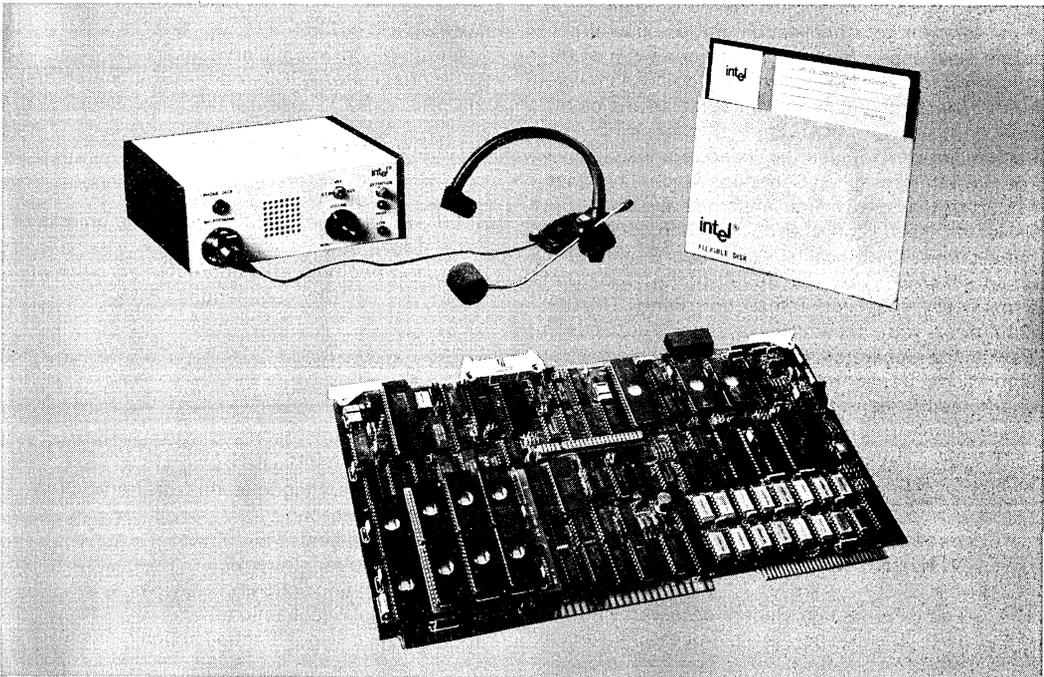


## iSBC® 570 SPEECH TRANSACTION DEVELOPMENT SET

- **Complete Development Support Set for the Intel Speech Product Family.**  
Includes:
  - Speech Transaction Generator
  - iSBC® 576 Speech Transaction Board
  - iSBC® 575 Operator Control Unit
  - Microphone
  - Demo program
  - Speech Transaction Design Manual
- **Speech Transaction Generator provides:**
  - Interactive design environment
  - A speech transaction structure embodying good human factors engineering
  - Automatic error checking of transaction design
  - Symbolic labeling for easy system designer reference
  - Speech Transaction File data base manager facilitates Speech Transaction File changes
- **Intellec® Microcomputer Development System based**

The Speech Transaction Development Set, iSBC® 570, provides an easy-to-use package for speech transaction evaluation, design simulation and application development. Along with Intel's Speech Design Workshop, the Speech Transaction Development Set becomes the starter kit that will move you into the forefront of speech I/O systems. Using the demo program supplied, you are quickly introduced to the important attributes of speech. Using the Intellec® Microcomputer Development System and writing/modifying software based on examples provided, you can quickly simulate your application without hardware development. And finally, with the Speech Transaction Generator, your speech transaction structure, definition, transaction file coding and management become a well-defined automated task.



## FUNCTIONAL DESCRIPTION

The ISBC® 570 Speech Transaction Development Set has been designed to meet your speech I/O needs as your level of involvement with speech I/O system grows. The Speech Transaction Development Set serves three very important functions. The three functions are: 1) Technology Evaluation and Demonstration, 2) Application Simulation of Speech I/O, and 3) Design and Development of Speech Transaction Software. These three functions are discussed below.

**Technology Evaluation and Demonstration** — A complete demo package is provided for you to demonstrate the capabilities of speech I/O. This package allows you to evaluate the speech technology without investing engineering design and development time. It is easy to use. Major attributes of a speech I/O system are highlighted and fully documented. The host system for the demonstration is the Intellect® Microcomputer Development System.

