
 - vii. Setup of LINKTools TCP Receiver
 - viii. Configure HL7 Mapper "template" (IN BOUND, OUT BOUND)
 - ix. Configure LINKTools Scheduler
 - x. Configure LINKTools TCP Transmitter
 - xi. Run Demonstration
 - b. IN BOUND and OUT BOUND interface (HL7 to NVP - Report to HL7) -*Utilizing TWO MPR configuration files*)
 - i. Draw Bi-Directional interface scenario on board
 - ii. Setup directories on interface PC
 - iii. Discuss IN BOUND Input message – From HIS
 - iv. Discuss IN BOUND Output message – To ECG
 - v. Discuss OUT BOUND Input message – From ECG
 - vi. Discuss OUT BOUND Output message – To HIS
 - vii. Setup of LINKTools TCP Receiver
 - viii. Configure Dynamic Mapper templates
 - ix. Configure LINKTools Scheduler
 - x. Setup of LINKTools TCP Transmitter
 - xi. Run Demonstration
 - c. Practical – Attendees build and run Bi-directional interface

IV. Review and Questions

(Day 3)

I. Bring your own data.



LINKTools Level Two

Number of days: 3 (9:00AM to 4:00PM)

Dates: *At LINK: Monday, Tuesday, and Wednesday of every month (Second Week)*

At Site: Tuesday, Wednesday, and Thursday of every month (Fourth Week)

Number of Attendees per class: 3

Prerequisites: Level One Training or a demonstrated knowledge of interfacing utilizing LINKTools.

Sample input and output message formats that will be utilized for implementation purposes.

Sample input and output files must be sent to LINK prior to class

What is covered: Level Two will provide the attendee with a brief review of the functionality of LINKTools. Basic message structures like HL7, NVP, XML, user-delimited, text report functionality, etc. will also be quickly reviewed to re-familiarize the attendee with these message structures. The main purpose of this training level is to provide the attendee with the information, support and knowledge to structure an interface utilizing LINKTools that meets the needs of their particular site. It can be also used as great learning experience for the attendee that would like to better understand how to create and implement an interface to meet the integration needs of a particular site.

Level Two Goals: An attendee that participates in Level Two training will have a strong understanding and knowledge of LINKTools. They will walk away with a strong understanding of different file and message formats that are typically used to help implement an interface. The user will have a solid understanding of what LINKTools is and all of the functionality that it provides a user for integration purposes. Level Two will provide the user with the knowledge to build an interface utilizing LINKTools to meet the specific needs of the site. The attendee will walk away with a fully created Dynamic Mapper template configured to meet the needs of the interface.

Level Two Training Outline:

(Day 1)

- I. Introductions**
- II. Pass out handouts (manual, schedule, review sheets, etc.)**
- III. Review schedule**
 - A. Schedule will be broken up into morning and afternoon sessions
 - B. What will be covered during each session
 - C. Morning and afternoon sessions are broken up into 50 minute periods with 10 minute breaks in-between
 - D. 45 minute lunch
- IV. Fully integrated flowchart (Manual/board)**
- V. How is integration accomplished?**
 - i. Software tools
 - ii. Protocols, Communications, etc.
 - iii. Message formats (HL7, XML, NVP, etc.)
 - iv. HIS, Interface engines, etc.
 - v. Prerequisites for setup of interface
- VI. Setup of LINKTools**
 - i. Handout of LINKTools IDK CDs for installation
 - ii. Installation walkthrough
 - a. Discuss where things can be found (Utilities, Manuals, etc.
- VII. Terms Glossary**
 - i. Review of key terms from back of manual
- VIII. LINKTools overview and functionality (Review Only)**
 - i. Uni-Directional or Bi-Directional?
 - a. Uni-Directional – What is its' purpose?
 - i. IN BOUND or OUT BOUND
 - ii. Utilities to be used
 - b. Bi-Directional – What is it's purpose?
 - i. IN BOUND and OUT BOUND
 - ii. Utilities to be used



