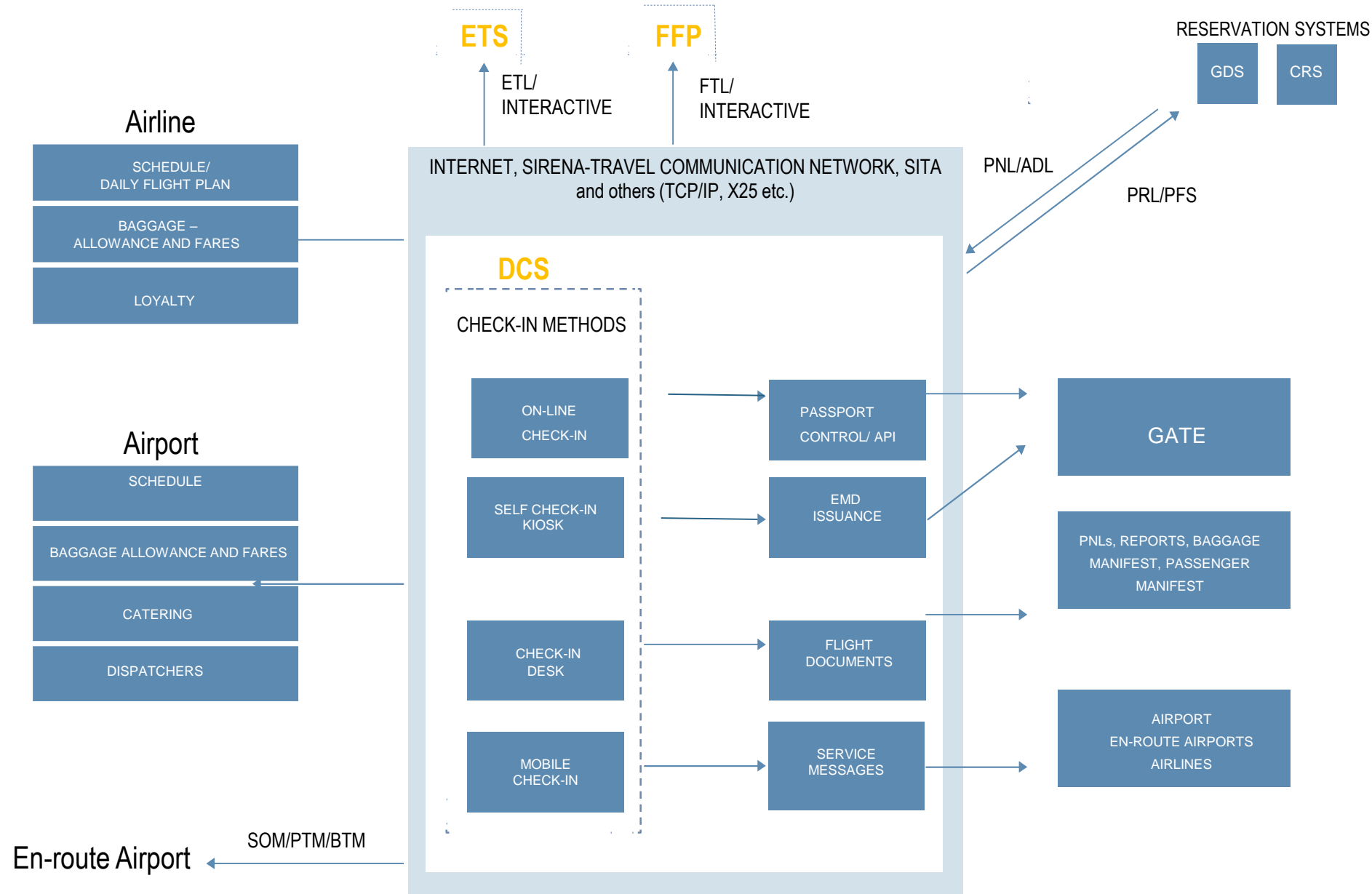




Passenger Service System. DCS ASTRA

- DCS Astra is installed in more than 270 airports
- 20-25 sec for complete passenger and baggage check-in procedure
- APIS support in Russia, Europe (Czech Republic, Spain, Lithuania, Italy, Latvia, Estonia), Asia (China, UAE, India) and the USA
- Full conformity with IATA standards and recommendations
- Links to software systems and AODB used by airport services
- Connectivity with baggage sorting systems
- Wedges automated connectivity support
- Web check-in and kiosk self service application both for airlines and airports
- 5 CUTE platforms support (SITA CUTE, ULTRA CUSE, ARNIC iMUSE/vMUSE, RESA CREWS, AIRIT EASE) and 2 CUSS platforms (SITA, IER)
- Drop off supported
- APP/AQQ system interactive work organization

