

WAC TIME STAMP

Fingerprint Time Attendance



The old type of time record such as: punching card, barcode card, magnetic card or proximity card, even though they are easy to use but they can't protect the problems such as:

- Employees clock in for one another.
- Forget ID card
- Endless expenses on making new cards from losing, damaged and lots more.
- Miscalculation of working hours
- Time consuming in collecting working hours and salary data in reporting Social Security or banks

Say goodbye to these problems with WAC TIME Stamp

Checking attendance with fingerprint verification

Durable equipment, easy to use, 100 % prevention on clocking for one another!

WAC TIME STAMP

Fingerprint Time Recorder based on PC

WAC TIME STAMP is fingerprint verification for checking attendance. The fingerprint stamped on the PC will be collected and verified by state-of-the art fingerprint reading machine called Biometric. The system will record the time clocking in-out and process the working hours, system report, Easy Payroll, reducing HR's works human errors, Calculation will be fast, safe, and accurate.

As you install the fingerprint reader to the computer and install the software, the program is ready!

Why WAC TIME STAMP is necessary?

1. Security

WAC TIME STAMP requires a fingerprint which is absolutely unique to individual, stayed unchanged for lifetime and cannot be duplicated. Each employee must clock in-out by themselves, it can't be doe for one another.

- 2. Facility
 - Simple installation by just plugging the fingerprint reader to USB port, install the program and WAC TIME STAMP is ready!
 - No need any ID card, or password. Only fingerprint is required

3. Fast Scanning

Fast and perfect authentication (within 0.5 second).

4. Summary report and Statistics

All working hour data will be collected and calculated in the format that will be applicable to banks, office of social insurance and revenue department.

5. Reduce workload of HR

WAC RESEARCH CO.,LTD. 11/587 Moo.10, Ladpraowanghin Rd., Ladprao, Bangkok, Thailand 10230 Tel.66-2538-1038, 66-539-9352, 66-2530-3809-10 Fax. 66-2538-3098 E-mail: <u>sales@wacinfotech.com</u> website: <u>www.wacinfotech.com</u> MSN: wacresearch06@hotmail.com Attendance information can be transfer to other's payroll program or the Easy Payroll as a text file.

6. Light administration cost

Cut cost in reproducing cards. Processing system is simple to maintain. The reader is durable, and easy to clean.

- <u>Accuracy excellence</u> Reduce errors from system and human mistakes as the system calculate these information by itself.
- 8. Maintenance

This program operates on PC. Problems occurred could be solved as given instructions. No technician required.

9. All in one

- WAC TIME STAMP is the one single solution as it provides:
- 1. Time Attendance program: for clocking in-out, automatically calculate attendance record.

2. Easy Payroll program: the program could calculate employees' salary, Tax, Social Insurance fee, making report to be sent to revenue department and banks.



Components

- 1. Administrator Program
- 2. Enroll Office
- 3. Time Attendance Records Manager
- 4. Easy Payroll
- 5. WFS80 USB Fingerprint Reader

1. Administrator Program

Process users' information. Allow adding, deletion and correction. Authorisations is required in viewing or correct any data on the system.

Add Edit He	lp	Add Use	r.
	· · · · · · · · · · · · · · · · · · ·	name test	Save
 Type User User 	Pas	sword ****	
O Administrator	Confirm Pass	word ****	Delete
administrator	and a start of the	ograms	Permission
cott ystem		rroll Office port	
- Preside Asserta		me Attendant Office	
		me Recorder	
	Pa	ayroll	

2. Enroll Office

Users database management. Features are:

- Able to add, delete, and make changes on all users' information.

