

# ITRON Newsletter No.14

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## ITRON-related Publications

Listed below are the publications prepared and issued by the ITRON Technical Committee as of April 1, 1995. The ITRON- $\mu$ ITRON Standard Handbook is a one-volume compilation of  $\mu$ ITRON (Ver 2.0) and ITRON2 specifications. Each of the publications below can be obtained directly from the sources indicated.

The latest version of  $\mu$ ITRON3.0 is now Ver 3.02.00. Changes made since the  $\mu$ ITRON3.0 Standard Handbook was released (Ver 3.00.00) are noted in Newsletter No.5 and No.11, as well as in ITRON Standard Guidebook 2.

The recently issued ITRON Standard Guidebook 2, which is a general introduction to the ITRON specifications, deals primarily with  $\mu$ ITRON3.0. Meanwhile, the earlier ITRON Standard Guidebook '92-'93 remains as a valuable reference for use with the  $\mu$ ITRON (Ver 2.0) and ITRON2 specifications, even though the dates in its title are now past.

## Schedule Announced for ITRON Open Seminar

As noted in the previous Newsletter, this year's ITRON Open Seminar will be held Thursday, July 20, at the Shinagawa community center "Kurian" in Tokyo's Shinagawa Ward (located one minute from the south exit of Oimachi Station on the JR Keihin Tohoku line). The theme chosen for this seminar is the growing availability of "supportware" for ITRON. The aim is to introduce the latest developments relating to the ITRON specifications, with emphasis on today's environment for ITRON-specification OSs. Plans for the seminar are outlined below.

**Date:** Thursday, July 20, from 10:00am to 5:30pm

**Place:** Shinagawa community center "Kurian"

**Attendance:** limited to 100 persons

**Program (tentative):**

† This newsletter is reprinted from TRONWARE vol.33 and TRON PROJECT BIMONTHLY No.38.

**10:00–10:15am** Opening remarks by the ITRON Technical Committee chairman

**10:15am–12:00** Compatibility of  $\mu$ ITRON application programs

An update will be given on studies by the ITRON Technical Committee on compatibility of application programs across different  $\mu$ ITRON-specification OSs, centering around the  $\mu$ ITRON-specification OS compatibility checksheet.

**1:15–2:15pm** Development environments supporting ITRON

Development support systems and tools available for ITRON will be introduced. Among the topics planned for presentation are CASE tools supporting ITRON, tools for graphically indicating system states, and support libraries.

**2:15–3:15pm** General presentations

Presentations are being solicited from outside the TRON Association, of which two or three will be chosen for inclusion in this session.

**3:30–4:30pm** New product introductions

This session will introduce the latest products relating to the ITRON specifications.

**4:30–5:30pm** Invited speech

We plan to have TRON Project leader Ken Sakamura give a special lecture to conclude the seminar.

At the time this Newsletter was being prepared, final details were still being worked out with regard to the program, speakers, attendance fee and application method. Please contact the TRON Association at TEL (03)-3454-3191 or FAX (03)-3454-3224 to receive the latest information on the ITRON Open Seminar.

We hope all interested persons will attend this important event again this year.

## ITRON-related Publications

Name	Type	Price	Publisher	Issued	ISBN No.
ITRON- $\mu$ ITRON Standard Handbook	Specification (Jap.)	4,800Yen	Personal Media Co.	1990	4-89362-079-7
$\mu$ ITRON3.0 Standard Handbook	Specification (Jap.)	4,000Yen	Personal Media Co.	1993	4-89362-106-8
ITRON/FILE Standard Handbook	Specification (Jap.)	3,000Yen	Personal Media Co.	1992	4-89362-092-4
ITRON Standard Guidebook '92-'93	Textbook (Jap.)	3,500Yen	Personal Media Co.	1992	4-89362-197-6
ITRON Standard Guidebook 2	Textbook (Jap.)	3,500Yen	Personal Media Co.	1994	4-89362-133-5
$\mu$ ITRON Specification Ver 2.01.00.00	Specification (Eng.)	12,000Yen	TRON Association	1989	–
ITRON2 Specification Ver 2.02.00.10	Specification (Eng.)	15,000Yen	TRON Association	1990	–
$\mu$ ITRON3.0 Specification Ver 3.00.00	Specification (Eng.)	–	TRON Association	1994	–

### NOTES:

- Prices do not include consumption tax.
- The documents issued by the TRON Association are available to Association members at a special discount rate.
- English-language specifications can be obtained via the Internet from [utsun.s.u-tokyo.ac.jp](http://utsun.s.u-tokyo.ac.jp) [133.11.11.11] with anonymous ftp. The usage of anonymous ftp is explained in Newsletter No.8.

## Recent Works on ITRON

The January 1995 issue of Interface Magazine has a special feature on embedded system programming, giving both basic knowledge and practical tips. Section 5 on “Basic knowledge for embedding a real-time OS” presents some basic examples of programming methods using a real-time OS. It examines a short program, comparing its use with an ITRON1-specification OS, a  $\mu$ ITRON-specification OS, and the  $\mu$ C/OS (a freely distributed small-scale real-time OS).

RTP'95, a workshop on real-time processing, took place this past March 23 and 24 at the Toyonaka campus of Osaka University. In an ITRON-related presentation, Hiroaki Takada of the University of Tokyo read a paper entitled, “A Scalable Real-time Kernel for Asymmetrical Multiprocessor Systems.” This paper discussed an extension of the  $\mu$ ITRON3.0-specification OS to multiprocessor systems, introducing a method for achieving scalability when the number of processors is increased. Another presentation at the workshop, by Akira Hamaya of NASDA on “Embedded Guidance Control Software in Future Spacecraft,” reported on the use of an ITRON-specification OS in a simulation program, as part of the research on guidance control software for space living environments. These Real-Time Processing workshops are held each year as computer system study conferences sponsored by the Institute of Electronics, Information and Communication Engineers, with the papers published in advance as IEICE Transactions.