DCS ASTRA: FLOW CHART

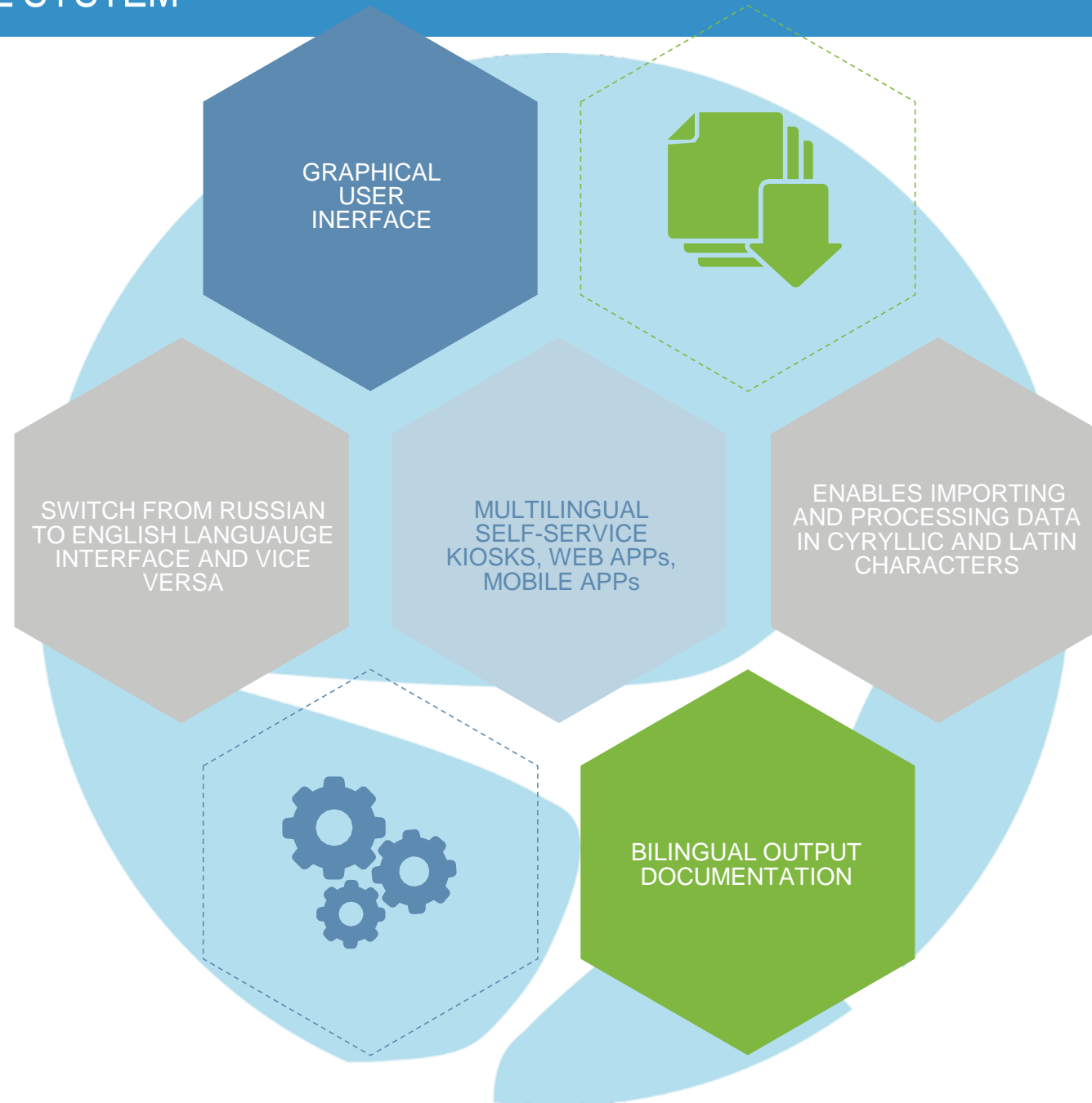


DCS Astra is a leading-edge host system, ensuring all the required passenger and baggage check-in process operations in automated mode, seasonal schedule management and daily flight plan operation monitoring.

The system has been developed in full conformity with IATA standards and recommendations and has the following essential features:

- Seasonal schedule and daily flight plan maintenance
- Carriage control
- Passenger check-in including automated seat assigning, boarding pass issuance and scanning
- E-ticket online confirmation
- Baggage handling along with baggage tag issuance and scanning
- Mobile check-in support
- EMD support with C-Baggage service code
- Configuration and printing of flight documentation

DCS ASTRA: MULTILINGUAL SYSTEM



DCS ASTRA: MULTILINGUAL SYSTEM

Passengers

Flight: UT378 AC: 735 Layout: C24 Y24 Route: VKO Depart: 13:15 Board to: 12:50 Type: p Status: Preparation

Steps technology process / F2

	Plan	Est	Fact	Auto
1.Web check-in opening	13-15	13 13	YES	
2.Kiosk check-in opening	13-15	13 13	YES	
3.Preparation for check-in	06 15	13 11	NO	
4.Aircraft readiness for boarding	12 30		NO	
5.Check-in opening	10 14		NO	

Documents / F6
Crew / F7
Generate API data

Check-in results

Refresh / F3 Data provision / F5

	CI	Sts	?Sts	Trst	=Sts	ADT M	ADT F	CHD	INF	H/B	Pcs	Weight	Charg.	Com.load.
Total		48												
C		24												
Y		24												