Visual Basic XP				~	
		WAC RESEARCH			
Materia geogenset Materia geogenset Assister manager Sales Gowmen Sales Engineer Wat You of the second secon	Picture Picture's path Picture's path Status 0 Normal Suspend	Fingerscan Successful		Finger Right thumb Right index finger Left trumb Left trumb Left index finger Right middle finger	
	Retire use password instead of	fingerprint	Save X D	elete	
	O Retire	f fingerprint Schdule	Revenue	elete	
	Retire use password instead of Information Employee's detail	fingerprint Schdule Begin date Vacation/ d	Revenue	elete 🕅 😭 Check	
	Retire use password instead of Information	f fingerprint Schdule	Revenue Monthly Department	arketing v Go	
	Retire use password instead of Information Employee's detail Code 033 Name (Thai) vriaerra *	ffingerprint Schdule Begin date 29 July 2005 CityDS Hengrou	ay Revenue Monthly	Bath arketing V Go ssistarit V	
	Retire Betre	fingerprint Schdule Begin date 29 July 2005	Revenue Monthly Department	arketing v Go	
	Retire use password instead of Information Employee's detail Code 033 Name (Thai) vriaerra *	ffingerprint Schdule Begin date 29 July 2005 CityDS Hengrou	Revenue Monthly Department Position A Period General det	erketing v Go ssistant v	
	Retire Betre	ffingerprint Schdule Begin date 29 July 2005 CityDS Hengrou	ay Revenue Monthly Department M Position A Period General det Identification	v tun arketing v Go ssistant v all No.	
	C Resie Use password instead of Information Employee's deal Code 033 Name (Trai) Ms. • Other detail Addres	fingerprint Scholule Begin date 29 July 2005 x Cityoli Himigras Unchalee Pholudom	Revenue Monthly Department M Position A General det Identification 8-8888	v ban arketing v Go ssistant v ail No. 6 # # # # # # #	
	© Retire I use password instead of Information Employee's detail Code (03) Name (Thai) Unarray Name (Thai) Other detail	ffingerprint Schdule Begin date 29 July 2005 CityDS Hengrou	Revenue Monthly Department M Position A General det Identification 8-8888	v tun arketing v Go ssistant v all No.	

- Able to set office hour's pattern for each position or a department. (unlimited number of pattern)
- Public holiday can be set into the program
- Support 100 users on standard version, enterprise one is unlimited
- Fingerprint verification is quick and accurate. No need for password confirmation even among large group of users.
- Able to register upto 10 fingerprints per one user
- Fingerprint scanned within 0.5 second
- Accurate fingerprint verification even in greasy, stained, or wet condition
- Displaying user details, i.e. name, photo, position and time clock in-out during the stamping
- Time attendance checking screen can be changed
- Voice announced during stamping period is recordable



3. Time Attendance Records Manager

Attendance management system. Features are:

- Automatic summary of working hours
- Able to transfer data to Payroll directly in text file.
- Able to change working time data in case of forgetting to clock in or offsite working.
- Summary of time attendance, late for work, vacation days used, or OT
- Displaying different colours in demonstrating different status on certain working days.
- Able to inspect and monitor details of working attendance on real time basis.
- Various template available for
 - 1. Working hours report
 - 2. Annual leave report
 - 3. Working day summary report
 - 4. Time in-out report
 - 5. Summary of time in-out report
 - 6. Employee's profile report
 - 7. Early and late time in-out
 - 8. Annually, monthly, weekly, daily (working day) report

🛛 รายงา	น - [รายงานวันหยุ	คประจำปี]				
👌 ไฟล์ซั	อมูล รายงานทั่วไป	ช่วยเหลือ				- 8 ×
ม ีพิพร	โรายงาษ	ประเภทรายงาน	รายงานวันหยุดประจำปี	~	2547	
🛱 สำลัง	บที่ วันที่	ประเภทวันหยุด	พมายเหตุ			
1	15/07/2547	วันหมุดชดเชย				1
2	02/08/2547	เข้าพรรษา				
2 3 4 1	12/08/2547	วันแม่				
4	23/09/2547	วันปียะมหาราช				
5	12/10/2547	ตุรุษจีน				
6	15/11/2547	111111				
7	19/11/2547	DDDDDD				
8	02/12/2547	AASASAS				
9	30/12/2547	วันหยุลสิ้นปี				
10	31/12/2547	วันสิ้นปี				

Annual leave report.