- ii. Communications
 - a. LINKTools TCP Receiver
 - i. Discuss features, speed, stats, benchmarks
 - ii. Configuration and setup
 - iii. Can be used stand-alone
 - iv. LINKTools TCP Transmitter
 - v. Discuss features, speed, stats, benchmarks
 - vi. Configuration and setup
 - vii. Can be used stand-alone
 - b. Optional Communications
 - i. File dumping to shared directory
 - ii. FTP
- iii. Reformatting/Parsing/Mapping Capabilities
 - a. LINKTools Dynamic Mapper
 - i. Functionality – Uni-Directional or Bi-Directional
 - ii. Features
 - a. IN BOUND/OUT BOUND
 - b. Template creation (one or multiples)
 - c. Mappings and conditions
 - d. Fields, DBF, input/output, etc.
- iv. Batching Capabilities
 - a. LINKTools Batch Builder
 - i. Features and Functionality
 - b. LINKTools Batch Splitter
 - i. Features and Functionality
- v. File Utilities
 - a. Copying Files – UDACOPY.exe
 - b. Rename Files – UDAREN.exe
 - c. Delete Files – UDADEL.exe
- vi. Automated Processes
 - a. LINKTools Scheduler
 - i. Features and Functionality
 - ii. Taskbar, Options, etc.
 - iii. Setup, utilities and command lines
- v. LINKTools Manager
 - a. Explanation of what LTM.exe does
 - i. Configuration via LTMANAGE.ini
 - ii. Commands
 - a. rule_file
 - b. archive_directory
 - c. dell_file
 - d. ren_file
 - e. mov_file
 - f. field1
 - g. field2
 - h. mode
- vi. Database Viewer Application
 - a. LINKTools LINKSelect
 - i. Explanation of what LTDB.exe does
 - ii. Configure Columns via Mapper
 - iii. Taskbar – File menu, Admin, etc.
 - iii. Edit and Search Features
 - iv. Usage possibilities
 - v. Create Shortcut on desktop
 - vii. Customization of Segments and Fields
 - a. Z Segments
 - b. Review of LTMMapper.dic
 - c. Adding new segments and corresponding fields
 - d. LINKTools Dictionary Generator
- viii. Review and Questions

**(Day2)****I. What type of interfacing are you looking to implement?**

- A. Always map out plan on paper
 - i. Does network meet interfacing requirements
 - ii. What tools and directories will be needed
 - iii. What are you looking to accomplish
 - a. Future needs
 - b. Uni or bi-directional needs
 - c. Type of data structure and flow (HL7, XML, NVP, etc.)
 - iv. Review attendee's sample messages
- B. Uni-Directional
 - i. Explanation
 - ii. Source System to Target System (Board/Manual)
 - iii. Always map out plan on paper
 - iv. What directories and mapped drives are needed
 - v. What LINKTools are needed
 - a. Communications – Receiving or transmitting data
 - b. Dynamic Mapper – Structure of interface, IN BOUND or OUT BOUND
 - c. Management Utilities
 - d. Scheduler
 - e. LINKSelect
 - vi. Input data format and Output data format
 - a. Refer to samples brought by attendees
 - vii. IN BOUND interface (Source System to Target System)
 - a. Draw Uni-directional interface scenario on board
 - b. Setup directories on interface PC
 - c. Discuss input message – refer to samples
 - d. Discuss output message – refer to samples
 - e. Setup of LINKTools TCP Receiver
 - f. Configure Dynamic Mapper template
 - g. Configure LINKTools Scheduler
 - viii. OUT BOUND interface (Source System to Target System)
 - a. Draw Uni-directional interface scenario on board
 - b. Setup directories on interface PC
 - c. Discuss input message – refer to sample
 - d. Discuss output message – refer to sample
 - e. Setup of LINKTools TCP Transmitter
 - f. Configure Dynamic Mapper template
 - g. Configure LINKTools Scheduler
 - ix. Practical – Attendees build and run Uni-directional interface utilizing sample files
- C. Bi-Directional
 - i. Explanation
 - ii. Source System to Target System to Original Source System (Board/Manual)
 - iii. Always map out plan on paper
 - iv. What directories and mapped drives are needed
 - v. What LINKTools are needed
 - a. Communications – Receiving and transmitting data
 - b. Dynamic Mapper – Structure of interface, IN BOUND and OUT BOUND, multi mappers, etc.
 - c. Management Utilities
 - d. Scheduler
 - e. LINKSelect
 - f. Data formats and placement
 - i. IN BOUND/Input data format and IN BOUND/Output data format – refer to sample messages
 - ii. OUT BOUND/Input data format and OUT BOUND/Output data format – refer to sample messages



- vi. Build and demonstrate Bi-Directional interface
 - a. IN BOUND/OUT BOUND interface (Source System to Target System to Original Source System) -*Utilizing ONE mapper template-*
 - i. Draw Bi-Directional interface scenario on board
 - ii. Setup directories on interface PC
 - iii. Discuss IN BOUND/input message – refer to sample message
 - iv. Discuss IN BOUND/output message – refer to sample message
 - v. Discuss OUT BOUND/input message – refer to sample message
 - vi. Discuss OUT BOUND/output message – refer to sample message
 - vii. Setup of LINKTools TCP Receiver
 - viii. Configure Dynamic Mapper template (IN BOUND/OUT BOUND) – configure to meet attendee's needs
 - ix. Configure LINKTools Scheduler
 - x. Configure LINKTools TCP Transmitter
 - b. IN BOUND/OUT BOUND interface (Source System to Target System to Original Source System) – *Utilizing 2 or more mapper templates-*
 - i. Draw Bi-Directional interface scenario on board
 - ii. Setup directories on interface PC
 - iii. Discuss IN BOUND/output message – refer to sample message
 - iv. Discuss OUT BOUND/input message – refer to sample message
 - v. Discuss OUT BOUND/output message – refer to sample message
 - vi. Setup of LINKTools TCP Receiver
 - vii. Configure Dynamic Mapper templates – to meet the needs of the attendees
 - viii. Configure LINKTools Scheduler
 - ix. Setup of LINKTools TCP Transmitter
 - c. Practical – Attendees build and run Bi-directional interface using attendee's sample files