Actual delivery / F4

ADT	CHD	INF	Baggage	H/B	Dest.	Mail	Cargo	Com. load.	Max
0	0	0	0	0	VKO	0	0	0	0
0	0	0	0	0	Total	0	0	0	0

PNL transferred from flights PNL transferred to flights

Exit / Esc Rollback / Shift+Esc Transfer / F11 Cancel / F8 Save / F9

Seasonal schedule

Filter / F5 Summer 2015 Loading / F2

Flight	AC	Points of landings	Period
YC9	320	SLY/TJM	29.04-02.06; 29.03-28.04; 03.06-24.10
7R11	CRJ	DME/SKX	123457 29.03-30.10
7R12	CRJ	SKX/DME	123456 30.03-24.10
7R41	EM2	SVX/PEE	135 30.03-23.10
7R42	EM2	PEE/SVX	135 30.03-23.10
7R43	EM2	CEK/PEE	135 30.03-23.10
7R44	EM2	PEE/CEK	135 30.03-23.10

Dates of execution 29.04-02.06; 29.03-28.04; 03.06-24.10

Dates of cancellation

Exit / Alt+X Details / F6, Enter New / F7 Delete / Ctrl+F8 DFP / F9 Operations / F4 Print / F12

PTS Dispatcher

Date / F2 11.08.2015 Prev.day / Alt+<- Next day / Alt+>- Archive / F10 Refresh / F3

Flight	A/P	Type	Aircraft	Park	TL	Arriv	Status	?Sts	CI	Stairs	Desks	Gates	=Sts	TT	Depart	Route
07096	KUF	L4T				13 05										GOJ-KUF
UT172	ULV	AT7					Inactive	0		12 50			0		13 05	ULV-VKO
UT249	AER	738				13 05										VKO-AER
UT308	OVB	AT7				13 05										NJC-OVB
UT374	MRV	738					Inactive	0		12 50			0		13 05	MRV-VKO
10273	OVB	CRJ					Departed	0		03 55			0		13 10	OVB-NUX...
07050	KUF	L4T				13 10										CSY-KUF
YC217	SGC	CRJ				13 10										UFA-SGC
26722	VKO	YK2				13 10										GRV-VKO
UT333	NNM	735				13 15										VKO>NNM
UT378	ASF	735					Preparatic	0		13 00			0		13 15	ASF-VKO
HY686	TAS	320				13 20										AER-TAS
07090	KUF	L4T					Inactive	0		13 05			0		13 20	KUF-PEE
UT460	AAQ	738					Check-in	0		13 05			0		13 20	AAQ-VKO
UT595	USK	735				13 20										VKO-USK
DP182	VOG	738					Inactive	0		13 05			0		13 20	VOG-VKO

Rollback / Shift+Esc New / F7 PNL/Ctrl+F4 Details / F6 Transfer / F11 Save / F9

Exit / Alt+X Route / F5 Delete flight / Ctrl+F5 Cancel reg. / F8 Operations / F4 WL / Ctrl+F7

Airports

Code A/P	Code (LAT)	ICAO code	ICAO code (LAT)	City code	City	A/p name	A/p name (LAT)
AMБ				AMБ	AMURSK	АМУРСК	AMURSK
AHA	AAQ	YKPA	URKA	AAQ	ANAPA	АНАПА ВІТРЯБЕО	
AHB				AHB	ANABAR	АНАБАР	ANABAR
AHГ				AHГ	ANGARSKI	АНГАРСКИЙ	ANGARSKI
AHD				AHD	ANDEG	АНДЕГ	ANDEG
AHK	AZN	UTFA	UTFA	AZN	ANDIZHAN	АНДИЖАН	ANDIZHAN
AHI				AHI	AYNI	АЙНИ	AYNI
AHK	ANK	LTAD	LTAD	ANK	ANKARA	ЭТИМЕСГУТ	ETIMESGUT
AHO				AHO	ANANJEVO	АНАНЬЕВО	ANANJEVO
AHP				AHP	ANOSOVO	АНОСОВО	ANOSOVO
AHД	DYR	YXMA	UHMA	DYR	ANADYR	АНАДЫРЬ	ANADYR

Ctrl+F search mode Ctrl+S column sorting

Exit / Esc Link / F1 Refresh / F3

- EMD under C-Baggage code is issued for piece concept only
- Fare information source is STC and Statistics and ATPCO
- EMD is issued through Sirena-Travel terminals
- EMD association with ET makes change in a coupon
- Baggage can be associated with EMD issued in advance
- Developing feature enabling ancillary services sale entered in EMD
- Ancillary services sale upon WEB check-in