General report Help															
Print 😸	Select report Wor	king day summary	-	From	10/16/200	18	• To 10	/17/2008	•	Total	0 1) ay			
Department/Group 4			104.524	1.000-0004											
	Department/Pos Accounting	Employee's name Natalia William	Total 0	Holidy 0	Normal 0	Abse 0	Busin 0	Sick L 0	Vacatio 0	Morning 0	Afterno 0	Late in 1 0	Late in 2 0	Early out 0	Work 0
Accounting	Accounting	Jennifer Jefson	0	0	0	0	0	0	0	0	0	0	0	0	0
Administraiont	Development	Alex Wilson	0	0	0	0	0	0	0	0	0	0	0	0	0
Administration	Development	Donald Wang	0	0	0	0	0	0	0	0	0	0	0	0	0
Development	Development	David John	0	0	0	0	0	0	0	0	0	0	0	0	0
Human resource	Development	Edward Smith	0	0	0	0	0	0	0	0	0	0	0	0	0
Marketing	Development	John Anwa	0	0	0	0	0	0	0	0	0	0	0	0	0

5773							71.72	
Print 🤤	Select report Time in-	out report 👻	From 1 /10/ 25	51 💽 T	o 31/10/ 2551	▼ Total	31 Day	
Department/Group 4								_
	Employee's name	Date	In/Out	Status	Note			
	Natalia William	16/10/2551	10:27:15	IN				
Accounting		16/10/2551	10:26:59	OUT				
		16/10/2551	10:26:55	IN				
		16/10/2551	10:26:52	OUT				
		16/10/2551	10:26:49	IN				
		16/10/2551	10:26:41	OUT				
		16/10/2551	10:26:39	IN				
		16/10/2551	10:26:25	OUT				
		16/10/2551	10:26:23	IN				

- 4 -

General report Help										-
Drint 실	Se	elect report Time in-o	ut summary re 🔽	From 1 /10/ 2	551 🔽 1	o 31/10/ 2551	• To	ital	31 Day	
partment/Group	₽ ×									
		Employee's name	Date	In1	Out1	In2	Out2	In3	Out3	
		Darat Khajhondecha	01/10/2551	08:30	17:10					
ฝ่ายขาย			02/10/2551	08:20	17:05					
			03/10/2551	08:40	17:15					
			04/10/2551	08:30	17:30					
			05/10/2551							I
			06/10/2551	08:15	17:20					
			07/10/2551	09:14	17:35					
			08/10/2551	08:45	17:41					
			09/10/2551	08:51	17:44					
			10/10/2551	08:23	17:15					

Summary of time in-out report

G 1	ฝล์ข้อมูล ราย	งานทั่วไป ช่	องเหลือ				- 8
-	พิมพ์รายงาน		ประเภทรายงาน	รายงานข้อมูลพนักงาน			
8	รทัสพนักงาน	ชื่อพนักงาน	1	shumia	4840	หมายเหตุ	
3 0	018	อัพรา อู่เกตุ		พัวหน้าฝ่ายผลิต	ฝ่ายผลิต		1
. (019	จุไลรัตน์ ชม	93	เจ้าหน้าที่ฝ่ายผลิต	ฝ่ายผลิต		
	020	สมร ทองไท	u .	เจ้าหน้าที่ผ้ามผลิต	ฝ่ายผลิต		
	021	อรชา เพมเจิ	4	เจ้าหน้าที่ฝ่ายผลิต	ฝ่ายผลิต		
1	022	-	พื้นร	เจ้าหน้าที่ส้ายสลิต	ผ่ายผลิต		