II. Review and Questions

(Day 3)

I. Continue on-job training



LINKTools Refresher Course

Number of days: 2 (9:00AM to 4:00PM)

Date: At LINK: Thursday and Friday (Every week)

Number of Attendees per class: 10

Prerequisites: Level One and/or Level Two training or a demonstrated knowledge of interfacing utilizing LINKTools.

What is covered: The refresher course will provide the attendee with a review of the functionality of LINKTools. Basic message structures like HL7, NVP, XML, user-delimited, text report functionality, etc. will also be reviewed to re-familiarize the attendee with these message structures. The main purpose of this course is to re-familiarize the attendee with the information, support and knowledge in order to structure an interface utilizing LINKTools. The attendee will also be presented the latest version and newest features of LINKTools.

Refresher Course Goals: An attendee that participates in the refresher course will walk away with a strong understanding and knowledge of LINKTools. They will understand different file and message formats that are typically used to help implement an interface. The user will have a solid understanding of what LINKTools is and have exposure to all of the latest features and functionality that it provides.

LINKTools Refresher Course Outline:

(Day 1)

- I. Introductions**
- II. Pass out handouts (manual, schedule, review sheets, etc.)**
- III. Review schedule**
 - A. Schedule will be broken up into morning and afternoon sessions
 - B. What will be covered during each session
 - C. Morning and afternoon sessions are broken up into 50 minute periods with 10 minute breaks in-between
 - D. 45 minute lunch
- IV. Fully integrated flowchart (Manual/board)**
- V. How is integration accomplished?**
 - A. Software tools
 - B. Protocols, Communications, etc.
 - C. Message formats (HL7, XML, NVP, etc.)
 - D. HIS, Interface engines, etc.
 - E. Pre-requisites for setup of interface
- VI. Setup of LINKTools**
 - A. Handout of LINKTools IDK CDs for installation
 - B. Installation walkthrough
 - i. Discuss where things can be found (Utilities, Manuals, etc.)
- VII. Terms Glossary**
 - A. Review of key terms from back of manual
- VIII. LINKTools overview and functionality (Overview Only)**
 - A. Uni-Directional or Bi-Directional?
 - i. Uni-Directional – What is its' purpose?
 - a. IN BOUND or OUT BOUND
 - b. Utilities to be used
 - B. Bi-Directional – What is it's purpose?
 - i. IN BOUND and OUT BOUND
 - a. Utilities to be used
 - b. Communications
 - c. LINKTools TCP Receiver
 - i. Discuss features, speed, stats, benchmarks
 - ii. Configuration and setup
 - iii. Can be used stand-alone
 - iv. LINKTools TCP Transmitter
 - v. Discuss features, speed, stats, benchmarks
 - vi. Configuration and setup



- vii. Can be used stand-alone
- viii. New Features (if applicable)
- ix. Optional Communications
 - a. File dumping to shared directory
 - b. FTP
- d. Reformatting/Parsing/Mapping Capabilities
 - i. LINKTools Dynamic Mapper
 - ii. Functionality – Uni-Directional or Bi-Directional
 - iii. Features
 - a. IN BOUND/OUT BOUND
 - b. Template creation (one or multiples)
 - c. Mappings and conditions
 - d. Fields, DBF, input/output, etc.
 - iv. New Features (if applicable)
- e. Batching Capabilities
 - i. LINKTools Batch Builder
 - ii. Features and Functionality
 - iii. LINKTools Batch Splitter
 - iv. Features and Functionality
 - v. New Features (if applicable)
- f. File Utilities
 - i. Copying Files – UDACOPY.exe
 - ii. Rename Files – UDAREN.exe
 - iii. Delete Files – UDADEL.exe
 - iv. New Utilities (if applicable)
- g. Automated Processes
 - i. LINKTools Scheduler
 - ii. Features and Functionality
 - iii. Taskbar, Options, etc.
 - iv. Setup, utilities and command lines
 - v. New processes (if applicable)
- h. LINKTools Manager
 - i. Explanation of what LTM.exe does
 - ii. Configuration via LTMANAGE.ini
 - iii. Commands
 - a. rule_file
 - b. archive_directory
 - c. dell_file
 - d. ren_file
 - e. mov_file
 - f. field1
 - g. field2
 - h. mode
 - iv. New processes (if applicable)
 - v. Display example Log File
- i. Database Viewer Application
 - i. LINKTools LINKSelect
 - ii. Configure Columns via Mapper
 - iii. Taskbar – File menu, Admin, etc.
 - iv. Edit and Search Features
 - v. Usage possibilities
 - vi. New processes (if applicable)
 - vii. Create Shortcut on desktop