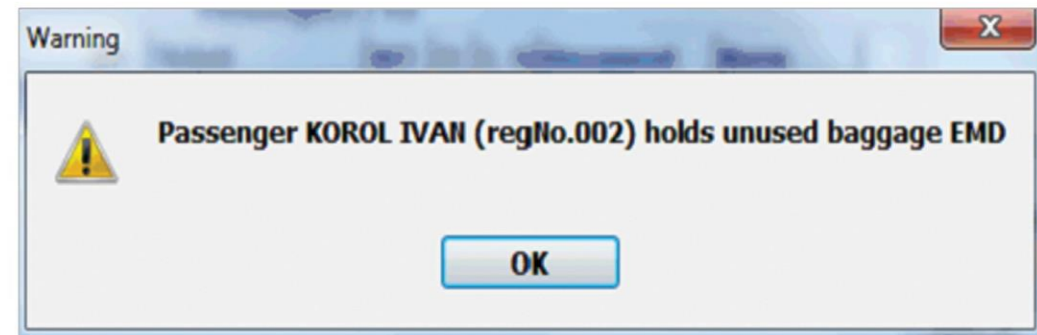
The screenshot shows the 'EMD association' window in the DCS ASTRA system. It contains a table with baggage details and several functional buttons.

Baggage type	Number	Norm	Weight to be paid	EMD number / F6	Paid weight (kg)
Regular or hand bagg.	1/45	fb/eb 15kg/p	30	2988200000432/1	30

Buttons: Exit / Esc, Add EMD / F7, Delete EMD / F8, Continue / F9

Below the table, there are sections for 'Bagg./F4 (+)', 'Cabin/F5 (+)', and 'Bagtags / F6 (-)'. The 'Bagg./F4 (+)' section shows '1' and '45' in input fields. The 'Cabin/F5 (+)' section is empty. The 'Bagtags / F6 (-)' section is a table with columns: Type, Col, From, To, Num.


Buttons at the bottom: Reset / Esc, EMD / Ctrl+F7, Cancel reg. / F8, Save / F9, E-Ticket / Ctrl+F10, Boarding pass / F12, Exit / Alt+X, Cabin / F7, PNL / Ctrl+F4, Passengers / Ctrl+F9.



DCS ASTRA: PTS DISPATCHER

PTS Dispatcher works with DCS Astra through functional module “Carriages” which includes the main display “PTS dispatcher” containing daily flight plan

- Manual flight status change, if required
- Check-in desks allocation
- Operation schedule of aircraft preparation for departure time correction, if required
- In case of flights combination or LOPA change, passenger re-accommodation from different classes or flights
- Check-in progress monitoring: number of checked and boarded passengers and number and weight of baggage and carry-on baggage
- Freight and mail data import
- Commercial load monitoring (free space available)
- PNL display, preliminary seat assigning, if required (detailed in the “General Requirements”)


PTS Dispatcher

Date / F2

29.11.2016

Prev.day / Alt+<-

Next day / Alt+>-

Archive / F10

Refresh / F3

!	Flight	A/P	Type	Aircraft	Park	TL	Arriv	Status	?Sts	Cl	Stairs	Desks	Gates	=Sts	TT	Depart	Route
	UVT501	KZN	CRJ	VQBO	14			Check-in	31		17 45	T1-23 T1	G01 MC-C	10		18 00	KZN-ZIA
	YC187	UFA	CRJ	VPBB			18 00										NUX-UFA
	7R130	DME	CRJ	VQ-BFI			18 05										ESL-DME
	UT561	GRV	735	VQBAE			18 06										VKO-GRV
	6W762	RTW	E90					Preparati	63	C	17 55	R02 R03	G	18		18 10	RTW-DME
	7R818	ROV	CRJ	VO-BNL				Check-in	36		17 55	MR2 MR3	G02	13		18 10	ROV-SVX
	YC944	DME	CRJ	VPBBA			18 20										EYK-DME
	4G418	VKO	SU9	89029			18 23										YMB-VKO
	N4175	EGO	321	VPBGH			18 25										SVO-EGO
	O7402	KRR	L4T				18 25										SIP-KRR