Employee's profile report

	1 of 1+		M		
?teview จิรุพนธ์ ขนาดนิด นิดิพันธ์ อาวิโรจน์ - ประวิทย์ ทริพธ์จิลดด์ - ปีระพงษ์ สุนประเลริฐ - พระพงศ์ สุนประเลริฐ - คาวิณ์ อิสสรชิมกุล - รุ้งอนุณ อาริศักดิ์ - วิรัตน์ เชิ่มอนุภาพกุล - สุรรุณ์ พังภักดี - อภิริตน์ คล้ายปัณฑิต		าคพร้ำววังหิน แขว)38,02-539-9352,0	2-530-3809-10	ลาดพร้ำว กรุงเทพง ลาย ออกก่อน เวอ	
	ชื่อ∹นามสกุลจิรพนธ์ บร จันที่			2549 ถึง 15/1/2549 jineer แตนร ลอกก่อนเวลา	
	14/01/2549 ชื่อ-นามสกุลนิติพันธุ์ ต		10:37 แหน่ง ช่างเทคนิค		า/ผี่ ฝ่ายช่างเทคนิค
				and the second se	
	วันที่	มาสายในเวลา	มาสายเกินเวลา	ออกก่อนเวลา	หมายเหตุ
	วันที่ 09/01/2549 10/01/2549	มาสายในเวลา 	มาสายเกินเวลา 12:39	ออกก่อนเวลา	หมายเหตุ

Early and late time in-out

4. Easy Payroll

Simple calculation of salary, TAX, social insurance, banks or revenue department

- Able to set calculation salary rate as requirement.

		30-3809-10 Fax. (662) 53	8-1038	
Specify of	her information			-
Deduction item	10 ^{8/da}	y 🥅 Social Ins.	Setting	
Late in 2	40 ^{8/day}	y 🔲 Social Ins.	Employee info	
Absence	100 ^{8/da}	y 🥅 Social Ins.	Name :	
Business leave	80 ^{8/da}	y 🥅 Social Ins.	Department : Position :	=
Sick leave	30 ⁸ /da	y 🥅 Social Ins.		
- Social security insuranc	e		Select Department	•
Deduct	C No	ot deduct	Select Position	•
OT - OT rat To take only the rou		times/hr.	sify other information	•

- Able to calculate salary.

WAC EZ Pa												
eneral Info	Leave record S	alary record	cancellation Report	Language Exit	Help							
Save	Print I	Preview	Exit									
• Paymor			то 15/10/ а	2008 👻	ndividual record Click here							
Deprtmen	t All		<u> </u>	Calculation	Contraction of the second seco	ner incom	e / Expen	se				
Departme	Position	Employee	Employee's name	Imcome (M/D/S	Day(s)	Late in1	Late in2	Absence	Business I	Sick leave	OT(Hr.)	OT
Sales	Sales Engineer	170	Mr Josh Black	9000		0	0	26	0	0	0:00	0.00
	Sales Engineer		Mr Jame Watson	17000		0	0	26	0	0	0:00	0.00
Developm	Programmer	18	Mr Booth Grown	18000		0	0	26	0	0	0:00	0.00
Sales	Sales Engineer	180	Mr Paul Myria	30000		0	0	26	0	0	0:00	0.00
Marketing	Marketing assis	189	Miss Viviane Kim	8000		0	0	26	0	0	0:00	0.00
Developm	Programmer	19	Mr Smith Aman	11000		0	0	26	0	0	0:00	0.00
Marketing	Marketing assis	190	Miss Vanessa Lee	10000		0	0	26	0	0	0:00	0.00
Developm	Programmer	2	Mr Donald Wang	19000		0	0	26	0	0	0:00	0.00
Developm	Programmer	20	Mr Christopher White	15000		0	0	26	0	0	0:00	0.00
Technicia	System Enginee	200	Mr John Hall	7000		0	0	26	0	0	0:00	0.00
Developm	Programmer	21	Mr Jameson Blue	10000		0	0	26	0	0	0:00	0.00
Sales	Sales Engineer	210	Mr Andy Grape	6000		0	0	26	0	0	0:00	0.00
Trainee	Trainee	219	Miss Jessie Rason	6000		0	0	26	0	0	0:00	0.00
Developm	Programmer	22	Mr Jim Worm	18000		0	0	26	0	0	0:00	0.00
Trainee	Trainee	220	Miss Sally Reve	5000		0	0	26	0	0	0:00	0.00
Trainee	Trainee	221		7000		0	0	26	0	0	0:00	0.00
Developm	Programmer	23	Mr Hilson Worth	13000		0	0	26	0	0	0:00	0.00
Trainee		230	Miss Elly Willson	6000		0	0	26	0	0	0:00	0.00
Developm	Programmer	24	Mr Brook Metre	12000		0	0	26	0	0	0:00	0.00
Sales	Sales Engineer	240	Mr Eric Josh	7000		0	0	26	0	0	0:00	0.00
Sales	Sales Engineer	241	Mr Ken Mcfill	8000		0	0	26	0	0	0:00	0.00
Sales	Sales Engineer	250	Mr Billy Ford	19000		0	0	26	0	0	0:00	0.00