**Application Simulation of Speech I/O**—The Speech Transaction Development Set provides the necessary tools and program examples for you to easily simulate your speech I/O system using the Intellect® Microcomputer Development System as the host. With the ISBC® 570 and the Intellect® Microcomputer Development System, you can now design a speech I/O system for your application and see how it performs. Your speech transaction structure can be developed and checked out without doing hardware and software integration with the rest of your system.

**Design and Development of Speech Transactions** — The Speech Transaction Generator which is provided as part of the Speech Transaction Development Set facilitates the design and development of speech transactions. The Speech Transaction Generator is an interactive software development tool that generates the Speech Transaction File (STF) that configures your speech I/O system. The Speech Transaction Generator checks for inconsistencies or incomplete transactions. The generated code is guaranteed to be fully compatible with the Speech Transaction Board. The Speech Transaction Generator will not only shorten your development time, but will also facilitate a well human-engineered speech I/O interface.

## OPERATIONAL DESCRIPTION

The Speech Transaction Generator is implemented in two parts. The first part is the processing element

of the STG and resides on EPROM in an STB environment. The second part is the data base manager for the STG and resides as an executable file under ISIS. The STG allows a system designer (with appropriate knowledge of transaction, fields, vocabulary and synthesis) to specify a STF easily. The STG maintains a set of files on the Intellect® system as the data base. In this manner, the STG is the customization tool used by the speech system designers to prepare application-unique speech transactions that will execute on the STB under the supervision of the Speech Transaction Manager (STM). The STG also allows the system designer to dump portions of this data base in an ASCII-text format to a file. This ASCII-text file is useful for transporting data base entries between the STG implemented on other than an ISIS environment.

The things that a system designer can manipulate with the STG are termed "objects." Objects can be categorized into structures and non-structures. Structures are generally a string of characters or a list of tags. Objects are classified as follows:

### STRUCTURES

1. Transaction
2. Fields
3. Vocabulary
4. Synthesis

### NON-STRUCTURES

1. Group (list of vocabulary tags)
2. Strings (list of ASCII or non-ASCII characters)

## Brief Description of Commands

### UTILITY COMMANDS

HELP—Provides information about the objects  
EXIT—Close data base and exit STG  
PREfix—Specify prefix character for DEFine or MODify commands

### EDIT COMMANDS

#### DEFine

#### DEFINE TRANSACTION:

1. Vocabulary tag to enable this transaction?
2. Training group?
3. Starting field?
4. Host buffer strategy?
5. Verification actions?
6. Special reject actions?
7. Special illegal function action?

**DEFINE FIELD:**

1. Prompt?
2. Help message?
3. Prefix for host message?
4. Suffix for host message?
5. Special functions enable?
6. Valid sources?
7. Multiple utterance path?  
If yes,
  - a) Vocabulary words?
  - b) Next field?
  - c) Maximum number of utterances?
  - d) Fixed or variable?
8. Vocabulary words?
9. Next field?

**DEFINE VOCABULARY:**

1. Name?
2. Visual verify?
3. Audio verify?
4. Host message?
5. Visual train?
6. Audio train?
7. Special functions?

**DEFINE SYNTHESIS:**

1. Function?
2. Duration?
3. Delay?

**DELeTe**

Removes objects from the data base.

**MODify**

Modifies objects already entered into the data base with the DEFine command.

**SPECIFICATIONS****Operating Environment**

Intellec® Microcomputer Development System (Model 800, Series II, and Series III with 64K byte of RAM).

**SUPPLIED EQUIPMENT**

iSBC® 576—Speech Transaction Board with Speech Transaction Manager Firmware.

**VALIDATION AND GENERATION COMMANDS****VALidate**

Sequences through each of the transactions specified and validates them for completeness and proper definition.

**GENERate**

Takes the result of a successful validate command and produces a memory image of the STF. The STF can now be executed.

**INTERROGATION COMMANDS****DISPlays**

Displays the contents of the objects

**LISTs**

Lists the directory of the objects

**FILE INTERFACE COMMANDS****DUMp**

Passes results of current validation and outputs it to the host in a .DMP file.

**USE**

Takes command input from the specified file.

- Speech Transaction Generator software and firmware.
- Speech I/O Demo Software.
- iSBC® 575 Operator Control Unit.
- Shure SM-10A Microphone.
- Speech Transaction Design Manual.

**OPTIONAL EQUIPMENT**

- iSBX®-351—RS232 Multimodule
- iSBC®-342—EPROM expansion module
- SBX synthesizers

**ORDERING INFORMATION****Part Number Description**

iSBC® 570 Speech Transaction Development Set