- j. Customization of Segments and Fields
 - i. Explanation – Why are they needed?
 - ii. Z Segments
 - iii. Review of LTMMapper.dic
 - a. Adding new segments and corresponding fields
 - b. LINKTools Dictionary Generator
 - iv. New processes (if applicable)
- k. Review and Questions

IX. Review and Questions

(Day 2)

I. Fully integrated flowchart (Manual/board)

- A. Always map out plan on paper
 - i. Does network meet interfacing requirement
 - ii. What tools and directories will be needed
 - iii. What are you looking to accomplish
 - a. Future needs
 - b. Uni or bi-directional needs
 - c. Type of data structure and flow (HL7, XML, NVP, etc.)
 - d. Review sample messages
- B. Uni-Directional
 - i. Explanation
 - ii. Source System to Target System (Board/Manual)
 - iii. Always map out plan on paper
 - a. What directories and mapped drives are needed
 - b. What LINKTools are needed
 - i. Communications – Receiving or transmitting data
 - ii. Dynamic Mapper – Structure of interface, IN BOUND or OUT BOUND
 - iii. Management Utilities
 - iv. Scheduler
 - c. IN BOUND interface (Source System to Target System: HIS –ECG System)
 - i. Draw Uni-directional interface scenario on board
 - ii. Setup directories on interface PC
 - iii. Discuss input message – refer to samples
 - iv. Discuss output message – refer to samples
 - v. Setup of LINKTools TCP Receiver
 - vi. Configure Dynamic Mapper template
 - vii. Configure LINKTools Scheduler
 - d. OUT BOUND interface (Source System to Target System ECG System - HIS)
 - i. Draw Uni-directional interface scenario on board
 - ii. Setup directories on interface PC
 - iii. Discuss input message – refer to sample
 - iv. Discuss output message – refer to sample
 - v. Setup of LINKTools TCP Transmitter
 - vi. Configure Dynamic Mapper template
 - vii. Configure LINKTools Scheduler
 - e. Practical – Attendees build and run Uni-directional interface utilizing sample files
- C. Bi-Directional
 - i. Explanation
 - ii. Source System to Target System to Original Source System (Board/Manual)
 - iii. Always map out plan on paper
 - iv. What directories and mapped drives are needed
 - v. What LINKTools are needed
 - a. Communications – Receiving and transmitting data
 - b. Dynamic Mapper – Structure of interface, IN BOUND and OUT BOUND, multi mappers, etc.
 - c. Management Utilities
 - d. Scheduler



- e. LINKSelect
- f. Data formats and placement
 - i. IN BOUND/Input data format and IN BOUND/Output data format – refer to sample messages
 - ii. OUT BOUND/Input data format and OUT BOUND/Output data format – refer to sample messages
- vi. Build and demonstrate Bi-Directional interface
 - a. IN BOUND/OUT BOUND interface (Source System to Target System to Original Source System) -*Utilizing ONE mapper template-*
 - i. Draw Bi-Directional interface scenario on board
 - ii. Setup directories on interface PC
 - iii. Discuss IN BOUND/input message – refer to sample message
 - iv. Discuss IN BOUND/output message – refer to sample message
 - v. Discuss outbound/input message – refer to sample message
 - vi. Discuss OUT BOUND/output message – refer to sample message
 - vii. Setup of LINKTools TCP Receiver
 - viii. Configure Dynamic Mapper template (IN BOUND/OUT BOUND)
 - ix. Configure LINKTools Scheduler
 - x. Configure LINKTools TCP Transmitter
 - b. IN BOUND/OUT BOUND interface (Source System to Target System to Original Source System) – *Utilizing 2 or more mapper templates-*
 - i. Draw Bi-Directional interface scenario on board
 - ii. Setup directories on interface PC
 - iii. Discuss IN BOUND/output message – refer to sample message
 - a. Discuss OUT BOUND/input message – refer to sample message
 - b. Discuss OUT BOUND/output message – refer to sample message
 - c. Setup of LINKTools TCP Receiver
 - d. Configure Dynamic Mapper templates
 - e. Configure LINKTools Scheduler
 - f. Setup of LINKTools TCP Transmitter
 - iv. Practical – Attendees build and run Bi-directional interface using sample files

II. Review and Questions