- Automatically make report to bank, office of social insurance and revenue department.

WAC RESEARCH CO.,LTD

11/587 หมู่10 ถ.ลาดพร้ำววังหิน แขวงลาดพร้ำว เขต ลาดพร้ำว กรุงเทพ ๆ 10230

<u> ໂກສ 02 - 538-1038,02-539-9352,02-530-3809-10</u>

สรุปรายงานการอ่ายเงินเดือนประจำงวด

เดือน มกราคม 2549

วันที่จ่ายเงิน	ื่อ - นามสกุล	ตำแหน่ง	ประจำงวดที่	รายได้	วัน	от	ค่าน้ำมันรถ	เมื้องอัน	เมี้ยเลี้ยง	โบนัส	รายได้อื่มๆ ค	ท่ใช้จ่ายอื่มๆ	พักสาย 1	¥ักขาดงาน	ประกับสังคม ย	าาษี ณ ที่อ่าย	รายไ
14/03/2549	อัญชลี่ หลอุคม	ผู้ช่วยการศลาด	01/2549	ã 500.00	31	0	0	0	0	0	0	0	0	40.00	423.00	0	_
21/03/2549	อัญชลี่ หลอดม	ผู้ช่วยการตลาด	01/2549	ą 500.00	31	0	0	0	0	0	0	0	0	40.00	423.00	0	
27/01/2549	อัญชลี หลวุคม	ผู้ช่วยการศลาด	01/2549	ä, 500.00	31	0	0	0	0	0	283.33	283.33	0	283.33	411.00	0	
31/01/2549	ຄືວິກວ ສຸຫຮີວວວເມ	พัวหม้าฝ่ายวางเ	01/2549	25,580.00	30	0	0	0	0	0	0	0	0	0	750.00	514 00	3
14/03/2549	สิริกร สุทธิวรรณ	พัวหม้าฝ่ายวางเ	01/2549	0	31	0	0	0	0	0	0	0	0	0	0	0	
21/03/2549	สิริกร สุทธิวรรณ	พัวหม้าฝ่ายวางเ	01/2549	0	31	.0	0	0	0	0	0	0	0	0	0	0	
28/01/2549	อีรพบธ์ขบาดนิด	SalesEngineer	01/2549	9,120.00	31	0	4 500.00	0	0	0	0	0	40.00	30 6.00	667.00	0	1
21/03/2549	อิรพนธ์ขนาดนิด	SalesEngineer	01/2549	9,120.00	31	0	0	0	0	0	0	0	193.00	1, 22 4 0 0	352.00	0	
14/03/2549	จิรพบธ์ขบาดนึด	SalesEngineer	01/2549	9,120.00	31	0	0	0	0	0	0	0	193.00	1, 22 4 0 0	382.00	0	
14/03/2549	พี่ระพงค์	SalesEngineer	01/2549	Z, 500.00	31	0	0	0	0	0	0	0	20 0. 00	1, 699.98	33 0. 00	0	
27/01/2549	พีระพงค์	SalesEngineer	01/2549	ä, 500.00	31	0	4 500.00	0	0	0	283.33	283.33	20 0. 00	1, 13 3 3 2	583.00	0	1

