JAPANESE ANALYSIS IN PANGLOSS

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KBMT w/ focus on:
- SCALE
- MACHINE LEARNING
- KNOWLEDGE ACQUISITION
CHRONOLOGY

**MID-JAN**

1 MONTH GOAL:

BUILD MODULES
BUILD SMALL KS'S
TRANSLATE ONE TEXT, WITH HUMAN CONTROLLING AMBIGUITY

**MID-FEB**

1.5 MONTH GOAL:

INTEGRATE MODULES
BUILD KS'S TO TRANSLATE ONE TEXT CORRECTLY, FULLY AUTOMATICALLY.
BUILD KS'S TO TRANSLATE 5 TEXTS WITH HUMAN OPERATOR
LONGER-TERM GOAL
(being pursued concurrently)
BUILD LARGE-SCALE KS'S AUTOMATICALLY

LDOCE
WORDNET → ONTOLOGY

ENGLISH TEXT

KENKYUSHUJA
IPAL
JAPANESE TEXT
JUMAN

ONTOLGY CONSTRAINTS
POST-PROCESSING RULES

JAPANESE LEXICON
JAPANESE GRAMMARS
JAPANESE
  ↓
  JUMAN
  ↓
  CHUNKER
  ↓
  SEGMENTED, TAGGED, PHRASE-GROUPED TEXT
  ↓
  SAX
  HAX
  ↓
  CHART OF SYNTACTIC CONSTITUENTS
  ↓
  LUNA
  SENSUS
  ONTOLOGY CONSTRAINTS
  CAPULET
  ↓
  INITIAL INTERLINGUA
  ↓
  INFERENCE
  ↓
  FINAL INTERLINGUA
  ↓
  PENDIAN
  ENGLISH
  ↓
  ATHENA
  ENGLISH

KBMC MODULES & KNOWLEDGE SOURCES
シチズン時計は 18 日、米国の大手半導体と IC 製造装置メーカー、バーキン・エルマーと合弁会社を設立、IC 製造装置の生産を始めることを明らかにした。新会社は、2 月にも設立される見込みで、バーキン・エルマー社の日本にある子会社が株式の過半数を持ち、当初は IC チップを製造するのに使うドライエッチング装置をステッパー（縮小投影型露光装置）を生産する計画。バーキン社は昨年から、日本国内での IC 製造装置の販売を始めているが、IC 露光が今後もかなりの成長を示唆されるため、シチズンと提携、日本国内での直接生産を踏み切る。

CITIZEN WATCH ANNOUNCED ON THE 18TH THAT IT WILL ESTABLISH A JOINT VENTURE WITH PERKIN-ELMER, A MAJOR AMERICAN MAKER OF INTEGRATED CIRCUIT MANUFACTURING DEVICES, AND WILL START PRODUCTION OF INTEGRATED CIRCUIT MANUFACTURING DEVICES.