Rollback / Shift+Esc

New / F7

ing list of passengers/Ctr

Details / F6

Transfer / F11

Save / F9

Exit / Alt+X

Route / F5

Delete flight / Ctrl+F5

Cancel reg. / F8

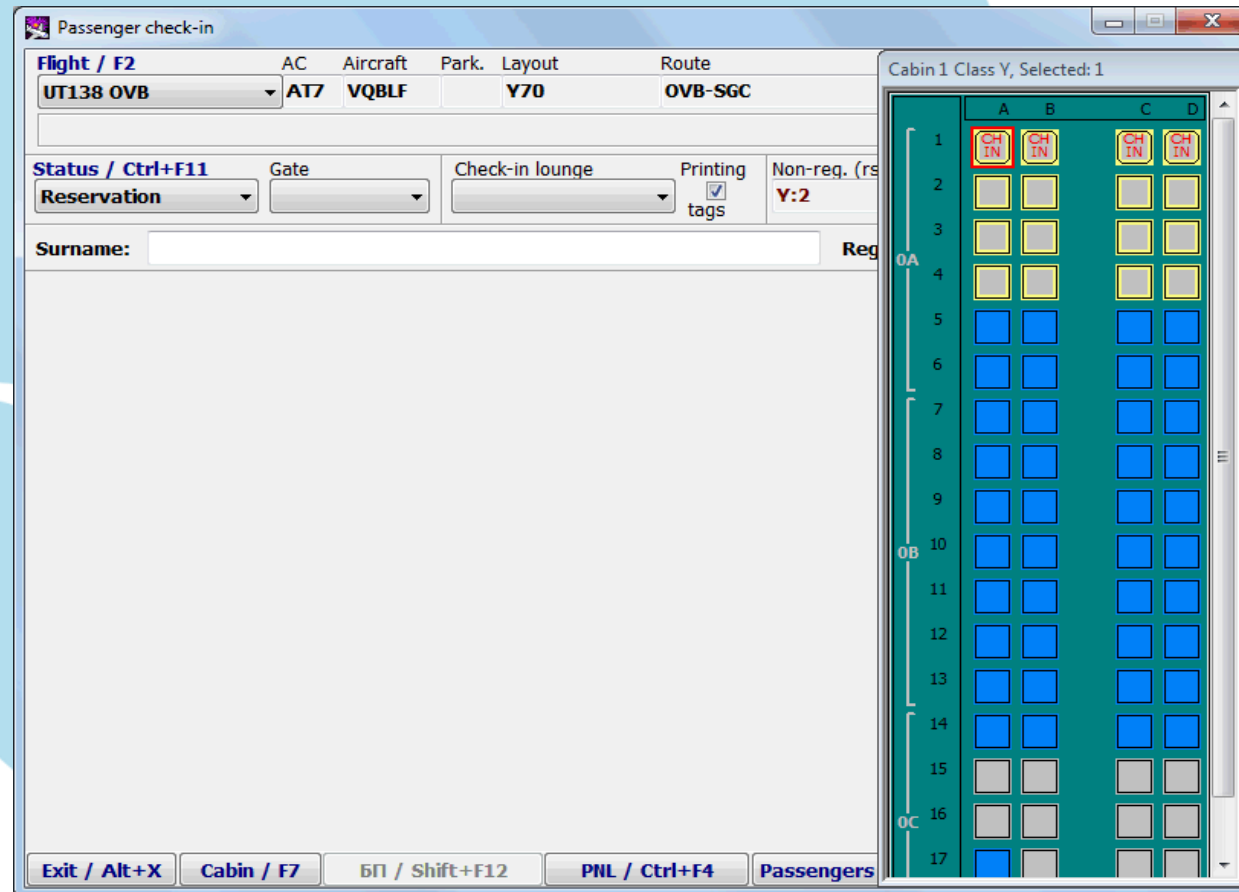
Operations / F4

WL / Ctrl+F7

“**CHECK-IN**” Module is designed for passenger and baggage check-in

While working with the system functions of a Check-in agent include:

- Passenger and baggage check-in
- Seat assigning and re-accommodation
- Rush baggage check-in
- Flight documentation printing out



“**BOARDING**” module is designed for Boarding Agent.

While working with the system the functions of an agent include:

- Boarding and disembarkation passengers by registration number showed in a coupon or using scanner
- Passenger boarding monitoring based on counters (number of checked and boarded passengers)
- Identification of no-show passengers for timely baggage unloading from a flight
- Number and weight of carry-on baggage monitoring upon boarding
- Excess and paid baggage payment monitoring
- Disembarkation of all passengers, if required

Boarding

Flight / F2: HY688 KRR AC: 320 Aircraft: UK32014 Layout: C12 Y138 Route: KRR-TAS Depart: 16:40 Board.toType: 16:20 i Status: Boarding

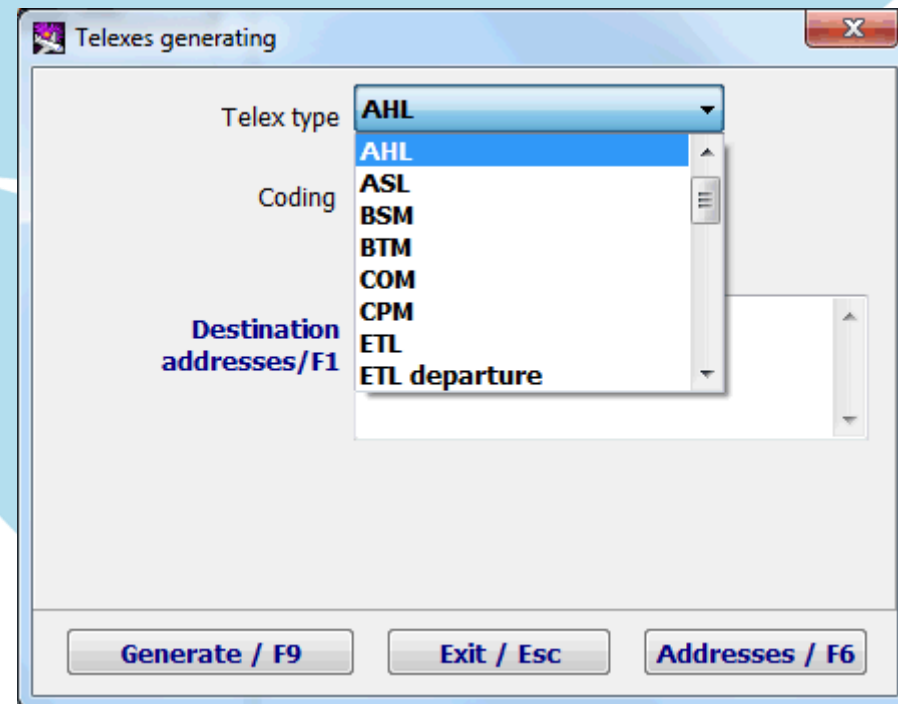
Reg. No: Boarding / Enter Mode / F5: Boarding PNL / F6: Full Departures: Check: C7 Y133 Seated: C0 Y0