Bank report

Social security insurance payment report Pay Month October 2008

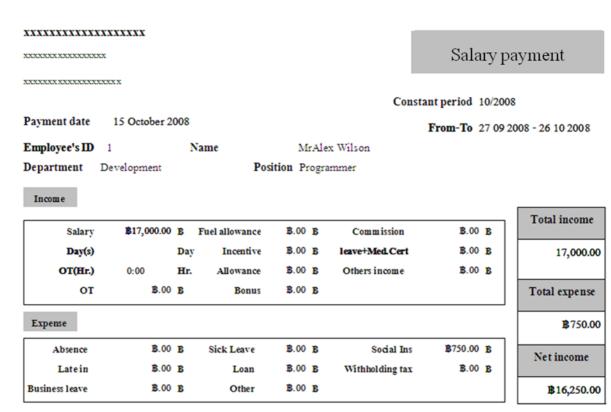
Name	Position	Department	Net amount
Mr Alex Wilson	Programmer	Development	453.00
Mr David John	Programmer	Development	1,150.00
Mrs Natalia William	Account Manager	Accounting Department	500.00
Mr Edward Smith	Programmer	Development	1,177.00
Mr John Anwa	Programmer	Development	920.00
Miss Jennifer Jefson	Administrator	Accounting	350.00
Mr Flamink Revin	Sales Engineer	Sales	650.00
Mr Mac John	Programmer	Development	1,073.00
Mr Josh Black	Sales Engineer	Sales	450.00
Mr Jame Watson	Sales Engineer	Sales	750.00
Mr Booth Grown	Programmer	Development	1,230.00
Mr Paul Myria	Sales Engineer	Sales	750.00
Miss Viviane Kim	Marketing assistant	Marketing	400.00
Mr Smith Aman	Programmer	Development	843.00
Miss Vanessa Lee	Marketing assistant	Marketing	500.00
Mr Donald Wang	Programmer	Development	1,257.00

Social insurance report

Withholding tax summary report Pay Month October 2008

Name	Position	Department	Net amount	
Mr Alex Wilson	Programmer	Development	453.00	
Mr David John	Programmer	Development	1,150.00	
Mrs Natalia William	Account Manager	Accounting Department	500.00	
Mr Edward Smith	Programmer	Development	1,177.00	
Mr John Anwa	Programmer	Development	920.00	
Miss Jennifer Jefson	Administrator	Accounting	350.00	
Mr Flamink Revin	Sales Engineer	Sales	650.00	
Mr Mac John	Programmer	Development	1,073.00	
Mr Josh Black	Sales Engineer	Sales	450.00	
Mr Jame Watson	Sales Engineer	Sales	750.00	
Mr Booth Grown	Programmer	Development	1,230.00	
Mr Paul Myria	Sales Engineer	Sales	750.00	
Miss Viviane Kim	Marketing assistant	Marketing	400.00	
Mr Smith Aman	Programmer	Development	843.00	
Miss Vanessa Lee	Marketing assistant	Marketing	500.00	





salary slip

2. WFS80 - Fingerprint Reader

Fingerprint Sensor Model WFS80 is USB connected reader, used with WAC TIME STAMP for clocking in-out. Users will simply place their finger on the scanning window. The device will verify fingerprints within 0.5 second.



Features

- 1. Fast and accurate authentication within 0.5 s.
- 2. Counterfeit fingerprints rejection.
- 3. Resistance to scratches, impact and vibration.
- 4. Easy to clean.
- 5. Function even under greasy, wet or stained condition of fingers.
- 6. Light source :infrared LED.

Specification

- 1. Fingerprint scanning windows size is 16*24 mm.
- 2. Compact size 45*63*26 mm.
- 3. Resolution 508 dpi.
- 4. USB 2.0 compatible interface, plug and play device.
- 5. Net weight 120 g.
- 6. Operation temperature 0-55 °C.
- 7. Supply Voltage: DC 4.4-5.25 V.
- 8. Data rate up to 6Mbit/s.