THE NEW COMPANY IS EXPECTED TO BE ESTABLISHED IN FEBRUARY. PERKIN-ELMER’S SUBSIDIARY IN JAPAN WILL HOLD THE MAJORITY OF THE STOCK. THEY FIRST PLAN TO PRODUCE DRY-ETCHING DEVICES THAT ARE USED TO MANUFACTURE IC CHIPS, AND STEPPERS (REDUCED PROJECTION DEVICES THAT EXPOSE LIGHT). PERKIN-ELMER STARTED SELLING IC MANUFACTURING DEVICES IN JAPAN LAST YEAR. SINCE GOOD GROWTH IS EXPECTED IN THE DEMAND FOR IC’S IN THE FUTURE, THEY COLLABORATED WITH CITIZEN AND DECIDED TO PRODUCE DIRECTLY IN JAPAN.
シチズン時計は18日、米国の大手集団回路（IC）製造装置メーカー、
バーチャル・エルマー社と合弁会社を設立、IC製造装置の生産を始めることを明らかにした。
新会社は、2月にも設立される見通し。バーチャル・エルマー社の日本に見る子会社が
社外の過半数を持ち、当初はICチップを製造するのに必要なドライエッチング装置や
ステッパー（注ぎ型流送光経過）を生産する計画。
バーチャル社は昨年から、日本国内でIC製造装置の歴史を始めているが、
IC需要が今後もかなりの成長が見込まれるため、シチズンとは提携。
日本国内での直接生産に踏み切る。
(S (2 1) 1 33 ((SYN ((SUBCAT TRANS-GA+O)) (ROOT "akiru"))
(1 FERTOD "*" 32 33 []))
(2 S (67 3) 1 32 ((SYN ((TIME ((ROOT INITI))) (ROOT *)
(3 S (65 64 4) 3 32 ((SYN ((SUBCAT TRANS-GA+O)) (ROOT "*")
(4 S (7 5) 5 32 ((SYN ((ROOT "akirakanisita") (SUBCAT ""))
(5 S (6) 31 32 ((SYN ((SUBCAT TRANS-GA+O)) (ROOT "akiral"
(6 V "akirakanisita") 31 32 ((SYN ((ROOT "akirakanisita")
(7 PP (10 8) 5 31 ((SYN ((CASE O) [])))
(8 P "o" 30 31 ((SYN ((CASE O)) (ROOT O))))
(9 NP (65 64 10) 3 30 ((SYN ((ARG1 ((ROOT INITI))) (A)
(10 NP (12 11) 5 30 ((SYN ((SUBCAT INTRANS-COMP) (ROOT
(11 N "koto" 29 30 ((SYN ((ROOT KOTO)) (SUBCAT INTRANS-
(12 S (30 29 13) 5 29 ((SYN ((ARG1 (ROOT SETURU)) (S)
(13 S (16 14) 22 29 ((SYN ((ROOT HAZIMERU)) (SUBCAT TRA
(14 S (15) 28 29 ((SYN ((SUBCAT TRANS-GA+O)) (ROOT HAZI
(15 V "hazimeru" 28 29 ((SYN ((ROOT HAZIMERU)) (SUBCAT 
(16 PP (38 27) 22 28 ((SYN ((CASE O)))
(17 P "o" 27 28 ((SYN ((CASE O) (ROOT O))))
(18 NP (21 19) 22 27 ((SYN ((ROOT SEISAN)) (PP-MOD ((CA:
(19 NP (20) 26 27 ((SYN ((ROOT SEISAN))))
(20 N "seisan" 26 27 ((SYN ((ROOT SEISAN))))
(21 PP (23 22) 22 26 ((SYN ((CASE NO)))
(22 P "no" 25 26 ((SYN ((CASE NO)) (ROOT NO)))))
(23 NP (24) 22 25 ((SYN ((ROOT IC))))
(24 N (26 25) 22 25 ((SYN ((ROOT IC))))
(25 N "roott" 24 25 ((SYN ((ROOT ROOTTI))))
(26 N (28 27) 22 24 ((SYN ((ROOT IC))))
(27 N "seizou" 23 24 ((SYN ((ROOT SEIZOU))))
(28 N "IC" 22 23 ((SYN ((ROOT IC))))
(29 CONM "*" 21 22 []
(30 S (38 31) 5 21 ((SYN ((SUBCAT TRANS-GA+O)) (ROOT SE
(31 S (34 32) 18 21 ((SYN ((FORM RENTAIOMOE) (ROOT S
(32 S (33) 20 21 ((SYN ((SUBCAT TRANS-GA+O)) (ROOT SETU
(33 V "seturumu" 20 21 ((SYN ((FORM RENTAIOMOE) (ROOT S
(34 PP (36 35) 18 20 ((SYN ((CASE O) [])))
(35 P "o" 19 20 ((SYN ((CASE O) (ROOT O))))
(36 NP (37) 18 19 ((SYN ((ROOT GOOBENGAISYA)))))
(37 N "goobengaiya" 18 19 ((SYN ((ROOT GOOBENGAIYA))))

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アキラケリ [akirakenisita] という動詞を用いて、時間の進行と状況の変化を表す文。
(SEM)

((SAYING

{{OF2

{{(INSTANCE |begin|)

(GOAL

{{(CREATED-ENTITY

{{(INSTANCE |device/instrumentality|)

(AGENT-OF

{{(CREATED-ENTITY {{INSTANCE |microcircuit|}})

(INSTANCE |construct, fabricate| { ) ) }) }}

(INSTANCE |make, produce| ) ) })

(AGENT { })

(GO1

{{AGENT []

(GOAL {{INSTANCE |joint venture|})

(INSTANCE |found, launch|)

(INCLUSIVE

{{(RESTATEMENT-ELABORATION

{{(O-MCD {{INSTANCE |major company|}})

(INSTANCE |company/business|)

(AGENT-OF

{{(CREATED-ENTITY

{{(CREATED-ENTITY

{{(PAREN {{INSTANCE |microcircuit|}})

(INSTANCE |microcircuit|)

(INSTANCE |construct, fabricate| { ) ) }) }}

(LOCATION

{{(INSTANCE |country/administrative district|)

(NAME |United States*|))})

(INSTANCE |company/business|)

(NAME |gaokin-erumas-sya*|))

(INSTANCE AND))

(SAYER []

(INSTANCE |announce, make known|)

(TEMPORAL-LOCATING {{INDEX |eighteenth|) (INSTANCE |day/calendar day| ) )

(TOPIC {{NAME |sitizunotokei*|) (INSTANCE |company/business| ) )

|
"Citizen Watch makes known on the eighteenth day that it launches a joint venture with Perkin-Elmer a major United States company that constructs a device that constructs a microcircuit and that it makes a device that constructs a microcircuit."
Among many documents would-be public company must file with Securities and Exchange Commission is set of audited financial statements. Cattleguard, now expanding in four states largely as Sears, Roebuck & Co. concessionaire, was one-restaurant company until two years ago and hadn’t had auditors. Once paper work is finished, underwriter escorts company’s executives around country to drum up interest in its shares. This road show often hits eight or more cities in about a week.

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Future Work

- Other determiners besides a, an, the. Especially null.

- Full context (88-96%)

- Plurals

- Other automated post-editing tasks