From flight	No	Surname	Pas.	Cl	Vt	Brd	S. No	To des	Document	Ticket	Bag.	Paid	Non bagtags
1	SAFAROV AZIZ MR	ADL	Y	-	-	9A	TAS	AA3948123	2502437117988/1	1/20		0250164070	
2	GAFFAROV GAYRAT MR	ADL	Y	-	-	6A	TAS	AA6024518	2502437117984/1	1/20		0250164071	
3	ESHCHONOVA DILNOZA M	ADL	Y	-	-	7A	TAS	AA7075621	2501163258556/1	1/20		0250164072	
4	IKROMOV SAMANDAR MR	ADL	Y	-	-	8A	TAS	AA4942863	2502437117986/1	1/24	4	0250164073	
5	KORETSKAYA KARINA MRS	ADL	C	-	-	1E	TAS	728465986	2502437062464/2	2/44		0250164111-112	
6	ZAGORSKII FEDOR CHD	CHD	C	-	-	1F	TAS	65N1144768	2502437062465/2				
7	HABIBOV NURALI MR	ADL	Y	-	-	12A	TAS	AA4942995	2502437117985/1	1/20		0250164074	
8	SOBIROV YANGIBOY MR	ADL	Y	-	-	13A	TAS	AA3694858	2502437118023/1	1/16		0250164075	
9	RUSTAMOV ISMATILLO MR	ADL	Y	-	-	14A	TAS	AA3811773	2502437111346/1	1/20		0250164076	
10	TURAEV FIRUZ MR	ADL	Y	-	-	15A	TAS	AA8359768	2502437118024/1	1/16		0250164077	
11	SALIMOV HABIB MR	ADL	Y	-	-	16A	TAS	AA4897446	2502437117989/1	1/20		0250164078	
12	KHAMZAEV KENJA MRS	ADL	Y	-	-	17A	TAS	AB3373283	2502437111276/1	1/15		0250164079	
13	OCHILOV FAKHRIDDIN MR	ADL	Y	-	-	18A	TAS	AA4538875	2502437117987/1	1/20		0250164080	
14	KILICHOV MARDON MR	ADL	Y	-	-	19A	TAS	AA8797932	2502437118022/1	1/20		0250164081	
15	ERGASHEV TEMUR MR	ADL	Y	-	-	20A	TAS	AA8174894	2502437111344/1	1/20		0250164082	
16	RAZHABOV AKBAR MR	ADL	Y	-	-	21A	TAS	AA4395552	2501122767795/1	1/15		0250164083	
17	KILICHOV BOMUROD MR	ADL	Y	-	-	22A	TAS	AA3487217	2502437118021/1	1/20		0250164084	
18	KODIROV OZOD MR	ADL	Y	-	-	23A	TAS	AA5821191	2502437111345/1	2/20		0250164085-086	
19	OKILOV SHUHRAT MR	ADL	Y	-	-	24A	TAS	AA5351669	2502435939591/1	2/12		0250164087-088	
20	KAKHGOROV ABDIGANI M	ADL	Y	-	-	25A	TAS	AA8511096	2502437118056/1	1/20		0250164089	
21	ZIYOEV SHAHBOZ	ADL	Y	-	-	26A	TAS	AA0889199	2501060745253/1	1/20		0250164090	

Exit / Alt+X Rollback / Shift+Esc Refresh / F3 Unboard all / F8 Scanner / F11 Print / F12

DCS ASTRA supports all types of standard messages:

- AHL, ASL, BSM, BTM, COM, CPM, ETL, FTL, LDM, MVT, PFS, PIL, PIM, PRL, PSM, SOM, TPM
- APIS messaging in Russia, Europe, Asia and USA
- Interactive operation with APP\AQQ systems
- API messaging under requirements, rules and format of receiving country



- Check-in process unification at all check-in counters
- All check-in methods management unification (including online, self-service kiosks)
- Automated control over operation schedule stages
- Production operations monitoring
- Dynamic monitoring of commercial payload
- Statistics on carried passengers and baggage including self-service
- Long-term data archive

Passenger check-in

Flight / F2: UT454 TJM AC: 738 Aircraft: C12 Y36 Park: TJM-VKO Route: Cabin 2 Class Y, Selected: 1

Status / Ctrl+F11: Reservation Gate: Check-in lounge: Межд. Printing tags: Non-reg. (rsrv): C2 Y