System requirements

- PC with Pentium IV or higher
- CPU 1.6 GHz or above
- Free Space in hard disk no less than 500 MB
- RAM 256 MB or above
- Windows XP
- 2 USB inputs available

Features comparison table with WAC TIME STAMP and the other type of time recorder

Base information

Punching card @ 1 baht, barcode card (paper with plastic laminate) @ 10 baht, barcode card (plastic with printed) @ 60 baht, magnetic card with printed @ 75 baht, Thick proximity card with sticker @ 100 baht, Thin proximity card with sticker @ 150 baht, 100 officers, reproduce card rate is 5%/month, 1 PC for operate, human resource officer's salary is 8500 baht/person or 283 day.

Features	Punching machine	Pull card machine	Pull card machine	Pull card machine	Pull card machine	Pull card machine Thin	Other fingerprint	WAC TIME STAMP
		Barcode (paper card)	Barcode (plastic card)	(Magnetic)	Thick Contactless	Contactless	time recorder	
Time work recoding by the other	Cannot protect	Cannot protect	Cannot protect	Cannot protect	Cannot protect	Cannot protect	Protect	Protect
Scanning time for each person	~ 5 s	3- 5 s	3- 5 s	3- 5 s	3- 5 s	3- 5 s	1-3 s	0.5 s
number of officers	unlimited	depend on memory	depend on memory	depend on memory	depend on memory	depend on memory	depend on memory	Unlimited, store data in PC
Transfer working time data	manual	yes	yes	yes	yes	yes	yes	No
Real time monitoring	No	No	No	No	No	No	No	Yes
Calculation	manual	manual, semi-auto	manual, semi-auto	manual, semi-auto	manual, semi-auto	manual, semi-auto	manual, semi-auto	Auto
Risk of manual calculation	high	medium	medium	medium	medium	medium	medium	low
Spend much time to report in formal form	high	medium	medium	medium	medium	medium	medium	Low, reports are automatically inform.
accessories expense/month (reproduce card, ink)	high	high	high	high	high	high	high	None
Reader durability	low	low	low	low	low	low	low	High
Maintenance	claim	claim	claim	claim	claim	claim	claim	maintenance free,

Expense comparison table between WAC TIME STAMP and other system.

Expense	Punching machine	Pull card machine Barcode (paper	Pull card machine Barcode (plastic	Pull card machine	Pull card machine Thick	Pull card machine Thin Contactless	Other fingerprint	WAC TIME STAMP
		card)	card)	(Magnetic)	Contactless		time recorder	0.11.11.11
Expense in 1 st year								
PC	15,000	15,000	15,000	15,000	15,000	15,000	15,000	15,000
Time recorder	15,000	25,000	25,000	25,000	25,000	25,000	50,000	15,000
Card	100	1,000	6,000	7,500	10,000	15,000	-	-
Total	30,100	41,000	46,000	47,500	50,000	55,000	65,000	30,000
Monthly expense								
card	105	50	300	375	500	750	-	-
salary (hr * (salary/day)	24*283	16*283	16*283	16*283	16*283	16*283	16*283	8*283
	=6,792	= 4,528	= 4,528	= 4,528	= 4,528	= 4,528	= 4,528	= 2,264
Total monthly expense	6,897	4,878	4,828	4,903	5,028	5,278	4,528	2,264
Total monthly expense *12	82,764. -	58,536	57,936	58,836. -	60,336	63,336	54,336	27,168
Total expense in 1 st year	112,864	99,536	103,936	106,336	110,336	118,336	119,336	52,168
Expense in 2 nd year**								
Monthly expense								
Card	105	50	300	375	500	750	-	-
salary (hr * (salary/day)	24*283	16*283	16*283	16*283	16*283	16*283	16*283	8*283
	=6,792	= 4,528	= 4,528	= 4,528	= 4,528	= 4,528	= 4,528	= 2,264
Total monthly expense	6,897	4,578	4,828	4,903	5,028	5,278	4,528	2,264
Total monthly expense*12	82,764	54,936	57,936	58,836	60,336	63,336	54,336	27,168
Total expense 2 years	195,628	154,472	161,872	165,172	170,672	181,672	173,672	84,336

* 2nd year has only monthly expense, ** These expense excludes hidden cost about low efficiency working *** These expense excludes recorder's maintenance