Surname:

Direction: MOSCOW (VKO) Class: ECONOMY Status: Reservation Commercial flight: UT454

1/0/0/1 Passengers / F3

No	Surname, name	Pt	Ticket	SCI	St	S. N	Document	Norm
2	KOROL IVAN		ADT 2982408010408/1 Y	1	106	7774441110	fb/eb 1	

Bagg./F4 (+/-) Cabin/F5 (+/-)

pcs	weight	pcs	weight	Baggage type	Num.	Norm	Trfr	Paid	EMD
				Regular or hand bagg.	1/45	fb/eb 15kg/p	NO	30	30
1	45								

Bagtags / F6 (-)

Type	Col	From	To	Num
------	-----	------	----	-----

Reset / Esc EMD / Ctrl+F7 Cancel reg. / F8 Save / F9 E-Ticket / Ctrl+F10 Boarding pass / F12

Exit / Alt+X Cabin / F7 PNL / Ctrl+F4 Passengers / Ctrl+F9

Passenger check-in

Flight / F2: UT454 TJM AC: 738 Aircraft: C12 Y36 Park: TJM-VKO Route: Depart. Close: 04:15 03:35 Type Status: Check-in

Status / Ctrl+F11: Reservation Gate: Check-in lounge: Межд. Printing tags: Non-reg. (rsrv): C2 Y132 Checked (total): C0 Y7 Res.Load:

Surname: SR Reg. No: Search / Enter

Direction: MOSCOW (VKO) Class: ECONOMY Status: Reservation Commercial flight: UT454

5/0/0/5 Passengers / F3

No	Surname, name	Pt	Ticket	SCI	St	S. N	Document	Norm
3	KATUNIN SERGEY		ADT 2986128872924	O	1	9A	3702310448	fb/eb 15kg/p
4	PETROV SERGEY		ADT 2986128872927	O	1	96	3710409109	fb/eb 15kg/p
5	PIROGOV MIKHAIL		ADT 2986128872929	O	1	9B	7114082453	fb/eb 15kg/p
6	RAEMGULOV NURGALI		ADT 2986128872925	O	1	9F	7111902900	fb/eb 15kg/p
7	TSIGLER VLADIMIR		ADT 2986128872928	O	1	9D	7111880595	fb/eb 15kg/p

Through route / F11

Passenger remarks / F10

FOID PP3702310448

Bagg./F4 (+/-) Cabin/F5 (+/-)

pcs	weight	pcs	weight	Baggage type	Num.	Norm	Trfr	Paid	EMD
				Regular or hand bagg.	-	fb/eb 15kg/p	NO	0	0

Bagtags / F6 (-)

Type	Col	From	To	Num
------	-----	------	----	-----

Reset / Esc EMD / Ctrl+F7 Cancel reg. / F8 Save / F9 E-Ticket / Ctrl+F10 Boarding pass / F12

Exit / Alt+X Cabin / F7 PNL / Ctrl+F4 Passengers / Ctrl+F9

DCS ASTRA INTEGRATES WITH OTHER AUTOMATED SYSTEMS

- Weight and balance
- Passenger information system at airport
- **MIA Magistral**
- Baggage sorting system
- Financial information processing system (SOFI)
- APIS system
- Other airport automated systems

DCS ASTRA IS CERTIFIED TO WORK UNDER THE FOLLOWING PLATFORMS:

- SITA CUTE\CUSS
- iMUSE\mMUSE
- RESA
- EASE
- AirIT

FOR ONLINE CHECK-IN WEB-APPLICATION DCS ASTRA PROVIDES FOR

CHECK-IN DATA ENTRY

- Passenger and flight data entry for authorization
- Verification data entry

CHECK-IN

- Passenger
- Group of passengers
- With seat preference
- Without seat preference
- Through check-in
- Boarding pass print-out in A4 format

DCS ASTRA SELF-SERVICE KIOSKS APPLICATION OUR SOLUTION EXCELS IN:

- Easy configuration of separate features
- Attractive design of interface
- Entertaining elements
- Seat map display
- System of context prompts
- Flexible architecture intending further development

Введите значения параметров идентификации пассажиров и продолжите процедуру регистрации

Фамилия: ИВАНОВ Дата: 22 сентября 23 сентября 24 сентября

Билет: 12054789002145 Рейс: YC241

RU/EN 1 2 3 4 5 6 7 8 9 0 ↵

Q W E R T Y U I O P Del

A S D F G H J K L ← →

Z X C V B N M Space

Назад Выход Далее

SIRENA TRAVEL

Ознакомьтесь с правилами и нормами перевозки ручной клади и багажа, а также перечнем опасных предметов, запрещенных к перевозке в багаже и ручной клади

Перевозка опасных предметов и веществ

Перевозка багажа и ручной клади

ОЗНАКОМИТЬСЯ ОЗНАКОМИТЬСЯ

☐ С правилами перевозки багажа, ручной клади, опасных предметов и веществ ознакомлен(а)

Назад Выход Продолжить регистрацию

SIRENA TRAVEL

Выберите места в салоне самолета для пассажиров Вашего заказа и продолжите процедуру регистрации

Возлюбленные И.И. 12.10.1970 10F

Иванов И.А. 23.08.1974 11D

Новотопчиев В.А. 23.08.1974 11F

Петровские О.И. 09.05.1980 11E

ТЮМЕНЬ (Риценко) 05:15 22 сентября Рейс: YC241

МОСКВА (Домодедово) 07:20 22 сентября

Boeing 737-500

Свободное место

Место пассажира

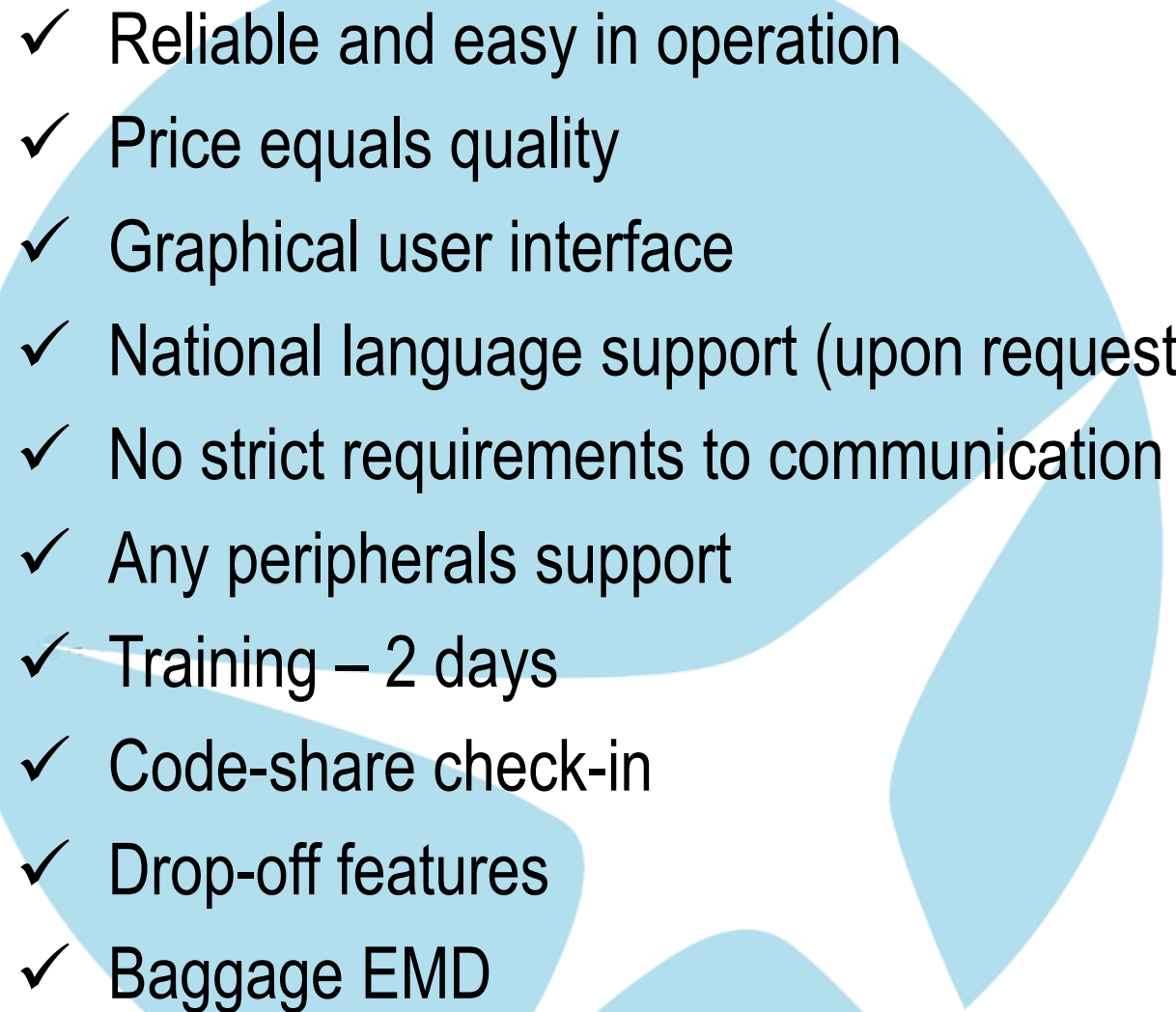
Место заказа

Выбранное место

Занятое место

Назад Выход Продолжить регистрацию

SIRENA TRAVEL

- 
- ✓ Reliable and easy in operation
 - ✓ Price equals quality
 - ✓ Graphical user interface
 - ✓ National language support (upon request)
 - ✓ No strict requirements to communication channels
 - ✓ Any peripherals support
 - ✓ Training – 2 days
 - ✓ Code-share check-in
 - ✓ Drop-off features
 - ✓ Baggage EMD



Thank you for your attention!

Address:

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49, Savignystasse
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Phone: +49 69 74308764

E-mail: pss@leonardo.aero

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Web-site: www.leonardo.aero